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KOREAN CHEMICAL SOCIETY

Green Chemistry, Clean World!

2024 KCS 133rd General Meeting & Exhibition

April 24-26, 2024, Suwon Convention Center

※ This work was supported by the Korean Federation of Science and Technology Societies (KOFST) Grant funded by the Korean Government.

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2024. 4. 1(월) - 6. 30(일)

한국 과학기술의
미래를 이끌어 갈
인재를 모십니다!

한국도레이 과학기술상

대상
- 대한민국 국적으로 국내 대학, 연구기관 등에 소속된 분으로
- 세계적 수준의 연구업적, 현저한 발견, 기술의 진보를 주로 국내에서 이룩한 과학자/공학자로
- 소속된 기관에서 전일제(Full-time job)로 근무하는 분

분야
- 화학 및 재료 기초분야 1명
- 화학 및 재료 응용분야 1명

} 총 2명

포상
- 각 분야별 상금 1억원 및 상패

한국도레이 펠로십

대상
- 대한민국 국적으로 국내 대학, 연구기관 등에 소속된 분으로
- 화학 및 재료 분야에 종사하는 과학자/공학자로
- 모집공고일 기준 관련분야 박사학위 취득 후 10년 미만인 분 (2014년 7월 1일 이후 취득자)
- 해당 과제의 타 기관 지원 이력이 없는 분(중복지원 불가)으로
- 소속된 기관에서 전일제(Full-time job)로 근무하는 분

분야
- 화학 및 재료 기초분야 2~3명
- 화학 및 재료 응용분야 2~3명

} 총 5명(또는 팀)

지원
- 과제별 최대 5천만원/년, 최대 3년 지원

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홈페이지 응모서류 다운로드 및
이메일 접수

시상 : 2024년 10월 예정

문의 : 사무국 02-3279-1032, 1100

TORAY 한국도레이과학진흥재단

공익법인 한국도레이과학진흥재단은 과학의 발전과 인재 육성을 위해 노력하고 있습니다.

2024 KCS
133rd General Meeting & Exhibition

April 24-26, 2024
Suwon Convention Center

KCS 대한화학회
KOREAN CHEMICAL SOCIETY

Welcome Message

On behalf of the organizing committee, it is my great honor and pleasure to welcome all my fellow chemists and participants to the 133rd General Meeting of the Korean Chemical Society (KCS) to be held at the Suwon Convention Center from April 24 (Wed) to 26 (Fri), 2024. I believe this KCS meeting will serve as a great opportunity for Korean and international scholars from all branches of chemistry to gather and discuss new advances and innovations made in the field of chemistry.

As the plenary lecturer, we have invited Professor Michael J. Krische at the University of Texas at Austin, who has made a great contribution to the organic synthesis and synthetic methodology. He will give a lecture on "Catalytic C–C Coupling of Alcohols via Hydrogen Auto-Transfer: Reinventing Carbonyl Addition". I am pleased to announce that KCS-ACS Publications Summit will be given by the Editors-in-Chief of three journals, Professor Erick M. Carreira (J. Am. Chem. Soc.), Professor Christopher W. Jones (J. Am. Chem. Soc. Au), and Professor Wonwoo Nam (Bull. Korean Chem. Soc.) and Executive Editor of Nano Letters, Professor Jwa-Min Nam, at the 133rd General Meeting of the KCS. They will discuss "The Future of Transformative Molecules", entitled "Design, Synthesis, and Implementation of Novel Tools to Probe Biological Questions", "Direct Air Capture (DAC) of CO_2 with Porous Sorbent Materials Coupled with Scalable Processes", "Metal-Oxygen Intermediates in Dioxygen Activation and Formation Reactions", and "Chemical Plasmonics with Metal Nanoparticles", respectively.

In addition, Professor Young Soo Kang of Korea Institute of Energy Technology will give an award lecture, entitled "Carbon Neutrality Climate Technology Based on Nanotechnology", as the recipient of this year's KCS Academic Excellence Award. In addition, Kyungwon Kwak of Korea University will give an award lecture, entitled "In-Operando Time-resolved Vibrational Spectroscopy", as the recipient of Man Jung Han Academic Excellence Award. In this KCS meeting, we have prepared BKCS Symposium, entitled "The Cornerstone of Korean Basic Science" and Women's Committee Special Symposium, entitled "Mentor-Mentee Meeting for Students and Early-Career Researchers".

I would like to take this opportunity to thank Bioneer, Dongwoo Fine-Chem, Shimadzu Scientific Korea, and i-SENS, who have been a sponsor of the KCS. Finally, I extend my gratitude to all KCS members and participants of this KCS meeting. I look forward to welcoming you all in Suwon!

Phil Ho Lee
President of the Korean Chemical Society

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KCS 대한화학회 KOREAN CHEMICAL SOCIETY

2024 KCS

133rd GENERAL MEETING & EXHIBITION

April 24-26, 2024

Suwon Convention Center

Plenary Lecture

Michael J. Krische

Department of Chemistry,
The University of Texas at Austin,
United States

Date April 25, 2024

Title Catalytic C–C Coupling of Alcohols via Hydrogen Auto-Transfer: Reinventing Carbonyl Addition

24(WED)

- [Award Lecture] 2024 Man Jung Han Academic Excellence Award
- [KCS-ACS Publications Summit]
- [BKCS Symposium]
- [Women's Committee Special Symposium]

25(THU)

- Plenary Lecture
- KCS General Assembly
- Scientific Programs I(Poster & Oral Presentation)
- Exhibition

26(FRI)

- [Award Lecture] 2024 Academic Excellence Award
- Scientific Programs II(Poster & Oral Presentation)
- Exhibition

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KCS 대한화학회 KOREAN CHEMICAL SOCIETY

KCS General Assembly

Part. 1 Plenary Lecture

April 25(THU), 13:30-14:20

Convention Hall 2

Michael J. Krische

Department of Chemistry,
The University of Texas at Austin, United States

"Catalytic C–C Coupling of Alcohols via Hydrogen Auto-Transfer: Reinventing Carbonyl Addition"

Part. 2 General Assembly

April 25(THU), 14:30-15:30

Convention Hall 2

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평의원회

지부장, 분과회장 연계회의

April 24(WED), 17:00

5F 다이닝룸

① 주요 회무 및 회원 현황
② 총회 의결 안건 사전 심의
③ 기타토의

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KCS 대한화학회 KOREAN CHEMICAL SOCIETY

Award Lecture

2024 Academic Excellence Award

April 26(FRI), 13:30-14:20

Rm 304+305+306

Young Soo Kang

Korea Institute of Energy Technology

"Carbon Neutrality Climate Technology Based on Nanotechnology"

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Award Lecture

2024 Man Jung Han Academic Excellence Award

April 24(WED), 13:00-13:50

Rm 304+305+306

Kyungwon Kwak

Korea University

"In-Operando Time-resolved Vibrational Spectroscopy"

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KCS 대한화학회 KOREAN CHEMICAL SOCIETY

BKCS Symposium

"BKCS: The Cornerstone of Korean Basic Science"

Wednesday, April 24, 2024 | 2:00-4:35 pm
Suwon Convention Center, Rm 301-302

Myung Hwan Park
Chungbuk National University
"New Era for BKCS"

Sunkyu Han
KAIST
"Biosynthetically Inspired Synthesis of Complex Natural Products"

Kang Min Ok
Sogang University
"Exploring Strategies for Non-centrosymmetric Solid-State Materials: From Chromophore Incorporation to Systematic Design"

Sang Hoon Joo
Seoul National University
"Electrosynthesis Promoting Sustainable Chemical Synthesis"

Young-Tae Chang
POSTECH
"Live Cell distinction Using Organic Fluorescent Probes"

Hoi Ri Moon
Ewha Womans University
"Strategic Approaches to Developing MOFs with Novel Characteristics"

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ACS Publications
Most Trusted. Most Cited. Most Read.

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JACS JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

JACS Au AN OPEN ACCESS JOURNAL OF THE AMERICAN CHEMICAL SOCIETY

KCS-ACS Publications Summit

Wednesday, April 24, 2024, Suwon Convention Center, Rm 304-306

- **The Future of Transformative Molecules**
  2:00-5:00 pm
- **Meet with ACS Editors**
  5:00-5:40 pm

Erick M. Carreira
Editor-in-Chief, *JACS*
ETH Zürich

"Design, Synthesis, and Implementation of Novel Tools to Probe Biological Questions"

Wonwoo Nam
Editor-in-Chief, *BKCS*
Ewha Womans University

"Metal-Oxygen Intermediates in Dioxygen Activation and Formation Reactions"

Christopher W. Jones
Editor-in-Chief, *JACS Au*
Georgia Institute of Technology

"Direct Air Capture (DAC) of CO_2 with Porous Sorbent Materials Coupled with Scalable Processes"

Jwa-Min Nam
Executive Editor, *Nano Letters*
Seoul National University

"Chemical Plasmonics with Metal Nanoparticles"

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채용설명회

2024년 4월 24일(수)-26일(금), 수원컨벤션센터

한솔케미칼

채용설명회 >>
- 4월 24일(수), 13:30, 303호
- 4월 25일(목), 11:00, 303호

채용부스 >>
- 4월 25일(목), 09:00 -17:00
  Exhibition Hall 2

금호석유화학

채용부스 >>
- 4월 25일(목) 09:00 -17:00
  Exhibition Hall 2
- 4월 26일(금), 09:00 -17:00
  Exhibition Hall 2

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[Women's Committee Special Symposium]

Mentor-Mentee Meeting for Students and Early-Career Researchers

April 24(WED), 15:00-17:20
Rm 303

Seon-Mi Park
Samsung Electronics

Van Luan Nguyen
Samsung Electronics

Woon Ju Song
Seoul National University

Haemi Lee
KRICT

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133회 대한화학회 학술발표회, 총회 및 기기전시회

중고등학교 학생을 위한 특강

4월 26일(금), 16:30-18:00

301+302호

시간	강의명	발표자
16:30 - 17:10	"화학은 왜 꼭 필요한가요?"	여인형 명예교수 동국대 화학과
17:20 - 18:00	"신약개발의 미래와 화학자의 역할"	이지연 교수 성신여대 바이오신약의과학부

※ 중/고등학생의 경우 무료 참가 가능합니다.

※ 본 행사는 방역 관리 지침을 철저하게 준수하여 개최됩니다.

※ 방역 단계에 따라 행사 운영 방식 및 입장 인원에 대한 제한이 발생할 수 있습니다.

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Lucky Draw Event & Best Posters Awards Ceremony

대한화학회 기기전시장을 방문하는 회원들을 위해 경품을 마련하였습니다.
목, 금요일 경품추첨 전 최우수 포스터상 시상식이 진행될 예정입니다.

Date	Place
April 24(WED), 18:00	1F Lobby
April 25(THU), 18:00	
April 26(FRI), 16:30	

애플워치 series9

수 1명

Airpods Pro MagSafe(2세대)

수 2명

스타벅스 기프트카드 5만원

수 6명

갤럭시 북4 Pro

목/금 각 1명

뱅앤올룹슨 Beosound A1 2nd

목/금 각 3명

배민 10만원 상품권

목/금 각 5명

스타벅스 기프트카드 5만원

목/금 각 15명

※ 24일(수), 25일(목), 26일(금) 3회 추첨함.
※ 추첨장에서 본인 확인된 당첨자만 인정함.(당첨자는 신분증 또는 학생증 제시 필수)
※ 당첨자는 현장에서 경품 지급 예정.(배달의 민족 상품권은 행사 후 2주내 작성한 번호로 모바일 발송예정)

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GLOBAL COMPANY

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동우화인켐은 글로벌 화학회사인 스미토모화학의 자회사이며, 핵심기술을 보유한 매출 2조원의 대기업으로서, 정보전자소재의 글로벌 리더로 성장하고 있습니다.

지속적인 연구개발과 체계적인 설비투자를 통해 차별화된 품질과 서비스를 제공하고, 회사 창립시부터 지켜온 이념인 윤리경영과 사회공헌을 바탕으로 업계 최고의 파트너, 동우화인켐으로 인정받겠습니다.

SUMITOMO CHEMICAL GROUP

2024 KCS
133rd General Meeting & Exhibition

April 24-26, 2024, Suwon Convention Center

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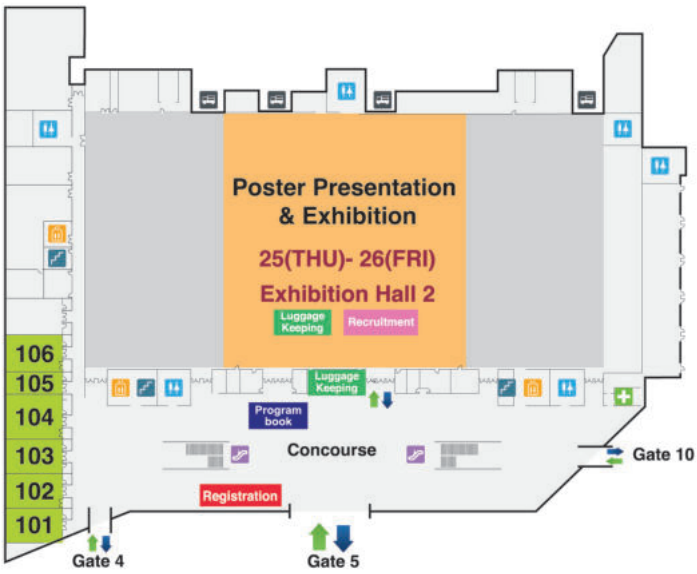
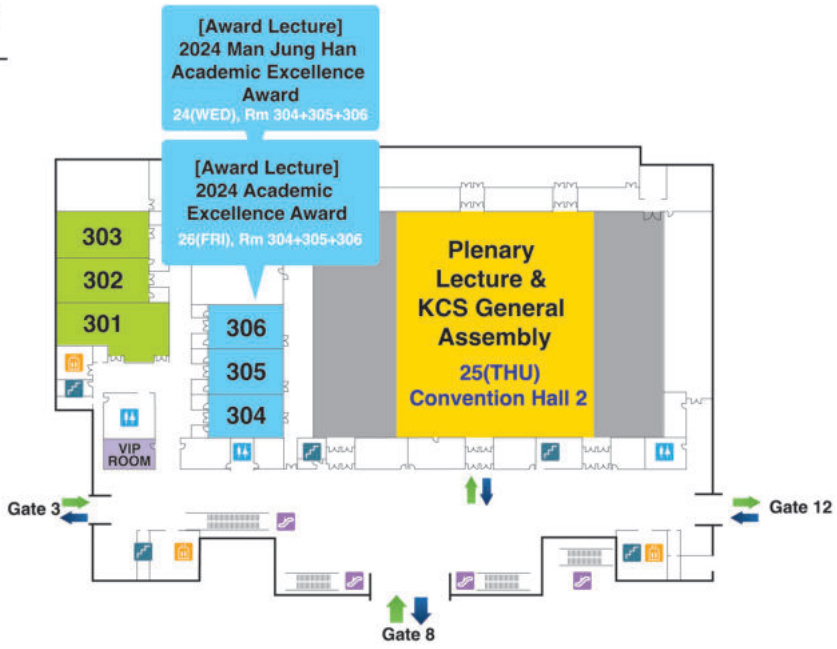
Guide Map

1F



3F



Guide Map

4F

April 24(WED)	
301+302	BKCS Symposium
303	Women's Committee Special Symposium
304+305+306	[Award Lecture] 2024 Man Jung Han Academic Excellence Award
	KCS-ACS Publications Summit

Recruitment		
HANSOL CHEMICAL	303	24(WED),13:30 / 25(THU),11:00
	Exhibition Hall 2	25(THU), 09:00-17:00
KUMHO PETROCHEMICAL		25(THU), 09:00-17:00 26(FRI), 09:00-17:00

April 25(THU)	
101+102	Life Chemistry
103+104	Analytical Chemistry
105+106	Electrochemistry
301+302	Medicinal Chemistry
303	Polymer Chemistry
304+305+306	Organic Chemistry
401+402	Physical Chemistry
403	Environmental Energy
404	Chemistry Education
405+406	Inorganic Chemistry
407+408	Material Chemistry
Convention Hall 2	Plenary Lecture KCS General Assembly
Exhibition Hall 2	Poster Presentation 1
	Exhibition

April 26(FRI)	
101+102	Life Chemistry
103+104	Analytical Chemistry
105+106	Electrochemistry
301+302	Medicinal Chemistry
	Special Lecture for Suwon Middle & High School Student
303	Polymer Chemistry
304+305+306	Organic Chemistry
	[Award Lecture] 2024 Academic Excellence Award
401+402	Physical Chemistry
403	Environmental Energy
405+406	Inorganic Chemistry
407+408	Material Chemistry
Exhibition Hall 2	Poster Presentation 2
	Exhibition

General Information

- Date: April 24~26, 2024
- Venue: Suwon Convention Center, Suwon, Korea

1. Membership and Registration Fees

Category		Membership Fees	On-site Registration Fees	
			A	B (Membership fees included)
KCS Members	Regular Members (Lifetime)*	-	KRW 120,000	-
	Regular Members (Annual)	KRW 70,000	KRW 120,000	KRW 190,000
	Educational Members	KRW 50,000	KRW 70,000	KRW 120,000
	Student Members	KRW 50,000	KRW 70,000	KRW 120,000
General Participants (Non-member)		-	KRW 250,000	

※ Registration fee waivers for undergraduate students are available. Please bring your student ID card to prove your student status.
(But, all authors and presenters of abstracts are required to register and pay the appropriate registration fees.)
* Regular Members (Lifetime): KRW 1,400,000 (20 years of annual regular membership fee at the time of joining)

2. Poster Presentations

▣ Schedules

Venue	Presentation Date & Time	Division (Topic)	Mounting	Demounting
Exhibition Hall 2 (1F)	April 25 (THU) 11:00~13:00	Polymer Chemistry, Industrial Chemistry, Physical Chemistry, Analytical Chemistry, Material Chemistry, Chemistry Education, Environmental Energy	09:00~11:00	15:00~16:00
	April 26 (FRI) 11:00~13:00	Inorganic Chemistry, Life Chemistry, Organic Chemistry, Medicinal Chemistry, Electrochemistry	09:00~11:00	15:00~16:00

▣ Presentations

- Presenters should be in attendance at their poster board during the assigned time of their poster presentation.

Time & Activity	from 11:00 to 12:00	from 12:00 to 13:00
Poster Presentation	Even Numbers	Odd numbers
Research Exchanges with Other Presenters	Odd numbers	Even Numbers

- A poster presenter is required to stand by the poster during the scheduled poster presentation to answer questions from attendees.
- If your posters are not hung on board during all your presentation time, you will be considered as not to have attended and your name will be included in the lists of absent presenters.

▣ Poster Presentation Area

- Poster board locations and allocated codes will be available on the bulletin board outside of the Exhibition Hall 2 (1F).
- A poster board number on poster display board indicates the location of assigned poster display. Please do NOT remove the number.

▣ Setting up and Taking down

- Please follow the schedule outlining times for mounting and demounting your poster.
- Each poster should be placed on the numbered board assigned to each presenter.
- Material to pin up your poster will be provided at the venue.
- You are responsible for setting-up and taking down of your own poster. Unclaimed posters are not the responsibility of the organizers or KCS. And they will be disposed following your day without notice.

▣ Poster Prizes

- BIONEER Poster Award
- Dongwoo Fine-Chem Poster Award
- BKCS Poster Award
- IUPAC Poster Award
- KCS Poster Award
- KCS Official Partner Poster Award (Selected by Student Members)

3. KCS General Assembly and General Meetings of Divisions

▣ KCS General Assembly

April 25 (THU) 13:30~15:30, Convention Hall 2 (3F)
(Part 1. Plenary Lecture 13:30~14:20, Part 2. General Assembly 14:30~15:30)

■ KCS Awards

- Academic Excellence Award: Young Soo Kang (Korea Institute of Energy Technology)
- Research Paper Award: Hoi Ri Moon (Ewha Womans University)
- BKCS Academic Advancement Award: Hee-Kwon Kim (Jeonbuk National University)
- JKCS Academic Advancement Award: Hun-Gi Hong (Seoul National University)
- Education Advancement Award: Jeonghee Nam (Pusan National University)
- Man Jung Han Academic Excellence Award: Kyungwon Kwak (Korea University)
- Min-Che Chon Chemist Award: Hackjin Kim (Chungnam National University)

■ General Meetings of Divisions

- Polymer Chemistry: April 25 (THU) 17:20~18:00, Rm 303
- Inorganic Chemistry: April 25 (THU) 17:50~18:20, Rm 405+406
- Analytical Chemistry: April 25 (THU) 17:50~18:10, Rm 103+104
- Material Chemistry: April 25 (THU) 17:25~18:00, Rm 407+408
- Electrochemistry: April 25 (THU) 17:45~18:10, Rm 105+106

4. Notice

■ KCS No Recording Policy

The use of any device to capture images (e.g., cameras and camera phones) or sound (e.g., tape and digital recorders) or stream, upload or rebroadcast speakers or presentations is strictly prohibited at all official KCS meetings and events without express written consent from the KCS..

5. Lucky Draw & Best Posters Awards Ceremony

Draw Date	April 24 (WED), 18:00 at 1F Lobby (Only Lucky Draw)
	April 25 (THU), 18:00 at 1F Lobby
	April 26 (FRI), 16:30 at 1F Lobby

* Please check the notice board on-site.

Scientific Programs

Type	Division	No.	Subject	Schedule	Code	Room No.
Plenary Lecture	KCS	1	[Plenary Lecture] Michael J. Krische (The University of Texas at Austin)	25 (THU) 13:30-14:20	PLEN	Convention Hall 2
Award Lecture	KCS	2	[2024 Academic Excellence Award] Young Soo Kang (Korea Institute of Energy Technology)	26 (FRI) 13:30-14:20	AWARD1	304+305+306
	KCS	3	[2024 Man Jung Han Academic Excellence Award] Kyungwon Kwak (Korea University)	24 (WED) 13:00-13:50	AWARD2	304+305+306
Symposium	KCS	4	[BKCS Symposium] BKCS: The Cornerstone of Korean Basic Science	24 (WED) 14:00-16:35	KCS1	301+302
		5	[Women's Committee Special Symposium] Mentor-Mentee Meeting for Students and Early-Career Researchers	24 (WED) 15:00-17:00	KCS2	303
		6	[KCS-ACS Publications Summit] The Future of Transformative Molecules	24 (WED) 14:00-17:40	KCS3	304+305+306
	Polymer Chemistry	7	Recent Advances in Polymer Networks	25 (THU) 15:40-18:00	POLY1	303
		8	Special Symposium by Mid-Career Polymer Chemists	26 (FRI) 9:00-10:40	POLY2	303
		9	Recent Trends in Polymer Synthesis	26 (FRI) 14:30-16:10	POLY3	303
	Inorganic Chemistry	10	Frontiers in Supramolecular and Inorganic Chemistry	25 (THU) 15:40-18:20	INOR1	405+406
		11	Recent Trends in Organometallic Materials Chemistry	26 (FRI) 9:00-11:05	INOR2	405+406
		12	Recent Trends in 2D Inorganic Materials	26 (FRI) 14:30-16:15	INOR3	405+406
	Physical Chemistry	13	Physical Chemistry of Life	25 (THU) 15:40-17:50	PHYS1	401+402
		14	New Insights into the Physical Chemistry for Energy and Battery Applications	26 (FRI) 14:30-16:20	PHYS2	401+402
	Analytical Chemistry	15	Recent Status in NMR-based Analytical Chemistry	25 (THU) 15:40-18:10	ANAL1	103+104
		16	Recent Advances in Bioanalytical Chemistry	26 (FRI) 14:30-16:20	ANAL2	103+104
	Life Chemistry	17	Recent Advances in Disease-Targeted Drug Delivery System	25 (THU) 15:40-17:50	LIFE1	101+102
		18	Recent Trends in Structural Biochemical Research	26 (FRI) 9:00-11:00	LIFE2	101+102
	Organic Chemistry	19	Leading Research Symposium on Organic Chemistry	25 (THU) 9:15-11:00	ORGN1	304+305+306
		20	Current Trends in Organic Chemistry	26 (FRI) 9:00-11:00	ORGN2	304+305+306
		21	Current Trends in Chemosensors	26 (FRI) 14:30-16:10	ORGN3	304+305+306
	Medicinal Chemistry	22	The Cutting Edge of Medicinal Chemistry	25 (THU) 15:40-17:40	MEDI1	301+302
		23	Recent Trends in Drug Discovery Based on Nucleosides and Nucleic Acids	26 (FRI) 9:00-11:00	MEDI2	301+302

Type	Division	No.	Subject	Schedule	Code	Room No.
Symposium	Material Chemistry	24	Current Trends in Materials Chemistry for Electrochemical and Photochemical Catalyst	25 (THU) 15:30-18:00	MAT1	407+408
		25	Emerging Semiconductors for Electronic Applications	26 (FRI) 09:00-11:00	MAT2	407+408
		26	Current Trends in Materials Chemistry for Porous Materials	26 (FRI) 14:30-16:30	MAT3	407+408
	Electro-chemistry	27	Research Progress in Stable Electrolyte/Electrode Interface for Energy Storage Systems	25 (THU) 15:40-18:10	ELEC1	105+106
		28	Recent Trends in Fundamental Electrochemistry	26 (FRI) 9:00-11:00	ELEC2	105+106
	Chemistry Education	29	Current Trends in Chemistry Education	25 (THU) 15:40-17:20	EDU	404
	Environmental Energy	30	Seawater Electrolysis Nexus Technologies	25 (THU) 15:30-18:00	ENVR1	403
		31	Recent Advances in Closed-loop Waste Plastics	26 (FRI) 09:00-11:00	ENVR2	403
Oral Presentation	Polymer Chemistry	32	Oral Presentation for Young Polymer Scientists	25 (THU) 9:00-11:00	POLY.O	303
	Inorganic Chemistry	33	Oral Presentation of Young Scholars in Inorganic Chemistry	25 (THU) 9:00-11:00	INOR.O	405+406
	Physical Chemistry	34	Oral Presentation for Initiative and Next-Generation Physical Chemists I	25 (THU) 9:00-11:00	PHYS1.O	401+402
		35	Oral Presentation for Initiative and Next-Generation Physical Chemists II	26 (FRI) 9:00-11:00	PHYS2.O	401+402
	Analytical Chemistry	36	Oral Presentation of Young Analytical Chemists I	25 (THU) 9:00-11:00	ANAL1.O	103+104
		37	Oral Presentation of Young Analytical Chemists II	26 (FRI) 9:00-11:00	ANAL2.O	103+104
	Life Chemistry	38	Oral Presentation for Young Scientists in Biochemistry and Chemical Biology	25 (THU) 9:00-11:00	LIFE.O	101+102
	Organic Chemistry	39	Oral Presentations for Young Scholars in Organic Division	25 (THU) 15:40-17:40	ORGN.O	304+305+306
	Medicinal Chemistry	40	Oral Presentation of Young Medicinal Chemists	25 (THU) 9:00-10:57	MEDI.O	301+302
	Material Chemistry	41	Oral Presentation for Young Material Chemists	25 (THU) 9:00-11:00	MAT.O	407+408
	Electro-chemistry	42	Oral Presentation for Young Electrochemists	25 (THU) 9:10-10:50	ELEC.O	105+106
	Chemistry Education	43	New Trends in Chemistry Education	25 (THU) 9:00-11:00	EDU.O	404
	Environmental Energy	44	General Session	25 (THU) 9:00-11:00	ENVR.O	403

Award Lecture in Division

Physical Chemistry	IPJAE Physical Chemistry Award - Zee Hwan Kim (Seoul Nat'l Univ.) : 25 (THU) 15:40-16:10, Rm 401+402 Shin Kook Joe Award - Yousung Jung (Seoul Nat'l Univ.) : 26 (FRI) 14:30-15:00, Rm 401+402
Analytical Chemistry	i-SENS Young Analytical Chemist Award - Ki Hun Kim (KIST) : 25 (THU) 17:30-17:50, Rm 103+104
Life Chemistry	Lusin Academic Award Ceremony and Award Lecture - Sang Jeon Chung (Sungkyunkwan Univ.) : 25 (THU) 10:20-10:50, Rm 101+102
Organic Chemistry	Shim Sangchul Award - Kyungsoo Oh (Chung-Ang Univ.) : 25 (THU) 17:10-17:40, Rm 304+305+306

Poster Presentations

Poster Presentations

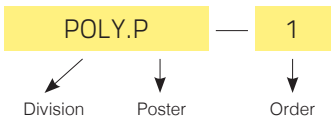
- Presenters should be in attendance at their poster board during the assigned time of their poster presentation.
- Posters Presentations: Two hours on Thursday and Friday
- Poster presenters need to check their presenting numbers.

Time & Activity	from 11:00 to 12:00	from 12:00 to 13:00
Poster Presentation	Even Numbers	Odd numbers
Research Exchanges with Other Presenters	Odd numbers	Even Numbers

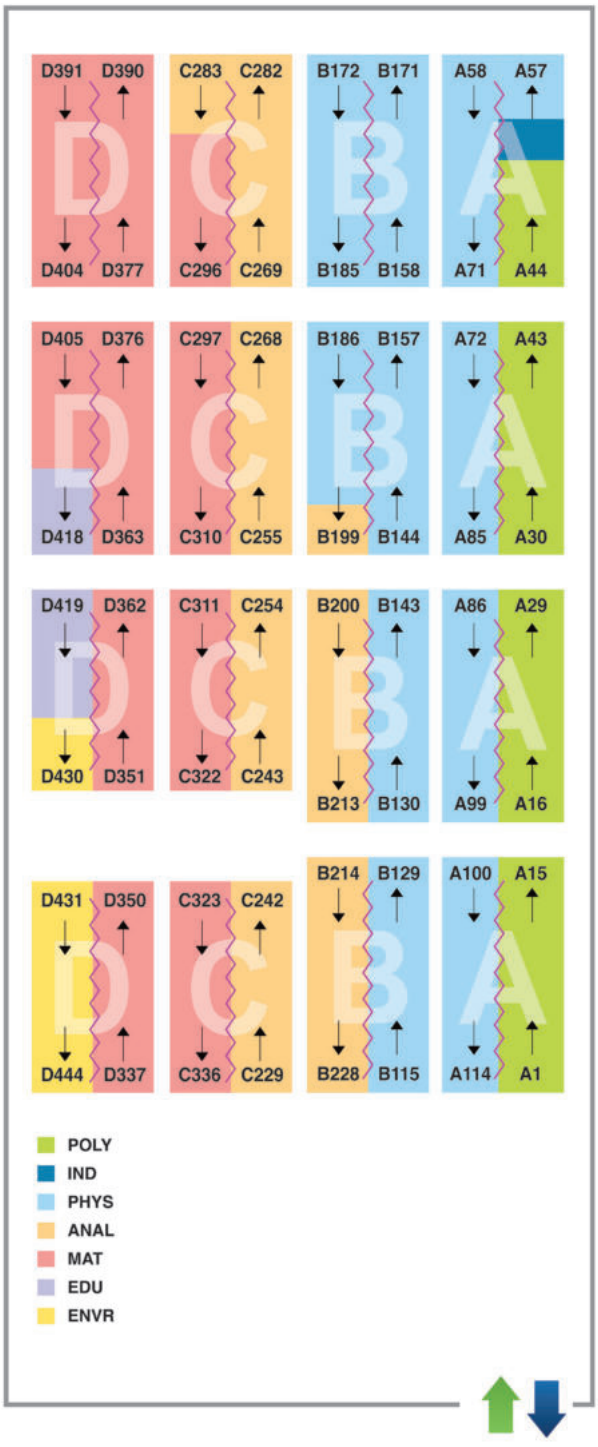
April 25 (THU) - 26 (FRI) 11:00-13:00, Exhibition Hall 2 (1F)

Division	No.	Code	Date
Polymer Chemistry	45	POLY.P	25 (THU) 11:00-13:00
Industrial Chemistry	46	IND.P	25 (THU) 11:00-13:00
Inorganic Chemistry	47	INOR.P	26 (FRI) 11:00-13:00
Physical Chemistry	48	PHYS.P	25 (THU) 11:00-13:00
Analytical Chemistry	49	ANAL.P	25 (THU) 11:00-13:00
Life Chemistry	50	LIFE.P	26 (FRI) 11:00-13:00
Organic Chemistry	51	ORGN.P	26 (FRI) 11:00-13:00
Medicinal Chemistry	52	MEDI.P	26 (FRI) 11:00-13:00
Material Chemistry	53	MAT.P	25 (THU) 11:00-13:00
Electrochemistry	54	ELEC.P	26 (FRI) 11:00-13:00
Chemistry Education	55	EDU.P	25 (THU) 11:00-13:00
Environmental Energy	56	ENVR.P	25 (THU) 11:00-13:00

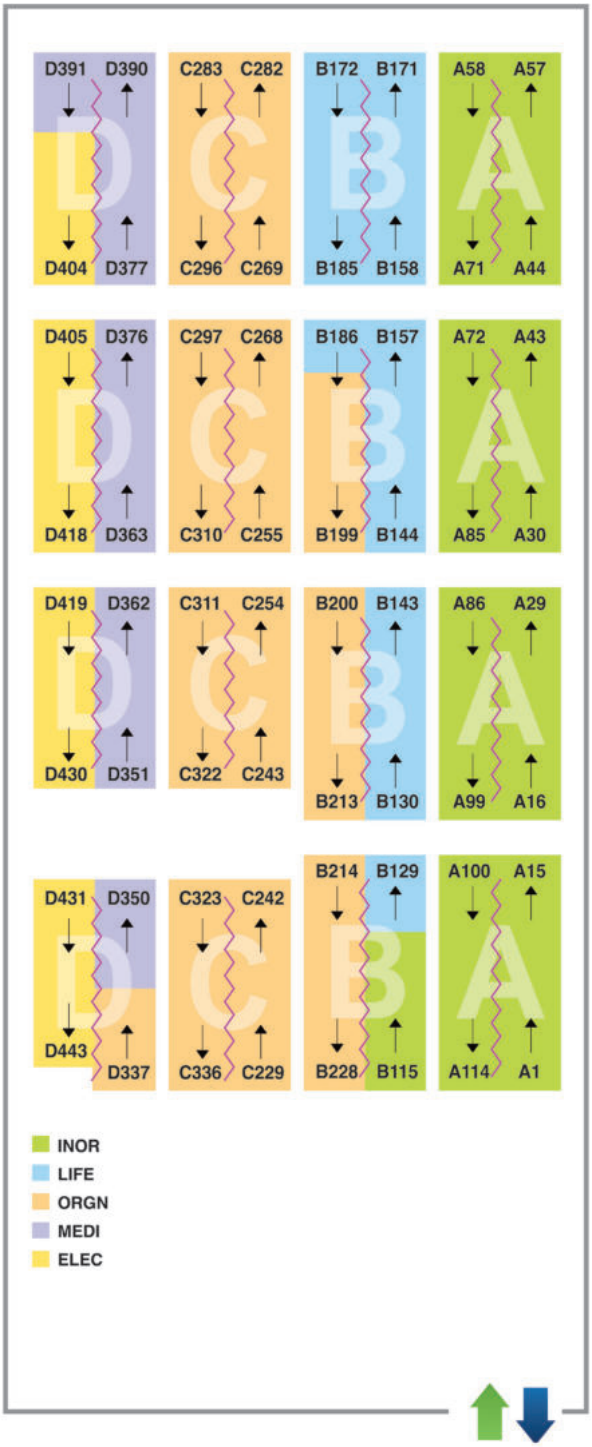
How to read



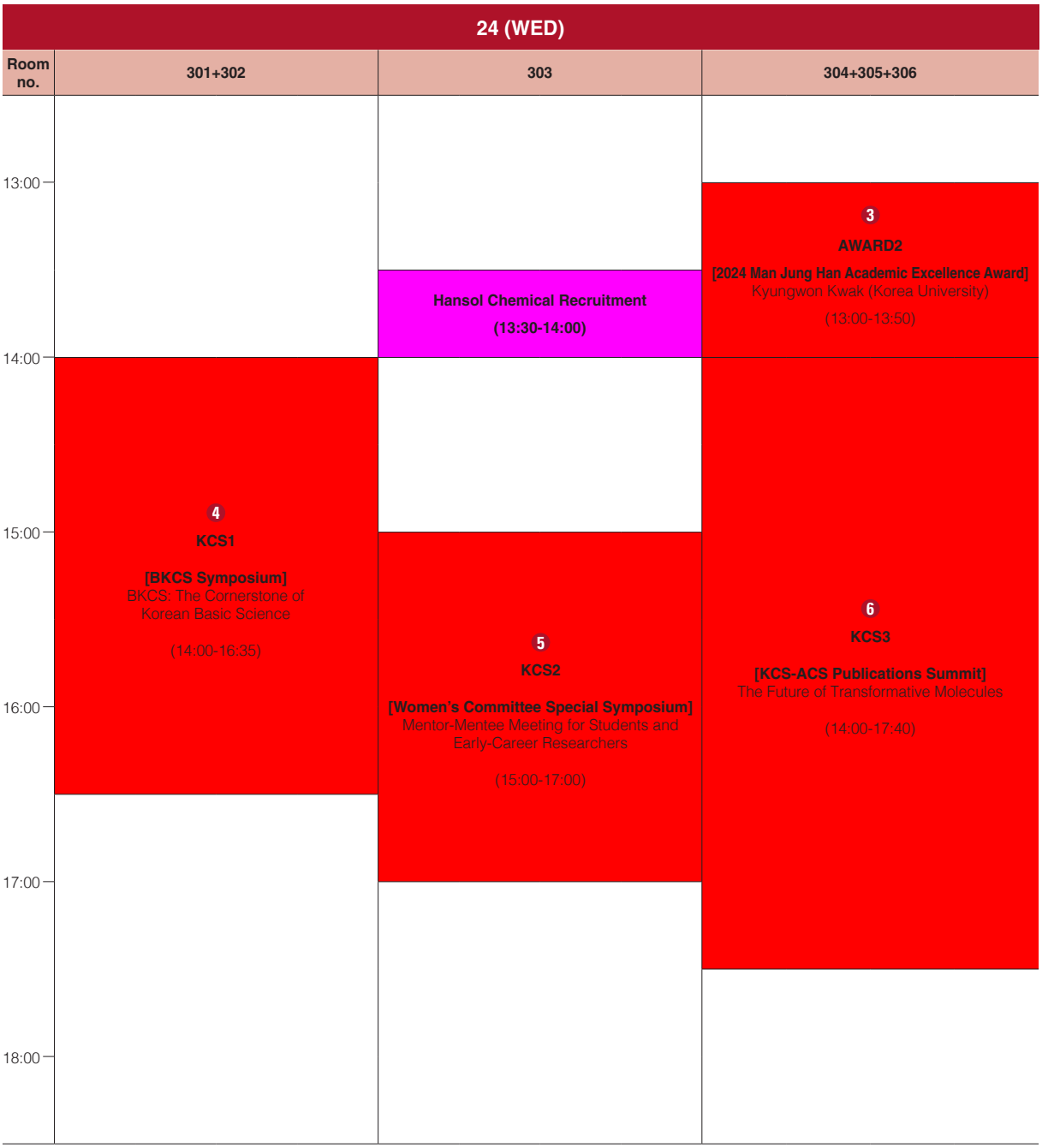
April 25 (THU) 11:00-13:00,
Exhibition Hall 2 (1F)



April 26 (FRI) 11:00-13:00,
Exhibition Hall 2 (1F)



Program Overview - April 24 (WED)



Program Overview - April 25 (THU)

25 (THU)

Room no.	101+102	103+104	105+106	301+302	303	304+305+306	401+402	403	404	405+406	407+408	Exhibition Hall 2 (1F)
9:00	38 **LIFE.O** **Oral Presentation for Young Scientists in Biochemistry and Chemical Biology** (09:00-10:20)	36 **ANAL1.O** **Oral Presentation of Young Analytical Chemists I** (09:00-11:00)	42 **ELEC.O** **Oral Presentation for Young Electrochemists** (09:10-10:50)	40 **MEDI.O** **Oral Presentation of Young Medicinal Chemists** (09:00-10:57)	32 **POLY.O** **Oral Presentation for Young Polymer Scientists** (09:00-11:00)	19 **ORGN1** Leading Research Symposium on Organic Chemistry (09:15-11:00)	34 **PHYS1.O** **Oral Presentation for Initiative and Next-Generation Physical Chemists I** (09:00-11:00)	44 **ENVR.O** **General Session** (09:00-11:00)	43 **EDU.O** **New Trends in Chemistry Education** (09:00-11:00)	33 **INOR.O** **Oral Presentation of Young Scholars in Inorganic Chemistry** (09:00-11:00)	41 **MAT.O** **Oral Presentation for Young Material Chemists** (09:00-11:00)	
9:30												
10:00	**Lusin Academic Award Ceremony and Award Lecture** SangJeon Chung (Sungkyunkwan Univ.) (10:20-10:50)											
10:30												
11:00					**Hansol Chemical Recruitment (11:00-11:30)**							
11:30		**KBSI Luncheon Seminar (11:30-12:50)**			**Poster Presentation 1(11:00-13:00) - Exhibition Hall 2 (1F)** POLY / IND / PHYS / ANAL / MAT / EDU / ENVR							
13:00	**Lunch Break (13:00-13:30)**											
13:30	**KCS General Assembly - Convention Hall 2 (3F)** 1 **Part 1. Plenary Lecture (13:30-14:20)** - Michael J. Krische (The University of Texas at Austin) **Part 2. General Assembly (14:30-15:30)**											Exhibition
15:30	17 **LIFE1** Recent Advances in Disease-Targeted Drug Delivery System (15:40-17:50)	15 **ANAL1** Recent Status in NMR-based Analytical Chemistry (15:40-17:30)	27 **ELEC1** Research Progress in Stable Electrolyte/ Electrode Interface for Energy Storage Systems (15:40-17:45)	22 **MEDI1** The Cutting Edge of Medicinal Chemistry (15:40-17:40)	7 **POLY1** Recent Advances in Polymer Networks (15:40-17:20)	39 **ORGN.O** **Oral Presentations for Young Scholars in Organic Division** (15:40-17:10)	**Award Lecture: IPJAE Physical Chemistry Award** Zee Hwan Kim (Seoul Nat'l Univ.) (15:40-16:10)	30 **ENVR1** Seawater Electrolysis Nexus Technologies (15:30-18:00)	29 **EDU** Current Trends in Chemistry Education (15:40-17:20)	10 **INOR1** Frontiers in Supramolecular and Inorganic Chemistry (15:40-17:50)	24 **MAT1** Current Trends in Materials Chemistry for Electrochemical and Photochemical Catalyst (15:30-17:25)	
16:00												
16:30							13 **PHYS1** Physical Chemistry of Life (16:10-17:50)					
17:00		**Award Lecture: i-SENS Young Analytical Chemist Award** Ki Hun Kim (KIST) (17:30-17:50)										
17:30		Analytical Chemistry Division General Meeting (17:50-18:10)	Electro-chemistry Division General Meeting (17:45-18:10)		Polymer Chemistry Division General Meeting (17:20-18:00)	**Award Lecture: Shim Sangchul Award** Kyungsoo Oh (Chung-Ang Univ.) (17:10-17:40)				Inorganic Chemistry Division General Meeting (17:50-18:20)	Material Chemistry Division General Meeting (17:25-18:00)	
18:00												

Program Overview - April 26 (FRI)

26 (FRI)

Room no.	101+102	103+104	105+106	301+302	303	304+305+306	401+402	403	405+406	407+408	Exhibition Hall 2 (1F)
9:00											
9:30	18 **LIFE2** Recent Trends in Structural Biochemical Research (09:00-11:00)	37 **ANAL2.O** **Oral Presentation of Young Analytical Chemists II** (09:00-11:00)	28 **ELEC2** Recent Trends in Fundamental Electrochemistry (09:00-11:00)	23 **MEDI2** Recent Trends in Drug Discovery Based on Nucleosides and Nucleic Acids (09:00-11:00)	8 **POLY2** Special Symposium by Mid-career Polymer Chemists (09:00-10:40)	20 **ORGN2** Current Trends in Organic Chemistry (09:00-11:00)	35 **PHYS2.O** **Oral Presentation for Initiative and Next-Generation Physical Chemists II** (09:00-11:00)	31 **ENVR 2** Recent Advances in Closed-loop Waste Plastics (09:00-11:00)	11 **INOR2** Recent Trends in Organometallic Materials Chemistry (09:00-11:05)	25 **MAT2** Emerging Semiconductors for Electronic Applications (09:00-11:00)	
10:00											
10:30											
11:00	**Poster Presentation 2 (11:00-13:00) - Exhibition Hall 2 (1F)** INOR / LIFE / ORGN / MEDI / ELEC										
13:00	**Lunch Break (13:00-13:30)**										
13:30	2 **2024 Academic Excellence Award (13:30-14:20) - Rm 304+305+306** Young Soo Kang (Korea Institute of Energy Technology)										Exhibition
14:30							**Award Lecture: Shin Kook Joe Award** Yousung Jung (Seoul Nat'l Univ.) (14:30-15:00)				
15:00		16 **ANAL2** Recent Advances in Bioanalytical Chemistry (14:30-16:20)			9 **POLY3** Recent Trends in Polymer Synthesis (14:30-16:10)	21 **ORGN3** Current Trends in Chemosensors (14:30-16:10)	14 **PHYS2** New Insights into the Physical Chemistry for Energy and Battery Applications (15:05-16:20)		12 **INOR3** Recent Trends in 2D Inorganic Materials (14:30-16:15)	26 **MAT3** Current Trends in Materials Chemistry for Porous Materials (14:30-16:30)	
15:30											
16:00											
16:30				**Special Lecture for Suwon Middle & High School Students** (16:30-18:00)							
17:00											
18:00											

Plenary Lecture

April 25 (Thu), 13:30-14:20, Convention Hall 2

Catalytic C−C Coupling of Alcohols *via* Hydrogen Auto-Transfer: Reinventing Carbonyl Addition

Chair : Soo Bong Han (KRICT)

Michael J. Krische

Department of Chemistry,
The University of Texas at Austin

Brief Profiles

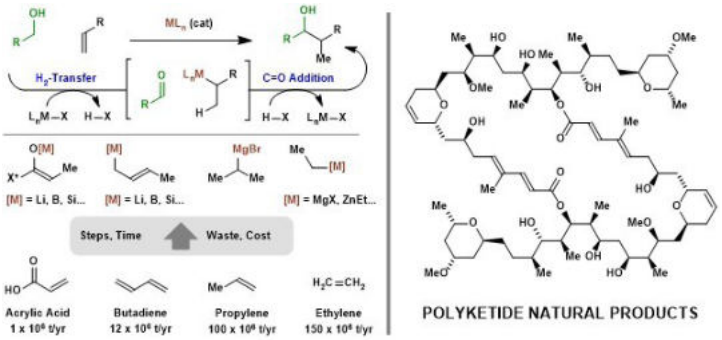
Present / Professor of Department of Chemistry, The University of Texas at Austin, USA

2007-Present / Robert A. Welch Chair in Science University of Texas at Austin, USA

2015 / Humboldt Senior Research Fellow, Freie Universität Berlin, Germany

2009-2010 / Humboldt Senior Research Fellow, Freiburg University, Germany

Research in the Krische group is focused on the development of catalytic methods for C−C bond formation that occur through the addition or redistribution of hydrogen. This work includes the first H_2-mediated carbonyl reductive couplings beyond hydroformylation, and related hydrogen auto-transfer reactions where alcohols function as both reducing agents and carbonyl proelectrophiles. Carbonyl addition via hydrogen auto-transfer enables byproduct-free conversion of lower alcohols to higher alcohols. The development of these methods, the influence of metal-centered stereogenicity on regio- and enantioselectivity, and the application of these methods to polyketide total synthesis will be described.



Award Lecture

2024 Academic Excellence Award

April 26 (Fri), 13:30-14:20, Rm 304+305+306

Carbon Neutrality Climate Technology Based on Nanotechnology

Chair : Seunghoon Shin (Hanyang University)

Young Soo Kang

Environmental & Climate Technology, Korea Institute of Energy Technology (KENTECH)

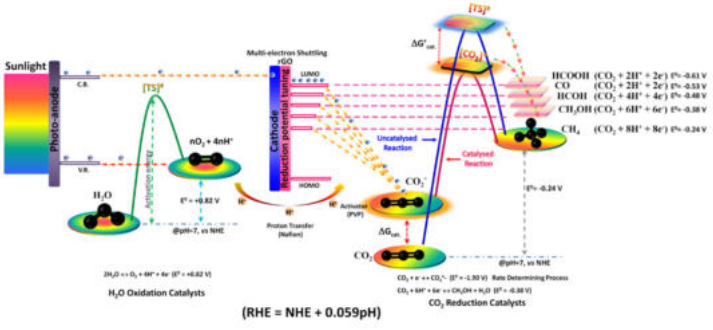
Brief Profiles

Present / Professor, School of Energy Technology, Korea Institute of Energy Technology (KENTECH)

1992 / Ph.D, Department of Chemistry, University of Houston, USA

1984 / B.S, Department of Chemical Education, Pusan National University, Korea

In this talk, approaching technology on the photoelectrochemical and photochemical CO_2 reduction reaction to have higher solar to fuel efficiency than 2.0% will be introduced. To have such as high efficiency, several parameters for the thermodynamics and kinetics control were optimized in both approaches such as multi-electron shuttling process, reduction potential tuning, CO_2 activation and multiple proton-coupled multiple electron transfer process as one pot reaction. Basically, CO_2 reduction can be done combined with two water splitting reaction to produce maximum of electrons and protons to supply for CO_2 reduction reaction. To have maximum of electrons and protons, we have tried with more than 30 kinds of photocatalysts and decided that $BiVO_4$ was the best one as the pristine photocatalyst. By using $BiVO_4$, we also added some more functional approaches to increase the efficiency of water splitting reaction via band gap engineering, crystal facet engineering and interface junction engineering.
All of these technologies could be achieved based on the physical chemistry by optimizing parameters of the materials an process. Further more work is going on continuous flow process for mass production.



Award Lecture

2024 Man Jung Han Academic Excellence Award

April 24 (Wed), 13:00-13:50, Rm 304+305+306

In-Operando Time-resolved Vibrational Spectroscopy

Chair : Changsik Song (Sungkyunkwan University)

Kyungwon Kwak

Department of Chemistry,
Korea University

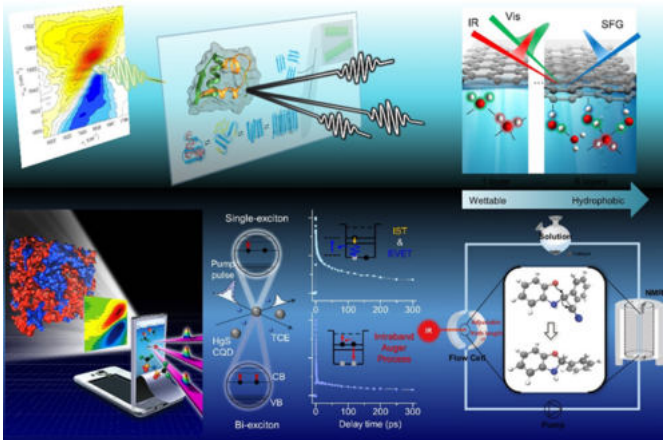
Brief Profiles

Present / Professor, Department of Chemistry, Korea University, Korea

2008 / Ph.D, Department of Chemistry, Stanford University, USA

1999 / B.S, Department of Chemistry, Korea University, Korea

The time-resolved ultrafast nonlinear infrared (IR) spectroscopy has been contributed to studies of molecular dynamics and various chemical reactions such as energy transfer, proton hopping, protein denaturation, and chemical exchanges. With the advances in laser technology and optics, there has been improvements in spectral- and time-resolution, signal to noise ratio, and spatial resolution through adapting the development in microscopies. However, the application of advanced spectroscopies and microscopies still have been limited to studies of samples optimized for spectroscopic observation rather than function or performance of the sample. To expand the application of time-resolved vibrational spectroscopies, we have been developing various methods to combine chemical reactor, a living cell, and electronic devices with nonlinear spectroscopies like polarization selective pump-probe (IR-PP), transient two-dimensional IR (2D-IR), IR-Vis sum-frequency generation (SFG), two-dimensional electronic spectroscopy (2D-ES).
In this talk, a couple of application will be discussed; 1) solvation structure and dynamics of electrolytes in Li-ion battery 2) wettability of graphene and interfacial water structure observed with vibrational SFG 3) phase separation in highly concentrated aqueous electrolytes for a lithium-ion battery 4) Protein aggregation dynamics with 2D-IR.



Scientific Programs

Symposium

KCS Symposium 1

April 24 (Wed), Room 301+302

Organizer

Eunsung Lee

Present	Associate Professor, Department of Chemistry, Seoul National University, Korea
2013	Postdoc, Department of Chemistry, Harvard University, US
2009	Ph.D, Department of Chemistry, Stanford University, US

Chair

Myung Hwan Park

Present	Professor, Department of Chemistry Education, Chungbuk National University, Korea
2012	Manager, LG Chem Research Park
2010	Ph.D. Department of Chemistry, KAIST, Korea

Speaker

Kang Min Ok

Present	Professor, Department of Chemistry, Sogang University, Korea
2007	Postdoc, Department of Chemistry, University of Oxford, UK
2003	Ph.D, Department of Chemistry, University of Houston, USA

Young-Tae Chang

Present	Professor, Department of Chemistry, POSTECH, Korea
2007-2017	Professor, Department of Chemistry, National University of Singapore, Singapore
2000-2017	Asst&Assoc. Professor, Department of Chemistry, New York University, USA

Sunkyu Han

Present	Associate Professor, Department of Chemistry, KAIST, Korea
2012	Ph.D., Department of Chemistry, MIT, USA
2006	B.S., Department of Chemistry, KAIST, Korea

Sang Hoon Joo

Present	Professor, Department of Chemistry, Seoul National University, Korea
2007-2009	Postdoc, Univ. California, Berkeley, USA
2004	Ph.D., Department of Chemistry, KAIST, Korea

Hoi Ri Moon

2023.03-	Professor, Ewha Womans University
2010.02-2023.02	Professor, UNIST

4. [BKCS Symposium] BKCS: The Cornerstone of Korean Basic Science

Organizer : Eunsung Lee (Seoul National University)

<Opening Remarks>

14:00 **KCS1-1** New Era for BKCS
Myung Hwan Park
Department of Chemical Education, Chungbuk National University, Korea

14:10 BKCS Award

Chair : Eunsung Lee (Seoul National University)

14:30 **KCS1-2** Exploring Strategies for Noncentrosymmetric Solid-State Materials: From Chromophore Incorporation to Systematic Design
Kang Min Ok
Department of Chemistry, Sogang University, Korea

14:55 **KCS1-3** Live cell distinction using organic fluorescent probes
Young-Tae Chang
Department of Chemistry, Pohang University of Science and Technology, Korea

15:20 **KCS1-4** Biosynthetically Inspired Synthesis of Complex Natural Products
Sunkyu Han
Department of Chemistry, Korea Advanced Institute of Science and Technology, Korea

Chair : Myung Hwan Park (Chungbuk National University)

15:45 **KCS1-5** Electrosynthesis Promoting Sustainable Chemical Synthesis
Sang Hoon Joo
Department of Chemistry, Seoul National University, Korea

16:10 **KCS1-6** Strategic Approaches to Developing MOFs with Novel Characteristics
Hoi Ri Moon
Department of Chemistry and Nanoscience, Ewha Womans University, Korea

Symposium

KCS Symposium 2

April 24 (Wed), Room 303

Organizer

Eunji Sim

Present	Professor, Department of Chemistry, Yonsei University
2010, 2017	Visiting Professor, Department of Chemistry, University of California, Irvine
1997	Ph. D. Department of Chemistry, University of Illinois Urbana-Champaign

Speaker

Seon-Mi Park

Present	Principal Engineer, Samsung Electronics
2004	Post-doctoral researcher, Michigan State University, USA
2003	Ph.D., Department of Chemistry, Ewha Womans University, Korea

Nguyen, Van Luan

2017-Present	Researcher at SAIT, Samsung Electronics.
2016-2017	Post-doctoral researcher at Center for Integrated Nanostructure Physics, Institute for Basic Science, Sungkyunkwan University, Korea
2010-2015	Ph.D, Department of Energy Science, Sungkyunkwan University, South Korea.

Haemi Lee

Present	Research scientist, Infectious Diseases Therapeutic Research Centers, Korea Research Institute of Chemical Technology, Korea
2010	Ph.D, Department of Chemistry, Univ. of Colorado at Boulder, USA
1999	B.S, Chemistry, Ewha Womans University, Korea

Woon Ju Song

Present	Associate Professor, Department of Chemistry, Seoul National University, Korea
2011	Ph.D, Department of Chemistry, MIT, USA
2003	B.S, Science-Education, Ewha Womans University, Korea

5. [Women's Committee Special Symposium] Mentor-Mentee Meeting for Students and Early-Career Researchers

Organizer : Eunji Sim (Yonsei University)

Chair : Eunji Sim (Yonsei University)

15:00 **KCS2-1**
Young Mee Jung
Department of Chemistry, Kangwon National University, Korea

15:30 **KCS2-2**
Seon-Mi Park
Principal Engineer, Samsung Electronics, Korea

KCS2-3
Nguyen, Van Luan
Researcher at SAIT, Samsung Electronics, Korea

KCS2-4
Haemi Lee
Research scientist, Infectious Diseases Therapeutic Research Centers, Korea Research Institute of Chemical Technology, Korea

KCS2-5
Woon Ju Song
Associate Professor, Department of Chemistry, Seoul National University, Korea

Symposium

KCS Symposium 3

April 24 (Wed), Room 304+305+306

Organizer

Seunghoon Shin

2004-Present Professor, Department of Chemistry, Hanyang University, Korea

2002-2004 Postdoc, Department of Chemistry, Stanford University, USA

1996-2001 Ph.D., Department of Chemistry, The Ohio State University, USA

Chair

Eun Jin Cho

Present Professor, Department of Chemistry, Chung-Ang University, Korea

2011-2015 Assistant Professor, Department of Applied Chemistry, Hanyang University (ERICA), Korea

2008 Ph.D. Department of Chemistry, University of Wisconsin-Madison, USA

Hye Jin Lee

Present Professor, Department of Chemistry, Kyungpook National University

2000 Postdoc, Department of Chemistry, University of Wisconsin-Madison

1999 Ph.D, Department of Chemistry, Ecole Polytechnique Fédérale de Lausanne

Speaker

Erick M. Carreira

2021-Present Editor-in-Chief, JACS, American Chemical Society

1998-Present Professor, Deputy head of Dep. of Chemistry and Applied Biosc., ETH Zurich, Switzerland

1997-1998 Professor, Division of Chemistry and Chemical Engineering, California Institute of Technology, USA

Wonwoo Nam

Present Professor, Department of Chemistry and Nano Science, Ewha Womans University, Korea

Present Editor-in-Chief, Bulletin of the Korean Chemical Society

Christopher W. Jones

2020-Present Editor-in-Chief, JACS Au, American Chemical Society

2021-Present John F. Brock III School Chair and Professor of Chemical & Biomolecular Engineering, Georgia Institute of Technology, USA

2008-Present Professor, Chemical & Biomolecular Engineering, Georgia Institute of Technology, USA

Jwa-Min Nam

Present Professor, Department of Chemistry, Seoul National University, Korea

2004 Ph.D., Department of Chemistry, Northwestern University, USA

1996/1998 B.S./M.S., Department of Chemistry, Hanyang University, Korea

6. [KCS-ACS Publications Summit] The Future of Transformative Molecules

Organizer : Seunghoon Shin (Hanyang University)

Chair : Eun Jin Cho (Chung-Ang University)

14:00 **KCS3-1** Design, Synthesis, and Implementation of Novel Tools to Probe Biological Questions
Erick M. Carreira
Editor-in-Chief JACS / Department of Chemistry and Applied Biosciences, ETH-Zürich, Switzerland

14:40 **KCS3-2** Metal-Oxygen Intermediates in Dioxygen Activation and Formation Reactions
Wonwoo Nam
Editor-in-Chief BKCS / Department of Chemistry and Nano Science, Ewha Womans University, Korea

15:20 Coffee Break

Chair : Hye Jin Lee (Editor-in-Chief JKCS / Kyungpook National University)

15:40 **KCS3-3** Direct Air Capture (DAC) of CO_2 with Porous Sorbent Materials Coupled with Scalable Processes
Christopher W. Jones
Editor-in-Chief JACS Au / School of Chemical & Biomolecular Engineering, Georgia Institute of Technology, United States

16:20 **KCS3-4** Chemical Plasmonics with Metal Nanoparticles
Jwa-Min Nam
Executive Editor Nano Letters / Seoul National University, Korea

17:00 Meet with ACS Editors

Symposium

Polymer Chemistry Symposium 1

April 25 (Thu), Room 303

Organizer

Youn Soo Kim

present Associate Professor, Department of Materials Science and Engineering, POSTECH, Pohang, South Korea

2017 Assistant Professor, Department of Materials Science and Engineering, POSTECH, Pohang, South Korea

2015 Ph.D, Department of Chemistry & Biotechnology, School of Engineering, The University of Tokyo, Japan

Chair

Soo-Hyung Choi

Present Professor, Department of Chemical Engineering, Hongik University, Korea

2012 Postdoc., Materials Research Laboratory, University of California, Santa Barbara, USA

2010 Ph. D., Chemical Engineering, University of Minnesota, Twin Cities, USA

Speaker

HyeongJun Kim

present Assistant professor, Dept. Chemical and Biomolecular Engineering, Sogang University

2017 Ph.D, Dept. Chemical and Biomolecular Engineering, KAIST, Korea

2017 B.S, Dept. Chemical and Biomolecular Engineering, KAIST, Korea

Jae-Byum Chang

Present Associate professor, Department of Materials Science and Engineering, KAIST, Korea

2018 Assistant professor, Department of Materials Science and Engineering, KAIST, Korea

2014 Postdoctoral Associate, MIT, USA

Jae-Hyung Jeon

Present Associate professor, Department of Physics, POSTECH

Present Executive Director, Asia Pacific Center for Theoretical Physics

7. Recent Advances in Polymer Networks

Organizer : Youn Soo Kim (POSTECH)

Chair : Youn Soo Kim (POSTECH)

15:40 **POLY1-1** Structure and Chain Dynamics of Coacervate Core Hydrogel
Soo-Hyung Choi
Department of Chemical Engineering, Hongik University, Korea

16:05 **POLY1-2** Interfacial Complexation of Fixed Polymeric Ions in Polyelectrolyte Network Heterojunctions
HyeongJun Kim
Chemical and biomolecular Engineering, Sogang University, Korea

Chair : Soo-Hyung Choi (Hongik University)

16:30 **POLY1-3** Bio-inspired Design of Hydrogel Robotics and the Use of Hydrogels for Studying Biology
Jae-Byum Chang
Department of Materials Science and Engineering, Korea Advanced Institute of Science and Technology, Korea

16:55 **POLY1-4** Activity-induced hopping diffusion of self-propelled particles in polymer networks
Jae-Hyung Jeon
Department of Physics, Pohang University of Science and Technology, Korea

17:20 Polymer Chemistry Division General Meeting

Organizer

Kyoung Taek Kim

Present	Professor, Department of Chemistry, Seoul National University, Korea
2015	Associate Professor, Department of Chemistry, UNIST, Korea
2010	Postdoctoral Fellow, Radboud University Nijmegen, the Netherlands

Speaker

Moon Jeong Park

Present	Professor, Department of Chemistry, Pohang University of Science and Technology, Korea
2009	Postdoc, Lawrence Berkeley National Lab, USA
2006	Ph.D. Chemical and Biological Engineering, Seoul National University, Korea

Han Young Woo

2015-Present	Professor, Department of Chemistry, Korea University, Korea
2006-2015	Professor, Department of Nanofusion Engineering, Pusan National University, Korea
2003-2006	Postdoc, Center for Polymers and Organic Solids, UCSB, USA

Ja-Hyoung Ryu

Present	Professor, Department of Chemistry, UNIST, Korea
2011	Post Doctoral Researcher, Department of Chemistry, University of Massachusetts-Amherst
2006	Ph.D. Department of Chemistry, Yonsei University, Korea

Minseok Kwak

2013-Present	Professor, Department of Chemistry, Pukyong National University, South Korea
2011-2013	Rubicon Research Fellow, Harvard University, USA
2011	Ph.D., Polymer Chemistry, University of Groningen, Netherlands

8. Special Symposium by Mid-Career Polymer Chemists

Organizer : Kyoung Taek Kim (Seoul National University)

Chair : Kyoung Taek Kim (Seoul National University)

09:00 **POLY2-1** End-group and Linker Chemistry in Polymer Science
Moon Jeong Park
Department of Chemistry, Pohang University of Science and Technology, Korea

09:25 **POLY2-2** Ionic conjugated polymers as a multifunctional interlayer for perovskite optoelectronic devices
Han Young Woo
Department of Chemistry, Korea University, Korea

09:50 **POLY2-3** Intracellular Chemical Reaction-Induced Self-Assembly to Control Cellular Fate
Ja-Hyoung Ryu
Department of Chemistry, Ulsan National Institute of Science and Technology, Korea

10:15 **POLY2-4** Fast and precise ultrasound-induced scission of covalent linker within diblock DNA architectures
Minseok Kwak
Department of Chemistry, Pukyong National University, Korea

Symposium

Polymer Chemistry Symposium 3

April 26 (Fri), Room 303

Organizer

Beom-Goo Kang

2019 Assistant Professor, Department of Chemical Engineering, Soongsil University, Korea

2016 Postdoc, Department of Chemical and Biological Engineering, Princeton University, USA

2012 Ph.D, School of Materials Science and Engineering, GIST, Korea

Speaker

Il Kim

Present Professor, School of Chemical Engineering, Pusan National University

1990 Ph.D. Department of Chemical Engineering, KAIST

Jaeman Shin

Present Assistant Professor, Department of Materials Science and Engineering, Soongsil University, Korea

2021-2023 Assistant Professor, Department of Organic Materials and Fiber Engineering, Soongsil University, Korea

2019-2021 Postdoc, Materials Research Lab, UC Santa Barbara, US

Hyungwoo Kim

Present Professor, Polymer Science and Engineering, Chonnam National University, Korea

2017 Postdoc, Chemistry, Pennsylvania State University, USA

2014 Ph.D. Materials Science & Engineering, Seoul National University, Korea

Chang-Geun Chae

Present Senior Researcher, Advanced Functional Polymers Research Centers, Korea Research Institute of Chemical Technology, Korea

2021 Postdoctoral Scholar, Pritzker School of Molecular Engineering, University of Chicago, USA

2019 Ph.D., School of Materials Science and Engineering, GIST, Korea

9. Recent Trends in Polymer Synthesis

Organizer : Beom-Goo Kang (Soongsil University)

Chair : Beom-Goo Kang (Soongsil University)

14:30 **POLY3-1** Omnibus Heterogeneous Prussian Blue Complex Catalysts for Ring-opening Polymerizations

Il Kim

Department of Polymer Engineering, Pusan National University, Korea

14:55 **POLY3-2** Synthesis and Self-assembly of Bottlebrush Copolymers into Nanostructured Colloids under Emulsion Confinement

Jaeman Shin

Materials Science and Engineering, Soongsil University, Korea

15:20 **POLY3-3** Depolymerization impacts de-bondable polymer adhesives

Hyungwoo Kim

School of polymer science and engineering, Chonnam National University, Korea

15:45 **POLY3-4** An Old Catalyst System Creating a Vinyl-Addition-Type Ultrahigh-Molecular-Weight Polynorbornene Copolymer with Enhanced Fracture Resistance

Chang-Geun Chae

Advanced Functional Polymers Research Center, Korea Research Institute of Chemical Technology, Korea

Symposium | Inorganic Chemistry Symposium 1
April 25 (Thu), Room 405+406

Organizer

Hyo Jae Yoon

Present Professor, Department of Chemistry, Korea University
2010-2014 Postdoc, Harvard University
2010 PhD in Chemistry, Northwestern University

Speaker

Makoto Fujita

Present University Distinguished Professor, The University of Tokyo, Japan
1987 Ph.D. Tokyo Institute of Technology, Japan

Jinwoo Cheon

Present Director, Institute for Basic Science (IBS) Center for Nanomedicine, South Korea
Present Professor, Department of Chemistry, Yonsei University, South Korea

Myongsoo Lee

Present Professor, Department of Chemistry, Fudan University, China
1992 Ph.D, Department of Macromolecular Science, Case Western Reserve University, USA

Eunsung Lee

Present Associate Professor, Department of Chemistry, Seoul National University, Korea
2013 Postdoc, Department of Chemistry, Harvard University, US
2009 Ph.D, Department of Chemistry, Stanford University, US

Kimoon Kim

Present Professor, Department of Chemistry, Pohang University of Science and Technology, Korea
1986 Ph.D., Department of Chemistry, Stanford University, USA
1976 B.S., Department of Chemistry, Seoul National University, Korea

10. Frontiers in Supramolecular and Inorganic Chemistry

Organizer : Hyo Jae Yoon (Korea University)

Chair : Hyo Jae Yoon (Korea University)

15:40 **INOR1-1** Coordination Self-Assembly: From Origins to the Latest Advances
Makoto Fujita
Tokyo College, Institute for Advanced Studies, The University of Tokyo / Division of Advanced Molecular Science, Institute for Molecular Science, Japan

16:10 **INOR1-2** Designer Nanomachines for Biological Systems
Jinwoo Cheon
Department of Chemistry, Yonsei University, Korea

16:40 **INOR1-3** Dynamic Capsule Assembly; Stereodivergence in Macrocycle Formation
Myongsoo Lee
Department of Chemistry, Fudan University, China

17:10 **INOR1-4** A truly professional chemist who always explores new pathways
Eunsung Lee
Department of Chemistry, Seoul National University, Korea

17:20 **INOR1-5** My journey to supramolecular chemistry
Kimoon Kim
Department of Chemistry, Pohang University of Science and Technology, Korea

17:50 Inorganic Chemistry Division General Meeting

Symposium

Inorganic Chemistry Symposium 2

April 26 (Fri), Room 405+406

Organizer

Kang Mun Lee

Present	Professor, Department of Chemistry, Kangwon National University, Korea
2014	Professional Researcher, Samsung Advanced Institute of Technology, Korea
2013	Ph.D, Department of Chemistry, KAIST, Korea

Speaker

Youngmin You

2023-Present	Professor, Department of Chemical and Biomolecular Engineering, Yonsei University, Korea
2015-2023	Professor, Division of Chemical Engineering and Materials Science, Ewha Womans University, Korea
2007	Ph.D. Department of Materials Science & Engineering, Seoul National University

Yun-Hi Kim

Present	Professor, Deparment of Chemistry, Gyeongsang National University, Korea
1996	Post-Doc., Department of Chemstry & Materials Science and Engineering, MIT, USA
1990	PhD, Department of Chemistry, KAIST, Korea

Yoonsu Park

2022-Present	Assistant Professor, Department of Chemistry, KAIST, Korea
2019-2021	Postdoc, Department of Chemistry, Princeton University, United States
2014-2019	Ph.D., Department of Chemistry, KAIST, Korea

Yunho Lee

2020	Professor, Department of Chemistry, SNU
2015	Associate Professor, Department of Chemistry, KAIST
2010	Assistant Professor, Department of Chemistry, KAIST

Kang Min Ok

Present	Professor, Department of Chemistry, Sogang University, Korea
2007	Postdoc, Department of Chemistry, University of Oxford, UK
2003	Ph.D, Department of Chemistry, University of Houston, USA

11. Recent Trends in Organometallic Materials Chemistry

Organizer : Kang Mun Lee (Kangwon National University)

Chair : Kang Mun Lee (Kangwon National University)

09:00 **INOR2-1** Exploring Photoactivities of Au(I) Complexes
Youngmin You
Chemical and Biomolecular Engineering, Yonsei University, Korea

09:25 **INOR2-2** Development of Organic Phosphorescent Materials for OLED Display
Yun-Hi Kim
Department of Chemistry, Gyeongsang National University, Korea

09:50 **INOR2-3** Earth-abundant Transition Metal Luminophores
Yoonsu Park
Department of Chemistry, Korea Advanced Institute of Science and Technology, Korea

10:15 **INOR2-4** Bioinspired Metal-Ligand Cooperative Transformation of Small Molecule
Yunho Lee
Department of Chemistry, Seoul National University, Korea

10:40 **INOR2-5** Syntheses, Structures, and Optical Properties of Homochiral Organic-Inorganic Hybrid Materials
Kang Min Ok
Department of Chemistry, Sogang University, Korea

Organizer

Sang-Il Choi

Present Professor, Department of Chemistry, Kyungpook National University, Korea
2011 Ph.D., Department of Chemistry, KAIST, Korea
2005 B.S., Department of Chemistry, Sungkyunkwan University, Korea

Chair

Intek Song

Present Associate Professor, Department of Chemical and Biological Engineering, Andong National University (ANU), Korea
2018 Ph.D., Department of Chemistry, Pohang University of Science and Technology (POSTECH), Korea
2012 B.S., Department of Materials Science and Engineering, Pohang University of Science and Technology (POSTECH), Korea

Speaker

Chang Seop Hong

Present Professor, Department of Chemistry, Korea University, Korea
2002 Postdoc, Department of Chemistry, UC Berkeley, USA
1999 Ph.D., Department of Chemistry, KAIST, Korea

Jong Wook Hong

Present Associate Professor, Department of Chemistry, University of Ulsan, Korea
2015 Ph.D, Department of Chemistry, KAIST

Seon Joon Kim

Present Senior Research Scientist, Materials Architecturing Research Center, Korea Institute of Science and Technology (KIST), Korea
2018 Postdoc, Drexel Nanomaterials Institute, Drexel University, USA
2017 Ph.D, Department of Chemical and Biomolecular Engineering, KAIST, Korea

Jongsik Park

Present Assistant Professor, Department of Chemistry, Kyonggi University, Korea
2019 Postdoc, University of Texas at Austin, USA
2018 Ph.D, Department of Chemistry, Korea University, Korea

12. Recent Trends in 2D Inorganic Materials

Organizer : Sang-Il Choi (Kyungpook National University)

Chair : Intek Song (Andong National University)

14:30 **INOR3-1** Porous organic polymers for gas separation, conductivity, and catalysis
Chang Seop Hong
Department of Chemistry, Korea University, Korea

15:00 **INOR3-2** Surface Engineering of Pt Based Ultrathin Nanosheets for Boosting Electrocatalytic Oxygen Reduction Reaction
Jong Wook Hong
Chemistry, University of Ulsan, Korea

15:25 **INOR3-3** Synthesis and chemical modulation of MXenes for electronic applications
Seon Joon Kim
Materials Architecturing Research Center, Korea Institute of Science and Technology, Korea

15:50 **INOR3-4** Heterointerface engineering of 2D nanoplates for highly efficient electrocatalysts
Jongsik Park
Department of Chemistry, Kyonggi University, Korea

Symposium

Physical Chemistry Symposium 1
April 25 (Thu), Room 401+402

Organizer

Sang-Hee Shim

2016-Present Assistant Professor, Associate Professor, Professor, Department of Chemistry, Korea University
2014-2016 Assistant Professor, Department of Biomedical Engineering, Department of Chemistry, Ulsan National Institute of Science
2008-2013 Mary Fieser Postdoctoral Fellow, Harvard University

Speaker

Zee Hwan Kim

Present Professor, Department of Chemistry, Seoul National University, Korea
2005-2013 Assistant and associated professor, Department of Chemistry, Korea University, Korea
2002 Ph. D., Department of Chemistry, Stanford University, USA

Jong-Bong Lee

Present Professor, Department of Physics, POSTECH, Korea
2007 Postdoc, BCMP, Harvard Medical School, USA
2004 Ph.D. Department of Physics, Brandeis University, Korea

Jun Soo Kim

2011-Present Professor/Associate Professor/Assistant Professor, Department of Chemistry and Nanoscience, Ewha Womans University
2009-2011 Postdoctoral Fellow, Department of Biomedical Engineering, Northwestern University

Sangsu Bae

Present Associate Professor, Department of Biochemistry and Molecular Biology, Seoul National University College of Medicine, Korea
2021 Associate Professor, Department of Chemistry, Hanyang University, Korea
2015 Assistant Professor, Department of Chemistry, Hanyang University, Korea

Jeong-Mo Choi

2020-Present Assistant Professor, Department of Chemistry, Pusan National University, Korea
2016-2019 Postdoctoral associate, Department of Biomedical Engineering, Washington University in St. Louis, USA
2011-2016 Ph.D., Department of Chemistry and Chemical Biology, Harvard University, USA

13. Physical Chemistry of Life

Organizer : Sang-Hee Shim (Korea University)

Chair : Sang-Hee Shim (Korea University)

<Award Lecture: IPJAE Physical Chemistry Award>

15:40 **PHYS1-1** Nano-plasmonics for single-molecule spectroscopy, imaging and photo-catalysis
Zee Hwan Kim
Department of Chemistry, Seoul National University, Korea

16:10 **PHYS1-2** Cellular Tunneling Nanotubes
Jong-Bong Lee
Department of Physics, Pohang University of Science and Technology, Korea

16:35 **PHYS1-3** Understanding the structure and dynamics of small circular DNA molecules by molecular simulations
Yeonho Song, **Jun Soo Kim**
Department of Chemistry and Nanoscience, Ewha Womans University, Korea

17:00 **PHYS1-4** Precise Gene Editing in Genetic Diseases
Sangsu Bae
Department of Biochemistry and Molecular Biology, Seoul National University College of Medicine, Korea

17:25 **PHYS1-5** Revisiting the stickers-and-spacers framework: what does an IDR do in biomolecular phase separation?
Jeong-Mo Choi
Department of Chemistry, Pusan National University, Korea

Organizer

Minho Kim

Present	Assistant professor, Department of Applied Chemistry, Kyung Hee University, Korea
2019	Ph.D., Department of Chemistry, KAIST, Korea
2012	B.S., Department of Chemistry, KAIST, Korea

Speaker

Yousung Jung

Present	Professor, School of Chemical and Biological Engineering, Seoul National University, Korea
2009-2023	Professor, EEWS & Chemical and Biomolecular Engineering, KAIST
2005	Ph.D, Department of Chemistry, UC Berkeley University, USA

Kyungwon Kwak

Present	professor, Department of Chemistry, Korea University, Korea
2010	postdoc, Department of Chemistry, U.C. Berkeley, USA
2008	Ph.D, Department of Chemistry, Stanford University, USA

Jong Hyeon Lee

Present	Professor, Department of Chemistry, The Catholic University of Korea, Korea
2007-2008	Postdoc, Department of Chemistry, University of Oxford, UK
2005	Ph.D, Department of Chemistry, Sungkyunkwan University, Korea

Han Seul Kim

2023.03-	Assistant Professor, Department of Advanced Materials Engineering, Chungbuk National University
2017.10-2023.02	Senior Researcher, Nanomaterials team, Korea Institute of Science and Technology Information (KISTI)
2017.03-2017.09	Post Doc. Researcher, Applied Science Research Institute, Korea Advanced Institute of Science and Technology (KAIST)

14. New Insights into the Physical Chemistry for Energy and Battery Applications

Organizer : Minho Kim (Kyung Hee University)

Chair : Minho Kim (Kyung Hee University)

<Award Lecture: Shin Kook Joe Award>

14:30 **PHYS2-1** Synthetic Planning and Predictions Enabled by AI
Yousung Jung
School of Chemical and Biological Engineering, Seoul National University, Korea

15:05 **PHYS2-2** Li+ ion transport dynamics in "water-in-salt" electrolytes for aqueous Li ion battery.
Kyungwon Kwak
Department of Chemistry, Korea University, Korea

15:30 **PHYS2-3** Exfoliated Nanosheets of Layered Metal Hydroxide as a Long-Lived and Recyclable Oxygen Evolution Electrocatalyst
Jong Hyeon Lee
Department of Chemistry, The Catholic University of Korea, Korea

15:55 **PHYS2-4** First-principles simulations toward semiconductor-based energy devices
Han Seul Kim
Department of Advanced Materials Engineering, Chungbuk National University, Korea

Symposium

Analytical Chemistry Symposium 1
April 25 (Thu), Room 103+104

Organizer

Young-Kwan Kim

Present Assistant Professor, Department of Chemistry, Dongguk University
2019 Senior Researcher, Carbon Composite Materials Research Center, Korea Institute of Science and Technology
2012 Ph. D. Department of Chemistry, KAIST, Korea

Chair

Youngbok Lee

Present Associate Professor, Department of Chemical and Molecular Engineering, Hanyang University, Korea
2014 Postdoc, Cancer Systems Imaging, M.D. Anderson Cancer Center, USA
2013 Ph.D., Department of Chemistry, Texas A&M University, USA

Speaker

Min-Duk Seo

Present Professor, College of Pharmacy & Department of Molecular Science and Technology, Ajou University, Korea
2009-2011 Postdoc, Ontario Cancer Institute, University of Toronto, Canada
2002-2008 Ph.D., College of Pharmacy, Seoul National University, Korea

Heeyong Park

Present Project Leader for Battery Materials Analysis PJT in LG Chem
2021 Ph.D. in Chemistry, RWTH Aachen University (Max Planck Institute for Chemical Energy Conversion), Germany
2006 M.S. in Biochemistry, Yonsei University, Korea

Geum-Sook Hwang

Present Vice president, Korea Basic Science Institute, Daejeon, Korea
2005 Postdoc, Harvard Medical School, Boston, Korea
1996 Ph.D, Dept. of Chemistry, KAIST, Daejeon, Korea

Youngil Lee

Present Professor, Department of Chemistry, University of Ulsan, Korea
Present Head, Chemical Industry Research Institute, University of Ulsan, Korea
Present Head, Core-facility Center at Ulsan, University of Ulsan, Korea

Ki Hun Kim

Present Principal Researcher, Doping Control Center, KIST
2011 Ph.D., Department of Chemistry, Yonsei University, Korea
2006 B.S., Department of Chemistry, Yonsei University, Korea

15. Recent Status in NMR-based Analytical Chemistry

Organizer : Young-Kwan Kim (Dongguk University)

Chair : Young-Kwan Kim (Dongguk University)

15:40 **ANAL1-1** Dynamic Nuclear Polarization: Sensitivity Boost for Magnetic Resonance Spectroscopy and Imaging
Youngbok Lee
Department of Chemical and Molecular Engineering, Hanyang University, Korea

16:00 **ANAL1-2** Inhibition of cytotoxicity of pathogenic huntingtin protein by an IP3 receptor fragment
Min-Duk Seo
College of Pharmacy, Ajou University, Korea

16:20 **ANAL1-3** NMR applications in Energy materials
Heeyong Park
Project Leader for Battery Materials Analysis PJT, LG Chem, Korea

16:40 Coffee Break

Chair : Youngbok Lee (Hanyang University)

16:50 **ANAL1-4** NMR-based metabolomic approaches in human disease research
Geum-Sook Hwang
Integrated Metabolomics Research Group, Korea Basic Science Institute, Korea

17:10 **ANAL1-5** Solid-state MAS NMR spectroscopic applications for polyanion cathode materials of Li-ion battery
Youngil Lee
Department of Chemistry, University of Ulsan, Korea

<Award Lecture: i-SENS Young Analytical Chemist Award>

17:30 **ANAL1-6** Development of multiresidue analysis for prohibited substances in antidoping analysis by liquid chromatography and mass spectrometry: for worldwide sports events
Ki Hun Kim
Analytical Chemistry, Doping Control Center, Korea Institute of Science and Technology, Korea

17:50 Analytical Chemistry Division General Meeting

Organizer

Seungah Lee

2013 - Present: Assistant Professor, Department of Applied Chemistry, Kyung Hee University, Korea

2008 - 2010: Visiting Scientist, Ames Laboratory-US Department of Energy & Iowa State University, USA

2006 - 2010: PhD. Department of Chemistry, Jeonbuk National University, Korea

Chair

Sungju Yu

Present: Assistant Professor, Department of Chemistry, Ajou University, Korea

2019: Postdoc, Department of Chemistry, UIUC, USA

2016: Ph.D, Seoul National University, Korea

Speaker

Kun Cho

Present: Principal Researcher, Korea Basic Science Institute, Korea

Kyunggon Kim

Present: Associate Professor, Department of Digitial Medicine, University of Ulsan, Korea

Present: Associate Professor, Department of Convergence Medicine, Asan Medical Center, Korea

2015: Post doctoral researcher, Department of Chemistry, Northwestern University, USA

Jin Gyeong Son

2016.08- : Senior Research Scientist, Nanobio Measurement Group, Division of Biomedical Metrology, Korea Research Institute of Standard and Science

2016.03- 2016.07: Post Doc., Nanobio Measurement Group, Division of Biomedical Metrology, Korea Research Institute of Standard and Science

2012- 2016: PhD in Chemistry, Department of Chemistry, Korea Advanced Institute of Science and Technology (KAIST)

Jin-Ha Choi

Present: Assistant Professor, School of Chemical Engineering, Jeonbuk National University, Korea

2017: Post-Doc, Department of Chemistry and Chemical Biology, Rutgers University, USA

2014: Ph.D, Department of Chemical and Biomolecular Engineering, Sogang University, Korea

Yong-Sang Ryu

Present: Professor, School of Biomedical Engineering, Korea Univ., Seoul, Korea

2016- 2023: Principal Researcher, -tCenter for Brain Technology, Korea Institute of Science and Technology (KIST), Seoul, Korea

2013- 2016: Postdoctoral researcher, -tDepartment of Electrical and Computer Engineering, University of Minnesota, Twin Cities, U.S.A

16. Recent Advances in Bioanalytical Chemistry

Organizer : Seungah Lee (Kyung Hee University)

Chair : Sungju Yu (Ajou University)

14:30 **ANAL2-1** Analysis of Aggregated Protein Structure Changes in Brain Diseases Using Ion Mobility Mass Spectrometry (IM-MS)
Kun Cho
Division of Bioconvergence Analysis, Korea Basic Science Institute, Korea

14:50 **ANAL2-2** Quantitative proteome analysis using data-independent acquisition in mass spectrometry for translational research
Kyunggon Kim
Dept. of Convergence Medicine, Asan Medical Center/University of Ulsan, Korea

15:10 Coffee Break

Chair : Seungah Lee (Kyung Hee University)

15:20 **ANAL2-3** Monitoring Lipid Distribution and Gene Regulation of Lipid Expression in the Drosophila Head of Amyotrophic Lateral Sclerosis Model using Mass Spectrometry Imaging
Jin Gyeong Son
Nanobio Measurement Group, Korea Research Institute of Standards and Science, Korea

15:40 **ANAL2-4** CRISPR-assisted plasmonic nanobiosensors for sensitive detection of disease-related biomarkers
Jin-Ha Choi
School of Chemical Engineering, Jeonbuk National University, Korea

16:00 **ANAL2-5** Chip-based fluorescent biosensing strategy measurement of model lipid membrane: ruptures and deformation.
Yong-Sang Ryu
School of Biomedical Engineering, Korea University, Korea

Symposium

Life Chemistry Symposium 1

April 25 (Thu), Room 101+102

Organizer

Ja-Hyoung Ryu

Present	Professor, Department of Chemistry, UNIST, Korea
2011	Post Doctoral Researcher, Department of Chemistry, University of Massachusetts-Amherst
2006	Ph.D. Department of Chemistry, Yonsei University, Korea

Chair

Hak Joong Kim

Present	Professor, Department of Chemistry, Korea University, Korea
2012	Post-doc, Department of Chemistry, The Scripps Research Institute, USA
2010	Ph.D., Department of Chemistry and Biochemistry, The University of Texas at Austin, USA

Youngdo Jeong

Present	Principal Research Scientist, Biomedical Research Division, Korea Institute of Science and Technology
Present	Adjunct Professor, Department of HY-KIST Bio-Convergence, Hanyang University
2014	Ph.D, Department of Chemistry, University of Massachusetts, Amherst

Speaker

Hung-wen Liu

Present	Professor, Department of Chemistry and Division of Chemical Biology and Medicinal Chemistry, College of Pharmacy, University of Texas at Austin, USA
1981	Ph.D, Department of Chemistry, Columbia University, USA
1974	B.S, Department of Chemistry, Tunghai University, Taiwan, ROC

Kwangmeyung Kim

2022-present	Distinguished Professor, College of Pharmacy, Ewha Womans University
2017-2022	Professor, KU-KIST Graduate School, Korea University
2017-2019	Head, Center for Theragnosis, KIST

Sehoon Kim

Present	Principal Research Scientist, Chemical and Bilogical Integrative Research Center, Korea Institute of Science and Technology, Korea
Present	Professor, KU-KIST Graduate School of Converging Science and Technology, Korea University, Korea

Sangyong Jon

2012-Present	Professor, Department of Biological Sciences, KAIST
2004	Postdoc, Department of Chemical Engineering, MIT
1999	Ph.D., Department of Chemistry, KAIST

Yan Lee

Present	Professor, Department of Chemistry, Seoul National University
2005-2009	Postdoc and Project Assistant Professor, the University of Tokyo
2005	Ph.D, Department of Chemistry, Seoul National University

17. Recent Advances in Disease-Targeted Drug Delivery System

Organizer : Ja-Hyoung Ryu (UNIST)

Chair : Hak Joong Kim (Korea University)

15:40 **LIFE1-1** Mechanistic Studies of the Radical SAM enzyme OxsB in Oxentanocin A Biosynthesis
Hung-wen Liu
University of Texas at Austin, United States

Chair : Ja-Hyoung Ryu (UNIST)

16:10 **LIFE1-2** Cancer-specific Prodrug Nanoparticles for Cancer Treatment
Kwangmeyung Kim
College of Pharmacy, Ewha Womans University, Korea

16:35 **LIFE1-3** Multiscale and Hierarchical Assembly for Advanced Photomedicine
Sehoon Kim
Principal Research Scientist, Chemical and Bilogical Integrative Research Center Korea Institute of Science and Technology, Korea

Chair : Youngdo Jeong (KIST)

17:00 **LIFE1-4** Glycocalyx-mimicking nanoparticles for cell and tissue-selective drug delivery
Sangyong Jon
Department of Biological Sciences, Korea Advanced Institute of Science and Technology, Korea

17:25 **LIFE1-5** pH-responsive peptides for selective drug delivery
Yan Lee
Division of Chemistry, Seoul National University, Korea

Organizer

Hyun Kyu Song

Present	Professor, Division of Life Sciences, Korea University, Korea
2003	Postdoc, Department of Biological Chemistry and Molecular Pharmacology, Harvard Medical School, USA
1997	PhD, Department of Chemistry, Seoul National University, Korea

Speaker

In-Gyun Lee

2024.03-Present	Assistant professor, College of Pharmacy, Seoul National University
2019-2024.2	Senior research scientist, KIST

Tae Su Choi

Present	Assistant Professor, Division of Life Sciences, Korea University, Korea
2019-2023	Postdoctoral Researcher, Departent of Chemistry and Biochemistry, University of California, San Diego, United States
-2019	Assistant Research Professor, Department of Chemistry, Korea University, Korea

Hyoun Sook Kim

2016.03-present	Senior Scientist, Targeted Therapy Branch, National Cancer Center, Korea
2015.09-2016.02	Research Professor, College of Pharmacy, Seoul National University, Korea
2012.08-2015.08	Senior Researcher, College of Pharmacy, Seoul National University, Korea

Minkyung Kim

Present	Assistant Professor, College of Pharmacy, Gachon University, Korea
2017	Ph.D, Biochemistry, Korea University, Korea
2010	B.S, Chemistry / Biotechnology, Korea University, Korea

18. Recent Trends in Structural Biochemical Research

Organizer : Hyun Kyu Song (Korea University)

Chair : Hyun Kyu Song (Korea University)

09:00 **LIFE2-1** Polymorphic self assembly of DegQ protein inspired by Origami strategies
In-Gyun Lee
College of Pharmacy, Seoul National University , Korea

09:30 **LIFE2-2** Metal Binding Proteins with Metal Selectivity or Enzymatic Activity
Tae Su Choi
Division of Life Sciences, Korea University, Korea

10:00 **LIFE2-3** Structural Basis for Rab1 Glucosylation by Legionella SetA on the Early Legionella-Containing Vacuole
Hyoun Sook Kim
Targeted Therapy Branch, National Cancer Center, Korea

10:30 **LIFE2-4** Understanding the structural basis of Mutipass membrane protein biogenesis
Minkyung Kim
College of Pharmacy, Gachon University, Korea

Symposium

Organic Chemistry Symposium 1
April 25 (Thu), Room 304+305+306

Organizer

Jeung Gon Kim

Present Associate Professor, Department of Chemistry, Jeonbuk National University, Korea
2005 Ph.D. Department of Chemistry, University of Pennsylvania, USA
2001 B.S. Department of Chemistry, KAIST, Korea

Speaker

Hajime Ito

2022 Distinguished Professor, Hokkaido University
2010 Professor, Hokkaido University
1996 Ph. D., Department of Synthetic Chemistry and Biological Chemistry, Kyoto University

Mu-Hyun Baik

Present Professor, Department of Chemistry, KAIST
Present Associate Director, IBS-Center for Catalytic Hydrocarbon Functionalizations
2000 Ph.D., Department of Chemistry, University of North Carolina Chapel Hill

Erick M. Carreira

Present Professor, The Organic Chemistry Laboratory of the ETH Zurich
1992-1998 Professor, California Institute of Technology
1990 Ph.D. Harvard University

19. Leading Research Symposium on Organic Chemistry

Organizer : Jeung Gon Kim (Jeonbuk National University)

Chair : Jeung Gon Kim (Jeonbuk National University)

09:15 **ORGN1-1** Mechanochemistry for efficient organic synthesis: Our latest study
Hajime Ito
Hokkaido University, Japan

09:50 **ORGN1-2** Progress towards using the electro-inductive effect to control organic reactions.
Mu-Hyun Baik
Department of Chemistry, Korea Advanced Institute of Science and Technology, Korea

10:25 **ORGN1-3** New Strategies and Tactics in Natural Products Synthesis
Erick M. Carreira
The Organic Chemistry Laboratory of the ETH-Zürich, Zürich, Switzerland

Symposium

Organic Chemistry Symposium 2
April 26 (Fri), Room 304+305+306

Organizer

Jung Min Joo

Present Professor, Department of Chemistry, Kyung Hee university
2008 PhD, Department of Chemistry, Princeton University, USA
2001 BS, Department of Chemistry, Seoul National University, Korea

Speaker

Yong Seok Kwon

Present Assistant Professor, School of Pharmacy, Sungkyunkwan University, Korea
2019 Postdoc, Department of Chemistry, Yale University, USA
2016 Ph. D, College of Pharmacy, Seoul National University

Seo-Jung Han

Present Senior Researcher, Korea Institute of Science and Technology, Korea
2017 Postdoc, College of Chemistry, University of California, Berkeley, USA
2016 Ph.D, Division of Chemistry and Chemical Engineering, Caltech, USA

Jongwoo Son

2020-Present Department of Chemistry and Department of Chemical Engineering (BK21 FOUR Graduate Program), Dong-A University

Yong Rok Lee

Present Professor, School of Chemical Engineering, Yeungnam University, Korea

20. Current Trends in Organic Chemistry

Organizer : Jung Min Joo (Kyung Hee University)

Chair : Jung Min Joo (Kyung Hee University)

09:00 **ORGN2-1** Catalytic Control of Atropisomerism through Dynamic Kinetic Resolution
Yong Seok Kwon
School of Pharmacy, Sungkyunkwan University, Korea

09:30 **ORGN2-2** *Ortho*-heteroatom-substituted aryl phosphorus compounds by three-component coupling reactions
Seo-Jung Han
Chemical and Biological Integrative Research Center, Korea Institute of Science and Technology, Korea

10:00 **ORGN2-3** Copper-Mediated Preparation of N-Aryl Amides from Dioxazolones with Arylboronic Acids
Jongwoo Son
Department of Chemistry, Dong-A University, Korea

10:30 **ORGN2-4** Construction of Biologically Interesting Aromatics via Benzannulation
Yong Rok Lee
School of Chemical Engineering, Yeungnam University, Korea

Symposium

Organic Chemistry Symposium 3

April 26 (Fri), Room 304+305+306

Organizer

Min Su Han

Present Professor, Department of Chemistry, GIST, Korea

2003 Department of Chemistry, POSTECH. Korea

1994 Department of Chemistry, POSTECH. Korea

Chair

Min Hee Lee

2024.03 Associate professor, Department of Chemistry, Cung-Ang University, Korea

2015.03 Assistant-Associate professor, Department of Chemistry, Sookmyung Woman's University, Korea

2012.10 Postdoctoral Fellow, The University of Texas at Austin, Chemistry, USA

Speaker

Sunbum Kwon

Present Associate Professor, Department of Chemistry, Chung-Ang University

2022 Assistant Professor, Department of Chemistry, Chung-Ang University

2018 Research Fellow, Department Pharmazie, Ludwig-Maximilians-Universitu00e4t Mu00fcnchen

Sung Kuk Kim

Present Professor, Department of Chemistry, Gyeongsang National University, Korea

Eunha Kim

Present Associate Professor, Department of Molecular Science and Technology, Ajou University, Korea

2012 Post-Doctoral Researcher, Center for Systems Biology, Harvard Medical Schoo/MGH, USA

2011 Ph.D., Department of Chemistry, Seoul National University, Korea

Jun-Seok Lee

Present Associate Professor, Department of Pharmacology, Korea University, Korea

2010-2021 Principal/Senior/Research Scientist, Korea Institute of Science and Technology, Korea

2013-2021 Associate/Assistant Professor, KIST School-UST, Korea

21. Current Trends in Chemosensors

Organizer : Min Su Han (GIST)

Chair : Min Hee Lee (Chung-Ang University)

14:30 **ORGN3-1** Chemically fueled dissipative oligoester library
Sunbum Kwon
Department of Chemistry, Chung-Ang University, Korea

14:55 **ORGN3-2** Macrocyclic ion pair receptors for the extraction of lithium salts
Sung Kuk Kim
Department of Chemistry, Gyeongsang National University, Korea

15:20 **ORGN3-3** Indolizine-based fluorescent compound arrays for machine learning-assisted chemical sensing
Eunha Kim
Department of Molecular Science and Technology, Ajou University, Korea

15:45 **ORGN3-4** Dis/aggregation dependent fluorescent chemosensors for bioimaging applications
Jun-Seok Lee
Department of Pharmacology, Korea University, Korea

Organizer

Chun Young Im

Present Principal Researcher, Medicinal Chemistry, New Drug Development Center, K-MEDI hub

2007 Ph D, Department of Material Science, University of Hyogo, Japan

Chair

Ji Hoon Lee

Present Head of Medichem Department, K-MEDI hub, New Drug Development Center

Speaker

Taebo Sim

2020-Present Prof. Department of Biomedical Sciences, Chair Graduate School of Clinical Drug Discovery & Development, Yonsei University College of Medicine / Director of Clinical Candidate Discovery & Development Institute, Yonsei University, Korea

2007-2019 Senior Principal Scientist-Head of Chemical Kinomics Research Center, KIST / Prof. KU-KIST graduate school, Korea University, Korea

2002-2006 Principal Investigator, Novartis at San Diego, US

Sang Hyun Min

2024 Professor, Department of Innovative Pharmaceutical Sciences, Kyungpook University, Korea

2012 Research Fellow, BIDMC, Harvard Medical School, USA

2007 Ph D. Department of Biological Science, KAIST, Korea

Kyuwan Kim

2015-Present SVP, Drug Development Unit, Alteogen, Korea

1993-2015 Senior Research Scientist, Biotech Research Institute, LG Chemicals (LG Life Sciences), Korea

Kwang-Su Park

Present Assistant Professor, College of Pharmacy, Keimyung University, Korea

2017 Postdoc, Department of Pharmacological Science, Icahn School of Medicine at Mount Sinai, USA

2014 Ph.D, Department of Bioscience and Biotechnology, Konkuk University, Korea

22. The Cutting Edge of Medicinal Chemistry

Organizer : Chun Young Im (K-MEDI hub)

Chair : Ji Hoon Lee (K-MEDI hub)

15:40 **MEDI1-1** Novel TPD Selectively Targeting KRAS-G12D Mutant
Taebo Sim*, Eunhye Jeon, Chan Kim
Biomedical Sciences / Graduate School of Medical Science, Brain Korea 21 Project, Yonsei University College of Medicine, Korea

16:10 **MEDI1-2** Discovery of novel anti-cancer candidate targeting Pin1 isomerase
Sang Hyun Min
Department of Innovative New Drug, Kyungpook National University, Korea

16:40 **MEDI1-3** Novel Recombinant Human Hyaluronidase
Kyuwan Kim
New Drug Development, Alteogen, Inc., Korea

17:10 **MEDI1-4** Discovery of PROTACs; Turning undruggable targets into druggable targets
Kwang-Su Park
College of Pharmacy, Keimyung University, Korea

Symposium

Medicinal Chemistry Symposium 2

April 26 (Fri), Room 301+302

Organizer

Eun-Kyoung Bang

Present	Senior Researcher, Center for Brain Technology, Korea Institute of Science and Technology, Korea
2013	Postdoc, University of Geneva, Switzerland
2010	Ph.D, Department of Chemistry, POSTECH, Korea

Chair

Ki Tae Kim

Present	Assistant Professor, Department of Chemistry, Chungbuk National University, Korea
2015	Ph. D, Department of Chemistry, Pohang University of Science and Technology, Korea
2009	B.S, Department of Chemistry, Pohang University of Science and Technology, Korea

Speaker

Jinha Yu

Present	Assistant Professor, College of Pharmacy, Ewha Womans University, Korea
2019-2021	Senior Researcher, Biomedical Research Division, KIST, Korea
2016-2017	Post-Doc, NIDDK, NIH, USA

Young Jun Seo

Present	Department of Chemistry, Jeonbuk National University, Korea
2012	Postdoc, Department of Chemistry, The Scripps Research Institute(TSRI), USA
2006	PhD, Department of Chemistry, POSTECH, Korea

Dong-ki Lee

2010-Present	CEO, OliX Pharmaceuticals, Korea
2008-Present	Professor, Department of Chemistry, Sungkyunkwan University, Korea
2004-2008	Assistant Professor, Department of Chemistry, POSTECH, Korea

Kayeong Lim

Present	Senior researcher, Brain Science Institute, Korea Institute of Science and Technology (KIST), Korea
2022	Research Fellow, Institute for Basic Science (IBS), Korea
2019	Ph.D. Department of Chemistry, Seoul National University, Korea

23. Recent Trends in Drug Discovery Based on Nucleosides and Nucleic Acids

Organizer : Eun-Kyoung Bang (KIST)

Chair : Ki Tae Kim (Chungbuk National University)

09:00 **MEDI2-1** Exploring the Therapeutic Potential of Modified Nucleosides, including 4'-Selenonucleosides

Jinha Yu

College of Pharmacy and Graduate School of Pharmaceutical Sciences, Ewha Womans University, Korea

09:30 **MEDI2-2** A novel mRNA platform utilizing modified nucleotides

Young Jun Seo

Department of Chemistry, Jeonbuk National University, Korea

10:00 **MEDI2-3** Therapeutic Development using Chemically Modified Asymmetric siRNAs

Dong-ki Lee

Department of Chemistry, Sungkyunkwan University / CEO, OliX Pharmaceuticals, Korea

10:30 **MEDI2-4** Precise Genome Engineering: from Nucleus to Mitochondria

Kayeong Lim

Brain Science Institute, Korea Institute of Science and Technology (KIST), Korea

Symposium | Material Chemistry Symposium 1
April 25 (Thu), Room 407+408

Organizer

Min Hyung Lee

Present Professor, Department of Applied Chemistry, Kyung Hee University, Korea
2012 Postdoc, Department of EECS, University of California, Berkeley, USA
2010 Ph. D, Department of Chemistry, Northwestern University, USA

Chair

Myung Jun Kim

Present Assistant Professor, School of Chemical Engineering, Sungkyunkwan University, Korea
2013 Ph. D. School of Chemical and Biological Engineering, Seoul National University, Korea
2007 B.S. School of Chemical and Biological Engineering, Seoul National University, Korea

Speaker

Christopher W. Jones

2021-Present John F. Brock III School Chair and Professor of Chemical & Biomolecular Engineering, Georgia Institute of Technology, USA
2008-Present Professor, Chemical & Biomolecular Engineering, Georgia Institute of Technology, USA
2005-2008 Associate Professor, Chemical & Biomolecular Engineering, Georgia Institute of Technology, USA

Chang Hyuck Choi

Present Associate Professor, Department of Chemistry, POSTECH, Korea
2016 Postdoc, Max-Planck-Institut für Eisenforschung, Germany
2012 Ph.D., Department of Chemical and Biomolecular Engineering, KAIST, Korea

Hyung-Suk Oh

2017-Present Principal Researcher, Clean Energy Research Center, Korea Institute of Science and Technology, Korea
2022-Present Adjunct Professor, Carbon Neutral Research Center, KIST-SKKU
2012-2017 Postdoc Researcher, Technical University of Berlin

Young Jin Sa

Present Assistant Professor, Department of Chemistry, Kwangwoon University, Korea
2018 Ph.D, Department of Chemistry, UNIST, Korea
2013 B.S, School of Nano-Biotechnology and Chemical Engineering, UNIST, Korea

24. Current Trends in Materials Chemistry for Electrochemical and Photochemical Catalyst

Organizer : Min Hyung Lee (Kyung Hee University)

Chair : Myung Jun Kim (Sungkyunkwan University)

<Special Lecture>

15:30 **MAT1-1** Single-Walled Zeolite Nanotubes: Discovery, Structure, Application
Christopher W. Jones
School of Chemical & Biomolecular Engineering, Georgia Institute of Technology, United States

16:10 **MAT1-2** A step forward for better electrocatalysis through understanding of interfacial chemistry
Chang Hyuck Choi
Department of Chemistry, Pohang University of Science and Technology, Korea

16:35 **MAT1-3** e-Chemical production by CO_2 electrolysis
Hyung-Suk Oh
Clean Energy Research Center, Korea Institute of Science and Technology, Korea

17:00 **MAT1-4** Role of Interfacial Species in Electrochemical H_2O_2 Production
Young Jin Sa
Department of Chemistry, Kwangwoon University, Korea

17:25 Material Chemistry Division General Meeting

Symposium

Material Chemistry Symposium 2

April 26 (Fri), Room 407+408

Organizer

Myung-Gil Kim

Present	Associate Professor, School of Advanced Materials Science & Engineering, Sungkyunkwan University
2019	Associate Professor, Department of Chemistry, Chung-Ang University
2014	Post-Doc., Department of Chemical Engineering, Stanford University

Chair

Hongje Jang

Present	Associate professor, Department of Chemistry, Kwangwoon University, Korea
2015	Postdoc, Department of Chemistry and Biochemistry, Georgia Institute of Technology, USA
2013	Ph.D, Department of Chemistry, KAIST, Korea

Speaker

Seon Joo Lee

2016-Present	Senior Researcher, KRICT
2015-2016	Post. Doc., KRICT
2009-2014	Ph.D, Department of Chemistry, KAIST, Korea

Young-Geun Ha

Present	Professor, Department of Chemistry, Kyonggi University, Korea
2011	Ph.D, Department of Chemistry, Northwestern University, USA

Jung Ho Yoon

Present	Assistant Professor, Department of Advanced Materials Science & Engineering, Sungkyunkwan University, Korea
2020-2024	Senior Research Scientist, Electronic Materials Research Center, KIST, Korea
2015	Ph.D, Materials Science & Engineering, Seoul National University, Korea

Jiheong Kang

Present	Associate Professor, Department of Materials Science and Engineering, KAIST, Korea
2017	Ph.D, Department of Chemistry, University of Tokyo, Japan
2012	B.S, Department of Chemistry, Seoul National University, Korea

25. Emerging Semiconductors for Electronic Applications

Organizer : Myung-Gil Kim (Sungkyunkwan University)

Chair : Hongje Jang (Kwangwoon University)

09:00 **MAT2-1** Composition and Ligand Engineering of Metal Halide Perovskite Nanocrystals for Efficient and Stable Light-Emitting Diodes

Seon Joo Lee*, Jaemin Lee[1]

Korea Research Institute of Chemical Technology, Korea

[1]Advanced Materials Division, Korea Research Institute of Chemical Technology, Korea

09:30 **MAT2-2** Electrolyte-Gated Transistors in Biosensor Applications for Early Disease Diagnosis

Young-Geun Ha

Department of Chemistry, Kyonggi University, Korea

10:00 **MAT2-3** Oxide Memristor Research for Bio-inspired Computing Applications

Jung Ho Yoon

Advanced Materials Science & Engineering, Sungkyunkwan University, Korea

10:30 **MAT2-4** Designer electronic materials for soft electronics

Jiheong Kang

Department of Materials science and engineering, Korea Advanced Institute of Science and Technology, Korea

Organizer

Jin Kuen Park

Present Associate Professor, Department of Chemistry, Hankuk University of Foreign Studies, Korea
2012 Ph.D., Department of Chemistry and Biochemistry, University of California Santa Barbara, USA
2002 B.S., Department of Chemistry, Korea University, Korea

Chair

Seok Min Yoon

Present Associate Professor, Department of Chemistry, Gyeongsang National University, Korea
2009 Ph.D. Department of Chemistry, POSTECH, Korea
2004 B.S. Chungnam National University

Speaker

Changbum Jo

Present Associate Professor, Department of Chemistry, Inha University, Korea
2018 Research Fellow, IBS
2013 Ph. D. Department of Chemistry, KAIST, Korea

Haneul Jin

Present Assistant Professor, Department of Energy and Materials Engineering, Dongguk University, Korea
2022 Postdoc, Hydrogen/Fuel Cell Research Center, Korea Institute of Science and Technology, Korea
2019 Ph.D, Department of Chemistry, Korea University, Korea

Youngtak Oh

Present Principle Research Scientist, Center for Sustainable Environment Research, Korea Institute of Science and Technology, Korea
2012 Ph.D, Department of Chemistry, Northwestern University, USA
2007 B.S, Department of Chemistry, Loyola University New Orleans, USA

Hae Sung Cho

Present Assistant Professor, Department of Chemistry, Chung-Ang University, Korea

26. Current Trends in Materials Chemistry for Porous Materials

Organizer : Jin Kuen Park (Hankuk University of Foreign Studies)

Chair : Seok Min Yoon (Gyeongsang National University)

14:30 **MAT3-1** Supporting Metal Nanoparticles within Zeolites and Their Analogues
Changbum Jo
Center for Nanomaterials and Chemical Reactions, Inha University, Korea

15:00 **MAT3-2** Hollow Metal Ceramic Electrocatalysts for Enhanced Ammonia and Hydrogen Production
Haneul Jin
Department of Energy and Materials Engineering, Dongguk University, Korea

15:30 **MAT3-3** Inorganic defective architectures for environmental sustainability disruptors remediation
Youngtak Oh
Center for Sustainable Environment Research, Korea Institute of Science and Technology (KIST), Korea

16:00 **MAT3-4** Understanding adsorption of functional porous materials
Hae Sung Cho
Department of Chemistry, Chung-Ang University, Korea

Symposium

Electrochemistry Symposium 1
April 25 (Thu), Room 105+106

Organizer

Seung Joon Yoo

Present	Associate Professor, School of Materials Science and Engineering, GIST, Korea
2014	Ph.D, Department of Chemistry and Biochemistry, UC Santa Barbara

Speaker

Jaegeon Ryu

Present	Assistant Professor, Department of Chemical & Biomolecular Engineering, Sogang University, Korea
2022	Post-doc., Pacific Northwest National Laboratory
2018	Ph.D., School of Energy and Chemical Engineering, UNIST

Dong-Joo Yoo

2022.03-	Assistant Professor, Department of Mechanical Engineering, Korea University, Korea
2021.04-2022.02	Postdoctoral Research Associate, Argonne National Laboratory, USA

Hee-Tak Kim

Present	Professor, Department of Chemical and Biomolecular Engineering, KAIST, Korea
1999	Ph.D, Department of Chemical Engineering, KAIST, Korea

Junyoung Mun

present	Associate professor, Department of Advanced Materials Science and Engineering, Sungkyunkwan University, Korea
2022	Assistant/Associate Professor, Department of Energy and Chemical Engineering, Incheon National University, Korea
2010	Ph.D, Department of Chemical and Biological Engineering, Seoul National University, Korea

Hongkyung Lee

2019-Present	Assistant/Associate Professor, Department of Energy Science and Engineering, DGIST, Korea
2017-2019	Postdoc, Pacific Northwest National Laboratory (PNNL), USA
2016	Postdoc, KAIST, Korea

27. Research Progress in Stable Electrolyte/Electrode Interface for Energy Storage Systems

Organizer : Seung Joon Yoo (GIST)

Chair : Seung Joon Yoo (GIST)

15:40 **ELEC1-1** Interface Adhesives for Battery Electrodes
Jaegeon Ryu
Department of Chemical and Biomolecular Engineering, Sogang University, Korea

16:05 **ELEC1-2** Design and analysis of advanced electrolytes for low temperature and fast charging lithium-ion batteries
Dong-Joo Yoo
School of Mechanical Engineering, Korea University, Korea

16:30 **ELEC1-3** Interfacial chemistry for advanced lithium metal batteries
Hee-Tak Kim
Department of Chemical and Biomolecular Engineering, KAIST, Korea

16:55 **ELEC1-4** Different Surface Dynamics of LiCoO2 by Cathode Electrolyte Interface and Artificial Layer across Potential Conditions
Junyoung Mun
Department of Advanced Materials Science and Engineering, Sungkyunkwan University, Korea

17:20 **ELEC1-5** Reshaping Li+ Microenvironment and Interfaces for Safer, Faster Charging Li-ion Batteries
Hongkyung Lee
Department of Energy Science and Engineering, Daegu Gyeongbuk Institute of Science & Technology, Korea

17:45 Electrochemistry Division General Meeting

Symposium

Electrochemistry Symposium 2

April 26 (Fri), Room 105+106

Organizer

Seung-Ryong Kwon

Present Assistant Professor, Department of Chemistry, Gyeongsang National University, Korea

2021 Postdoc, Department of Chemical and Biomolecular Engineering, University of Notre Dame

2016 Ph.D, Department of Chemistry, Seoul National University, Korea

Speaker

Je Hyun Bae

Present Associate Professor, Graduate School of Analytical Science and Technology, Chungnam National University, Korea

2015 Postdoc. Department of Chemistry, Queens College-The City University of New York, United States

2013 Ph.D. Department of Chemistry, Seoul National University, Korea

Hong Chul Lim

2021-Present Assistant Professor, Department of Pharmaceutics and Biopharmacy, Sangji University, Korea

2018 Ph. D. Department of Chemistry, Seoul National University, Korea

2004 B.S. Department of Chemistry, Sangji University, Korea

Yang-Rae Kim

2016 Associate Professor, Department of Chemistry, Kwangwoon University, Korea

2012 Postdoc, Department of Chemistry, The University of Warwick, United Kingdom

2010 Ph.D. Department of Chemistry, Seoul National University, Korea

Ik-Soo Shin

Present Associate Professor, Department of Chemistry, Soongsil University, Korea

Present Chief Executive Officer, Graphenide Technology, Inc., Korea

Present Chief Technology Officer, Elips Diagnostics, Inc., Korea

28. Recent Trends in Fundamental Electrochemistry

Organizer : Seung-Ryong Kwon (Gyeongsang National University)

Chair : Seung-Ryong Kwon (Gyeongsang National University)

09:00 **ELEC2-1** Nanoporous Electrochemistry

Je Hyun Bae

Graduate School of Analytical Science and Technology (GRAST), Chungnam National University, Korea

09:30 **ELEC2-2** Application of ionic complexes based on multivalent carbon dot anions in electrochemical systems

Hong Chul Lim[*], Tae Hyun Kim[1,*]

Department of Fine Chemical New Material, Sangji University, Korea

[1]*Department of Chemistry, Soonchunhyang University, Korea*

10:00 **ELEC2-3** Electrochemical Innovative Platform for Smart Farming: Ion Selective Electrodes

Yang-Rae Kim

Department of Chemistry, Kwangwoon University, Korea

10:30 **ELEC2-4** Development of real-world diagnostic devices using electrochemiluminescence analysis

Ik-Soo Shin

Department of Chemistry, Soongsil University, Korea

Symposium

Chemistry Education Symposium
April 25 (Thu), Room 404

Organizer

Dae Hong Jeong
Present Professor, Department of Chemistry Education, Seoul National University

Chair

Wonho Choi
Present Professor, Department of Chemistry Education, Sunchon National University, Korea

Speaker

Sung Geun Kim
Present Professor, Department of Chemistry Education, Cheongju National University of Education, Korea

Jeongho Cha
Present Department of Chemistry Education, Daegu University, Korea
2003 Ph.D. Department of Science Education, Seoul National University
1996 B.S. Department of Chemistry Education, Seoul National University

Jeongwoo Son
Present Professor, Department of Physics Education, Geyongsang National University, Korea
2000 Ph.D, Department of Physics Education, Seoul National University, Korea
1996 B.S, Department of Physics Education, Seoul National University, Korea

29. Current Trends in Chemistry Education

Organizer : Dae Hong Jeong (Seoul National University)

Chair : Wonho Choi (Sunchon National University)

15:40 **EDU-1** Challenges of teacher training colleges following changes in educational paradigm during transition period
Sung Geun Kim
Department of Chemistry Education, Cheongju National University of Education, Korea

16:00 **EDU-2** Challenges and Responses in University Chemistry Education during an Era of Rapid Population Decline: The Case of Regional Private University
Jeongho Cha
Department of Chemistry Education, Daegu University, Korea

16:20 Coffee Break

16:40 **EDU-3** Challenges and Responses of the Department of Physics Education for Career Diversification: The Case of a Regional National University
Jeongwoo Son
Department of Physics Education, Gyeongsang National University, Korea

17:00 **EDU-4** Concerns and alternatives on institution identity among research-oriented university and teacher training university in the era of population cliff
Dae Hong Jeong
Department of Chemical Education, Seoul National University, Korea

Organizer

Hyunwoong Park

Present Professor, School of Energy Engineering, Kyungpook National University
2008 Postdoc, Environmental Science and Engineering, California Institute of Technology
2004 Ph.D, School of Environmental Science and Engineering, Pohang University of Science and Technology

Speaker

MinJoong Kim

Present Principal Researcher, Hydrogen Research Department, Korea Institute of Energy Research, Korea
2017 Postdoc, cMACS, KU Leuven, Belgium
2013 Ph.D, Department of Materials Science and Engineering, KAIST, Korea

Kangwoo Cho

Present Professor, Division of Environmental Science and Engineering, POSTECH, Korea
2015 Ph.D, Environmental Science and Engineering, CALTECH, USA
2004 B.S, Seoul National University, Korea

Sang Hoon Joo

2004 PhD, Department of Chemistry, KAIST, Korea
2007-2009 Postdoc, Univ. California, Berkeley, USA
Present Professor, Department of Chemistry, Seoul National University, Korea

Youngsik Kim

Present Professor, Department of Energy and Chemical Engineering, UNIST, Korea
Present Director, Seawater Resource Technology Center, UNIST, Korea
Present Director, Innotown Nurturing Center, UNIST, Korea

30. Seawater Electrolysis Nexus Technologies

Organizer : Hyunwoong Park (Kyungpook National University)

Chair : Hyunwoong Park (Kyungpook National University)

15:30 **ENVR1-1** Multi-metal layered double hydroxides for alkaline oxygen evolution reaction under dynamic operation
MinJoong Kim
Hydrogen Research Department, Korea Institute of Energy Research, Korea

16:00 **ENVR1-2** Electrolysis of seawater blended with wastewater for decentralized water reuse and hydrogen production.
Kangwoo Cho
Division of Environmental Engineering, Pohang University of Science and Technology, Korea

16:30 **ENVR1-3** Atomically Dispersed Metal Catalysts Steering Selective Electrocatalysis of Chlorine Production
Sang Hoon Joo
Department of Chemistry, Seoul National University, Korea

17:00 **ENVR1-4** Seawater to Resource Technology using NASICON Solid Electrolyte
Youngsik Kim
Energy and Chemical Engineering/Battery Science and Technology, Ulsan National Institute of Science and Technology, Korea

17:30 **ENVR1-5** Desalination-coupled seawater electrolysis
Hyunwoong Park
School of Energy Engineering, Kyungpook National University, Korea

Symposium

Environmental Energy Symposium 2

April 26 (Fri), Room 403

Organizer

Yosep Han

Present	Principal Researcher, KIGAM, Korea
2015	Postdoc. Dep. of Chem. & Environ. Eng., UC-Riverside, USA
2013	Ph.D., Dep. Of Res. & Environ. Eng., Hanyang Univ., Korea

Speaker

Seongsoo Han

Present /2022	Senior researcher, Korea Institute of Geoscience & Mineral Resources (KIGAM)
2020-2022	Department of Chemical and Biomolecular Engineering, Korea Advanced Institute of Science and Technology (KAIST)
2015-2020	Ph.D, Department of Earth Resources and Environmental Engineering, Hanyang University

Siyoung Choi

Present	Associate Professor, Department of Chemical and Biomolecular Engineering, KAIST

Youngjae Kim

2023-Present	Assistant professor, Inha university
2016-2023	Senior researcher, KIGAM
2015-2016	Manager, LG Chem

31. Recent Advances in Closed-loop Waste Plastics

Organizer : Yosep Han (KIGAM)

Chair : Yosep Han (KIGAM)

09:00 **ENVR2-1** Separation of waste PVC/PET plastics using froth flotation with selective modification

Seongsoo Han

Mineral Processing & Metallurgy Research Center, Resources Utilization Division, Korea Institute of Geoscience and Mineral Resources, Korea

09:30 **ENVR2-2** Small water droplet removal from pyrolysis oil

Siyoung Choi

Department of Chemical and Biomolecular Engineering, Korea Advanced Institute of Science and Technology, Korea

10:00 **ENVR2-3** The policy and technical trend of incineration in waste plastic treatment for circular economy

Youngjae Kim

Materials Science and Engineering, Inha University, Korea

10:30 **ENVR2-4** Technology trends to establish a closed-loop system for upcycling of waste plastics: Physical treatment perspective

Yosep Han

Resource Utilization Division, Korea Institute of Geoscience and Mineral Resources, Korea

Organizer

Byungjin Koo

Present Assistant Professor, Polymer Science and Engineering, Dankook University, Korea
2017 Ph.D., Materials Science and Engineering, Massachusetts Institute of Technology, USA
2012 B.S., Materials Science and Engineering, Seoul National University, Korea

32. Oral Presentation for Young Polymer Scientists

Organizer : Byungjin Koo (Dankook University)

Chair : Byungjin Koo (Dankook University)

09:00 **POLY.O-1** Synthesis and Characterization of a Cross-Linked Ionic Liquid Polymer Incorporating Piperazinium-Tf_2N
JongChan Shin, Minjae Lee[1,*]
Kunsan National University, Korea
[1]*Department of Chemistry, Kunsan National University, Korea*

09:15 **POLY.O-2** Highly Effective Polymerization of Propylene Oxide and CO_2 Using Ultra Thin Zn-gallate
Kihyuk Sung, Hye-Young Jang[1,*]
Department of Energy Systems Research, Ajou University, Korea
[1]*Department of Chemistry, Ajou University, Korea*

09:30 **POLY.O-3** Anion exchange membrane with an interstitial alkyl chain in the conducting group and backbone for superior durability of water electrolyzer : from single cell to large cell stack
Haeryang Lim, Wooteak Jung, Taiho Park[1,*]
Department of Chemical engineering, Pohang University of Science and Technology, Korea
[1]*Department of Chemical Engineering, Pohang University of Science and Technology, Korea*

09:45 **POLY.O-4** Designing Degradable Polymers from Tricycloalkenes via Complete Cascade Metathesis Polymerization
Tae-Lim Choi*, **Yongkang Yang**[1]
Division of Chemistry, Seoul National University, Korea
[1]*Department of Materials, ETH Zürich, Switzerland*

10:00 **POLY.O-5** Dynamic Crosslinking Effects on Thermal Behavior and Strain Sensitivity of CNT Composite Materials: A Systematic Analysis
Gyeonghyeon Choi, Chiyoung Park
Department of Energy Science and Engineering, Daegu Gyeongbuk Institute of Science & Technology, Korea

10:15 **POLY.O-6** Rational Design and Synthesis of Biodegradable Filler-Reinforced Networks for Superabsorbent Polymers
Young-Ho Kim, Myungeun Seo
Department of Chemistry, Korea Advanced Institute of Science and Technology, Korea

10:30 **POLY.O-7** Topological Influence of Polyglycerols on Ice Recrystallization Inhibition Dynamics
Aram Shin, Byeong-Su Kim
Department of Chemistry, Yonsei University, Korea

10:45 **POLY.O-8** Homogeneous Macromolecular Networks by End-to-End Click Chemistry between Discrete Tetrahedral Star Macromolecules
Mo Beom Koo, Jae Hak Lee, HeeJeong Jang[1], Kyoung Taek Kim[2,*]
Chemistry, Seoul National University, Korea
[1]*Seoul National University, Korea*
[2]*Division of Chemistry, Seoul National University, Korea*

Organizer

Jin Yeong Kim

Present Assistant Professor, Department of Chemistry Education, Seoul National University, Korea
2021 Postdoc, Department of Chemistry and Biochemistry, University of California, San Diego, USA
2019 Ph.D, Department of Chemistry, UNIST, Korea

Seung Jun Hwang

Present Assistant Professor, Department of Chemistry, POSTECH, Korea
2018 Ph.D, Department of Chemistry and Chemical Biology, Harvard University, USA
2007 B.S, Department of Chemistry, KAIST, Korea

33. Oral Presentation of Young Scholars in Inorganic Chemistry

Organizer : Jin Yeong Kim (Seoul National University), Seung Jun Hwang (POSTECH)

Chair : Jin Yeong Kim (Seoul National University)

09:00 **INOR.O-1** Investigating the Thermoelectric Properties of Self-assembled Monolayers by Employing a Liquid Electrode
Sohyun Park
School of Chemistry and Energy, Sungshin University, Korea

09:15 **INOR.O-2** Bi- or multi-metallic complexes supported by a urea-backboned tetradentate [NNNN] ligand
Kyounghoon Lee
Department of Chemical Education and Research Institute of Natural Sciences, Gyeongsang National University, Korea

09:30 **INOR.O-3** Tuning Heterogeneous Catalysis Using Interfacial Polarization
Jaeyune Ryu
School of Chemical and Biological Engineering, Seoul National University, Korea

09:45 **INOR.O-4** Expanding Heterobimetallic Catalysis: New Synthetic Model Complexes for Investigating Reactivity on Heterogeneous Surfaces
Dongyoung Kim, Yeong Jun Son, Seung Jun Hwang[1,*]
Chemistry, Pohang University of Science and Technology, Korea
[1]*Chemistry of Department, Pohang University of Science and Technology, Korea*

10:00 **INOR.O-5** Two-Coordinate Au(I) Complexes for Highly Efficient Electroluminescence
Byung Hak Jhun, Youngmin You[1,*]
Department of Chemical and Biomolecular Engineering, Yonsei University, Korea
[1]*Chemical and Biomolecular Engineering, Yonsei University, Korea*

10:15 **INOR.O-6** Chiral Recognition Using Pairs of Chiral Coordination Cages
Dongwon Kim, Ok-Sang Jung[1], Dohyun Moon
Beam Operation Team, Pohang Accelerator Laboratory, Korea
[1]*Department of Chemistry, Pusan National University, Korea*

10:30 **INOR.O-7** Enhancing Stability in Humid Environments for Effective Carbon Dioxide Capture: Hydrophobic Modification of Diamine-Mg_2(dobpdc)
Jong Hyeak Choe, Chang Seop Hong
Department of Chemistry, Korea University, Korea

10:45 **INOR.O-8** Rational Synthetic Strategy for Multicomponent Porphyrinic Metal-Organic Frameworks Targeting Advanced Functionality
Junghye Lee, Hankyu Lee[1], Jaeheung Cho[2], Hoi Ri Moon[3,*], Hyunchul Oh, Wonyoung Choe[4,*]
Department of Chemistry, Ulsan National Institute of Science and Technology, Korea
[1]*Chemistry, Ulsan National Institute of Science and Technology, Korea*
[2]*Department of Chemistry, UNIST, Korea*
[3]*Department of Chemistry and Nanoscience, Ewha Womans University, Korea*
[4]*Department of Chemistry, Ulsan National Institute of Science and Technology, United States*

Organizer

JaeHong Park

Present Associate Professor, Department of Chemistry and Nanoscience, Ewha Womans University, Korea
2017 Jr. Associate Professor, Department of Molecular Engineering, Kyoto University, Japan
2013 Ph.D., Department of Chemistry, University of Pennsylvania, USA

Speaker

Jerome Kartham Hyun

2015 - Present Assistant, Associate, Full Professor, Dept. of Chemistry and Nanoscience, Ewha Womans University, Korea
2009 Ph.D. Dept of Physics, Cornell University, USA
2002 B.S. Dept of Applied Physics, Columbia University, USA

Jooyoung Sung

Present Assistant Professor, Department of Physics and Chemistry, DGIST, Korea
2017-2021 Postdoctoral Research Associate, Cavendish Laboratory, University of Cambridge, UK
2016 Ph.D. Department of Chemistry, Yonsei University, South Korea

34. Oral Presentation for Initiative and Next-Generation Physical Chemists I

Organizer : JaeHong Park (Ewha Womans University)

Chair : JaeHong Park (Ewha Womans University)

09:00 **PHYS1.O-1** Modulating light scattering and absorption for active structural colors
Jerome Kartham Hyun
Chemistry Department of Nano-Science, Ewha Womans University, Korea

09:24 **PHYS1.O-2** Molecular dynamics simulation study of the defense mechanism against doxorubicin permeation in cancer cell membranes
Namho Kim, Hyonseok Hwang
Department of Chemistry, Kangwon National University, Korea

09:36 **PHYS1.O-3** A Simulation Study on the Effects of Curvature on Unilamellar Vesicle of DPPC lipids and Cholesterol
Jaeheon Yang, Bong June Sung[1,*]
Department of chemistry, Sogang University, Korea
[1]*Department of Chemistry, Sogang University, Korea*

09:48 **PHYS1.O-4** Enolate-mediated formation of two-dimensional (√3 × √3)R30°-C_6OH graphenol beyond hydrogen bonding network
Rizky Hadiputra, Jaehoon Jung
Department of Chemistry, University of Ulsan, Korea

10:00 **PHYS1.O-5** fs-Imaging of Charge Carrier Transport in Perovskite Thin Films
Jooyoung Sung
Department of Physics and Chemistry, DGIST, Korea

10:24 **PHYS1.O-6** Enantioselective Detection of Monosaccharides by Surface-Enhanced Raman Spectroscopy
Daedu Lee, Yoonsoo Pang
Department of Chemistry, Gwangju Institute of Science and Technology, Korea

10:36 **PHYS1.O-7** Correlating the Crystallographic and Photophysical Attributes: Cubic-Shaped ZnSeTe QDs with Bright and Narrow-Band Blue Emission
Yu Jin Lee, Dongho Kim
Department of Chemistry, Yonsei University, Korea

10:48 **PHYS1.O-8** Computational Analysis of Brook Rearrangement Mechanism
Ka young Cho, Jaehong Park
Department of Chemistry and Nanoscience, Ewha Womans University, Korea

Organizer

Taeyeon Kim

Present Assistant Professor, Department of Chemistry, Sungkyunkwan University, Korea
2022 Postdoc, Department of Chemistry, Northwestern University, USA
2021 Ph D, Department of Chemistry, Yonsei University, Korea

Speaker

Hanleem Lee

2021-Present Assistant Professor, Department of Chemistry, Myongji University, South Korea
2020-2021 Post-doctor, Advanced Photonics Research Institute, Gwangju Institute of Science and Technology
2017-2020 Research Associate, Department of Engineering, University of Cambridge, UK

Jiyong Park

Present Senior Research Fellow, CCHF-IBS and KAIST
2017-2020 Postdoc, CCHF-IBS and KAIST
2012-2016 Postdoc, Dept. of Chemistry, UCLA, CA, USA

Eunkyung Cho

Present Senior Researcher, Division of Energy Technology, DGIST, Korea
2020-2023 Postdoctoral Research Associate, Department of Chemistry and Biochemistry, University of Arizona, USA
2012 Ph.D, Polymer, Textile, and Fiber Engineering, Georgia Institute of Technology, USA

35. Oral Presentation for Initiative and Next-Generation Physical Chemists II

Organizer : Taeyeon Kim (Sungkyunkwan University)

Chair : Taeyeon Kim (Sungkyunkwan University)

09:00 **PHYS2.O-1** Research on Degradation and Phase transition of Semiconducting Nanomaterials
Hanleem Lee
Department of Chemistry, Myungji University, Korea

09:24 **PHYS2.O-2** Large-Scale Photoelectrochemical Simulations in Solutions Using Many-Body Perturbation Theory
Se-Jun Kim, Hyungjun Kim
Department of Chemistry, Korea Advanced Institute of Science and Technology, Korea

09:36 **PHYS2.O-3** Dynamical phase transitions of spin-lattice models using double-bias trajectory ensemble methodology
Jay-Hak Lee, YounJoon Jung
Department of Chemistry, Seoul National University, Korea

09:48 **PHYS2.O-4** Quantum Chemical Studies on the Rates and Stereoselectivities in Energy Transfer Photocatalysis
Jiyong Park*, Mu-Hyun Baik[1]
Center for Catalytic Hydrocarbon Functionalization, Institute for Basic Science, Korea
[1]*Chemistry, Korea Advanced Institute of Science and Technology, Korea*

10:06 **PHYS2.O-5** Active Site Determination in Embedding Calculations: A Density Sensitivity and Orbital Localization Approach
Soohyeon Lee, Youngsam Kim, Eunji Sim
Department of Chemistry, Yonsei University, Korea

10:18 **PHYS2.O-6** pyMCD: A Python package for an efficient and reliable transition search via the Multicoordinate Driven (MCD) method
Kyunghoon Lee, Woo youn Kim[1,*]
Chemistry, Korea Advanced Institute of Science and Technology, Korea
[1]*Department of Chemistry, KAIST, Korea*

10:30 **PHYS2.O-7** Luminescent properties of organic neutral radical emitters
Eunkyung Cho
Division of Energy Technology, DGIST, Korea

10:48 **PHYS2.O-8** Study on Photochromic switching Diarylethene Dopant Design Principle for Extending the Linear Dynamic Range of Organic Photodetector Using Quantum Calculation and Machine Learning
Changwon Choi, Yun Hee Jang[1,*]
Department of Energy Science and Engineering, Daegu Gyeongbuk Institute of Science & Technology, Korea
[1]*Department of Energy Science and Engineering, DGIST, Korea*

Organizer

Yeonho Kim
Present Assistant Professor, Department of Applied Chemistry, Konkuk University, Korea
2015 Ph.D, Department of Chemistry, Seoul National University, Korea

36. Oral Presentation of Young Analytical Chemists I

Organizer : Yeonho Kim (Konkuk University)

Chair : Yeonho Kim (Konkuk University)

09:00 **ANAL1.O-1** Simultaneous analysis of 29 banned Illegal dyes in Tattoo ink by Liquid chromatography-Electrospray ionization- tandem mass spectrometry(LC-ESI-MS/MS)
Minkyu Lee*, Sangwon Cha[1,*]
chemistry department / analytical chemistry and mass spectrometry, Dongguk University, Korea
[1]*Department of Chemistry, Dongguk University, Korea*

09:06 **ANAL1.O-2** Quantitative Determination of Aromatic Amines Released from Azo Dyes in Tattoo Ink by Gas Chromatography-Electron Ionization-Mass spectrometry(GC-EI-MS) and tandem mass spectrometry(GC-EI-MS/MS)
Hyebeen Kim*, Sangwon Cha[1,*]
Dongguk University, Korea
[1]*Department of Chemistry, Dongguk University, Korea*

09:12 **ANAL1.O-3** Chemical Fingerprinting Analysis of Pen Ink and Dyes by Matrix-assisted Laser Desorption Ionization and Capillary Electrophoresis
Jaeyoung Heo*, Sangwon Cha[1,*]
Dongguk university, Korea
[1]*Department of Chemistry, Dongguk University, Korea*

09:18 **ANAL1.O-4** Improved electrochemical sensor performance of Graphene incorporated Vanadium-Silver oxide nanocomposite modified electrode for selective determination of chlorpyrifos pesticides
Gunasekaran Manibalan, Ji Won Ha
Department of Chemistry, University of Ulsan, Korea

09:24 **ANAL1.O-5** CRISPR/Cas12a-assisted Au Nanowire SERS Sensor for ATP Detection
Toeun Kim, Hongki Kim
Kongju National University, Korea

09:30 **ANAL1.O-6** Sex-specific reproductive dysfunction in zebrafish: Estrogenic and anti-androgenic effects of 4-tert-octylphenol
Jangjae Lee, Yunji Kim, Sung-Hee Cho, Hugh I. Kim[1]
Center for Chemical Analysis, Korea Research Institute of Chemical Technology, Korea
[1]*Department of Chemistry, Korea University, Korea*

09:36 **ANAL1.O-7** A method for quantification of formaldehyde in phenolic resin using 13C NMR spectroscopy
Jeaheung Park, Daye Kwon, Jungmin Oh
Analysis & Evaluation Team 1, Kolon Industries, Korea

09:42 **ANAL1.O-8** Stability and sensitivity enhanced paper-based nonenzymetic label-free SERS biosensor for glucose detection
Rashida Akter, Hongki Kim[1,*]
Department of chemistry, Kongju National University, Korea
[1]*Chemistry, Kongju National University, Korea*

09:48 **ANAL1.O-9** Development of a nucleic acid extraction device based on photothermal magnetic nanoparticles
Euijin Son, Jung-hoon Lee
Department of Chemistry, Soonchunhyang University, Korea

09:54 **ANAL1.O-10** Hyperspectral NIR measurement of dried seaweeds for determination of their protein contents
Haeseong Jeong, Hoeil Chung
Department of Chemistry, Hanyang University, Korea

10:00 **ANAL1.O-11** Efficient feature extraction using convolutional autoencoder (CNNAE) for hetero spectral two-trace two-dimensional (2T2D) correlation maps and interpretation using Grad-CAM
Seongsoo Jeong, Hoeil Chung
Department of Chemistry, Hanyang University, Korea

10:06 **ANAL1.O-12** Polyethylene glycol for highly efficient enrichment of exosomes derived from human blood serum
Reham Mohamed Ali Marzouk, Hyojin Hwang[1], Jeongkwon Kim[2,*]
Department of chemistry, Chungnam National University , Korea
[1]*Department of chemistry, Chungnam National University, Korea*
[2]*Department of Chemistry, Chungnam National University, Korea*

10:12 **ANAL1.O-13** SERS-based assay of uropathogen using magnetic beads immobilized with gold nanoparticles
Kihyun Kim, Jaebum Choo
Department of Chemistry, Chung-Ang University, Korea

10:18 **ANAL1.O-14** Highly sensitive detection of SARS-CoV-2 RNA using CRISPR/Cas13a-mediated SERS-based dual-flow assay strip
Younju Joung, Jaebum Choo
Department of Chemistry, Chung-Ang University, Korea

10:25 **ANAL1.O-15** Development of Multifunctional PCM Microcapsules with biocompatibility and Analysis of Physicochemical Characteristics
Ye Eun Park, Uyen Thi Do[1], Minji Song, Seyoung Yang, Youngbok Lee[2,*]
Department of Applied chemistry, Hanyang University, Korea
[1]*Center for Bionano Intelligence Education and Research, Hanyang University, Korea*
[2]*Department of Bio-Nano Engineering, Hanyang University, Korea*

10:32 **ANAL1.O-16** Optimization of lecithin-encapsulated drug delivery system: Comprehensive NMR characterization and improved skin permeation profiles
Minji Song, Uyen Thi Do[1], Ye Eun Park, Youngbok Lee[2,*]
Applied Chemistry, Hanyang University, Korea
[1]*Center for Bionano Intelligence Education and Research, Hanyang University, Korea*
[2]*Department of Bio-Nano Engineering, Department of, Korea*

10:39 **ANAL1.O-17** Investigation on Physicochemical Property and Structure of Human Hair Using ^{13}C Cross-Polarization Magic Angle Spinning NMR Spectroscopy
Seyoung Yang, Thi Quynh Nguyen, Ye Eun Park, Youngbok Lee[1,*]
Department of Applied Chemistry, Hanyang University, Korea
[1]*Department of Bio-Nano Engineering, Hanyang University, Korea*

10:46 **ANAL1.O-18** Dynamic Nuclear Polarization of Onion-Shaped Silica Nanoparticles with Selective 29Si Isotope and Radical Enrichment
Thi Quynh Nguyen, Youngbok Lee[1,*], Quy Son Luu[2], Jae Hwa Choi, SeokKi Yun[3]
Department of Applied Chemistry, Hanyang University, Korea
[1]*Department of Applied Chemistry, Department of Bionano Technology, Korea*
[2]*Department of Bionano Technology, Center for Bionano Intelligence Education and Research, Korea*
[3]*Department of Applied Chemistry, Hanyang University, Korea*

10:53 **ANAL1.O-19** Development of Light-Responsive Polylactic Acid for Sustainable Biodegradable Materials: Synthesis and Microcapsule Formation
Uyen Thi Do, Youngbok Lee
Department of Bio-Nano Technology, Center for Bionano Intelligence Education and Research, Hanyang University, Korea

Organizer

Hongki Kim

Present Assistant Professor, Department of Chemistry, Kongju National University, Korea
2017 Ph.D., Department of Chemistry, KAIST, Korea
2011 B. S., Department of Chemistry, KAIST, Korea

37. Oral Presentation of Young Analytical Chemists II

Organizer : Hongki Kim (Kongju National University)

Chair : Hongki Kim (Kongju National University)

09:00 **ANAL2.O-1** Probing Optical Characteristics and Chemical Interface Damping in Gold Nanorods via Cucurbit [6] uril Host-Guest Chemistry
Ji Min Kim, Ji Won Ha
Department of Chemistry, University of Ulsan, Korea

09:06 **ANAL2.O-2** Unraveling Plasmon Damping in Silver–Coated Gold Nanorods: Insight from Single–Particle Analysis and Damping Tuning
Rafifah Hana Raihana Syam, Ji Won Ha[1,*]
chemistry, University of Ulsan, Korea
[1]*Department of Chemistry, University of Ulsan, Korea*

09:12 **ANAL2.O-3** Study Competition between Plasmon Decay pathways of Gold Nanorods on Graphene
Yola Yolanda Alizar, Ji Won Ha
Department of Chemistry, University of Ulsan, Korea

09:18 **ANAL2.O-4** Electrochemical Tuning of Hot-electron Generation and Chemical Interface Damping in Single Gold Nanorods
Mukunthan Ramasamy, Ji Won Ha[1,*]
Department of Chemistry, University of Ulsan, India
[1]*Department of Chemistry, University of Ulsan, Korea*

09:24 **ANAL2.O-5** Performance evaluation of thickness-tapered channel in flow field-flow fractionation with the effect of field programming in a uniform channel
Jaihoo Kim, Myeong Hee Moon
Department of Chemistry, Yonsei University, Korea

09:30 **ANAL2.O-6** Top-down lipid analysis of exosomes derived DU145 cells using mAF4-ESI-MS/MS
Hyeju Yu, Donggyun Kim, Myeong Hee Moon
Department of Chemistry, Yonsei University, Korea

09:36 **ANAL2.O-7** SARS-CoV-2 induced lipid perturbation in lung, liver, and serum of mice
Ji Yeong Lee, Hwangyu Park[1], Myeong Hee Moon[2,*]
Chemistry, Yonsei University, Korea
[1]*Department of chemistry, Yonsei University, Korea*
[2]*Department of Chemistry, Yonsei University, Korea*

09:42 **ANAL2.O-8** Optimization of skin sampling method for lipidomic analysis by nanoflow UHPLC-ESI-MS/MS
Seunghee Shin, Junha Choi[1,*], Myeong Hee Moon[1]
Yonsei University, Korea
[1]*Department of Chemistry, Yonsei University, Korea*

09:48 **ANAL2.O-9** Lipid alternations in brain and spleen tissues of SARS-CoV-2 mouse using nanoflow UHPLC-ESI-MS/MS
Hwangyu Park, Myeong Hee Moon[1,*], Soomin Kang[2]
Department of chemistry, Yonsei University, Korea
[1]*Department of Chemistry, Yonsei University, Korea*
[2]*Yonsei University, Korea*

09:54 **ANAL2.O-10** Advanced 19F NMR Investigation of Poly (vinylidene fluoride) (PVDF) Crystalline Phases for Good-performance Electrode
Jae Hwa Choi, SeokKi Yun, Seyoung Yang, Quy Son Luu, Youngbok Lee[1,*]
Hanyang University, Korea
[1]*Department of Bio-Nano Engineering, Department of, Hanyang University, Korea*

10:00 **ANAL2.O-11** Investigation on Raman spectral features according to variation of internal thickness of pearls
Juyoung Park
Chemistry, Hanyang University, Korea

10:06 **ANAL2.O-12** Urinary metabolic profiling in ECMO-treated severe COVID-19 patients
Sunho Lee, Youngae Jung, Geum-Sook Hwang[1,*]
Metropolitan Seoul Center, Korea Basic Science Institute, Korea
[1]*Korea Basic Science Institute, Korea*

10:12 **ANAL2.O-13** Defects healing of the ZnO surface by filling with metal atom catalysts for boosting solar hydrogen production
Jiyoung Bae, Yeonho Kim
Department of Applied Chemistry, Konkuk University, Korea

10:18 **ANAL2.O-14** Lipidomic changes of brain tissue in an Alzheimer's disease mouse model overexpressing Tau
Su-Hyun Chae, Jueun Lee, Do Hyun Ryu[1,*], Geum-Sook Hwang[2,*]
Metropolitan Seoul Center, Korea Basic Science Institute, Korea
[1]*Department of Chemistry, Sungkyunkwan University, Korea*
[2]*Korea Basic Science Institute, Korea*

10:24 **ANAL2.O-15** Metabolomics time-course response in liver tissues after SARS-CoV-2 infection
Yejin Bae, Youngae Jung[1], Geum-Sook Hwang[2,*]
Metropolitan seoul center, Korea Basic Science Institute, Korea
[1]*Western Seoul Center, Korea Basic Science Institute, Korea*
[2]*Korea Basic Science Institute, Korea*

10:30 **ANAL2.O-16** Advancing Analytical Strategies for the Comprehensive Detection and Quantification of Cyclic Imines in Marine Ecosystems
Hyewon Kim, Hyun Joo An
Graduate School of Analytical Science and Technology, Chungnam National University, Korea

10:36 **ANAL2.O-17** Characterization of self-assembled micelle inhibitory RNA drug using ion-pairing reversed-phase liquid chromatography combined with mass spectrometry
Hyojin Hwang, Jeongkwon Kim[1,*]
Department of chemistry, Chungnam National University, Korea
[1]*Department of Chemistry, Chungnam National University, Korea*

10:42 **ANAL2.O-18** Photo-reversible tuning of chemical interface damping in single gold-nanorods with cucurbit[n]uril and aminoazobenzene
Jaeran Lee, Ji Won Ha
Department of Chemistry, University of Ulsan, Korea

10:48 **ANAL2.O-19** Electrochemical Impedance Spectroscopy Analysis for Non-destructive Determination of Compressive Strength of Concretes
Junhee Yu, Hyun Ju Yang, Hyo Chan Lee, Je Hyun Bae
Graduate School of Analytical Science and Technology (GRAST), Chungnam National University, Korea

10:54 **ANAL2.O-20** Comprehensive Characterization of Brain Gangliosides from Alzheimer's Disease Mouse Model using Chromatographic Separation and Tandem Spectral Library Matching
JongHyun Yoon, Hyun Joo An[1,*]
Graduate School of Analytical Science and Technology, Chungnam National University, Korea
[1]*Graduate School of Analytical Science and Technolo, Chungnam National University, Korea*

Organizer

Yong Woong Jun

Present Assistant Professor, Department of Chemistry, KAIST, Korea
2023 Postdoc, Department of Chemistry, Stanford University, USA
2018 PhD, Department of Chemistry, POSTECH, Korea

Speaker

Sang Jeon Chung

Present Professor of School of Pharmacy, Sungkyunkwan University; COB of AbTis Co. Ltd., Suwon, Korea
1996 Ph. D, Department of Chemistry, POSTECH, Korea
1990 B. S, Department of Pharmacy, Sungkyunkwan University, Korea

38. Oral Presentation for Young Scientists in Biochemistry and Chemical Biology

Organizer : Yong Woong Jun (KAIST)

Chair : Yong Woong Jun (KAIST)

09:00 **LIFE.O-1** DOM: *Dual Optical Mapping* Combining Sequence-Specific Markers and A/T Frequency-Dependent Profiles
Jaeyoung Bae, Kyubong Jo
Department of Chemistry, Sogang University, Korea

09:10 **LIFE.O-2** High-resolution mapping of α-synuclein phosphorylation using single-molecule fluorescence
Moon Hyeok Choi, Chirlmin Joo
Department of BioNanoScience, Delft University of Technology, Netherlands

09:20 **LIFE.O-3** Investigation of proteome-tetrazine reactivity for a minimal background biorthogonal click reagent in live cell.
Junyoung Park, Eunha Kim[1,*], Jongmin Park
Department of Chemistry, Institute for Molecular Science and Fusion Technology, Multidimensional Genomics Research Center, Kangwon National University, Korea
[1]*Department of Molecular Science and Technology, Ajou University, Korea*

09:30 **LIFE.O-4** 21 Fluorescent Protein-Based DNA Staining Dyes.
Yurie Kim, Kyubong Jo[1,*]
chemistry, Sogang University, United States
[1]*Department of Chemistry, Sogang University, Korea*

09:40 **LIFE.O-5** Mitochondrial matrix RTN4IP1/OPA10 is an oxidoreductase for coenzyme Q synthesis
Hyun-Woo Rhee[*], **Isaac Park**[1]
Department of Chemistry, Seoul National University, Korea
[1]*Chemistry, Seoul National University, Korea*

09:50 **LIFE.O-6** Visualizing large DNA molecules through Scanning Electron Microscopy (SEM) Using a Metal-Free Electro-Stain Composed of DNA-Binding Proteins and Synthetic Polymers
Chanyoung Noh, Kyubong Jo[1,*]
Sogang University, Korea
[1]*Department of Chemistry, Sogang University, Korea*

10:00 **LIFE.O-7** Programming heteromeric protein self-assembly with interchangeability and reversibility
Soyeun Son, Woon Ju Song
Department of Chemistry, Seoul National University, Korea

10:10 **LIFE.O-8** Capillary Force Driven Microfluidic Device for Analysis of Large Single-Molecule DNA
Taesoo Kim, Kyubong Jo
Department of Chemistry, Sogang University, Korea

<Lusin Academic Award Ceremony and Award Lecture>

10:20 **LIFE.O-9** AbClick: A site-selective antibody conjugation linker platform for off-the-shelf antibodies
Sang Jeon Chung
College of Pharmacy, Sungkyunkwan University, Korea

10:50 Toray coporate session

Organizer

Hyung Min Chi

Present Assistant Professor, Department of Chemistry, POSTECH, Korea
2016 Ph.D., Department of Chemistry, University of Illinois at Urbana-Champaign (UIUC), USA
2009 B.S., Department of Chemistry, Seoul National University, Korea

Chair

Jun Hee Lee

Present Associate Professor, Department of Advanced Materials Chemistry, Dongguk University WISE, Korea
2001 Ph.D. Department of Chemistry, Sogang University, Korea
1995 B.S. Department of Chemistry, Dongguk University, Korea

Speaker

Kyungsoo Oh

Present College of Pharmacy, Chung-Ang University, Korea
Present Visiting Professor, Graduate School of Pharmaceutical Sciences, Osaka University, Japan
2014 Associate Professor, Department of Chemistry, Indiana University Purdue University Indianapolis, USA

39. Oral Presentations for Young Scholars in Organic Division

Organizer : Hyung Min Chi (POSTECH)

Chair : Hyung Min Chi (POSTECH)

15:40 **ORGN.O-1** Organosuperacid Catalysis for the Synthesis of Pharmaceuticals
Woo Hee Kim, Han yong Bae
Department of Chemistry, Sungkyunkwan University, Korea

15:52 **ORGN.O-2** A Polydiacetylene (PDA)-based Colorimetric Sensor for Detecting Cyanide Anions and Its Application to Paper Devices
Seongman Lee, Songyi Lee[1,*]
BB21+ Program, Department of Chemistry, Pukyong National University, Korea
[1]*Department of Chemistry, Pukyong National University, Korea*

16:04 **ORGN.O-3** Overriding Conventional Regioselectivity in Arylnickelation of Alkynes: Dual-controlled Stereodefined Conversion of Tertiary Acetates to Tetrasubstituted Allenes
Seoyeon Kim, Eun Jin Cho[1,*]
Chemistry, Chung-Ang University, Korea
[1]*Department of Chemistry, Chung-Ang University, Korea*

16:16 **ORGN.O-4** Enantio- and Diastereoselective Variations on α-Iminonitriles: Harnessing Chiral Cyclopropenimine-Thiourea Organocatalysts
Hoo Seung Lee, Sarah Yunmi Lee[1,*]
Chemistry, Yonsei University, Korea
[1]*Department of Chemistry, Yonsei University, Korea*

16:28 **ORGN.O-5** Total Syntheses of Elodeoidins A and B Enabled by Photochemical Transformations
Chungwoo Lee, Sunkyu Han
Department of Chemistry, Korea Advanced Institute of Science and Technology, Korea

16:40 **ORGN.O-6** C-C bond cleavage for the synthesis of isocyanates and their applicaion in the preparation of unsymmetrical carbonyl compounds
Seo Yeon Kim, Hee Nam Lim[1,*]
Department of chemistry, Yeungnam University, Korea
[1]*Department of Chemistry, Yeungnam University, Korea*

16:52 **ORGN.O-7** Stereospecific Coupling Reactions of Chiral Alkylboron Compounds via Charge-Controlled Transmetalation
Won Seok Ham
Department of Chemistry, College of Natural Sciences, Seoul National University, Korea

17:04 Coffee Break

Chair : Jun Hee Lee (Dongguk University)

<Award Lecture: Shim Sangchul Award>

17:10 **ORGN.O-8** Development of Aerobic Nitro-Nitrite Isomerization Strategy as a Versatile Synthetic Tool
Kyungsoo Oh
College of Pharmacy, Chung-Ang University, United States

Organizer

Seong Jun Park

Present Principal Research Scientist, Therapeutics & Biotechnology Division, KRICT, Korea

2009-2013 Ph.D. Institute of Organic Chemistry, RWTH Aachen University, Germany

2004-2006 M.S. Department of Chemistry, Korea University, Korea

40. Oral Presentation of Young Medicinal Chemists

Organizer : Seong Jun Park (KRICT)

Chair : Seong Jun Park (KRICT)

09:00 **MEDI.O-1** Development of new target protein small molecules as a novel class of H_2O_2 scavenger for treatment of Alzheimer's Disease
Elijah Lee, Ki Duk Park
Center for Brain Disorders, Korea Institute of Science and Technology, Korea

09:13 **MEDI.O-2** Discovery of novel YAP-TEAD interaction inhibitors for colorectal cancer treatment
On-Yu Kang, Jiyoung Hyun, Seong Jun Park, Hwan Jung Lim
Data Convergence Drug Research Center, Korea Research Institute of Chemical Technology, Korea

09:26 **MEDI.O-3** Development of a novel nano-reactor assembly with 8-(N-phenylhexanamido) naphthalene-1-sulfonate, HBF4 and Fe(BF4)2, and its application to the amination of alcohol
Waqar Ahmed
Bionano Chemistry Lab (BNCL), Department of Bionano Engineering, Hanyang University, Korea

09:39 **MEDI.O-4** Discovery of Heterocyclic Structure-Based Novel P2X3 Receptor Antagonists
Ga-Ram Kim, Yong-Chul Kim
School of Life Sciences, Gwangju Institute of Science and Technology, Korea

09:52 **MEDI.O-5** Exploring Novel Ligands for the 5-HT_7 Receptor: A Computer-Aided Drug Discovery Approach for Autism Spectrum Disorder Treatment
Haeun Lee, Gyo chang Keum, Hyunah Choo, Byungsun Jeon
Brain Science Institute, Korea Institute of Science and Technology, Korea

10:05 **MEDI.O-6** Catalyzing Breakthroughs: The Next Wave of Rapid and Efficient Drug Discovery
Jiwoong Lim, Kenneth H. Pearce
Eshelman School of Pharmacy, University of North Carolina at Chapel Hill, United States

10:18 **MEDI.O-7** Design and synthesis of selective JAK1 Inhibitors for the treatment of autoimmune diseases
Santosh shivanand Raikar, Pilho Kim[1,*]
Medicinal chemistry, University of Science & Technology, India
[1]*Therapeutics & Biotechnology Division, Korea Research Institute of Chemical Technology, Korea*

10:31 **MEDI.O-8** Structure-based drug design approach and synthesis for a new class of nucleoside A_{2A} adenosine receptor antagonist as promising immune-oncology agents
Gibae Kim
College of Pharmacy, Seoul National University, Korea

10:44 **MEDI.O-9** Macrocyclic compounds as GLS Inhibitor for anticancer agents 2
Rajath Cyriac, YeongJu Kwon[1], Kwangho Lee[2,*]
Bio & Drug Discovery Division, Korea Research Institute of Chemical Technology, University of Science & Technology, Korea
[1]*College of Pharmacy, Chungnam National University, Korea Research Institute of Chemical Technology, Korea*
[2]*University of Science & Technology, Korea Research Institute of Chemical Technology, Korea*

Organizer

Gwangwoo Kim

Present Assistant Professor, Department of Chemical Engineering, Chungbuk National University, Korea

2021 Postdoc, Department of Electrical and System Engineering, University of Pennsylvania, USA

2019 Ph. D., Department of Energy Engineering, UNIST, Korea

41. Oral Presentation for Young Material Chemists

Organizer : Gwangwoo Kim (Chungbuk National University)

Chair : Gwangwoo Kim (Chungbuk National University)

09:00 **MAT.O-1** Dynamic Optical Properties of Anisotropic Gold/Iron Oxide Nanohybrids
Hyojung Kang, So-Jung Park[1,*]
Ewha Womans University, Korea
[1]*Department of Chemistry and Nano Science, Ewha Womans University, Korea*

09:15 **MAT.O-2** Exsolution-assisted immobilization of single atom catalysts to optimize their electrocatalytic activity
Dong Hoon Sun, Xiaoyan Jin[1], Seong-Ju Hwang
Department of Materials Science and Engineering, Yonsei University, Korea
[1]*Department of Applied Chemistry, University of Seoul, Korea*

09:30 **MAT.O-3** Deep metal-assisted chemical etching using a porous monolithic AgAu layer to develop neutral-colored transparent silicon photovoltaics
HyeonOh Shin, Tae-Hyuk Kwon
Department of Chemistry, Ulsan National Institute of Science and Technology, Korea

09:45 **MAT.O-4** Orientation-controlled synthesis of covalent organic framework thin film via acid catalyst-assisted chemical vapor deposition
YeLim Son, Hee Cheul Choi
Department of Chemistry, Pohang University of Science and Technology, Korea

10:00 **MAT.O-5** High-performance n-type SnSe thermoelectrics by simultaneously engineering electronic and phonon band structures
Sejin Byun, Chung In[1,*]
Chemical and biological engineering, Seoul National University, Korea
[1]*School of Chemical & Biological Engineering, Seoul National University, Korea*

10:15 **MAT.O-6** Designing Ni Single Site Catalysts Mimicking the Ni SOD Enzyme for Efficient H_2O_2 Electrosynthesis
Sang Hoon Joo*, **June Sung Lim**
Department of Chemistry, Seoul National University, Korea

10:30 **MAT.O-7** Optimizing Alkyl Chains of Non-fullerene Acceptors for Enhanced Printability in Organic Photovoltaic Modules Over 200 cm^2 Using Non-halogenated Solvent
Bomi Kim, Taeyoon Kim, Hyegyeong Hwang, Suhyun Kim, BongSoo Kim
Department of Chemistry, Ulsan National Institute of Science and Technology, Korea

10:45 **MAT.O-8** Amorphous Intermediates-Mediated Degradation of Quantum-Sized Semiconductor Nanocrystals upon Exposure to Moisture
Hyeonjong Ma, Jiwoong Yang
Department of Energy Science & Engineering, Daegu Gyeongbuk Institute of Science & Technology, Korea

Organizer

Jungdon Suk

Present Principal Research Scientist, Advanced Energy Materials Research Center, KRICT, Korea

Present Professor, Department of Chemical Convergence Materials, University of Science & Technology (UST), Korea

2011 Ph.D, Department of Chemistry, University of Texas at Austin, USA

Chair

Jihyun Jang

Present Assistant Professor, Department of Chemistry, Sogang University

2015 Ph.D. School of Chemical and Biological Engineering, Seoul National University

2010 B.S. School of Chemical and Biological Engineering, Seoul National University

42. Oral Presentation for Young Electrochemists

Organizer : Jungdon Suk (KRICT)

Chair : Jihyun Jang (Sogang University)

09:10 **ELEC.O-1** Field-driven rugged forest morphology of 1D Ni-doped Au@FexOy magnetoplasmonic nanorods for photoelectrochemical water splitting
Goddati Mahendra, Jaebeom Lee[1,*]
Department of Chemical Engineering and Applied Chemistry, Chungnam National University, Korea
[1]*Chemistry, Chungnam National University, Korea*

09:20 **ELEC.O-2** Unraveling Mechanisms and Cation effects on Cu in Electrochemical Nitrate Reduction for Ammonia
Minyoung Shim, Hye Ryung Byon[1,*]
Chemistry, Korea Advanced Institute of Science and Technology, Korea
[1]*Department of Chemistry, Korea Advanced Institute of Science and Technology, Korea*

09:30 **ELEC.O-3** Investigation of Electroorganic Reactions via Electroanalytical Approaches
Jaeho Shin
CO2 & Energy Research Center, Korea Research Institute of Chemical Technology, Korea

09:40 **ELEC.O-4** Ultra-high lithium utilization efficiency realized by partially-pyrolyzed sulfur-bridged copper polyphthalocyanines for superior cyclability of anode-free lithium metal batteries
Minjun Bae, Yuanzhe Piao[1,*]
Graduate school of convergence science and technology, Seoul National University, Korea
[1]*Graduate School of Convergence Science and Technol, Seoul National University, Korea*

09:50 **ELEC.O-5** Fe doped cobalt selenide stabilizes Co state and induce dual-site mechanism for an efficient oxygen evolution reaction in AEM water electrolysis
Yo Seob Won
Energy Science, Sungkyunkwan University, Korea

10:00 **ELEC.O-6** **[Withdrawal]** Fabrication of Disposable Lactate Sensor Using $Ni(OH)_2$-Au Nanocomposite Film
Palinci nagarajan Manikandan, Kwang Pyo Kim[1,*], Jae-Joon Lee[2,*]
Dongguk University, India
[1]*Department of Applied Chemistry, Kyung Hee University, Korea*
[2]*Department of Energy and Materials Engineering, Dongguk University, Korea*

10:10 **ELEC.O-7** Direct Growth of TiO2-IrO2 Core-Shell Catalyst onto Ti Felt for Efficient Oxygen Evolution Reaction
Jegon Lee, Bora Seo
Hydrogen and Fuel Cell Research Center, Korea Institute of Science and Technology (KIST), Korea

10:20 **ELEC.O-8** Revealing the Storage and Cycling Performances of Dual-salt Polymer Electrolytes for High-performance and Stable Li-metal Batteries
Junho Bae, Jongwoo Lim
Division of Chemistry, Seoul National University, Korea

10:30 **ELEC.O-9** Tailoring Co_3O_4 Nanocubes with Noble Metal for Enhanced Electrochemical Water Oxidation
Joon Yong Park, Hyeon Beom Cho, Ki Min Nam
Department of Chemistry, Pusan National University, Korea

10:40 **ELEC.O-10** Design of Fe complexes with hydrogen-bonding-dependent spin equilibrium for Stable Aqueous Redox Flow Batteries
Donghwi Ko, Hye Ryung Byon
Department of Chemistry, Korea Advanced Institute of Science and Technology, Korea

Organizer

Mihyun Son
Present Senior Researcher, Future innovation center, Seoul National University, Korea

Chair

Hyunjung Kim
Present Associate Professor, Department of Chemistry Education, Kongju National University, Korea

43. New Trends in Chemistry Education

Organizer : Mihyun Son (Seoul National University)

Chair : Hyunjung Kim (Kongju National University)

09:00 **EDU.O-1** Teaching and Learning Strategies with Chat Artificial Intelligence for Socio scientific Issues' Problem-solving
HyunJu Park
Faculty of Chemistry Education, Chosun University, Korea

09:20 **EDU.O-2** A study on the applicability of a project-based learning method in college sustainability education courses
Sukjin Kang
Department of Science Education, Jeonju National University of Education, Korea

09:40 **EDU.O-3** An Analysis of Pre-service Chemistry Teachers' Questions in Their Teaching Practices Considering the Context of Discourse
Sunghoon Kim, Minhwan Kim[1], Taehee Noh[1]
Center for Educational Research, Seoul National University, Korea
[1]*Department of Chemistry Education, Seoul National University, Korea*

10:00 Coffee Break

10:20 **EDU.O-4** Organic Chemistry in High School Chemistry Curriculum
Jinho Oh
Chemistry & Biology, Korea Science Academy of KAIST, Korea

10:40 **EDU.O-5** Educational Implications of International Science Fairs for High School Students
Eun-Young Choi*, Duangkhae Srikun[1]
Chemistry & Biology, Korea Science Academy of KAIST, Korea
[1]*Department of Chemistry, Mahidol Wittayanusorn School, Thailand*

Oral Presentation

Environmental Energy Oral Presentation
April 25 (Thu), Room 403

Organizer

Eunju Kim

Present Assistant Professor, Department of Civil Engineering, Seoul National University of Science and Technology, Korea

2024 Principal Researcher, Water Cycle Research Center, Korea Institute of Science and Technology (KIST), Korea

2013 PhD. School of Environmental Engineering, POSTECH, Korea

44. General Session

Organizer : Eunju Kim (Seoul National University of Science and Technology)

Chair : Eunju Kim (Seoul National University of Science and Technology)

09:00 **ENVR.O-1** Long-Term Stability of Seawater Acidification and Its Effect on the Formation of Mg(OH)2 Films with a Hierarchical Porous Structure in Bipolar Membrane-Based Direct Seawater Electrolysis
Jihyung Han
Korea Institute of Energy Research, Korea

09:30 **ENVR.O-2** Optimized Raman system for nanoplastic detection
Dongha Shin
Department of chemistry, Inha University, Korea

10:00 **ENVR.O-3** Understanding the Role of Structural Variance in Metal Oxide Photoelectrode Performance
Hye Won Jeong, Hyunwoong Park[1,*]
Advanced Institute of Water Industry, Kyungpook National University, Korea
[1]*School of Energy Engineering, Kyungpook National University, Korea*

10:30 **ENVR.O-4** Exploring Underlayer Modifications for Efficient Solar Chemical Conversion on Copper base Mixed Oxide Films
Seung Yo Choi, Hyunwoong Park[1,*]
Environmental Science Institute, Kyungpook National University, Korea
[1]*School of Energy Engineering, Kyungpook National University, Korea*

POLY.P-1 Polymerization of mesogenic monomers based on the thiol-ene system
Thu Loan Dang, Hyeonuk Yeo[1,*]
Department of Chemistry, Kyungpook National University, Korea
[1]Department of Chemistry Education, Kyungpook National University, Korea

POLY.P-2 Enhancement of thermal conductivity and mechanical properties of liquid crystal epoxy resins through unique monomer design and systematic selection of curing agents
Thi En Trinh, Hyeonuk Yeo[1,*]
Department of Science Education, Kyungpook National University, Korea
[1]Department of Chemistry Education, Kyungpook National University, Korea

POLY.P-3 Thermal and Optical Activities of Mesogenic Isosorbide-rooted Polyepoxides
Minh Hoang Le, Kyosun Ku[1], Hyeonuk Yeo[2,*]
Department of Chemistry, Kyungpook National University, Korea
[1]Advanced Institute of Water Industry, Kyungpook National University, Korea
[2]Department of Chemistry Education, Kyungpook National University, Korea

POLY.P-4 Enhancing wound healing by tuning the mechanical properties of lignin/zwitterionic polymer-based multifunctional hydrogels
Yiluo Hu, Jaewon Choi, Younsoo Kim
Department of Materials Science and Engineering, Pohang University of Science and Technology, Korea

POLY.P-5 Synthesis and properties of cyclic olefin polymers using various functional groups based on oxanorbornene derivative
Huigyung Kim, Kyosun Ku[1], Hyeonuk Yeo[2,*]
Depart of chemistry, Kyungpook National University, Korea
[1]Advanced Institute of Water Industry, Kyungpook National University, Korea
[2]Department of Chemistry Education, Kyungpook National University, Korea

POLY.P-6 Design of reprocessable high-functional bismaleimide vitrimer
Woohyeon Kwon, Kyosun Ku[1], Hyeonuk Yeo[2,*]
Department of Chemistry, Kyungpook National University, Korea
[1]Advanced Institute of Water Industry, Kyungpook National University, Korea
[2]Department of Chemistry Education, Kyungpook National University, Korea

POLY.P-7 A Study on the Improvement of Thermal Conductivity of PEG-based Liquid Crystal Thermoset
Kyosun Ku, Hyeonuk Yeo[1,*]
Advanced Institute of Water Industry, Kyungpook National University, Korea
[1]Department of Chemistry Education, Kyungpook National University, Korea

POLY.P-8 Oxidation-induced Biocompatible Poly(PG/Amine) Coating: Formulation for Black Hair-Dyeing
Nayun Kim, Woo Kyung Cho[1,*]
Chungnam National University, Korea
[1]Department of Chemistry, Chungnam National University, Korea

POLY.P-9 Synthesis and Application of Glycol Chitosan-Based Antimicrobial Agents: An Approach to Treat Healthcare-Associated Bacterial Infections
Sunhee Kim, Kang Moo Huh[1,*], Woo Kyung Cho
Department of Chemistry, Chungnam National University, Korea
[1]Department of Polymer Science and Engineering, Chungnam National University, Korea

POLY.P-10 Tyrosinase-Mediated, One-Pot Zwitterion-Codeposited Eumelanin Coatings for Antibacterial Applications
Jong Hyeon Byeon, Woo Kyung Cho
Department of Chemistry, Chungnam National University, Korea

POLY.P-11 An Easy-handling Approach to Antimicrobial Coatings for Medical Devices : One-pot Complexation of O-Carboxymethyl Chitosan and Zirconium Chloride
Chanyi Jeon, Woo Kyung Cho[1,*]
Chungnam National University, Korea
[1]Department of Chemistry, Chungnam National University, Korea

POLY.P-12 Synthesis of Waterborne Polyurethane for Reducing VOCs and Fabricating Fluorescent Pigment Compositions
Joon Kim, DaYe Kim, Seung Goo Lee
Department of Chemistry, University of Ulsan, Korea

POLY.P-13 Cr-free anti-corrosion eco-friendly composite inorganic coating agent
Hyuntae Ju, Seung Goo Lee, Yujin Kim, Nagyeong Lee
Department of Chemistry, University of Ulsan, Korea

POLY.P-14 Keratin-Based Acid-Resistant Protein Coating Technology and Its Mechanical and Chemical Properties
Kim SuGyoem, Kwanwoo Shin[1,*]
Chemistry, Sogang University, Korea
[1]Department of Chemistry, Sogang University, Korea

POLY.P-15 Fabrication of Implantable Electrochemical Sensor using Biocompatible Conformal Coating Technique
Jiae Park, Kwanwoo Shin[1,*]
Chemistry, Sogang University, Korea
[1]Department of Chemistry, Sogang University, Korea

POLY.P-16 Sequence-defined polyester equipped with complementary H-bonding base-pair
Hyo Joo Noh, HeeJeong Jang, Kyoung Taek Kim[1,*]
Seoul National University, Korea
[1]Division of Chemistry, Seoul National University, Korea

POLY.P-17 Polymer composites for interlayer sound insulation materials (ISIMs) with elasticity and insulation
Gibok Lee
R&D Center, HDC Hyundai Engineering Plastics Co., Ltd, Korea

POLY.P-18 Deodorizing Methods for Recycled Polyolefin Plastic Wastes
Hyunhoon Kim
R&D Center, HDC Hyundai Engineering Plastics Co., Korea

POLY.P-19 Selective Hydrogenation of Alkynes with Palladium Nanocatalysts in Poly(ethylene glycol)-Coated 3D-Continuous Nanoporous Membranes
Dawoon Jeong, Ji-Woong Park[1,*]
Department of Materials Science and Engineering, Gwangju Institute of Science and Technology, Korea
[1]School of Materials Science and Engineering, Gwangju Institute of Science and Technology, Korea

POLY.P-20 Photo-Crosslinkable Single-Component Copolymers for Functional Coatings
Hyeji Lee, Myungwoong Kim[1,*]
Inha University, Korea
[1]Department of Chemistry, Inha University, Korea

POLY.P-21 Synthesis of Polymeric [2]-Catenanes Composed of Interlocked Discrete Cyclic Polymers
JunWoo Kang, Kyoung Taek Kim[1,*]
Chemistry, Seoul National University, Korea
[1]Division of Chemistry, Seoul National University, Korea

POLY.P-22 Self-Healable, Stretchable, and Adhesive Ionogels Formed by Copolymer Association
Hyeon Ji Lee, Kim Seungjun, Myungwoong Kim[1,*]
Department of Chemistry and Chemical Engineering, Inha University, Korea
[1]Department of Chemistry, Inha University, Korea

POLY.P-23 Cationic Polymerization of Epoxy-Containing Monomers Using Structurally Varied Thermal Initiators in a Flow Mode.
Seung Kun Choi, Seungjun Kim[1], Myungwoong Kim[2,*]
Chemistry and Chemical Engineering, Inha University, Korea
[1]Department of Chemistry and Chemical Engineering, Inha University, Korea
[2]Department of Chemistry, Inha University, Korea

POLY.P-24 Shotgun sequencing of 512-mer copolyester allows random access to stored information
HeeJeong Jang, Hyo Joo Noh, Hyunseon Chu, Kyoung Taek Kim[1,*]
Seoul National University, Korea
[1]Division of Chemistry, Seoul National University, Korea

POLY.P-25 Synthesis and Crystallization-Driven Self-Assembly of Block Copolymers Composed of Stereoregular Poly(mandelic acid) and Poly(ethylene glycol)
Subin Park, Kyoung Taek Kim[1,*]
Chemistry, Seoul National University, Korea
[1]Division of Chemistry, Seoul National University, Korea

POLY.P-26 Self-Assembly of Discrete Amphiphilic Cyclic Block Copolymers based on Poly(α-hydroxyglutaric acid)
Hyunseon Chu, Kyoung Taek Kim[1,*]
Seoul National University, Korea
[1]Division of Chemistry, Seoul National University, Korea

POLY.P-27 Grafting-With Approach: Iterative Synthesis of Sequence-Defined Bottlebrush Polymers via Passerini 3-Component Reaction
Valene Wang, Kyoung Taek Kim[1,*]
Seoul National University, Korea
[1]Division of Chemistry, Seoul National University, Korea

POLY.P-28 Distinct Thermoresponsive Properties of Nanostructured Poly(*N*-isopropylacrylamide)
Ga-Hyun Kim, So-Jung Park
Department of Chemistry and Nano Science, Ewha Womans University, Korea

POLY.P-29 Cellulose Composite Microbeads with Covalent Organic Nanosheets
Seungjun Kim, Dong Wook Kim[1], Myungwoong Kim[1]
Department of Chemistry and Chemical Engineering, Inha University, Korea
[1]Department of Chemistry, Inha University, Korea

POLY.P-30 Vinyl-Addition Polymerization of 5-Vinyl-2-norbornene with Palladium(II) Catalyst
Kyulee Jung, Chang-Geun Chae[1,*]
Advanced functional polymers, Korea Research Institute of Chemical Technology, Korea
[1]Advanced Functional Polymers Research Center, Korea Research Institute of Chemical Technology, Korea

POLY.P-31 Fast and Large Motion of Self-Oscillating Gels based on High Diffusivity Induced by Phase-separated Structures

Jaewon Choi, Ryo Yoshida[1], Younsoo Kim[2,*]
Pohang University of Science and Technology, Korea
[1]Department of Materials Engineering, The University of Tokyo, Japan
[2]Department of Materials Science and Engineering, Pohang University of Science and Technology, Korea

POLY.P-32 Synthesis of Poly(3-Hexythiophene) & Poly(Dimethylsiloxane) Based Block Copolymers and Its Thermoelectric Properties

Wooyeol Chung, Kyoung Taek Kim[1,*]
Seoul National University, Korea
[1]Division of Chemistry, Seoul National University, Korea

POLY.P-33 Revealing the charge transport mechanism in trap-assisted hydrogen-generating semiconducting polymers via two-step polymerization

Wooteak Jung, Taiho Park
Department of Chemical Engineering, Pohang University of Science and Technology, Korea

POLY.P-34 Dual Trapping of a Metastable Planarized Triarylborane π-System for Seeded Polymerization

Heekyoung Choi, Soichiro Ogi[1,*], Naoki Ando[2], Shigehiro Yamaguchi[1]
Department of Chemistry, Seoul National University, Korea
[1]Department of Chemistry, Nagoya University, Japan
[2]Nanoscience and Nanotechnology Center, Osaka University, Japan

POLY.P-35 Characterization of crystalline poly(ethylene)glycol hydrogels crosslinked with sub-units

Jungju Ryu*, Daewon Sohn[1,*]
Department of Chemistry and Research Institute for Convergence of Basic Science, Hanyang University, Korea
[1]Department of Chemistry, Hanyang University, Korea

POLY.P-36 Functional Group-Dependent Proton Conductivity of Phosphoric Acid-Doped Ion-Pair Coordinated Polymer Electrolytes: A Molecular Dynamics Study

Hyeonju Lee, Hyungjun Kim
Korea Advanced Institute of Science and Technology, Korea

POLY.P-37 The Effect of Free Volume Content in Poly(bismaleimide-alt-styrene) Network via Control of Oligomeric BMI Units for Low Dielectric Properties.

Leekyung Kim, Jinsoo Kim[1,*], Jong Chan Won[1], Jongmin Park[2,*]
Advanced Materials Division/Chemical Convergence Materials and Processes, Korea Research Institute of Chemical Technology (KRICT)/UST-KRICT SCHOOL, Korea
[1]Center for Chemical Materias, Korea Research Institute of Chemical Technology, Korea
[2]Advanced Functional Polymers Research Center, Korea Research Institute of Chemical Technology, Korea

POLY.P-38 Design of Ion-conducting Polyimide as the Protection Layer for Aqueous Zinc-ion Battery with Enhanced Cycling Performance

Sohyeon Kim, Jong Chan Won[1], Jongmin Park
Advanced Functional Polymers Research Center, Korea Research Institute of Chemical Technology, Korea
[1]Center for Chemical Materias, Korea Research Institute of Chemical Technology, Korea

POLY.P-39 Li-conducting Functional Nanoporous Polymer Membrane with 10 nm-sized Channel to Achieve Long-cycling Lithium Metal Batteries

Taeseok Oh, Hye Ryung Byon, Myungeun Seo
Department of Chemistry, Korea Advanced Institute of Science and Technology, Korea

POLY.P-40 Accessing to kinetically captured ordered morphologies via polymerization-induced microphase separation with incorporation of high χ monomers

Seungjin Ha, Myungeun Seo
Department of Chemistry, Korea Advanced Institute of Science and Technology, Korea

POLY.P-41 Antagonistic Chiral Communication between Supramolecular Helices in Hierarchical Self-Assembly

Jun Su Kang, Kangseok Kim[1], Myungeun Seo
Department of Chemistry, Korea Advanced Institute of Science and Technology, Korea
[1]Korea Advanced Institute of Science and Technology, Korea

POLY.P-42 Effect of Polymer Architecture on Stabilization of Oil-Water Interface

Muniyappan Boominathan, Myungeun Seo[1,*]
Korea Advanced Institute of Science and Technology, India
[1]Department of Chemistry, Korea Advanced Institute of Science and Technology, Korea

POLY.P-43 Understanding and Enhancing Optical Response through Positional Variation of Diacetylene Groups in Supramolecular Chirality

Kangseok Kim, Jun Su Kang, Myungeun Seo
Department of Chemistry, Korea Advanced Institute of Science and Technology, Korea

POLY.P-44 Crystallization-Driven Self-Assembly of 2D Platelets to Form 3D Crystals by Controlling the Stereochemical Sequences of PLLA/PDLA-PEG Block Copolymers

Jae Hak Lee, Kyoung Taek Kim[1,*]
Chemistry, Seoul National University, Korea
[1]Division of Chemistry, Seoul National University, Korea

POLY.P-45 Induced Chain Folding of Precise Poly(l-lactic acid) and Their Sequence-Specific Degradation
Dogyun Kim, Kyoung Taek Kim[1,*]
Seoul National University, Korea
[1]Division of Chemistry, Seoul National University, Korea

POLY.P-46 Amorphous porous polymers based on heteroatom-containing spacers for water purification
MyeongHwan Shin, Chiyoung Park
Department of Energy Science and Engineering, Daegu Gyeongbuk Institute of Science & Technology, Korea

POLY.P-47 Enhancement of thermal properties of phthalonitrile networks controlled by curing agent
Eunkyung Jeon
Agency for Defense Development, Korea

POLY.P-48 A novel fluorescent dye for staining microplastics with aggregation-induced emission (AIE) properties
Soo Seong Lee, Cheal Kim
Department of Fine Chemistry, Seoul National University of Science & Technology, Korea

POLY.P-49 Sequential Esterification and Thiol-ene Click Reaction Mediated Orthogonal Functionalization into Single Side Chain via Post-Polymerization Modification
HyoWon Lee, Jeung Gon Kim[1,*]
Department of chemistry, Jeonbuk National University, Korea
[1]Department of Chemistry, Jeonbuk National University, Korea

POLY.P-50 A staining agent for selective detection of microplastics
Otgontsetseg Batsaikhan, Cheal Kim[1,*]
Fine Chemistry, Seoul National University of Science & Technology, Mongolia
[1]Fine Chemistry, Seoul National University of Science & Technology, Korea

POLY.P-51 Designing Degradable Polymers from Tricycloalkenes via Complete Cascade Metathesis Polymerization
Tae-Lim Choi*, **Yongkang Yang**[1]
Division of Chemistry, Seoul National University, Korea
[1]Department of Materials, ETH Zurich, Switzerland

IND.P-52 Synthesis of Noble Anti-PVY Pesticide Candidates

Seok Joon Lee*, Sangtae Oh[1]
Department of Pharmacology, Catholic Kwandong University, Korea
[1]Department of Basic Sciences, Catholic Kwandong University, Korea

IND.P-53 Combination Therapy for the Suppression of PVY

Seok Joon Lee*, Sangtae Oh[1]
Department of Pharmacology, Catholic Kwandong University, Korea
[1]Department of Basic Sciences, Catholic Kwandong University, Korea

IND.P-54 Homebuilt solid-state NMR probes for analysis of specific materials

Minseon Kim, Yongae Kim
Department of Chemistry, Hankuk University of Foreign Studies, Korea

Poster Presentation

Inorganic Chemistry Poster Presentation
April 26 (Fri), Exhibition Hall 2

INOR.P-1 Phenyl-Olefin Dimerization in Metal-Organic Frameworks incorporating Bifunctional Olefin Ligands
Kyunghye Ju, TaeHun Kim, In-Hyeok Park
Graduate School of Analytical Science and Technology, Chungnam National University, Korea

INOR.P-2 Spatial Distribution Control of Building Blocks in Multivariate Metal-Organic Framework with Anisotropic 3D Structure
Seonghwan Lee, Myoung Soo Lah
Department of Chemistry, Ulsan National Institute of Science and Technology, Korea

INOR.P-3 Regulation of MMP-2/9 by Flavonoids
Thi Ha Vy Vo, Geewoo Patton, Hyuck Jin Lee
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INOR.P-4 The Regulating Ability of Metal Ions Toward Matrix Metalloproteinases
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INOR.P-5 Synthesis, Characterization and Evaluation of Metal Complexes Supported by (*E*)-2-Morpholino-*N*-(thiophen-2-ylmethylene)ethanamine as Multifunctional Biological Agents Including Docking Studies
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INOR.P-6 Addition Polymerization Using Precatalyst Pd(II) Complex and Cocatalyst Borate Salt toward Various Cyclic Olefins
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INOR.P-7 Biomineralization of Nickel hydroxides using Silk Fibroin for Energy Storage Applications
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INOR.P-8 Acid-triggered colorimetric sensor embedded metal-organic framework for optical identification of acid gases
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INOR.P-9 Induced Production of Naturally Non-Preferred Metal–Organic Frameworks and Their Detachment via Post-Mismatching
Ahram Yoo, Gihyun Lee, Sujeong Lee, Moonhyun Oh
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INOR.P-10 Synthesis of Metal(0) Coordination Compounds via UV-Activated Reactions
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INOR.P-11 Synthesis and proton transport of coordination polymers based on nickel
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INOR.P-12 Gas content characterization for hydrogen-enriched slush liquified natural gas
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INOR.P-13 New tetrazole –thiolato Pd(II) and -Pt(II) complexes: synthesis, structures, and chemical properties
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INOR.P-14 Enhancement of Antibacterial Properties through Spatiotemporal Photo-Oxidation of Shape-Controlled Cu_2O Nanoparticles
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INOR.P-15 Uncovering Four-Electron Dioxygen Reduction Routes and Reactive Intermediates with Phosphorus-Ligand Redox Cooperative Catalysis
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INOR.P-16 Exploring Enhanced Thermoelectric Properties Through Transition Metal Substitution in Zintl Phases: The $Ca_9Cd_{4.5-x}M_xSb_9$ (M = Zn and Cu) System

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INOR.P-17 Controlling Thermoelectric Properties of the $BaZn_{2-x}Al_xSb_2$ System by Al-doping

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INOR.P-18 Novel Ligand Mold Design for Controlled Metal Growth on Gold Nanoparticles Using Linear-b-Bottlebrush Copolymers

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INOR.P-19 Improving Thermoelectric Property of the $BaZn_{2-x}Mg_xSb_2$ System by Using Earth-Abundant Mg

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INOR.P-20 Controlling the Oxidation state of Copper Nanostructures on Gold Nano-Electrode Ensembles Using Cyclovoltammetry

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INOR.P-21 Introduction of BL2D-Supramolecular Crystallography Beamline at the Pohang Accelerator Laboratory

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INOR.P-22 Tailoring Functional Groups with Different Polyaniline Derivatives for Fine-Tuning Water Harvesting

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INOR.P-23 2D conductive MOF and 3D high porous MOF hybrid-based room temperature chemiresistors with enhanced gas sensitivity

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INOR.P-24 A redox active Co(III) aminyl radical species

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INOR.P-25 Ferroelectric materials affect Polar Proteins in Tumor Treating Fields

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INOR.P-26 Homochiral d^{10}-metal coordination polymers with tunable photoluminescence and efficient nonlinear optical properties

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INOR.P-27 Sterically Modulated Polar and Nonpolar Homochiral Perovskites

Yunseung Kuk, Kang Min Ok
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INOR.P-28 Rapid purification of anisotropic gold nanobipyramids and directed secondary growth of silver nanoshells.

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INOR.P-29 High-Yield Recycling of Zn(II) Complexes as Catalysts: Structural Differences via Recrystallization Methods

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INOR.P-30 Competitive bonding of perchlorate, water, and acetonitrile in M_6L_{12} double-stranded macrocycles mediated by metal(II) ions

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INOR.P-31 Structural features of unprecedented $3X@Cu_4L_4$ species: recognition of polyatomic anions

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INOR.P-32 Synthesis, crystal structure, and optical properties of a layered organic-inorganic hybrid material

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INOR.P-33 Solvent-Dependent Self-Assembly of CuX_2 with a C_3-Symmetric Tridentate Ligand: Formation of Stable M_2L_4 and M_6L_8 Cages

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INOR.P-34 The Synthesis of Colloidal Silicon-Based Hollow Nanostructures through Solid State Reaction and their Bio-Application
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INOR.P-35 Synthesis, Characterization, and Reactivity of a Highly Oxidative Mononuclear Manganese(IV)–Bis(Fluoro) Complex
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INOR.P-36 Influence of Solvents on Catalytic C−H Bond Oxidation by a Copper(II)−Alkylperoxo Complex
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INOR.P-37 Syntheses, Structures, and Optical Properties of Chiral Hybrid Metal Halides
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INOR.P-38 Synthesis, structure, and characterizations of non-centrosymmetric cadmium mixed halides
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INOR.P-39 Structural and electrochemical characterization of 5,5-disubstituted-5H-dibenzo[b,d]silole
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INOR.P-40 Kinetic study of organic reactions by optical microscopy
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INOR.P-41 Surface Chemistry of Extracellular Vesicles through Modular Approach
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INOR.P-42 Strong coordination at open-metal sites enhances hydrolytic stability of metal-organic frameworks.
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INOR.P-43 Solvent-Triggered Photo-Reactivity of One-Dimensional Coordination Polymers
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INOR.P-44 Solution-Processible 2D Conducting Metal-Organic Framework with Proton-Dopable Charge Transport
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INOR.P-45 Luminescence Properties in Atomically Defined Au_{25} Cluster-Based Superlattice
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INOR.P-46 Etching-Free Synthesis of Silicon@Graphite Yolk-Shell Structure for High-Efficiency Lithium-ion Battery Anode
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INOR.P-47 Dinitrogen Activation with a Molybdenum Complex
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INOR.P-48 Early Onset Diagnosis in CVDs Patients via Homocysteine Specific Redox Active Fluorogenic Probe in Blood Plasma
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INOR.P-49 Development of nanofractals via cation exchange reactions for highly efficient electrocatalysts
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INOR.P-50 Medium and high-entropy noble metal nanoparticles via sequential cation exchange
Ryunhyun Kim, Jongsik Park
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INOR.P-51 Heterointerfaces Engineering of CuS/Ag_2S/CuS nanosandwich *via* post-synthetic modification

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INOR.P-52 Secondary Sphere Impact on Organometallic Catalysts in Photochemical CO2 Reduction: Tailoring Product Selectivity through Alcohol and Alkyloxy Tethering Ligands

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INOR.P-53 Solvated electrons from alkali metals at room temperature

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INOR.P-54 Exploring Reactivity Control in a Novel Cobalt-Oxo Complex: Leveraging the Outer Coordination Sphere Effect Beyond Primary and Secondary Coordination

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INOR.P-55 Enhanced CO_2 Reduction to CO Utilizing TiO_2-Adsorbed Cationic Ir(III) Complexes with pendant moieties: In a TiO_2/ReP Hybrid Catalyst System

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INOR.P-56 Ionothermal synthesis of early transition metal 2D Metal-organic frameworks

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INOR.P-57 Fabrication of quasi-2D perovskite thin films via two-step deposition method

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INOR.P-58 Computational elucidation of photo-induced reductive elimination mechanism of divalent organopalladium and organoplatinum complexes

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INOR.P-59 Partially halogenated HKUST-1: tailoring the water adsorption properties of the Cu-based MOF through a mixed-linker strategy

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INOR.P-60 Effect of growth temperature and pressure on the catalytic activity of MoS_2

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INOR.P-61 Synthesis of New Mn(II) Structures by Flexible Ligand Design

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INOR.P-62 Amplified Triplet Emission of Organic Periphery Groups by Exothermic Triplet−Triplet Energy Transfer from the ^{3}MLCT State of Pt(pmi)acac Core Complex to the ^{3}LC State of Geometrically Confined Carbazole/Naphthyl Tethers

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INOR.P-63 Selective Formation of CO/Formate in the Photocatalytic CO_2 Reduction Catalysed by Half-Metallocene Ruthenium(II) Catalyst and Its Mechanistic Investigation

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INOR.P-64 N-Heterocyclic Carbene Derived Radical Ligands for Metal Diradical Complexes

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INOR.P-65 Synthesis of Novel Metal Clusters using Diamidocarbene–CS_2 Adduct
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INOR.P-66 Structure Analysis for Interpenetrated and Single-layered 2D Cu(II) Coordination Polymers
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INOR.P-67 Interfacial Engineering of Ru_2P/Ir_2P Heterostructure for Alkaline Hydrogen Evolution Catalysis with Efficient Hydrogen Spillover
Sangyeon Jeong, Kwangyeol Lee
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INOR.P-68 Switching Properties of Zinc(II) Complexes
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INOR.P-69 Binder-Free Wrinkle-Multilayered Graphene Scaffold for Stable Lithium Metal Batteries
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INOR.P-70 Morphology tunable Fe@C for High-Performance Lithium Metal Batteries
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INOR.P-71 $FeSe_2$ Nanoparticles Coated with Graphitic Carbon for High-Capacity Potassium-Ion Battery Anodes
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INOR.P-72 Morphology- and Crystallinity-Tunable Nickel Cobalt Oxide/Nickel Oxide Coated on Polypyrrole Electrode for Lithium-Ion Battery
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INOR.P-73 *Acrylate synthesis from ethylene and CO_2 using $(Cp^*)_2Ti$ complexes*
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INOR.P-74 Rational Pore Design in Multivariate Metal-Organic Frameworks for C2H6/C2H4 Separation
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INOR.P-75 Enhancement in Photocatalytic Performance of PCN-222 via Incorporation of Heavy Metals and C60
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INOR.P-76 High-Temperature Hydrogen Isotope Separation Enabled by Locally Flexible Gates in Tightly Confined Microporous Metal-Organic Frameworks
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INOR.P-77 FeOF Embedded in Graphitic Carbon as a High-Performance Cathode Material for Potassium-Ion Batteries
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INOR.P-78 RuO_2 Supported on the PtNi multi-frame for Enhanced Electrocatalytic Performance for Oxygen Evolution Reaction in Acidic Media
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INOR.P-79 Photoluminescence Properties of Bisquinoline Copper Iodide Complexes
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INOR.P-80 Platinum-based Ternary Intermetallic Hexapod Nanocatalysts for Oxygen Reduction Reactions
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INOR.P-81 Metal substitutability within the zinc finger domain and its regulatory role in dopamine release
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INOR.P-82 The Fabrication of GaN-based Micro-light-emitting diode (LED) for Fluidic Self-assembly using Frequency Sonication
Yong Jae Lee, Huiyeong Kang, Sang Jun Kim, SeungJe Lee, Young rag Do
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INOR.P-83 Transcriptional regulation via interaction between transcription factors and nucleic acid in soluble methane monooxygenase
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INOR.P-84 Enhanced Face-Selective Assembly of Dot-LEDs via Au-Dithiol-Au Bridge Linker
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INOR.P-85 Engineering the Electronic Structure of Ruthenium Phosphide via Selenium Doping for Alkaline Hydrogen Evolution Reaction
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INOR.P-86 The Fabrication of Dot-LED Electroluminescent Device Using ~ 1μm Scale Dot-LED Ink
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INOR.P-87 Facile Cleavage of O=S and N=S Bonds by Diamidocarbene
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INOR.P-88 Improving Stability and Efficiency of Quantum Dots for Color-by-Blue Displays Using QD-embedded Alumina Microbeads
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INOR.P-89 Fabrication and Separation of GaN-Based Nano-LEDs via Electrochemical Etching
Yuna Kwon, Yong Jae Lee, Sang Jun Kim, Huiyeong Kang, SeungJe Lee, Young rag Do
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INOR.P-90 The Fabrication of Multi-Layered Axial Heterostructure Nanorods for Modulating Polariton Lasing via Gain Volume Control
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INOR.P-91 Removal of Aqueous Phenolic Contaminants using Metal-Organic Framework
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INOR.P-92 Nanosphere ZnSe-rGO as Anodes for Sodium-ion Batteries: mechanism study
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INOR.P-93 A Study on the Lithiation Mechanism of Perylene Diimide with 3-Triazole Ring as an Organic Cathode for Lithium-Ion Batteries
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INOR.P-94 Improved Isolation Performance of Exosomes from Bovine Milk Using Electrophoretic Oscillation-Enhanced Tangent Flow-Driven Ultrafiltration
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INOR.P-95 A new strategy for synthesis of Sb_2Se_3@MWCNT as high-stability anode for SIBs
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INOR.P-96 Modulating photophysical properties of phosphorescent complexes by the electro-inductive effect
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INOR.P-97 Porous Aromatic Framework 41 as sulfur Support for High Performance Lithium Sulfur Batteries
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INOR.P-98 Facile Conversion from Achiral to Chiral Metal-Organic Framework for Asymmetric Catalysis
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INOR.P-99 Selective Supramolecular Synthesis Strategy by Regulating Hydrogen Bonding between Pyrazole Ligands
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INOR.P-100 Design of Cadmium Sulfide Nanoplatelets Deposited with Metal Cocatalyst and Their Photocatalytic Reaction
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INOR.P-101 Air-/Moisture-Stable Radical Pairs from 1,2-Dicarbonyl Radical Cation and TCNQ Radical Anion Derivatives
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INOR.P-102 Organotin Cluster Photoresists for Extreme Ultraviolet Lithography
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INOR.P-103 Metal-triggered supramolecular hydrogels based on bipyridine ligand possessing hydrazine moieties with metal ions
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INOR.P-104 Emission control of supramolecular bimetallic gels
Eungyu Lee, Jong Hwa Jung, Sung Ho Jung
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INOR.P-105 Plasmonic Augmentation of Photoluminescence in CsPbBr3 Perovskite Nanocubes via Silver Nanoparticles Attachment at Ambient Conditions
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INOR.P-106 Modulation of the Proton Conduction Behavior with Atomic Precision in Covalent Organic Frameworks
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INOR.P-107 Controlling supramolecular copolymerization of alkynylplatinum(II) terpyridine complexes: from isodesmic to cooperative mechanisms
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INOR.P-108 Trace the atomic migration in the intermetallic phase transformation with the Pt_3Co@MnO core-shell interface interaction
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INOR.P-109 IZCp and PZCp: Redox Non-innocent Cyclopentadienyl Ligands as Electron Reservoirs for Sandwich Complexes
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INOR.P-110 Solvent-Driven Dynamics: Crafting Tailored Transformations of Cu(II)-Based MOFs
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INOR.P-111 Revealing Dynamic Weak Coordination Bonding of Halocarbons and Its Role for Activation of Metal-Organic Frameworks.
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INOR.P-112 Hydrolytic Stability Enhancement of HKUST-1 by introducing polymers through catalytic polymerization
Inhoo Kim, Nak Cheon Jeong
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INOR.P-113 Mole-Ratio Effects on the Formation of Supramolecular Complexes of a Linear Dipyridyl Ligand
Kyu Won Lee, Eunji Lee
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INOR.P-114 *pseudo*[1]Catenane-Type Pillar[5]arene Derivatives Exhibiting Chiral Inversion by External Stimuli
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INOR.P-115 Synthesis and Structural Characterization of Metallosupramolecules Based on a Benzyl Mercaptan-Attached Pillar[5]arene
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INOR.P-116 Pillar[5]arene-based 2D Ag(I) Coordination Polymer Showing Dimensional Change by Guest Molecules
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INOR.P-117 Synthesis of spiky Cu_2O@Zn-doped-Cu_2O selective for C_{2+} products in CO_2 electroreduction by controlling vacant site of Cu_2O via flow
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INOR.P-118 Improved Ethylene Selectivity in CO_2 Reduction Reaction by Introducing Ag Core within Cu_3N Nanoparticles.
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INOR.P-119 Studies on Inter- and Intra- Molecular Interactions in Circular Dimeric Metal Complexes
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INOR.P-120 The Mysteries of Aromatic Oxidation: A DFT investigation into [Fe(IV)OHPor(Cl)] Complex's Reaction Mechanism.
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INOR.P-121 Controlling Cationic Species inside Zr-Based Metal-Organic Polyhedra
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INOR.P-122 Pressure and Guest-Responsive Zeolitic Imidazolate Framework as Solid-State Molecular Kirigami
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INOR.P-123 Facile synthesis of Mo_3S_{13} cluster and composite with MOF-derived carbon as anode material for Li-ion Batteries
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INOR.P-124 Density Functional Theory Study: Transition Metal Ion catalyzed Tyrosine activation and Di-tyrosine Cross-linking with Reactive-Oxygen Species
Youngseob Lee, Kyung-Bin Cho[1,*]
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INOR.P-125 How to Selectively Control the Four Structures of Lanthanum-based MOFs.
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PHYS.P-55 Photochemistry of Thymine in Solution and DNA Revealed by an Electrostatic Embedding QM/MM Combined with Mixed-Reference Spin-Flip TDDFT
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PHYS.P-56 Molecular Aggregation Behavior and Microscopic Heterogeneity in Binary Osmolyte-Water Solutions
Jiwon Seo, Ravi Singh, Jonghyuk Ryu, Jun-Ho Choi
Department of Chemistry, Gwangju Institute of Science and Technology, Korea

PHYS.P-57 Quantitative analysis of the Li-ion solvation structure using ATR-FTIR spectroscopy
Taewoo Kim, Kyungwon Kwak, Minhaeng Cho
Department of Chemistry, Korea University, Korea

PHYS.P-58 Exponential Distance Dependence of Photoinitiated Stepwise Electron Transfer in Null-Type Coupling PBI Arrays
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PHYS.P-59 Investigation of Protein-Peptide Binding Using Artificial Intelligence and Large-Scale Molecular Dynamics
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PHYS.P-60 Impact of cationic lipid composition and tail conformation on thermodynamic properties of lipid bilayers
Sungjun Lim, Hyonseok Hwang
Department of Chemistry, Kangwon National University, Korea

PHYS.P-61 Exploration of conformational structure of 2-butanone by IR resonant VUV-PI/MATI mass spectroscopy
Sung Man Park, Chan Ho Kwon
Department of Chemistry and Institute for Molecular Science and Fusion Technology, Kangwon National University, Korea

PHYS.P-62 Valence Orbitals Ordering and Cationic Structure Depending on Fluorine Substitutions at the *Ortho* Position of Pyridine Using VUV-MATI Mass Spectroscopy
Hyojung Kim, Sung Man Park, Chan Ho Kwon
Department of Chemistry and Institute for Molecular Science and Fusion Technology, Kangwon National University, Korea

PHYS.P-63 Isomer- and conformer-specific vibrational spectroscopy of 3-penten-1-yne by IR resonant VUV-MATI mass spectroscopy
Sung Man Park, **So Yeon Kim**[1], Wonchul Lee[1], Chan Ho Kwon
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PHYS.P-64 Investigating charge recombination dynamics in blue-TiO2 composites revealed by transient absorption spectroscopy
Woo hyeok Kim, Junu Bae[1], Tae Wu Kim[1]
Department of chemistry, Mokpo National University, Korea
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PHYS.P-65 Structural perturbation from protein-dye interaction revealed by X-ray solution scattering
Junu Bae, Seung Yeon Choi, Tae Wu Kim
Department of Chemistry, Mokpo National University, Korea

PHYS.P-66 Revealing the photochemistry of CdS/S-g-C3N4 heterojunction interface during the CO2 reduction by using time-resolved laser spectroscopy
Seung Yeon Choi, Woo Hyeok Kim[1], Tae Wu Kim
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PHYS.P-67 Delayed fluorescence from inverted singlet and triplet excited states of heptazine analogues HzT-FEX2 by Mixed-Reference Spin-Flip Time-Dependent Density Functional Theory (MRSF-TDDFT)
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Chemistry department, Kyungpook National University, Iran

PHYS.P-68 Role of small charged biomolecules under liquid-liquid phase separation of FUS Protein
Hyeryeong Lee, Sang Hak Lee
Department of Chemistry, Pusan National University, Korea

PHYS.P-69 Machine Learning-Enhanced Quantitative Analysis of CWA chromogenic detection
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PHYS.P-70 Analyzing Chemical Warfare Agents (CWAs) Decontamination Rates of Rotorcrafts Through Flight: A Combined Experimental and Computational Study
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PHYS.P-71 Screening inhibitors against SOD1(A4V) using computational calculations
Pavinee Prapassornwattana, Sang Hak Lee
Department of Chemistry, Pusan National University, Korea

PHYS.P-72 Polyamines and Metal Ions on Amyloid Beta(1-42) Protein Aggregation
Jaehyeon Kim, Sara Illodo[1], Sang Hak Lee
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PHYS.P-73 Structural and optical properties of nitrogen-implanted ALD-grown ZnO films
WonGeun Yang, Weon-Sik Chae
Daegu Center, Korea Basic Science Institute, Korea

PHYS.P-74 The Influence of Bismuth Electrode Hydrophilic Properties on the Selectivity of Electrochemical Carbon Dioxide Reduction Products
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PHYS.P-75 Exciton Dynamics in a Molecular Aggregate using Pump-Probe Spectroscopy
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PHYS.P-76 Enhancing accuracy of absorption spectroscopic measurements in saturated absorbers
Seunghyun Noh, Taeyeon Kim[1,*]
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PHYS.P-77 Non-Adiabatic Semi-Classical Dynamics Study of The Bidirectional PCET Process of NH_3Cl
Pinit Ariyageadsakul, Kyoung-Koo Baeck
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PHYS.P-78 Mind the Gap: Energy Gap for Protein Binding
Chan-Gyu Kim, TaeHwan Kim, Jeong-Mo Choi
Department of Chemistry, Pusan National University, Korea

PHYS.P-79 Conformation-Selective Ultraviolet Photofragmentation Spectra of Ubiquitin Ions in a Cryogenic Ion Trap
Iltae Yoo, Jinho Jeong, Jiyeon Yun, Nam Joon Kim
Department of Chemistry, Chungbuk National University, Korea

PHYS.P-80 Charge Underscreening of Lithium Ion-Doped Ionic Liquids: Across Short-range to Long-range Structures
Hyungshick Park, Bong June Sung, Jeongmin Kim[1,*]
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PHYS.P-81 Molecular Dynamics Simulation Analysis of FOX Transcription Factors Interacting with DNA in the Context of Environmental Toxicology
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PHYS.P-82 Exploring Jacob's Ladder: Density Sensitivity in Density-Corrected Density Functional Theory
Se Hun Kim, Youngsam Kim, Eunji Sim
Department of Chemistry, Yonsei University, Korea

PHYS.P-83 SERS Activity of Electromagnetic and Charge Transfer Effects on PS/Ag/MoO_3 Film by RF Magnetron Sputtering
Yoonseop Byun, Shuang Guo, Young Mee Jung
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PHYS.P-84 Study on the effect of vitamins on cellular expression level of MMP-2
Jinseo Park, Namdoo Kim[1,*]
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PHYS.P-85 Study of hyaluronic acid-based hydrogels for drug delivery
Yuna Oh, Namdoo Kim[1,*]
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PHYS.P-86 De novo nanobody binder design by generative AI models
Hakyung Lee, Juyong Byun[1,*]
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PHYS.P-87 Photodissociation Dynamics of Nitroaryl caged DEA-NONOate probed by Time-resolved IR Spectroscopy
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Department of Chemistry, Pusan National University, Korea

PHYS.P-88 Predicting Chemical Compound Solubility with GPT Models: A Comparative Analysis
Chanyoung Joe, Rakwoo Chang
Department of Applied Chemistry, University of Seoul, Korea

PHYS.P-89 DFT Study for the Reaction Pathway of Photocatalytic CO_2RR into Formic Acid using Ni-Perylene-Carbon Nitride Nanosheet (Ni-P-g-C_3N_4)
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PHYS.P-90 Kinetic and Thermodynamic Characterization of Antisense Oligonucleotide Binding to Target DNA
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PHYS.P-91 Deciphering the Molecular Mechanisms of Cas13a-RNA interactions: Binding, *Cis-cleavage and Trans-cleavage*
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Department of Chemistry, Chung-Ang University, Korea

PHYS.P-92 Theoretical study on the crucial role of metal coordination number in optimizing electrocatalyst activity of defective 2D Ru nanosheets.
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PHYS.P-93 Basis Set Extrapolation of HF/ROHF-DFT
Byeongjae Kim, Youngsam Kim, Eunji Sim
Department of Chemistry, Yonsei University, Korea

PHYS.P-94 Dynamical Simulation of Quantum Logic Gates based on Electronic Structure Calculations of Semiconductor Quantum Dots
Sangro Lee, Chang Woo Kim
Department of Chemistry, Chonnam National University, Korea

PHYS.P-95 Scaling Universality in Transport Distributions within Percolation Systems
Jaehyeok Jang, Hyun Woo Cho
Department of Fine Chemistry, Seoul National University of Science & Technology, Korea

PHYS.P-96 Characterizing Single Polymer Conformations from Coil to Globule Transitions
Park Joohyeong, Hyun Woo Cho
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PHYS.P-97 Utilization of reusable magnetic core-shell structured photocatalysts for the production of liquid fuels by CO2 reduction
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PHYS.P-98 Structural Changes of Thioflavin T upon Intramolecular Charge Transfer Studied by Impulsive Stimulated Raman Spectroscopy
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PHYS.P-99 Lithiation of crystalline and amorphous silicon materials from molecular dynamics simulation with ReaxFF force fields
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PHYS.P-100 Excited-State Intramolecular Charge Transfer of Anthraquinones Confined in Reverse Micelles
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PHYS.P-101 Diverse Quantum Interference Regime in Intramolecular Singlet Fission Chromophores with Thiophene-Based Linkers
Jonghwan Lee, Hyungjun Kim
Department of Chemistry, Incheon National University, Korea

PHYS.P-102 Simulation on Amorphous Solid State Electrolytes with Machine-Learning Potential
Beomgyu Kang, Bong June Sung
Department of Chemistry, Sogang University, Korea

PHYS.P-103 Identification and Dynamics of Microsecond-Lived Charge-Carriers in Super-Stable $CsPbBr_3$ Perovskite Quantum Dots in SiO_x Matrix
Ka young Cho, Jaehong Park
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PHYS.P-104 Donnan equilibrium and electrostatic screening of confined electrolytes: A simulation study on the effects of their composition
Eunseo Seo, Jeongmin Kim
Department of Energy Engineering, Korea Institute of Energy Technology, Korea

PHYS.P-105 Excited-state Proton Transfer of Green Fluorescent Protein Chromophores Investigated by Time-resolved Electronic and Vibrational Spectroscopy
Jihee Park, Taehyung Jang, Jongwon Im, Yoonsoo Pang
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PHYS.P-106 Density and Dispersion Corrected Density Functional Theory
Minhyeok Lee, Byeongjae Kim[1], Youngsam Kim[1], Eunji Sim[1]
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PHYS.P-107 Enhancing Molecular Design Through Explainable Deep Learning Models
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PHYS.P-108 Comparison of The Performance of HF-DFT with vdW-functionals in Condensed Phase Calculations
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PHYS.P-109 Optical activity detection via repetition rate multiplication of an optical frequency comb
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PHYS.P-110 Hartree-Fock DFT for Dipole Moments
Jiye Shin, Youngsam Kim, Eunji Sim
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PHYS.P-111 Intramolecular Charge Transfer of Stilbazolium Derivatives Studied by Time-resolved Vibrational Spectroscopy
Jongwon Im, Taehyung Jang[1], Sebok Lee[1], Yoonsoo Pang[1]
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PHYS.P-112 Synthesis and Photophysical Studies on Organic D-A Charge-Transfer Complex with SWIR Emitting Bandgap by Adjusting the Rotation Angle of D-A Configuration
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PHYS.P-113 Rebound kinetics of carbon monoxide with heme proteins using time-resolved infrared spectroscopy
Juhyang Shin, Seongchul Park, Manho Lim
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PHYS.P-114 Novel Subgroup-wise Attention Network for Interpretability
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PHYS.P-115 Formation of Alkali-Halide Cluster Ions with Aza-Crown Ethers
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PHYS.P-116 Structures of $(Li^+I^-)_nLi^+$ Cluster Ions Solvated by Ethylenediamine
Yunseop Choi, Jongcheol Seo
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PHYS.P-117 Rotational Isomerization of $CF_3CF_2CF_2$ Radical in solution
Seongchul Park, Juhyang Shin, Manho Lim
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PHYS.P-118 New methodological Fischer-Tropsch chemistry
Seon Young Hwang, Gaeun Yun, Choong Kyun Rhee, Youngku Sohn
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PHYS.P-119 Isomerism Introduced by Altering Connectivity between Anthracene Chromophores
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PHYS.P-120 The Impact of Oligothiophene Linkers in Heterogeneous Triplet Formation Pathways of 6,6′-Linked Pentacene Dimers
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PHYS.P-121 Enhanced Chemical Stability of Radical Cations in Carbazole-based Diketopyrrolopyrrole Derivatives
Jungjin Park, Sanchari Debnath[1], Vithobha Hugar[1], Ram Kumar Canjeevaram Balasubramanyam[1], Woojae Kim, Satish Patil[1]
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PHYS.P-122 Unraveling the chirality transfer from chiral molecules to plasmonic nanoparticles.
Chaeyoung Im, Seunghoon Lee
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PHYS.P-123 Solvent and Fluence-Dependent Exciton Dynamics in One-Dimensional Perylene Bisimide H-Aggregates
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PHYS.P-124 Bioinformatic Analysis of Protein Structures Using Contact Map Formalism
TaeHwan Kim, Jeong-Mo Choi
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PHYS.P-125 Towards Accurate Determination of Binding Free Energy Using Molecular Dynamics Simulations
Taeseung Lee, Jeong-Mo Choi[1,*]
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PHYS.P-126 Investigating Solvation Structures in Lithium-Ion Batteries: A Spectroelectrochemical Approach
Jungmin Park, Kyungwon Kwak, Minhaeng Cho
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PHYS.P-127 Molecular Dynamics Study on the Mechanical Deformation of Ionic Liquid Treated PEDOT:PSS Film
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PHYS.P-128 Molecular Dynamics Simulations of DNA Rotaxanes
Yeonho Song, Jun Soo Kim
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PHYS.P-129 Phase Separation of Amino Acid Derivatives and Water: Molecular Dynamics Study
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PHYS.P-130 Characterization of Nanoscale Spatial Heterogeneity in Inter- and Intra-Chain Entangled Polymer Networks Using the Random Barrier Model
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PHYS.P-131 Production of Single-Phase High-Entropy Alloys (Au, Ru, Ir, Pt and Pd) via CO_2 Laser for Hydrogen Production Through Seawater Electrolysis
Chae Eun Park, Dong Hyeon Lee, Theerthagiri Jayaraman, Myong Yong Choi
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PHYS.P-132 Triphenylphosphonium-Functionalized Dimeric BODIPY-Based Nanoparticles for Mitochondria-Targeting Photodynamic Therapy
Chanwoo Kim, Jaesung Yang[1,*]
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PHYS.P-133 Effect of vitamin C, B3 and E mixtures with fat-soluble vitamins on MMP-9 expression level
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PHYS.P-134 CO_2 Laser-induced $CoFe_2O_4$@NC hollow cubes from CoFe-Prussian Blue Analogues for Electrochemical Nitrate Reduction
Yeryeong Lee, Theerthagiri Jayaraman, Myong Yong Choi
Department of Chemistry, Gyeongsang National University, Korea

PHYS.P-135 Investigation of Trap State Suppression in Mg-Doped CsPbBr3 Perovskite Quantum Dots at the Single Particle Level
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PHYS.P-136 In Situ Growth of NiFe Layered Double Hydroxide on Nickel Foam via Pulsed Laser for Oxygen Evolution Reaction

Dong Hyeon Lee, Chae Eun Park, Theerthagiri Jayaraman, Myong Yong Choi
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PHYS.P-137 Laser-Assisted Synthesis of $BaTiO_3$/MXene Composites for Enhanced Supercapacitor Performance

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PHYS.P-138 Stabilization of iridium on N-doped porous carbon to boost electrocatalytic overall water splitting

Seong Bo Lee, Maheskumar Velusamy, Ahreum Min, Cheol Joo Moon, Myong Yong Choi
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PHYS.P-139 Laser-induced Flowers-Like CuCo-Sulfides from Bimetallic CuCo Prussian Blue Analogues for Enhanced CO_2 Reduction Catalysis

Juhyeon Park, Ahreum Min, Cheol Joo Moon, Theerthagiri Jayaraman, Soohan Yun, Myong Yong Choi
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PHYS.P-140 Directional Electron Transfer Across Semiconductor based materials -Embedded Photocatalytic Membrane

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PHYS.P-141 Exploring the Impact of Pd Nanoparticles on $NiCo_2O_4$ Electrocatalyst for Enhanced Hydrazine-Assisted Hydrogen Production

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PHYS.P-142 Pulsed Laser Synthesis of CuO@Co Nanorods as Efficient Electrocatalyst for Oxygen Evolution Reaction

Jangyun Kim, Chae Eun Park, Theerthagiri Jayaraman, Myong Yong Choi
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PHYS.P-143 Anion exchange in highly luminescent lead free halide perovskites ($CsCuX_3$, X= Br, Cl)

Dibyendu Dutta, Anil Kumar Astakala, Yiseul Yu, Seung Jun Lee
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PHYS.P-144 Unveiling the Superior Electrocatalytic Role of Multicomponent High-Entropy Alloys in Nitrite Reduction Reaction

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PHYS.P-145 Pulsed-Laser Grown Nickel sulfo-selenide Nanostructures for Water and Furfural Electrooxidation Reactions

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PHYS.P-146 Pulsed Laser Synthesis of Carbon-Coated Ruthenium Nanoparticles for Hydrazine-Assisted Efficient Hydrogen Production

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PHYS.P-147 Full quantum electron transfer theory

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PHYS.P-148 Pulsed Laser Engineering of AgCu Electrocatalyst for Efficient Hydrogen Production via Formaldehyde Oxidation Reaction

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PHYS.P-149 Boosting Rate Capability and Energy Density of Nickel Cobalt Oxalate / MXene Composite Based Supercapacitors

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PHYS.P-150 Ru-doped NiCo Layered Double Hydroxide via Pulsed Laser Rotating System
Soohan Yun, Ahreum Min, Cheol Joo Moon, Juhyeon Park, Myong Yong Choi
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PHYS.P-151 Designing a MXene/Carbon Nitride Hybrid Material to Enhance the Stability of High-Energy Lithium-Ion Batteries.
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PHYS.P-152 Development of Efficient Eigenvalue Solver for Multi-GPU Accelerated Density Functional Theory Calculations
Jeheon Woo, Woo youn Kim
Department of Chemistry, KAIST, Korea

PHYS.P-153 Low-Voltage-Driven Dual Hydrogen Production with Value-Added Formate Co-synthesis on Laser-Developed Ru/Cu Electrocatalyst
Sagyntay Sarsenov, Senthil Raja Arumugam, Myong Yong Choi
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PHYS.P-154 Coordination Chemistry of Semi-constrained Systems: DFT Study
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PHYS.P-155 Degradation of dyes according to surface charge of photocatalyst and enhancement of catalytic activity by nanoparticle clusters
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PHYS.P-156 Exploring the bifunctionality nature of Ir doped CoGa-LDH synthesized via laser irradiation system towards overall electrochemical water-splitting
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PHYS.P-157 MXene/La_2CoNiO_6 Double Perovskite Composites for Supercapacitor Applications
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PHYS.P-158 Applications of Alchemical Free Energy Methods in Protein Interactions
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PHYS.P-159 Pulsed laser decorated Pt nanoclusters on N-doped mesoporous carbon as robust electrocatalyst for hydrogen production via natural seawater splitting
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PHYS.P-160 Development of a protein-ligand 3D structure database for AI-based binding site prediction
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PHYS.P-161 Elucidation of Equilibrium Size Distribution of Rigid Clusters and Liquid-like Droplets
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PHYS.P-162 A Study of Surface on Aluminum Foils as an Anode in Various Electrolyte Concentration of Aluminum-ion Battery
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PHYS.P-163 Control of Structural Order of Aromatic Thiolate Monolayers on Au(111) Using Displacement Techniques
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PHYS.P-164 Effect of Wingtip and Alkyl Backbone on the Formation and Structural Order of Self-assembled Monolayers on Au(111) from N-Heterocyclic Derivatives
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PHYS.P-165 Synthesis and Photocatalytic Performance of La/TiO_2/GO/Halloysite Nanocomposite for Photodegradation of Organic Dyes
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PHYS.P-166 Observing energetic landscapes near the transition state in the frequency and time domain
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PHYS.P-167 Light-driven electron dynamics of the Photoactive Yellow Protein derivatives
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PHYS.P-168 Ultrafast Charge-Carrier Dynamics of the Green-Light Emitting InP/ZnSe/ZnS Core-shell Quantum Dots
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PHYS.P-169 Layer-dependent exciton formation in two-dimensional crystals of perylene derivatives
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PHYS.P-170 Development of Efficient Charge Transfer Rectification Molecular Photodiodes by Controlling Dipole Moments in Peptoid Systems
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PHYS.P-171 Microplastics Analysis with Macro-scale Hyper Raman Imaging System
Hyung Min Kim*, **Hyeonjeong Yoon**
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PHYS.P-172 Effect of Tacticity on Physical Properties of Polystyrene from Molecular Dynamics Simulation
Hoyeon Lee
Nanochemistry, Gachon University Global Campus, Korea

PHYS.P-173 Epi and Forward-Scattering Stimulated Raman Spectroscopy of 2D Inorganic and Organic Crystals
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PHYS.P-174 Thickness-Dependent Excitonic Behaviors of 2D Tetracene Crystals at Various Temperature
Sangjin Han, Sunmin Ryu
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PHYS.P-175 Importance of solvent and relativistic effects on the accurate description of the excited state structure of complex containing Hg2+ ion
Dae-Hwan Ahn, Jong-Won Song
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PHYS.P-176 Enhancing Solvent Deoxygenation Efficiency: A New Inert Gas Bubbling Approach with Ventilation Path Addition
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PHYS.P-177 Exact analytical distributions for the number of biomolecules in the living cells.
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PHYS.P-178 In-plane Mixed-Dimensional Heterostructures composed of Monolayer MoS_2 and Low-Dimensional Mo/Te Compounds
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PHYS.P-179 Revealing the electric double layer structure with constant bulk electrolyte concentration simulation
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PHYS.P-180 Single Molecule Localization Microscopy Based on Cyanine Dye Photoconversion
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PHYS.P-181 Characteristics of Electrical Resistivity and Conductivity in the Preparation of Antimony-Doped Tin Oxide Coating on TiO2 Microrods.
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PHYS.P-182 Polarized Absorption Spectroscopy of 2D PTCDA Crystals Grown on Graphene and Hexagonal BN
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PHYS.P-183 Advanced Detection and Characterization of Microplastics in Aqueous Environments Using Bright Field-Line Illumination Raman Microscopy
Jeewon Lee, Subeen Park, Hyung Min Kim
Department of Chemistry, Kookmin University, Korea

PHYS.P-184 Circular Dichroism Spectroscopy of (3R,4S)-3-Hydroxy-4-phenyl-2-azetidinone
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PHYS.P-185 Graph-Based deep learning strategy for prediction on properties of multicomponent system
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PHYS.P-186 Protein-Ligand interaction of the OR2AT4 as a target of acute myeloid leukemia
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PHYS.P-187 Advanced Activity and Selectivity of CO2 Conversion on Bi2S3-Derived Bi Nanoplates
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PHYS.P-188 To improve photocatalytic performance, metals are doped into g-C_3N_4 and fabricate electrodes that apply them to photoelectrochemical reactions
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PHYS.P-189 Polarization-Dependent Plasmon Coupling in Gold Nanorod-Gold Nanosphere Core-Satellite Nanoassemblies
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PHYS.P-190 Method for Fabricating MgAl-layered Double Hydroxide Electrode for Photoelectrochemical Reaction Using Spin Coating
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PHYS.P-191 Computational Study on Novel Penta Monolayer MPS (M = Ni, Pd, Pt) as Promising Optoelectronics and Thermoelectric Materials with Visible Light Absorption and High Figure of Merit
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PHYS.P-192 Hydrothermal Synthesis of Controllable WO3 Nanostructured Films for Enhanced Photoelectrochemical Efficiency on FTO Substrates
Serin Jung, Myung Jong Kang
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PHYS.P-193 Unraveling Quantum Interference and Singlet Fission Dynamics in Conjugated Dimers with Heteroatom-Modified Benzene Linkers
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PHYS.P-194 Fabrication of Non-Precious Transition Metal Carbide Catalyst for HER
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PHYS.P-195 Exploring chemical reaction dynamics and mechanisms in photochemical reactions
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PHYS.P-196 Narrowing Nanogaps between Plasmonic Nanoparticles Using Plasma Treatment
Jeongmin Han, Sangwoon Yoon
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PHYS.P-197 Reversible and Electrotunable Assembly/Disassembly of Plasmonic Nanoparticles
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ANAL.P-198 Cyclone collection and IMS detection of explosives adsorbed in dust
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ANAL.P-199 A method for quantification of formaldehyde in phenolic resin using 13C NMR spectroscopy
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ANAL.P-200 Thermodynamics behavior of high-voltage olivine $LiFe_{0.4}Mn_{0.6}PO_4$ cathode
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ANAL.P-201 Synthesis of and surface functionalization of VPO_5 anode material for Li-ion batteries
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ANAL.P-202 Novel Prussian blue-graphene quantum dot (PB-GQD) nanoarchitecture as an efficient electrocatalyst for H2O2 reduction
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ANAL.P-203 SERS Sensor Based on CRISPR/Cas12a for coronavirus disease detection: Application to SARS-CoV-2 diagnosis
Minkyu Kim, Daehyeon Kim, Hongki Kim
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ANAL.P-204 CRISPR/Cas-assisted Nanowire SERS Sensor for Detection of African Swine Fever Virus
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ANAL.P-205 A Strategy to Enhance the Photoconversion of Organic Molecules via Host-Guest Interactions
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ANAL.P-206 Synthesis of Bimetallic Nanoclusters for Photocatalytic Organic Reactions
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ANAL.P-207 Determination of equine urinary androgen by liquid and 4-spot dried urine with hyphenated mass spectrometry
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ANAL.P-208 Stability and sensitivity enhanced paper-based nonenzymetic label-free SERS biosensor for glucose detection
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ANAL.P-209 Development of a nucleic acid extraction device based on photothermal magnetic nanoparticles
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ANAL.P-210 Hyperspectral NIR measurement of dried seaweeds for determination of their protein contents
Haeseong Jeong, Hoeil Chung
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ANAL.P-211 Efficient feature extraction using convolutional autoencoder (CNNAE) for hetero spectral two-trace two-dimensional (2T2D) correlation maps and interpretation using Grad-CAM
Seongsoo Jeong, Hoeil Chung
Department of Chemistry, Hanyang University, Korea

ANAL.P-212 Polyethylene glycol for highly efficient enrichment of exosomes derived from human blood serum
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ANAL.P-213 Applications of AccuGC™100, portable GC-PID
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ANAL.P-214 SERS-based assay of uropathogen using magnetic beads immobilized with gold nanoparticles
Kihyun Kim, Jaebum Choo
Department of Chemistry, Chung-Ang University, Korea

ANAL.P-215 Highly sensitive detection of SARS-CoV-2 RNA using CRISPR/Cas13a-mediated SERS-based dual-flow assay strip
Younju Joung, Jaebum Choo
Department of Chemistry, Chung-Ang University, Korea

ANAL.P-216 Simultaneous analysis of 29 banned Illegal dyes in Tattoo ink by Liquid chromatography-Electrospray ionization- tandem mass spectrometry(LC-ESI-MS/MS)
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ANAL.P-217 Development of Thermally Controllable Paper-Based Digital Microfluidics: Application to Electrochemical Detection of HPV
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ANAL.P-218 Novel mycophenolic acid precursor–based fluorescent probe for intracellular H_2O_2 detection in living cells and Daphnia magna and Zebrafish model systems.
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ANAL.P-219 The determination of inorganic mercury by solid phase extraction and inductively coupled plasma optical emission spectrometry
Jangmi Park, Yonghoon Lee, Sang-Ho Nam
Department of Chemistry, Mokpo National University, Korea

ANAL.P-220 Implemented electroluminescent display on paper-based digital microfluidic device as an optical transducer for rapid spectral analysis
Semin Chun, Sarath Kin, Oh-Sun Kwon, Kwanwoo Shin
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ANAL.P-221 Recent advances in preparing near-infrared molecular probes via indole incorporation.
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ANAL.P-222 Study of Solvent and Temperature Parameters for Phthalates Screening using Thin Layer Chromatography (TLC)
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ANAL.P-223 Photonic crystal synthesized by Self-Emulsion polymerization method for colorimetric thermo sensor
Si Hyeok Yang, Jin Woo Choi, Hongki Kim
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ANAL.P-224 Development of Multifunctional PCM Microcapsules with biocompatibility and Analysis of Physicochemical Characteristics
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ANAL.P-225 Optimization of lecithin-encapsulated drug delivery system: Comprehensive NMR characterization and improved skin permeation profiles
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ANAL.P-226 One-step self-encapsulated perovskite quantum dot polymer film for high color purity down conversion film
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ANAL.P-227 Quantitative Determination of Aromatic Amines Released from Azo Dyes in Tattoo Ink by Gas Chromatography-Electron Ionization-Mass spectrometry(GC-EI-MS) and tandem mass spectrometry(GC-EI-MS/MS)
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ANAL.P-228 Chemical Fingerprinting Analysis of Pen Ink and Dyes by Matrix-assisted Laser Desorption Ionization and Capillary Electrophoresis
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ANAL.P-229 IL6-MagLISA: A Magnetoplasmonic Chemiluminescent Immunoassay for Quantifying Sepsis Biomarker

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ANAL.P-230 Investigation on Physicochemical Property and Structure of Human Hair Using ^{13}C Cross-Polarization Magic Angle Spinning NMR Spectroscopy

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ANAL.P-231 Dynamic Nuclear Polarization of Onion-Shaped Silica Nanoparticles with Selective 29Si Isotope and Radical Enrichment

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ANAL.P-232 Development of Light-Responsive Polylactic Acid for Sustainable Biodegradable Materials: Synthesis and Microcapsule Formation

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ANAL.P-233 Development of Pumpless PCR and Paper-Based DNA Detection Sensor for On-Site Rapid Detection of Blue-Green Algae

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ANAL.P-234 Probing Optical Characteristics and Chemical Interface Damping in Gold Nanorods via Cucurbit [6] uril Host-Guest Chemistry

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ANAL.P-235 Unraveling Plasmon Damping in Silver–Coated Gold Nanorods: Insight from Single–Particle Analysis and Damping Tuning

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ANAL.P-236 Vibrational Circular Dichroism in Chiral Ligand Encapsulated Metal Chalcogenide Nanoparticles

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ANAL.P-237 Study Competition between Plasmon Decay pathways of Gold Nanorods on Graphene

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ANAL.P-238 Electrochemical Tuning of Hot-electron Generation and Chemical Interface Damping in Single Gold Nanorods

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ANAL.P-239 Geographical Origin Discrimination of Soybean Paste Using Laser-Induced Breakdown Spectroscopy and k-Nearest Neighbors Analysis

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ANAL.P-240 Performance evaluation of thickness-tapered channel in flow field-flow fractionation with the effect of field programming in a uniform channel

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ANAL.P-241 Top-down lipid analysis of exosomes derived DU145 cells using mAF4-ESI-MS/MS

Hyeju Yu, Donggyun Kim, Myeong Hee Moon
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ANAL.P-242 SARS-CoV-2 induced lipid perturbation in lung, liver, and serum of mice

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ANAL.P-243 Optimization of skin sampling method for lipidomic analysis by nanoflow UHPLC-ESI-MS/MS

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ANAL.P-244 Non-thiolated DNA-Templated Synthesis of Intra-nanogap for Highly Sensitive SERS Probes
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ANAL.P-245 Lipid alternations in brain and spleen tissues of SARS-CoV-2 mouse using nanoflow UHPLC-ESI-MS/MS
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ANAL.P-246 Copolymerization of Regenerative Drugs in Biocompatible Microneedles to Maximize Drug Efficacy
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ANAL.P-247 Advanced 19F NMR Investigation of Poly (vinylidene fluoride) (PVDF) Crystalline Phases for Good-performance Electrode
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ANAL.P-248 Advanced cross-polarization schemes for heteronuclear transfers involving labile protons in biomolecular solution NMR
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ANAL.P-249 Overcoming Undesired Autoxidation in Catecholic Polymers through a One-Step Phenol to Catechol Conversion Strategy
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ANAL.P-250 Harnessing Gallium-Based Nanoparticles for Environmental Remediation
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ANAL.P-251 Exploring EGaIn Nanoparticle Synthesis for Enhanced UV Plasmonic Applications
Taesoo Cho, Seoyoung Hur, Jeong-Wook Oh
Department of Chemistry, Hankuk University of Foreign Studies, Korea

ANAL.P-252 Development of Thermogravimetric and Mass Analysis System
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ANAL.P-253 Investigation on Raman spectral features according to variation of internal thickness of pearls
Juyoung Park
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ANAL.P-254 Urinary metabolic profiling in ECMO-treated severe COVID-19 patients
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ANAL.P-255 Analysis of Ca in Urine Using Laser-Induced Breakdown Spectroscopy
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ANAL.P-256 Sex-specific reproductive dysfunction in zebrafish: Estrogenic and anti-androgenic effects of 4-tert-octylphenol
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ANAL.P-257 Lipidomic changes of brain tissue in an Alzheimer's disease mouse model overexpressing Tau
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ANAL.P-258 Metabolomics time-course response in liver tissues after SARS-CoV-2 infection
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ANAL.P-259 Streamlining LC-MS Sample Preparation: An Automated Robotic System Utilizing 3D Printing
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ANAL.P-260 Development of a gas pre-treatment device for high-performance analysis
Eunjin Jung, Han Bin Oh
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ANAL.P-261 N-glycoproteome in prostate cancer tissues and blood for biomarker discovery
Yunseon Woo, Wonryeon Cho
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ANAL.P-262 Employing Multiple Regression to Analyze Factors Impacting Triboelectricity Output
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ANAL.P-263 Advancing Antibody Sequences : TEMPO-based FRIPS Mass Spectrometry
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ANAL.P-264 Development of Sample Preparation Strategies of Formalin-Fixed, Paraffin-Embedded (FFPE) Tissue for Mass Spectrometry-based Proteomic Analysis
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ANAL.P-265 Human toxicity due to the combination of allethrin and DNA
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ANAL.P-266 Building a Miniature Digital Rectilinear Ion Trap Mass Spectrometer
Md Musleh Uddin Munshi
Chemistry, Sogang University, Bangladesh

ANAL.P-267 Optimization of stainless-steel emitter fabrication methods to enhance sensitivity of electrospray ionization mass spectrometry (ESI-MS)
Somi Jeong, Hee-Ryung Kim, Sung Min Hwang, Hyunju Yang, Moonsu Bok, Sang-Won Lee
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ANAL.P-268 Wood inspired Reduced Graphene Oxide/Oxidized Carbon Nanotube/Polyvinylalcohol Aerogel for Efficient and Durable Solar Steam Generation
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ANAL.P-269 Thermal decomposition study of calcium oxalate hydrate through TGA and in situ FT-IR analysis
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ANAL.P-270 Effective sample preparation for mass spectrometry-based bottom-up proteomics
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ANAL.P-271 Advancing Analytical Strategies for the Comprehensive Detection and Quantification of Cyclic Imines in Marine Ecosystems
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ANAL.P-272 Characterization of self-assembled micelle inhibitory RNA drug using ion-pairing reversed-phase liquid chromatography combined with mass spectrometry
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ANAL.P-273 Metabolic Isotope Labeling of Glycans in C. elegans for Quantitative Glycomics by Mass Spectrometry
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ANAL.P-274 Photo-reversible tuning of chemical interface damping in single gold-nanorods with cucurbit[n]uril and aminoazobenzene
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Department of Chemistry, University of Ulsan, Korea

ANAL.P-275 Metabolic Isotope Labeling of O-linked Glycans using Isotope-labeled Glucose in Yeast for Quantitative Glycomics
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ANAL.P-276 Development of a Custom-Built Parahydrogen Injection System for Studying the Radical Scavenging Mechanism of Nicotinamide Derivatives
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ANAL.P-277 Electrochemical Impedance Spectroscopy Analysis for Non-destructive Determination of Compressive Strength of Concretes

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ANAL.P-278 Comprehensive Characterization of Brain Gangliosides from Alzheimer's Disease Mouse Model using Chromatographic Separation and Tandem Spectral Library Matching

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ANAL.P-279 Structural study for APP-TM ion channel using NMR Spectroscopy

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ANAL.P-280 NMR-based structural analysis of anti-inflammatory peptides, tIK series

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ANAL.P-281 Elucidative structure of m-hMC4R-TM2 and wt-hMC4R-TM2 using NMR

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ANAL.P-282 NMR Analysis of LPcin, an antimicrobial peptide, and Metal ion

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ANAL.P-283 Studies of Syndecan-4 and PIP_2 in signal transduction by NMR spectroscopy

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ANAL.P-284 Spatiotemporal Dynamics of Real-time Catalytic Activity on Plasmonic Gold Nanoparticles at Resolutions Beyond the Diffraction Limit

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ANAL.P-285 Analyzing Stomach Cancer Tissue using Hyperspectral imaging and deep learning model

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ANAL.P-286 ANALYSIS OF AIRBORNE DISINFECTANT RESIDUES AND EXPOSURE INVESTIGATION Sion Lee 1, Eun Woo Choi 1, Han bin Oh *1 1Department of Chemistry, Sogang University, 35, Baekbeom-ro, Mapo-gu, Seoul, 04107, Korea

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LIFE.P-126 Determination of pore inside hair fibers and carbodiimide reaction for damage repair
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LIFE.P-127 21 Fluorescent Protein-Based DNA Staining Dyes
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LIFE.P-128 Cell-Free Protein Expression System in a Single Liposome to Create Artificial Cells with Energy Harvesting Capabilities
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LIFE.P-129 Bacterial expression of TEV cleavable fluorescent protein pairs for in vitro FRET efficiency study
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LIFE.P-130 Improvement of membrane integrity against physical disruption by ATP-activated actin in artificial cells
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LIFE.P-131 Study of Imidazole Salt Characteristics as Pore-Forming Agents for Selective Pore Formation in Liposome
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LIFE.P-132 Investigation of proteome-tetrazine reactivity for a minimal background biorthogonal click reagent in live cell.
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LIFE.P-133 Rice peroxygenase catalyzes lipoxygenase-dependent regiospecific epoxidation of lipid peroxides in the response to abiotic stressors
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LIFE.P-134 Regulation of Microtubules Architecture and Microtubules Bundle Patterns
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LIFE.P-135 In-cell Click-assembled Targeted Protein Degrader for Efficient Protein Degradation
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LIFE.P-136 tELISA based extracellular vesicle analysis for Renal Cell Carcinoma diagnosis
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LIFE.P-137 Challenges in counting of target cell-derived exosome: A protocol for minimized the influence of exosome derived from fetal bovine serum
Ki-ppeum Lee, Jusung An, Hyeonji Rha, Jaewon Kim, Eunji Kim, Changyu Yoon, Yujin Kim, Jiyoung Yoo, Huiyeon Moon, Jong Seung Kim
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LIFE.P-138 Novel Glioblastoma photodynamic therapy agent using non-pi-bond conjugated polymerization
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LIFE.P-139 Engineering Cellular Microenvironment and Intercellular Interactions through $\alpha_5\beta_1$ Integrin Overexpression in Human Dermal Fibroblast
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LIFE.P-140 Pentafluoro-benzene Functionalized AIEgen as a Rapid and Highly Sensitive Fluorescent Nanoprobe for Gold Ion Detection
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LIFE.P-141 Construction of ASBBFs (Amino-Single Benzene-based Fluorophore) Library
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LIFE.P-142 Iron-Silicate Coated Porous Silicon Nanoparticles: A Novel Approach for Enhanced In Situ ROS Generation and Anticancer Efficacy
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LIFE.P-143 Innovative urine-based femetch: a novel nitrobenzene-based fluorescent biothiol probe with controlled Smiles Rearrangement
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LIFE.P-144 Development of Turn-On Fluorescent Nanoprobe AgP-1 for Selective Silver Ion Detection
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LIFE.P-145 Self-Activating Therapeutic Nanoparticles (SATNs): Advancing ROS-Mediated Nanomedicine for Enhanced Tumor Therapy
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LIFE.P-146 High resolution mapping of α-synuclein phosphorylation using single-molecule fluorescence
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LIFE.P-147 Building Proteins with Native Chemical Ligation *in vitro*
Hyeongseok Kim, Joongoo Lee
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LIFE.P-148 High yield purification of poly(ethylene) terephthalate hydrolase from the periplasm of *Escherichia coli*
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LIFE.P-149 Light-Triggered RNS/ROS Release and Simultaneous Intramito-chondrial Self-Assembly of Nanostructures for Supramolecular Cancer Therapeutics
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LIFE.P-150 Exploring Liquid-Liquid Phase Separation in Organic Solvent Environments
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Kyung Hee University, Korea

LIFE.P-151 An Efficient Lysate-Based Cell-Free Synthesis Platform for Site-Specific Incorporation of Unnatural Substrates into Proteins
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LIFE.P-152 Creating a novel fluorescent probe capable of instantly detecting both O-GlcNAcase and phosphatase activities.
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LIFE.P-153 Study of the senescence progress of human skin fibroblast on silica nanobeads array
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LIFE.P-154 Simulation and Application of Red Fluorescent Nanodiamonds for Temperature Sensing in Skin Cells via Microwave-Assisted Techniques
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LIFE.P-155 Intracellular uptake mechanism of an artificial virus model conjugated with a spike protein derived from SARS-CoV-2
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LIFE.P-156 Novel spray coating technique for large-area homogeneous adsorption of fibronectin for enhanced wound healing
Chaeeon Lim, Albertus Ivan Brilian, Sang Ho Lee, Kwanwoo Shin
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LIFE.P-157 Simulating Subcellular Compartmentalization: Endocytosis Modeling in Fibronectin-Coated Phospholipid Artificial Cells
Sohyun Nam, Huong Thanh Nguyen, Kwanwoo Shin
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LIFE.P-158 Colorectal cancer-derived extracellular vesicle protein analysis by sandwich type SERS immunoassay
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LIFE.P-159 3T3 cellular behavior on the various curvature-modified Liquid Phase Deposition
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LIFE.P-160 Visualizing large DNA molecules through Scanning Electron Microscopy (SEM) Using a Metal-Free Electro-Stain Composed of DNA-Binding Proteins and Synthetic Polymers
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LIFE.P-161 Molecular Design Strategy for Iridium(Ⅲ)-based Photosensitizers to Enhance the Phototoxicity Index and Efficacy of Photodynamic Therapy.
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LIFE.P-162 Capillary Force Driven Microfluidic Device for Analysis of Large Single-Molecule DNA
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LIFE.P-163 Exploring Liquid-Liquid Phase Separation: Innovative Paths for Ring-Opening Polymerization of NCAs
Honggi Jeon
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LIFE.P-164 Divalent Cation Regulation of Actin Filamentary Bundles and Networks
Sang Ho Lee, Chang Ho Kim[1], Kwanwoo Shin
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LIFE.P-165 Dynamic behavior of DNA-gold nanoparticle assembly via interaction with enzymes
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LIFE.P-166 Crowder Effects on Biomolecular Phase Separation
Hyun-Ah Jo, Chan-Gyu Kim, Ha-Eun Kim, Jeong-Mo Choi
Department of Chemistry, Pusan National University, Korea

LIFE.P-167 The Role of TAK1 and Nrf2 in Regulating Proliferation of Colon Cancer Cells with K-RAS Mutation
Seoyeon Park, Do-Hee Kim, Sunghyun Hong, Hanbin Lim
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LIFE.P-168 Altering cell-surface receptors for the purpose of identifying receptor-specific glycosylation.
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LIFE.P-169 Engineering of cell-surface receptors to study receptor internalization
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LIFE.P-170 Engineering Liquid-Liquid Phase Separation of Multi-Domain Proteins
Ha-Eun Kim, Chan-Gyu Kim, Hyun-Ah Jo, Jeong-Mo Choi
Department of Chemistry, Pusan National University, Korea

LIFE.P-171 Synthesis of modified elongation factor (EF-P) in vitro
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LIFE.P-172 Mutated ribosome-mediated biosynthesis of pyridazinone oligomers in vitro
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LIFE.P-173 An orthogonal flexizyme recognizing a water-soluble leaving group
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LIFE.P-174 Detection and Identification of Lysosomal β-hexosaminidases Using Near-Infrared (NIR) Fluorogenic Probes
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LIFE.P-175 Read-across Approach for Developmental Toxicity Assessment: A Case Study with Dibutyl Phthalate
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LIFE.P-176 Laccase-inspired bi-amino acid MOFs with high substrate affinity: Catalytic deposition induced "signal-down" electrochemical response towards PD-L1
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LIFE.P-177 DOM: *Dual Optical Mapping* Combining Sequence-Specific Markers and A/T Frequency-Dependent Profiles
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LIFE.P-178 Sequence-based peptide design for the α-Synuclein aggregation inhibition
SangHun Woo, Je Young Yoo, YouRa Lee, Young-Hee Shin
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LIFE.P-179 Developing Antibifilm α/β/γ Peptides with Enhanced Resistance to Degradation
Jihoo Jung, HyeonUk An, Young-Hee Shin
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LIFE.P-180 Bioorthogonal Imaging Probe for Sting Protein in Live Cell and Fixed Tissue
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LIFE.P-181 Spatiotemporal Control of Antibody-Drug Conjugates using STRIC (Stimulus TRIggered Cleavage) Technology
Jeonghyun Lee, Eunha Kim
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LIFE.P-182 Development of spatial control of tetrazine ligation
Lee Minju, Eunha Kim
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LIFE.P-183 New strategy of immunofluorescence cell imaging based on "click to release" mechanism
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LIFE.P-184 Hyaluronic acid nanoparticles as a topical agent for treating psoriasis
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LIFE.P-185 DNA aptamer-conjugated lipid nanoparticle for targeted PTEN mRNA delivery to prostate cancer cells
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LIFE.P-186 Targeted delivery of anticancer drugs and siRNA to leukemic cells with DNA aptamer-conjugated liposome
Hyesoo Jin, Dong-Eun Kim
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LIFE.P-187 Zwitterionic nanocomplexes aided by Nitric Oxide nanomotors utilizing mucus-walking mechanism to offer a synergistic treatment approach for ARDS
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ORGN.P-188 Photoredox catalysis/initiation of substituted fluoresceins under visible light
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ORGN.P-189 One-Pot Three-Component Reaction for the Synthesis of 3,4-Dihydroquinazolines and Quinazolin-4(*3H*)-ones
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ORGN.P-190 Regio- and Enantioselective Catalytic δ-C–H Amidation of Dioxazolones Enabled by Open-Shell Copper-Nitrenoid Transfer
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ORGN.P-191 One-Pot Conversion of D-ribose into Pyrrole Heterocyclic Platform Compounds-Synthesis of Lamellarin O Derivatives
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ORGN.P-192 Effective synthesis of Grifolin exhibiting biological activity using 5-methylcyclohexane-1,3-dione.
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ORGN.P-193 Synthesis and Analysis of Oxo-Carotenoids for Efficient Superoxide Radical Scavenging
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ORGN.P-194 Apocarotenals of Phenolic Carotenoids for Superior Antioxidant Activities.
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ORGN.P-195 Total synthetic method for Tetraphenyl-Substituted All-*E*-Carotenoids as Molecular wire
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ORGN.P-196 Synthesis of diglycerides from natural compounds
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ORGN.P-197 Palladium-Catalyzed S-Allylation of Vinyl Carbinols: A Highly Efficient Approach for Carotenoid Synthesis via Julia-Kocienski Olefination
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ORGN.P-198 A Stereoselective Synthesis of Geminal Bromofluoroalkenes Enabled by Kinetically Controlled Selective Conversion of Oxaphosphetane Intermediates
Jaeseong Jin, Jun-Ho Choi, Won-jin Chung
Department of Chemistry, Gwangju Institute of Science and Technology, Korea

ORGN.P-199 Enantioselective Synthesis of chiral 3,4-Dihydroquinolin-2-ones via organocatalytic [4+2]-Cyclization of 2-Amino-β-nitrostyrenes with Azlactones
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ORGN.P-200 Organocatalytic asymmetric [4+2]-cycloaddition of Cyclic N-Sulfimines with 2-Aminophenyl Enones
Yurim Kim, Sung-Gon Kim
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ORGN.P-201 Bifunctional Squaramide-Catalyzed Asymmetric Annulation of Cyclic N-Sulfonyl Ketimines with γ- or δ-Hydroxy-α,β-Unsaturated Ketones
Jiseon Yang, Sung-Gon Kim
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ORGN.P-202 Organocatalytic Asymmetric [4+2]-Cycloaddition of 2-Aminophenyl Enones with Isatin-Derived Ketimines: Stereoselective Synthesis of Spirooxindole-Tetrahydroquinazolines
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ORGN.P-203 Asymmetric Synthesis of Polycyclic Benzosultams via [4+2]-Cycloaddition of 2-Amino-β-nitrostyrenes with Cyclic N-Sulfonyl Ketimines
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ORGN.P-204 Design of solvent ratio for highly stable metal oxide slurry systems and robust dielectric sheets
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MLCC Process Architecture Lab, Samsung Electro-Mechanics, Korea

ORGN.P-205 Amidative *β*-Scission of Alcohols Enabled by Dual Catalysis of Photoredox Proton-Coupled Electron Transfer and Inner-Sphere Ni-Nitrenoid Transfer
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ORGN.P-206 Catalytic Asymmetric Formal C-C Bond Insertion Reaction: Synthesis of Acyclic All-Carbon Quaternary Stereocenters
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ORGN.P-207 Pioneering the early diagnosis of Alzheimer's disease: Amyloid-β oligomers-sensing probe in patients' cerebrospinal fluid
Jusung An, Jungryun Kim, Jaewon Kim, Qihang Ding, Hyeonji Rha, Eunji Kim, Jong Seung Kim
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ORGN.P-208 Creation of Contiguous Tertiary and All-Carbon Quaternary Stereocenters through Stereospecific and Stereodivergent Allyl-Allyl Coupling
Yongsuk Jung, Seung Hwan Cho
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ORGN.P-209 Design & synthesis of peptide [2]rotaxane comprising proteinogenic amino acids
Chan Hu Park, Sunbum Kwon
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ORGN.P-210 Carbodiimide-fueled dissipative oligoester libraries
Sunbum Kwon[*], **Yeonsoo Lim**[1]
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ORGN.P-211 Evaluation of Polyvinylpyrrolidone as a Dispersant for Ultra-thin Dielectric Sheet with Excellent Chemical and Mechanical Properties
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ORGN.P-212 NIR fluorescent probes for endogenous CO imaging in bacterial pneumonia
Seokjin Hong, Jusung An, Jaewon Kim, Jungryun Kim, Hyeonji Rha, Eunji Kim, Yujin Kim, Jiyoung Yoo, Changyu Yoon, Jong Seung Kim
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ORGN.P-213 Synthesis and characterization of TICT-based small molecule fluorescent probe for effectual Aβ plaques imaging in Alzheimer's disease brain
Soyu Zi, Jusung An, Jaewon Kim, Jungryun Kim, Hyeonji Rha, Eunji Kim, Changyu Yoon, Yujin Kim, Jiyoung Yoo, Jong Seung Kim
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ORGN.P-214 Mechanistic snapshots of rhodium-catalyzed acylnitrene transfer reactions
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ORGN.P-215 Synthesis and characterization of 1,2-bis(*N* -alkyl-*N* ,*N* -dimethylammonium)ethane bis(fluorosulfone)imide and bis(trifluoromethanesulfone)imde salts
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ORGN.P-216 **[Withdrawal]** Tumor-Activated Prodrug with Synergistic Anti-Stemness Chemical and Photodynamic Therapies
Jaewon Kim, Jusung An, Hyeonji Rha, Eunji Kim, Changyu Yoon, Huiyeon Moon, Yujin Kim, Jiyoung Yoo, Dongeun Kim, Dongeun Kim
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ORGN.P-217 Combinatorial therapy for enhanced rheumatoid arthritis (RA) treatment based on small molecule
Changyu Yoon, Jusung An, Jungryun Kim, Jaewon Kim, Hyeonji Rha, Eunji Kim, Yujin Kim, Huiyeon Moon, Jiyoung Yoo, Jong Seung Kim
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ORGN.P-218 Mechanistic Study of Palladium-Catalyzed Amination of Densely Functionalized Aryl Halides
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ORGN.P-219 Complexation-induced Assembly of Imine-linked Aromatic Foldamer Receptors
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ORGN.P-220 Photosensitizer-Free Benzo[1,4]oxazin-2-one Synthesis by Continuous-Flow Photochemistry
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ORGN.P-221 Photoredox/Nickel Dual Catalytic Enantioselective Synthesis of α-Chiral Sulfones Using Sulfonyl Chlorides
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ORGN.P-222 Hydrophilic Heavy-Atom-Free Photosensitizers: NI-Cz for Nucleus-Targeted Fluorescence Bioimaging and Photodynamic Therapy
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ORGN.P-223 Nickel-Catalyzed Stereo-Controlled 2,3-Hydrosilylation of 1,1-Disubstitutedallenes
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ORGN.P-224 Thiophene-fused BODIPYs for verification of mitochondrial targeting ability and $^1O_2$ generation
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ORGN.P-225 Dual anticancer and antibacterial activity of promising potential fluorescent naphthoimidazolium derivatives.
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ORGN.P-226 Selective Synthesis of β-Fluoro-α,β-Unsaturated Amides via Palladium-Catalyzed Aminocarbonylation of 1-Fluoro-2,2-Diiodovinylarenes
Chae Eun Song, Karthik Rajan Rajamanickam, Yubin An, Sunwoo Lee
Department of Chemistry, Chonnam National University, Korea

ORGN.P-227 Development of a highly sensitive fluorophore to detect amyloid-beta fibrils through dioxaborine-based biannulated π-structure expansion
Dongeun Kim, Jusung An, Jungryun Kim, Hyeonji Rha, Jaewon Kim, Eunji Kim, Changyu Yoon, Yujin Kim, Jiyoung Yoo, Jong Seung Kim
Department of Chemistry, Korea University, Korea

ORGN.P-228 Developing a therapy that specifically targets Triple-Negative Breast Cancer
Yujin Kim, Jusung An, Jungryun Kim, Hyeonji Rha, Jaewon Kim, Jiyoung Yoo, Huiyeon Moon, Changyu Yoon, Yubin Lee[1], Jong Seung Kim
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ORGN.P-229 Access to Multifunctionalized Tetrasubstituted Carbon Centers Bearing up to Three Different Heteroatoms via Tandem Geminal Chlorofluorination of 1,2-Dicarbonyl Compounds
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ORGN.P-230 Computational Study on Metal-Ligand Cooperativity in Dicopper Catalyzed Azide-Alkyne Cycloaddition Reactions
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ORGN.P-231 Lewis Pair-Catalyzed Hydrochlorination of Alkynes to Chloroalkenes with Switchable E/Z Selectivity
Yun Soo Shim, Hyung Min Chi
Department of Chemistry, Pohang University of Science and Technology, Korea

ORGN.P-232 Visible-Light-Driven Sulfonamidation via One-Pot Multicomponent Reaction of Arylazo Sulfones, DABSO, and Amines
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Department of Nuclear Medicine, Jeonbuk National University, Korea

ORGN.P-233 Tin (II) Chloride-Mediated Reaction for the Transformation of *tert*-Butyl Esters to Carboxylic Anhydrides
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ORGN.P-234 Visible-Light-Driven Copper-Catalyzed Reaction of Aldehydes with O-Benzoyl Hydroxylamines for the Formation of Amides
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ORGN.P-235 Rhodium-catalyzed Regiodivergent Double Hydroboration of Pyridine
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ORGN.P-236 Catalyst-Free Synthesis of C3-alkylated 1H-indazoles through Intermolecular [3+2] Cycloadditions.
Jin Kyoon Park[*], **Yong Ju Jang**
Department of Chemistry, Pusan National University, Korea

ORGN.P-237 Turn-on Detection of Glucose among in aqueous solution at physiological pH using fluorescent probe based on di and tri-peptides with Aggregation Induced Emission characteristic
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ORGN.P-238 Synthetic Strategy for ortho-3-propanoate substituted arylphosphonates by a Three Component Coupling Reaction Involving Arynes, Phosphites, and acrylates
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ORGN.P-239 A new approach for synthesis of amides via C-C bond cleavage
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ORGN.P-240 C-C bond cleavage for the synthesis of isocyanates and their applicaion in the preparation of unsymmetrical carbonyl compounds
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ORGN.P-241 Treat glioblastoma with a temozolomide analog conjugated to lomeguatrib to overcome MGMT resistance
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ORGN.P-242 [3 + 2] cycloaddition of nitrile imine with N-silyl enamine from hydrosilylation: Synthesis of pyrazoline derivative
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ORGN.P-243 Tailored Covalent Organic Framework with Carbon Nanoparticles for High Efficiency Organic Dye Removal and Solar Distillation of Volatile Organic Compounds
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ORGN.P-244 Aromatic Foldamer Receptors Capable of Selectively Binding Monosaccharides
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ORGN.P-245 Synthesis of oxygen-18-labeled esters from amides using nickel catalysis
Heeju Lee, Nithin Pootheri, Min Woo Park, Sunwoo Lee
Department of Chemistry, Chonnam National University, Korea

ORGN.P-246 Pd-Catalyzed Perdeuteration of Carboxylic Acids
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ORGN.P-247 Ligand-Enabled Palladium-Catalyzed C-H Alkenylation of Benzoheterodiazoles
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ORGN.P-248 Synthesis and electroluminescent properties of (10-phenylanthracen-9-yl)-indeno-pyridine derivatives for Blue Organic Light-Emitting Diodes
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Department of Chemistry, Sungkyunkwan University, Korea

ORGN.P-249 Investigating the influence of substituents on reaction rate in fluorescent probes for mercury and methylmercury detection utilizing displacement reaction of boronic acid with mercury species.
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ORGN.P-250 Visible Light-Driven Iron-Catalyzed Dual Decarboxylative Csp^3-Csp Cross Couplings
Chaeeun Hong, Yejin Koo, Seokin Han, Sunwoo Lee
Department of Chemistry, Chonnam National University, Korea

ORGN.P-251 Electrochemical Synthesis for the Selective Trasformation of Sulfonylhydrazides into Sulfinic and Sulfonic Esters
Yeseul Park, Robin Prakash Sirvin Rajan, Heewon Lee, Sunwoo Lee
Department of Chemistry, Chonnam National University, Korea

ORGN.P-252 Synthesis of Carbamoyl Fluorides via Visible-Light-Induced Photoredox Organocatalysis Using CF_3SO_2Na and Oxygen
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ORGN.P-253 Development of a Rhodol based Two-photon Fluorescent Dye for High-resolution in vivo imaging
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ORGN.P-254 Small molecule based two photon photosensitizers: cell organelle targeting strategy
Jong Kyu Baek
energy system, Ajou University, Korea

ORGN.P-255 Enhancing photocatalytic activity in living cells with Metal Modulation
Yubin Lee, Jusung An, Jungryun Kim, Hyeonji Rha, Jaewon Kim, Eunji Kim, Changyu Yoon, Yujin Kim, Huiyeon Moon, Jong Seung Kim
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ORGN.P-256 Mechanistic study on enantioselective [(2+2)+2] cycloaddition
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ORGN.P-257 NHC-Catalyzed Synthesis of Ketone from Xanthate through Photoinduced Electron Transfer
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ORGN.P-258 Biorthogonal Activable Photocatalyst for Advanced Cancer Therapy
Jungryun Kim, Jusung An, Hyeonji Rha, Eunji Kim, Ki-ppeum Lee, Changyu Yoon, Huiyeon Moon, Yujin Kim, Yubin Lee, Jong Seung Kim
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ORGN.P-259 Optimization of Chalcogen Element on Metal-free Photoredox Catalyst for Aggravated NADH/NAD+ Imbalance in Cell.
Eunji Kim, Jusung An, Jungryun Kim, Hyeonji Rha, Jaewon Kim, Changyu Yoon, Huiyeon Moon, Yujin Kim, Jiyoung Yoo, Jong Seung Kim
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ORGN.P-260 Observing lipid droplets to detect changes with a fluorogenic probe
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ORGN.P-261 Colorimetric and Fluorometric Bimodal Amine Chemosensor for Detection of Food Spoilage
Seon Young Park, Na Young Cho, Eun Hye Lee, Jong Hyun Kim
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ORGN.P-262 Water-soluble H_2S chemosensor harnessing colorimetric redox property of indigo dye
Eun Hye Lee, Jong Hyun Kim
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ORGN.P-263 Synthetic Approaches towards Tetrahydrobenzazepines via Intramolecular Oxidative Aza-Prins type Cyclization
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ORGN.P-264 Enzyme-Instructed Intramitochondrial Polymerization for Enhanced Anticancer Treatment without the Development of Drug-Resistance
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ORGN.P-265 Relayed Heteroatom Group Transfer: A Structural Reorganization between Bisthioester and Triaminophosphine to α,α-Disulfenylamide
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ORGN.P-266 All-in-one Organic Ligands for High Resolution Patterning of Perovskite Nanocrystals
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ORGN.P-267 Photooxidation of reduced FAM by riboflavin for nucleic acid templated reactions to detect miR-141
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ORGN.P-268 Electrochemical synthesis of trifluoromethyl oxazoles through cascade aminotrifluoromethylation and cyclization of alkynes
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Chemistry, Chung-Ang University, Korea

ORGN.P-269 Development of Pb^{2+} Sensor Based on G-quadruplex Complex with Modified Thioflavin T
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ORGN.P-270 Redox-Active and Fluorescent Benzenes: Bipolar Small Molecules for Symmetric Redox Flow Batteries
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Department of Chemistry, Seoul National University, Korea

ORGN.P-271 Catalytic Activation of Deactivated Cyclopropyl Esters using Hypervalent Iodine(III) and Selectfluor
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ORGN.P-272 Nickel-Catalyzed Regio-and Enantioselective Hydrofluorination of Unactivated Alkenes.
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ORGN.P-273 Crystallization-Induced Chiral Recognition of Short β-Peptide Foldamers in Racemic Mixtures
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ORGN.P-274 Exploring the Versatility of Tetrahydroisoquinoline : Efficient Method for Amide Activation
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ORGN.P-275 Photoredox catalyzed chemoselective activation of p-methoxybenzyl ester for generation of actl fluoride
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ORGN.P-276 Dual Rh(II)/Pd(0)-Catalyzed [3+2] Cycloadditions between Electrophilic Imine of α-Imino Rh(II)-Carbenoids with π-Allyl Pd(II)-Complex
Soha Yang, Yu Lim Lee, Juri Kim, Sang-gi Lee
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ORGN.P-277 Thioamide β-Peptide: Secondary Structure Regulation and Post-synthetic Modification
Jungwoo Hong, Hee-Seung Lee
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ORGN.P-278 Cobalt(II) Catalyzed C−H Alkylation of Various *N*-Heterocycles with 1,4-Dihydropyridines
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ORGN.P-279 AIE-based fluorescent probe to detect peroxynitrite levels in human serum and its cellular imagings
Jiyoung Yoo, Jaewon Kim, Jusung An, Jungryun Kim, Hyeonji Rha, Eunji Kim, Yujin Kim, Changyu Yoon, Huiyeon Moon, Jong Seung Kim
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ORGN.P-280 Ir(triNHC)-Catalyzed Synthesis of α-Hydroxy Acids Using Glycerol
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ORGN.P-281 Photoinduced Atom-Transfer-Radical-Addition(ATRA) of Ortho-Amino Arylalkynes: De novo synthesis of Fluorinated Quinolines
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ORGN.P-282 Dual Emissive Tetrathiafulvalene Mono-sulfoxides
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ORGN.P-283 Catalyst-Controlled C–H Allylation and Annulation of Quinazolinones with 2-Methylidene Cyclic Carbonate
Heesang Yang, In Su Kim
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ORGN.P-284 Intramolecular hydroamidation of alkenes enabling asymmetric synthesis of β-lactams via transposed NiH catalysis
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ORGN.P-285 Visible-light-promoted Nickel-Catalyzed carbofunctionalization of Alkynes
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ORGN.P-286 Transition-Metal-Free C−H Activation of Benzoxazinones with Hantzsch Esters
Hyungjin Shin, In Su Kim
School of Pharmacy, Sungkyunkwan University, Korea

ORGN.P-287 Efficient three component coupling reactions utilizing arynes, phosphites, and silyl fluorides for the synthesis of ortho-silylated arylphosphonate
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Sogang University, Korea

ORGN.P-288 Synthesis of 2-Formyl Carbazoles: C−H Allylation & Cyclization of Nitrones with 2-Methylidene Cyclic Carbonate
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ORGN.P-289 Synthesis of benzophenone derivatives using acylsilanes via palladium-catalyzed coupling reactions
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ORGN.P-290 Synthesis of α-aminoketone via Photo-Mediated Reactions between Acylsilanes and Imines
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ORGN.P-291 Development of based-promoted synthesis of isocoumarin derivatives and their synthetic applications
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ORGN.P-292 pH and Redox-Responsive Low-Molecular-Weight Organogelators Based on Quinoxaline Fused Tetrathiafulvalene-Benzoimidazolium Sulfonate
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ORGN.P-293 Rh(III) Catalyzed C(sp^3)−H Amidation of Pyrrolidines via Sulfur-Directing
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ORGN.P-294 Micelle-based Supramolecular Cyanine Displacement Assays for Alkyl Ammonium Detection
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ORGN.P-295 Synthesis and antioxidant effect of aromaticity extended benzimidazole derivatives
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ORGN.P-296 Annulation of Azobenzenes with Vinylene Carbonate for Synthesis of (2*H*)-Indazoles and Dihydrocinnolinones via Rh(III)-catalysis
Taeeun Kim, In Su Kim
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ORGN.P-297 Enhanced Photoswitching Performance of ESIPT-Inspired Dual-Mode Molecules through Resonance Structure Incorporation
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ORGN.P-298 Converting CO2 into Various Carbonates using Cu(triNHC) catalyst
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ORGN.P-299 Unified Strategy for Skeleton-divergent Total Syntheses of Monoterpene Indole Alkaloids
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ORGN.P-300 Asymmetric Total Syntheses of 7,8′-Coupled Naphthylisoquinoline Alkaloids
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ORGN.P-301 Study on reactivity of Diazoalkanes Generated via [3+2] Cycloaddition of Linear N,N-Disilyl Enamine with Azides
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ORGN.P-302 Discovery of Protease-Activated Receptor 2 Antagonists for Breast Cancer Treatment
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ORGN.P-303 Synthesis of C21-C41 Fragment of the Reported Structure of Neaumycin B
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ORGN.P-304 Catalytic Potential of Metal-Amyloid Complexes: Exploiting Amyloid Assembly for Supramolecular Catalysis
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ORGN.P-305 Molecular Pringles: Modular Synthesis and Self-Assembly of Saddle-Shaped Aromatics
Myeongsu Jeong, Nam Ki Lee, Dongwhan Lee
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ORGN.P-306 Synthesis of Acyl Fluoride via Unusual 1,3-Chelation and Its Application to Chemoselective Acylation of Biomass-Derived Alcohol
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Department of Energy Science, Sungkyunkwan University, Korea

ORGN.P-307 Concise stereoselective synthesis of polyunsaturated fatty acids, 15-(S)-HETE
Myeong su Shin, Youngjoo Byun
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ORGN.P-308 Heavy-atom-free BODIPY-based photoredox catalysts as Pyroptosis Inducers
Hyeonji Rha, Jusung An, Jungryun Kim, Qihang Ding, Jaewon Kim, Eunji Kim, Soyu Zi, Yujin Kim, Yunjie Xu, Jong Seung Kim
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ORGN.P-309 Investigation Focused on Building the Tricyclic Core of Cyclocalopin A: Exo-selective Diels-Alder Approach
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ORGN.P-310 Tandem Aryne Insertion Reaction with Amides
Jihye Lee, Zhang Aimin, Jimin Kim
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ORGN.P-311 Development of Enantioenriched Cyclic Allene Precursors Having Various Substituents
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ORGN.P-312 Direct Synthesis of Aryloxy Phosphonamidate Nucleotide Prodrugs Using the Cross Metathesis Assisted by Ultrasonic Irradiation
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ORGN.P-313 Atroposelective Dynamic Kinetic Resolution of 2-arylindoles by Phase-Transfer Catalysis
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ORGN.P-314 Ultrasound and H_2O_2 Dual-Responsive Doxorubicin Prodrug
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ORGN.P-315 Chemoselective Arylation and Azo Coupling of Indoles using Aryl Diazonium Salts
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ORGN.P-316 Ultrasound-triggered Enhanced ROS Generation by a novel BODIPY-Zn complex sonosensitizer
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ORGN.P-317 Sustainable Fe-Iminopyridine Complexes for the Regioselective Synthesis of Oxazolidinones Using Carbon Dioxide
Junhyeon Choi, Eun Joo Kang, Jihoon Kim
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ORGN.P-318 Highly Stereoselective Michael Reactions Catalyzed by Novel Bifunctional Proline Amide-Carboxylic Acid Catalyst
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ORGN.P-319 Mechanochemical Indium(0)-mediated Barbier allylation of Carbonyl Compounds: Unexpected Immiscible Water Additive Effect for Hydrophobic Reagents
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ORGN.P-320 Chemoselective Deoxygenation of N-Heterocyclic *N*-Oxides Using Isopropanol as a Recyclable Reductant
HoKyeong Ryu, YunDo Song, Jun Hee Lee
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ORGN.P-321 Synthesis of Dibenzo[c,g]carbazole by Copper-catalyed Oxidative Coupling/Cyclization in Tandem Process
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ORGN.P-322 Chiral Pyridine-Dihydroisoquinoline Providing Attractive Noncovalent Interactions
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ORGN.P-323 Electroreductive formylation of activated alcohols via radical–polar crossover
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ORGN.P-324 Regioselective Borobenzylation of Vinyl Arenes by Iron Catalyst
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ORGN.P-325 Origin of Stereoselectivity in Pd-Catalyzed Asymmetric Allylic Substitutions with Trost-Type Mixed Bidentate Phosphorus Ligands
Inkyu Choi, Hyunwoo Kim
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ORGN.P-326 Micelle-Based Amplified Fluorescence Turn-on Sensor for Efficient Detection of Trypsin Activity
Minwoo Han, Seoung Ho Lee
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ORGN.P-327 A Rationally Designed fluorescent Sensor for Selective Detection of Methylmercury in Aqueous Solutions
Haemin Choi, Juyeon Cha, JaeMin Lim, Seoung Ho Lee
Department of Chemistry, Daegu University, Korea

ORGN.P-328 Fluorescence Turn-On Sensor for Detecting Mercury (II) ion in Water
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ORGN.P-329 A Ratiometric Fluorescent Probe for Detecting Tyrosinase Activity in Human Serum
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ORGN.P-330 Micelle-based Tturn-on Fluorescent Sensor for Early Diagnosis of Pancreatitis
Haemin Choi, JaeMin Lim, Seoung Ho Lee
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ORGN.P-331 Catalytic Aerobic Nitrosation of Styrenes with Secondary Nitroalkane for Oxime Formation
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ORGN.P-332 Visible Light [4+2] Homodimerization of Styrenes via Electron Transfer Catalysis of Diaryl Diselenides
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ORGN.P-333 Development of Visible Light-Induced Photocatalyst Free Selenocyclization Reactions under Controlled O_2 Atmosphere
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ORGN.P-334 Chromo-fluorogenic rhodamine B-based probe for Cu(II) detection in aqueous solution
Young Woo Noh
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ORGN.P-335 Photo-catalyzed Aminocarboxylation with CO2 for the synthesis of β-Amino Acid
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ORGN.P-336 Photocatalytic Artificial Exoskeletons on Individual Living Cells for Organic-waste Decomposition
Jiwoo Park, Hojae Lee
Department of Chemistry, Hallym University, Korea

ORGN.P-337 Tandem one-pot synthesis of 2*H*- and 3*H*-pyrroles enabled by dual Rh(II)/Pd(0) catalysis
Seoung-Mi Choi, Yuri Yun[1], Juhyun Kim
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ORGN.P-338 Bisindolizine fluorophore as a new AIEgens
Eunsu Kim, Eunha Kim
Department of Molecular Science and Technology, Ajou University, Korea

ORGN.P-339 Selective protein tagging using Flow Chemistry
Heejoo Shin, Se Won Bae
Department of Chemistry, Jeju National University, Korea

ORGN.P-340 Visible Light-Induced Tandem Aromatic S_N1 Reaction-Intramolecular C-H Amination of Areneazo-2-(2-nitro)propanes: One-pot Acess to Carbazoles and Indoles

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ORGN.P-341 Visible Light-Induced Aromatic SN1 Reactions of Areneazo-2-(2-nitro)propanes

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ORGN.P-342 Development of a Cascadal Pericyclic Reaction for the Synthesis of Benzene and Nigerapyrone B Synthesis

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ORGN.P-343 Substituent Effect on Photochromic Reaction of Benzothiazolinic Spiropyran

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MEDI.P-344 Study on the inhibitory effect of BuChE using lipoic acid-tryptamine derivatives
Da yeon Song, Min Kyung Shin, Dabin Jeong, Jeong Ho Park
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MEDI.P-345 In silico high throughput virtual screening for the identification of dual-target modulators
Soo Won Lee, Juyong Lee[1,*]
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MEDI.P-346 Design and synthesis of Sirt6 activator for pancreatic cancer
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MEDI.P-347 Synthesis and biological activities of TLR-modulating compounds and ENPP-1 inhibitors
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Department of Biotechnology, Korea University, Korea
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MEDI.P-348 Synthesis of Azaindole derivative with a modified structure in the quinoline moiety as PET imaging probe for tau protein.
Siwoo Lee, Dong Wook Kim[1,*], Su Yun Lee[1]
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MEDI.P-349 A Lipid Nanoparticle Platform Incorporating Trehalose Glycolipid for Exceptional mRNA Vaccine Safety
Soyeon Yoo, Gyo chang Keum, Eun-Kyoung Bang
Brain Science Institute, Korea Institute of Science and Technology, Korea

MEDI.P-350 Radiosynthesis and evaluation of ^{68}Ga labeled chlorinated benzamide derivative for detection of melanoma in small animals
Eunsu Kim, Dagyeong Hong, Dong Yeon Kim[1,*], **Yejin Seo**
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MEDI.P-351 ^{68}Ga labeled iodinated benzamide derivative: synthesis and evaluation as a PET imaging agent for malignant melanoma
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MEDI.P-352 Synthesis and evaluation of brominated benzamide derivative for melanoma detection using positron emission tomography
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MEDI.P-353 Investigation study of Organelle-Targeted Fluorescent Sensor Structure Activity Relationship for Optimal Membrane Binding and Transfer of Lipid Imaging Agents.
Gopala Lavanya
Korea University, Korea

MEDI.P-354 Development of Novel Cell-permeable Macrocyclic Peptide Inhibitors for Oncological Target MAGE-A4
Kenneth H. Pearce[*], Lilly F. Chiou[1], Cyrus Vaziri[1], Albert A. Bowers, **Jiwoong Lim**
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MEDI.P-355 Exploring the Influence of Water on Collagen Triple Helix Stability
Anand Balupuri, Dong-Hyun Son, Seong Yeon Yu, NamSook Kang
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MEDI.P-356 Discovery of Azaindole and Azapaullone as Potent and Selective CDK9 Inhibitors
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MEDI.P-357 The Synthesis of Benzoindazole via Suzuki-Miyaura coupling and Aldol condensation cascade reaction.
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MEDI.P-358 Exploring Novel Ligands for the 5-HT_7 Receptor: A Computer-Aided Drug Discovery Approach for Autism Spectrum Disorder Treatment
Haeun Lee, Hyunah Choo, Gyo chang Keum, Byungsun Jeon
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MEDI.P-359 The synergic effect of extracts mixture of *Ecklonia cava* and *Cinnamomum verum*
Minyoung Shin, Dain Um[1], Byong Wook Choi[1], Bong Ho Lee[2,*]
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MEDI.P-360 TWN-VS Method: A Novel Virtual Screening Method for Drug Discovery
Re Gin Jeoung, Seo Hyeon Jeon, NamSook Kang
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MEDI.P-361 Binding site similarity analysis for staurosporin-bound kinases using TWN-RENCOD method
Kwang-Eun Choi, Dong-Hyun Son, Re Gin Jeoung, NamSook Kang
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MEDI.P-362 Development of a novel pharmacophore-based virtual screening approach using TWN analysis
Kyoung Pyo Kwon, Jeong Hyeon Kim, NamSook Kang
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MEDI.P-363 Development of Pan-kinase Inhibitors Using Topological Water Network Analysis
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MEDI.P-364 Ginsenoside Rh3 increases regorafenib-induced apoptotic cell death in hepatocellular carcinoma
Dong Young Woo, Taejung Kim[1,*], Jungyeob Ham[1]
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MEDI.P-365 Cannabidiol Enhances Cabozantinib-Induced Apoptotic Cell Death via Phosphorylation of p53 Regulated by ER Stress in Hepatocellular Carcinoma
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MEDI.P-366 Cannabiorcol improves osteoarthritis by attenuating the expression of MMPs induced interleukin-1β via cannabinoid receptor 1
Jiyool Kim, Taejung Kim[1,*], Jungyeob Ham[1]
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MEDI.P-367 Design and Synthetic Derivatization of a Microtubule Inhibitor for Use as a Payload in Antibody-Drug Conjugates
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MEDI.P-368 Synthesis and biological evaluation of flavonoid based TSLP inhibitors.
Chintam Narayana, Eunji Kim[1], Hayoung Jeon, Sang-Hyun Son[1], Young Ho Jeon, Kiho Lee, Youngjoo Byun
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MEDI.P-369 Efficient estimation of protein solvation free energy and vibration entropy using graph neural networks
Yeseul Oh
Seoul National University, Korea

MEDI.P-370 *In-silico* Studies of Ligand Binding Sites on 3R-, 4R-, and mixed 3R/4R Tau Fibril Folds.
Lizaveta Gotina, Ae Nim Pae[1,*]
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MEDI.P-371 Development of fluorescent imaging probes for selective detection of tau protein and Aβ in Alzheimer's disease
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MEDI.P-372 Synthesis and Biological Evaluation of Tranylcypromine analogs as a Potent Inhibitor of LSD1 Related Osteoclast Differentiation Activity
Eun Rang Choi, Se Myeong Choi, A Young Jung[1], Jong Hyun Cho
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MEDI.P-373 Synthesis and Evaluation of 6-Azauridine Analogs against DENV-2 and West Nile Virus Replicon
A Young Jung, Eun Rang Choi, Se Myeong Choi, Jong Hyun Cho
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MEDI.P-374 DNA-Compatible Copper-Mediated Synthesis of *N*-Sulfonyl Amidines for DNA-Encoded Libraries
YeonHee Lee, Seok Woo Lee, Hyunjin Kim[1,*], Minseo Choi[1]
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MEDI.P-375 Discovery of novel YAP-TEAD interaction inhibitors for colorectal cancer treatment
On-Yu Kang, Jiyoung Hyun, Seong Jun Park, Hwan Jung Lim
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MEDI.P-376 Design and synthesis of selective JAK1 Inhibitors for the treatment of autoimmune diseases
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MEDI.P-377 Macrocyclic compounds as GLS Inhibitor for anticancer agents 2
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MEDI.P-378 Structure-based drug design approach and synthesis for a new class of nucleoside A_{2A} adenosine receptor antagonist as promising immune-oncology agents
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MEDI.P-379 Development of a novel nano-reactor assembly with 8-(N-phenylhexanamido) naphthalene-1-sulfonate, HBF4 and Fe(BF4)2, and its application to the amination of alcohol
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MEDI.P-380 Affinity-Directed Site-Specific Protein Labeling and Its Application to Antibody-Drug Conjugates
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MEDI.P-381 Catalyzing Breakthroughs: The Next Wave of Rapid and Efficient Drug Discovery
Jiwoong Lim, Kenneth H. Pearce
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MEDI.P-382 Bioreductive fluorescent probes as a platform for development of cleavable linkers targeting hypoxia tumors and prodrugs synthesis.
Nhat Quynh Le, Dong-Jo Chang
Department of Pharmacy, Suncheon National University, Korea

MEDI.P-383 Development of new target protein small molecules as a novel class of H_2O_2 scavenger for treatment of Alzheimer's Disease
Elijah Lee, Ki Duk Park[1,*]
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MEDI.P-384 Discovery of Heterocyclic Structure-Based Novel P2X3 Receptor Antagonists
Ga-Ram Kim, Yong-Chul Kim
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MEDI.P-385 Discovery of hit compound for psoriasis targeting peripheral tissue CB1 receptors
Wonjin Park, Eunha Kim
Department of Molecular Science and Technology, Ajou University, Korea

MEDI.P-386 Discovery of indolizine derivatives that synergistically enhance the activation of the STING pathway by cGAMP
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MEDI.P-387 Discovery of NLRP3 inflammasome modulators for treatment of inflammatory diseases
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MEDI.P-388 Discovery of hit compounds targeting the peripheral tissue cannabinoid 1 receptor (CB1R) for psoriasis treatment
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Department of Molecular Science and Technology, Ajou University, Korea

MEDI.P-389 Exploring Amidobenzimidazole Derivatives for Enhanced Cancer Immunotherapy via Stimulator of Interferon Genes Modulation
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MEDI.P-390 Studies on the synthesis and chemical transformations of acrolein and its acetal forms
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MEDI.P-391 Development of a Methylene Blue Conjugated EuKf Derivative for the PSMA-Targeted Photodynamic Therapy
Jinyoung Park, Byung Chul Lee[1,*], Hyung-Jun Im
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MEDI.P-392 Integrating Click Chemistry into PROTACs: Facilitating Antibody Conjugation for Enhanced Therapeutic Targeting
Gyubin Park, Jeonghyun Lee, Eunha Kim
Department of Molecular Science and Technology, Ajou University, Korea

MEDI.P-393 Development of UMP Kinase (pyrH) Inhibitor as a Novel Class of Broad-Spectrum Antibiotics
Eunhye Lee[*], Minwoo Kim, Hyeongcheol Ham, Sejin Jung, Seungik Jeong
New Drug Development Center, Korea Medical Develop Innovation hub, Korea

MEDI.P-394 Diabetic Retinopathy: Exploring Innovative Transglutaminase 2 Inhibitors
Ga Young Park[*], JIhee Kang[1], Jieon Lee[1], Jihoon Lee[1], Taeeun Kim[1], Hyeowon Seo[1], Minsoo Song[1]
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MAT.P-287 Fixed bed column selective adsorption of 1-octene from binary liquid olefin/paraffin mixtures using ion-exchanged 13X zeolites
Sungbin Jo, Chung-Yul Yoo
Department of Chemistry, Mokpo National University, Korea

MAT.P-288 Solvent Effects on the Light-stimulated Isomerization of Azobenzene Derivatives
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MAT.P-289 Molecular-Linked Z-Scheme Heterojunction of Ti^{3+}-Doped TiO_2 and WO_3 Nanoparticles for Photocatalytic Removal of Acetaldehyde.
Yeseul Hong, Hyoyoung Lee[1,*]
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MAT.P-290 Encapsulation of kojic acid within the gallery of layered yttrium hydroxide: Stability, release, and tyrosinase inhibition behavior
Myeongjin Kang, Yoonjae Choi, Song-ho Byeon[1,*]
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MAT.P-291 Amphiprotic brush-grafted magnetic adsorbents: targeting hydrophilic and hydrophobic microplastics
Su Hyeon Son, Won san Choi
Department of Chemical & Biological Engineering, Hanbat National University, Korea

MAT.P-292 Hybrid polymer-based air-filtering mask for respiratory protection
Donggeon Lee, Won san Choi
Department of Chemical & Biological Engineering, Hanbat National University, Korea

MAT.P-293 Enhanced Lithium-Ion Battery Performance through Pseudocapacitance-Driven Lepidocrocite-Type Titanate/NiCo-LDH Heterojunction Engineering
Minseop Lee, Jae-Min Oh[1,*], Seung-Min Paek
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MAT.P-294 MOF-Derived Cu_2S/N-Doped Carbon on Titanoniobate Hollow Spheres for High-Performance Sodium Storage
Hee-Jun Park, Seung-Min Paek
Department of Chemistry, Kyungpook National University, Korea

MAT.P-295 Design of Vertically Aligned Ultrathin MoS_2 Nanosheets on Two-Dimensional Covalent Organic Nanosheet Hollow Spheres with Multiple Redox Sites for Enhanced Sodium Storage Performance
Jimin Kim, Seung-Min Paek
Department of Chemistry, Kyungpook National University, Korea

MAT.P-296 Nanoarchitectural Engineering for Enhanced Lithium and Sodium Storage Performance of Iron-Doped Layered Titanium Oxide-Derived Pseudobrookite
Seung-Min Paek*, **Gichan Kim**
Department of Chemistry, Kyungpook National University, Korea

MAT.P-297 Unveiling the Electrochemical Behaviors of Aqueous Zinc-Ion Batteries: X-ray Absorption Fine Structure Study
Hansol Kim, Ji Man Kim[1,*]
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MAT.P-298 The application of uncomplicated thermal treated molybdenum silicide as anode for lithium-ion batteries
Zhiyong Zheng, Ji Man Kim[1,*]
Sungkyunkwan University, China
[1]Department of Chemistry, Sungkyunkwan University, Korea

MAT.P-299 Hybridization with conductive multimetallic oxide nanosheets to boost the electrocatalytic activity
Namhee Kwon, Xiaoyan Jin[1], Seong-Ju Hwang
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MAT.P-300 Interface engineering approach to optimize the electronic coupling and electrocatalyst performance of layered double hydroxide
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MAT.P-301 One-pot nitridation-exsolution route to high-performance metal nanocluster-metal nitride electrocatalysts
So Yeon Yun, Xiaoyan Jin[1], Seong-Ju Hwang
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MAT.P-302 Strongly-coupled layered double hydroxide-RuO_2 nanohybrids with efficient photocatalytic nitrogen fixation activity
Donghyeon Yoo, Namhee Kwon, Seong-Ju Hwang
Department of Materials Science and Engineering, Yonsei University, Korea

MAT.P-303 Seed-Mediated Synthesis of colloidal Zn3P2 Quantum dots
Ju Ho Kim, Jiwon Bang
Dept. of Chemistry, Incheon National University, Korea

MAT.P-304 The combination of cetyltrimethyl ammonium cations (CTA^+) and Br^- for Cu bottom-up filling at Through-Silicon Vias (TSVs)
Hui Won Eom, HaeJin Kwak, Myung Jun Kim
School of Chemical Engineering, Sungkyunkwan University, Korea

MAT.P-305 Surface Morphology Control in Sn-Bi Electrodeposition through Additive Utilization
Yoojin Hwang, Jeong Ho Lee, Myung Jun Kim
School of Chemical Engineering, Sungkyunkwan University, Korea

MAT.P-306 Utilizing Additives in Cu Electrodeposition for Twin Structure Development
Jeong Ho Lee, Yoojin Hwang, Myung Jun Kim
School of Chemical Engineering, Sungkyunkwan University, Korea

MAT.P-307 Improving Zn Anode Stability in Zn Ion Batteries by Benzene-Based Additives for Prolonged Lifespan
Hana Lim, Jiwoo Oh, Myung Jun Kim
School of Chemical Engineering, Sungkyunkwan University, Korea

MAT.P-308 Electrochemical Investigation on How CTA^+, Br^-, and Ag^+ Affect Anisotropic Growth of Gold Nanorods
Yujin Min, Seolim Yoon, Myung Jun Kim
School of Chemical Engineering, Sungkyunkwan University, Korea

MAT.P-309 Oxygen Vacancy Generation and Stabilization in Layered Double Hydroxide Nanosheets for a Highly Efficient Oxygen Evolution Reaction
Birhanu Bayissa Gicha, Jaebeom Lee[1,*]
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MAT.P-310 Control of water infiltration into voids within dry bottom ash (dBA) by polymer coating
In Soo Koo, Yong Hun Jeon, Seog Woo Rhee
Department of Chemistry, Kongju National University, Korea

MAT.P-311 Characterization of composite materials synthesized from dry bottom ash and calcium carbonate
Yong Hun Jeon, In Soo Koo, Seog Woo Rhee
Department of Chemistry, Kongju National University, Korea

MAT.P-312 Synthesis of copper-imidazole coordination compounds and evaluation of their insecticidal activities against termites
Choungwon Shin, Jinkwon Kim[1,*], Seog Woo Rhee[1]
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MAT.P-313 Surface modification of hydroxyapatite by dye and investigation of dye release in aqueous solution
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Department of Chemistry, Kongju National University, Korea

MAT.P-314 Halide Ion Mobility in Paired 2D Halide Perovskites : Ruddlesden-Popper Versus Dion-Jacobson Phases
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MAT.P-315 Cyclic Metal/Metal-Oxide Conversion of Nanocrystals Array within 2D-Nanogap for High Performance Lithium-Ion Battery Anodes
Yu-Rim Hong, Jeong Sang Oh, In Su Lee
Department of Chemistry, Pohang University of Science and Technology, Korea

MAT.P-316 Formation and combining heterointerfaces on 2D Pt nanocrystals with tunable spatio- and facet-selective wet-chemical process
Byeongsu Gu, Kyeong-bin Kang[1], In Su Lee
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MAT.P-317 Investigating Colorimetric Assay Challenges: Reaction Pathways and Potential Pitfalls with Signaling Agents with Catalytic Gold Nanoparticles
Sang-Won Kim, Jae-Seung Lee
Department of Materials Science and Engineering, Korea University, Korea

MAT.P-318 Selection of a Machine Learning Algorithm Appropriate for the Characteristics of OPV Data for Efficiency Prediction
Juyeon Hong, Hyojin Ban, Dongwook Kim
Chemical Data-Driven Research Center, Korea Research Institute of Chemical Technology, Korea

MAT.P-319 OPV Machine Learning with Molecular Fragment-based features
Hyojin Ban, Juyeon Hong, Dongwook Kim
Korea Research Institute of Chemical Technology, Korea

MAT.P-320 Broadband-Spectrum Solar Energy Utilization with Lanthanide-doped NaYF4–Au–TiO2 Ternary Hybrid Nanostructures
Sunghee Kang, Sang Woo Han[1,*]
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MAT.P-321 Low-Temperature Layer-by-Layer Growth of Semiconducting Few-Layer γ-Graphyne to Exploit Robust Biocompatibility
Jungsue Choi, Hyoyoung Lee[1,*]
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MAT.P-322 Plasmon-Driven Nanoreactors: Tailoring Catalysis at the Nanoscale
Anubhab Acharya, Seunghyeon Jie, In Su Lee[1,*]
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MAT.P-323 Density functional study on the competitive oxidation of water and chloride in seawater electrooxidation by MnO2-deposited Ta-RuO2
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MAT.P-324 Photoinduced redox-switchable σ-holes: further application to photovoltachromic cells
Sung Jun Lim, Tae-Hyuk Kwon[1,*]
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MAT.P-325 A ubiquitous polymerization method for modifying the surface properties of inorganic nanoparticles
Eun Jeong Jang, Joonhyuck Park[1,*]
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MAT.P-326 Development of colorimetric sensing platform of viral infection using trans-cleavage
Suah Lee, Joonhyuck Park[1,*]
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MAT.P-327 Multidentate surface ligands for excellent long-term colloidal stability of QDs
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Department of Medical Life Sciences and Department of Biomedicine & Health Sciences, College of Medicine, The Catholic University of Korea, Korea

MAT.P-328 Theoretical study on the significance of a reducing agent for the preparation of NiSe nanosheet as a hydrogen evolution reaction catalyst
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MAT.P-329 Theoretical study on the mechanism of glycerol oxidation reaction on high entropy alloy
Seong-Uk Bang, Minho Kim
Department of Applied Chemistry, Kyung Hee University, Korea

MAT.P-330 Synthetic Design of M^{n+}-Condensed DNA Nanoparticles for Nucleic Acid Therapeutics Using Library Approach.
Jeesu Moon, Jae-Seung Lee
Department of Materials Science and Engineering, Korea University, Korea

MAT.P-331 Electrochemical driven synthesis of Ultrathin 2D-Cu metal atomic layer deposition for Catalysis
Sampathkumar Jeevanandham, Ankur Maji[1], In Su Lee[2,*]
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MAT.P-332 Non-ammonia nitridation agents for the synthesis of transition metal nitrides and oxynitrides
Eun Bi Choi, Young-il Kim[1,*]
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MAT.P-333 Synthesis and performance evaluation of cobalt-free LiNi0.5Mn0.5O2 as cathode materials for lithium-ion batteries
Yunho Lee, Tae Woo Kim
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MAT.P-334 Enhancing Solid Oxide Fuel Cell Performance through Thin Electrolyte Electrolyte-Supported Cells
Dongjun Cha, Tae Woo Kim
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MAT.P-335 Enhanced Synthesis of Hematite Photoanodes via Photosintering for Efficient Photoelectrochemical Water Splitting
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MAT.P-336 Two Distinct Formation Pathways of 2D Wurtzite-CdSe Quantum Nanocrystals Revealed by In Situ X-ray Scattering
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MAT.P-337 Ce-MOFs derived Ce-Mn bi-metal oxide catalysts for CO oxidation
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MAT.P-338 Non-invasive Cystine Monitoring Contact Lenses with the Color Change in Gold Nanoparticles
Eunbe Ha, Hyeran Noh
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MAT.P-339 Magnetic field-directed monolayer assembly of plasmonic nanoparticles
My-Chi Nguyen, Huu-Quang Nguyen, Jaebeom Lee
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MAT.P-340 Investigation into Enhanced Conductivity of Na6ZnSe4-based Sodium Solid-State Electrolyte (Na-SSE) via Elemental Dopant Integration
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MAT.P-341 Optimizing Alkyl Chains of Non-fullerene Acceptors for Enhanced Printability in Organic Photovoltaic Modules Over 200 cm^2 Using Non-halogenated Solvent
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MAT.P-342 Vacancy-Controlled Quaternary Sulfide $Na_{6-x}Zn_{1-x}M_xS_4$ (614) for All-Solid-State Sodium-Ion Batteries
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MAT.P-343 Ionic conductivity of Li_3AlSiO_5-based solid solutions derived by Si/P and Si/V substitutions
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MAT.P-344 Enhancing Performance through Effective Passivation Strategies in InAs Quantum dots
Sinil Choi, Sohee Jeong
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MAT.P-345 Extended-Gate Field-Effect Transistor (EGFET) Biosensor with Nanoscale Surface Roughness of Sensing Membrane for Ultra-Sensitive Detection of Alzheimer's Disease Biomarker
Hana Kim, Young-Geun Ha
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MAT.P-346 Improving Sensitivity of Electrolyte-Gate Field-Effect Transistor-Based Biosensors by Controlling Conductance of Semiconductor
Euichan Jeon, Young-Geun Ha
Department of Chemistry, Kyonggi University, Korea

MAT.P-347 Nanoimprinted Semiconductor Surfaces for Improving the Sensitivity of Electrolyte-Gated Field-Effect Transistor Biosensors
Gyeongmin Lee, Young-Geun Ha
Department of Chemistry, Kyonggi University, Korea

MAT.P-348 Self-Assembled Multilayer-Based Electrode Passivation for Stable and Reproducible Electrolyte-Gated IGO Transistor Biosensors
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MAT.P-349 Study on Creating Robust and Superior Superhydrophobic Surfaces Using an Economical and Simple Solution Process at Room Temperature
Ju-Hyeok Lee, Young-Geun Ha
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MAT.P-350 Passivation Layer Formation on Organic Transistor Surfaces utilizing Superhydrophobic Nanoparticles
Ieon Park, Young-Geun Ha
Department of Chemistry, Kyonggi University, Korea

MAT.P-351 Density functional study on iridium-based electrocatalyst for an active and stable oxygen evolution reaction in acidic media
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MAT.P-352 Solid Ion Conductor for Li All-Solid-State Batteries based on Y-Cl series structure
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MAT.P-353 Pegylated Oxidized Carbon Nitride nano dots: Free chelator 64-Cu labeling for PET imaging probes.
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Department of Chemistry, Inha University, Korea

MAT.P-354 Growth of Vertically aligned Silicon Nanowires with kinked structure by adjusting parameters
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MAT.P-355 Precision Nano Patterning with Oxide Lithography
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MAT.P-356 Innovative Electrospinning Techniques: A Comparative Study of Fiber Alignment Using a Switching System
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MAT.P-357 Growth behaviors and Surface properties of Zincone films grown by Molecular Layer Deposition
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MAT.P-358 Selective adsorption of DNA on size-dependent layered double hydroxides
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MAT.P-359 High-Purity Magnesium Hydroxide synthesis for the Application of Flame Retardants
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MAT.P-360 Magnesium Hydroxide and Mg fiber Synthesis by Basic/Acid Catalyst
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MAT.P-361 Carbon Monoxide-Mediated Synthesis of Atomically Thin Iridium Metallic Nanosheets for Boosting Acidic Oxygen Evolution
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MAT.P-362 A Study on the Purification of Si3N4 powder using Chemical Method
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MAT.P-363 Crystal Growth Characteristics of Magnesium Hydroxide prepared by Hydrothermal Method and Surface Treatment
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MAT.P-364 Solid Ion Conductor for Mg All-Solid-State Batteries based on Y-Cl series structure
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MAT.P-365 Tumor micro-environment (TME) of A549 lung cancer cells cultured in 3D hyaluronic acid-based scaffold system
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MAT.P-366 Advanced Full-Color Perovskite Nanocrystal Patterning for Ultrathin Skin-Attachable Displays with Ultrahigh-Resolution
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MAT.P-367 On-sight Rapid Detection of Heavy Metal Ions in Environmental Wastewater: Towards Environmental Monitoring
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MAT.P-368 Exploring ortho-Carborane-Substituted Anthracene Materials in Organic Light-Emitting Diodes Utilizing Hybridized Local and Charge Transfer Mechanisms
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MAT.P-369 High valence Mo-decorated NiFe-Layered Double Hydroxide as High Efficiency Catalyst for Oxygen Evolution Reaction on Near- Neutral pH Electrolyte
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MAT.P-370 Enhanced production of propanol through CO2 reduction reaction using self-assembled thiol monolayer on Cu catalyst.
Donghyeon Kim
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MAT.P-371 Montmorillonites with Inserted Organo-Metallic Complex: Breakthrough Electrolysis Catalysts for Enhanced Oxygen Evolution Reaction Performance.
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MAT.P-372 Pyrene-based hybridized local- and charge-transfer (HLCT) emitters integrated with carbazole and imidazole for OLED applications
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Department of Chemistry, Seoul Women's University, Korea

MAT.P-373 Utilization of Metal–Organic Frameworks as Sacrificial Precursors for the Synthesis of Carbon-Based Bifunctional Electrocatalyst
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MAT.P-374 Influence of hydrophobization on the surface properties of mesoporous TiO2
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MAT.P-375 Optimizing Li-Ion Battery Electrode Manufacturing for Processes
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MAT.P-376 Responsive Thin-Film interference Color from Conjugated Polymers
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MAT.P-377 Low-Toxic Quantum Dot Based Infrared Photodetector
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MAT.P-378 The transformation from intraband transition to localized surface plasmon resonance of self-doped Ag_2Se colloidal quantum dots.
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MAT.P-379 Room Temperature Synthesis of Self-Doped Silver Selenide Quantum Dots Sensitive to Mid-infrared Light
So Young Eom, Jin Hyeok Lee, Haemin Song, Minhaeng Cho, Kwang Seob Jeong
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MAT.P-380 Ag-In-Ga-S Quantum Dots with Narrow Photoluminescence by Gallium ion Incorporation
Beomsu Cho, So Young Eom, Kwang Seob Jeong
Department of Chemistry, Korea University, Korea

MAT.P-381 Extended short-wavelength infrared photoluminescence of nonstoichiometric silver telluride colloidal nanocrystals
Jin Hyeok Lee, Dongsun Choi[1], So Young Eom[1], Haemin Song[1], Kwang Seob Jeong[1]
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MAT.P-382 Quantum Plasmon Resonance of Ag2Se Nanocrystals with Ultranarrow Bandwidth in Mid-Infrared Region
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MAT.P-383 Midwavelength Infrared Tellurium Nanowire Laser
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MAT.P-384 Expansion of the Photodetection Range Through the Cation Exchange Method
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Department of Chemistry, Korea University, Korea

MAT.P-385 A hydrophilic Janus-faced separator with functionalized nanocarbon for stable cycling of aqueous Zn-metal batteries
Ho Won Kang, Byung Gon Kim
Department of Applied Chemistry, Kyung Hee University, Korea

MAT.P-386 Elucidating critical origin for capacity fading in High-voltage coin cell with FSI-based electrolyte
Byung Gon Kim
Department of Applied Chemistry, Kyung Hee University, Korea

MAT.P-387 Facile synthesis of molybdenum carbide nanoparticles stabilized in mesoporous three-dimensional (3D) graphene and its characterization
JeongWon Park, Hyun Jung
Department of Chemistry, Dongguk University, Korea

MAT.P-388 2D Lepidocrocite-type layered titanate coated on carbon felt as the negative electrode for high-performance vanadium redox flow battery
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MAT.P-389 Pre- and Post-Hydrothermal Modification of Mesoporous Graphene /Exfoliated Layered δ-MnO2 for Enhanced Supercapacitor Performance
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MAT.P-390 Nanostructured NiTe on Mesoporous Graphene for enhanced Electrocatalytic Oxygen Evolution Reaction
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MAT.P-391 Pt doped porous In_2O_3 nanoparticle structures-Based Hydrogen sensor
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MAT.P-392 Comparative study on adsorptive removal of radioactive Cs+ ions from aqueous solution by raw white and acid-activated white clay
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MAT.P-393 Comparative study for adsorptive removal of radioactive Cs+, Sr2+ and Co2+ ions from aqueous solution by acid-activated white clay
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MAT.P-394 Recovery of Co, Ni, and Mn from spent lithium-ion secondary batteries using lactic acid and oxalic acid as leaching and precipitation agents
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MAT.P-395 Assessment on the magnesia/mineral supplier-treated Korean cattle compost (MMC) for the reduction of water pollution and the recovery of soil through field test
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MAT.P-396 Enhanced Biocompatibility of Dexamethasone through Hybridization with 2D Inorganic Materials for Drug Delivery
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MAT.P-397 Enhancing Ascorbic Acid Stability with Precision Fabrication of 2D/3D Inorganic/Organic Nanohybrids
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MAT.P-398 Caffeic Acid-Layered Double Hydroxide Nanohybirds with Improved UV Protection for Cosmetic Applications
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MAT.P-399 Strategies for Targeted Boron Neutron Capture Therapy using 10Boron Drug-Layered Double Hydroxide Nanohybrids

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MAT.P-400 Evaluating pre-clinical efficacy of 2D-biohybrid nanoparticles for Triple negative breast cancer therapy

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MAT.P-401 Bifunctional Urea–Polyethyleneimine-Mediated Surface Engineering in tin oxide Electron-Transport Layer for Efficient and Stable Organic Solar Cells

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MAT.P-402 Shape-Controlled Hydrothermal Synthesis of $ZnCo_2O_4$ nanostructures

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MAT.P-403 Low-temperature hydrocracking of LDPE over acidic Catalysts

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MAT.P-404 Investigation of Photocatalytic Decomposition of Organic Dye in Wastewater Using Heterojunction Compounds of Ni-Doped CdS Nanoparticles and Fe_2O_3 Nanoparticles under Natural Light

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MAT.P-405 Lead-Free Tin-Based Red and Green 2-D Perovskites

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MAT.P-406 DNA-Guided Morphology Control of Plasmonic Metal Nanoparticles

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MAT.P-407 Carbon-based Composite with ZnO and Ag_2O: Efficient Photocatalytic Decomposition of Hazardous Pollutants under Sunlight

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MAT.P-408 In situ confinement of copper/copper oxide nanoparticles inside a carbon tube using a single Cu-MOF precursor: a facile morphologically controlled synthesis strategy for superior oxygen evolution reaction and visible-light-driven photocatalytic efficiency

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MAT.P-409 Selective adsorption of Doxorubicin via topotactic surface enrichment with hydrated Na^2 ions on engineered MXene nanosheets

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MAT.P-410 Ni doping and Cu_2O decoration on $BiVO_4$ for bandgap tuning and application to pollutant degradation under visible light

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MAT.P-411 Investigation of the CO_2 Absorption Ability of A_2CO_3-promoted CdO(A=Li, Na and K) in Intermediate Temperature Range

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MAT.P-412 DNA-Linked Nanoparticle Films for Shape Morphing by Light Stimulation

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MAT.P-413 Quantum Dot Composite Colloids with Layer-by-Layer Shell and Their Biological Self-assemblies for Signal Amplified Detection

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ELEC.P-395 Electrochemical Activation of Graphene coated on the copper electrode by Nitrobenzene Reduction
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ELEC.P-396 Advancing Electrochemical Impedance Spectroscopy: Integrating Deep Learning for Enhanced Analysis and Precision
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ELEC.P-397 Design of glycol gel electrolytes for supercapacitors operable at extreme temperatures
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ELEC.P-398 Surface defect-induced OER and HER in Ru-doped metal-organic framework
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ELEC.P-399 High Energy Density Single-Crystal NMC/Li6PS5Cl/Ga-Li7La3Zr2O12 Cathodes for All-Solid-State Lithium-Metal Batteries
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ELEC.P-400 Harnessing the Electro-Inductive Effect for Tunable Emission Wavelengths in Iridium Cyclometalated Complexes
Seunghwan Eom, Eunji Lee, Mu-Hyun Baik
Chemistry, Korea Advanced Institute of Science and Technology (KAIST), Korea

ELEC.P-401 Perturbation of Na-ion distribution for enhancement of ionic conductivity to a practical level of over 1 $mS{\cdot}cm^{-1}$ in Na_3ZnGaS_4
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ELEC.P-402 Electrochemical DNA Cleavage Sensing for EcoRV with an ERGO Electrode
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ELEC.P-403 Metal-Organic Framework-Derived Co3O4/NiCo2O4 DSNCs as an Electrochemical Sensor for the detection of Alfuzosin
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ELEC.P-404 Acid-base dual doped graphene for electrochemical urea synthesis.
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ELEC.P-405 Evidence of Intrinsic Pseudocapacitive Lithium Intercalation in Rutile $TiNbO_4$
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ELEC.P-406 Theoretical Studies on the $(ReV)X_2$ (X = S, Se) Alloy Nanosheets as Hydrogen Evolution Reaction Electrocatalysts
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ELEC.P-407 Chiral catalyst effect of twisted nanowire bundles for photoelectrochemical water splitting
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ELEC.P-408 Computational Insights into the Electron-Inductive Effect using FC-DFT: Linker Effects and Potential Window Enhancement
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ELEC.P-409 Suppressing hydrogen evolution in N_2 reduction by heteroatom doped graphene.
Jun Hyeok Kwon, Sungtae Kim, Tae-Hyuk Kwon
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ELEC.P-410 Imaging Single Nanobubbles of H_2 during Water Splitting using In-Situ Electrochemical-Fluorescence Lifetime Imaging
Seongjong Kim, Je Hyun Bae[1], Donghoon Han
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ELEC.P-411 Temperature-Dependent Effect of Mn Substitution on $LiNiO_2$
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ELEC.P-412 Promoting Photocurrent in Au-TiO2 Electrodes via Cooperative Hole Scavenging
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ELEC.P-413 Exploring TiNbO4 as a Promising Alternative to Li4Ti5O12
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ELEC.P-414 Impact of Lithium Salts on the Electrochemical Performance of Ni-rich Layered Single Crystals
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ELEC.P-415 Tracking the electrochemical activity of Au@Ag nanoparticles for the nitrite oxidation reaction via single-entity electrochemistry
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ELEC.P-416 Investigating Deterioration and Restoration Processes in Anion Exchange Membrane Water Electrolysis Powered by Fluctuating Renewable Energy
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ELEC.P-417 Unveiling mercury's Electrochemical behavior through Single Entity Electrochemistry
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ELEC.P-418 Molecular weight determination of Aromatic polymer; Introducing a Novel Approach
Drisya Menothil, Byung-Kwon Kim
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ELEC.P-419 Improving anion exchange membrane water electrolysis performance using β-NiOOH-encapsulated Ni nanoplates
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ELEC.P-420 Improving stability in anion exchange membrane electrolysis using NiFe nanoparticles deposited hydrophilic TiO_2 electrode
Shajahan Shaik, Mrinal Kanti Kabiraz, Sang-Il Choi[1,*]
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Beom-Jun Shim, Ik-Soo Shin
Department of Chemistry, Soongsil University, Korea

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Jinha Shim, Jin Ho Bang[1,*]
Department of Applied Chemistry, Center for Bionano Intelligence Education and Research, Korea
[1]Department of Chemical & Molecular Engineering, Hanyang University, Korea

ELEC.P-423 Improving biodegradable polymer for Melt electrospinning : enhancing conductivity and viscosity with additives
Yun Hyeong Lee, Byung-Kwon Kim
Department of Chemistry and Nanoscience, Ewha Womans University, Korea

ELEC.P-424 NaCl Template-Induced Low-Content Ir Catalyst for Enhancing Cost-Efficiency of Proton Exchange Membrane Water Electrolysis
Sol Kim, Bora Seo[1,*]
Hydrogen and Fuel Cell Research Center, Korea Institute of Science and Technology, Korea
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ELEC.P-425 Unveiling the Critical Role of Crystallinity in Photogenerated Hole Tranfer Behavior of TiO_2
Minwook Jeon, Jin Ho Bang[1,*]
Applied Chemistry, Hanyang University, Korea
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ELEC.P-426 Active phase formation in lithium cobalt oxide via potential-driven reconstruction for improved oxygen evolution reaction
Aleksandr Riabin, Jongwoo Lim[1,*]
Chemistry, Seoul National University, Korea
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ELEC.P-427 Flow Synthesis of Ketones from Benzylic Methylenes via Electrooxidative C-H Activation
Yelim Cha, Chan Pil Park
Graduate School of Analytical Science and Technology, Chungnam National University, Korea

ELEC.P-428 Sustainable eco-friendly NaCl salt powder-assisted method to synthesize SiO_x/C as anode materials originated from rice husk for lithium-ion batteries
Youngseul Cho, Yuanzhe Piao[1,*]
Graduate School of Convergence Science & Technology, Program in Nano Science & Technology, Seoul National University, Korea
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ELEC.P-429 Comparison of the mediator's electrochemical characteristic with different carbon chain length
Jihyuk Kim, Hyug-Han Kim[1,*]
Chemistry department, Dankook University, Korea
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ELEC.P-430 Development of a new electron mediator applicable to enzymatic biofuel cell
Seokyeong Chung, Hyug-Han Kim[1,*]
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[1]Department of Chemistry, Dankook University, Korea

ELEC.P-431 Effect of Capping Agent for Pt/Cs on Stability of Electrochemical Toluene Hydrogenation
Jueon Park, Ara Jo
Department of Chemistry, Kangwon National University, Korea

ELEC.P-432 Electrochemical Measurements of the Surface Area for Platinum Electrodes
Mini Hong, Ara Jo
Department of Chemistry, Kangwon National University, Korea

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Sunhyung Han, Ara Jo
Department of Chemistry, Kangwon National University, Korea

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Hyun Ju Yang, Junhee Yu, Hyo Chan Lee, Je Hyun Bae
Graduate School of Analytical Science and Technology (GRAST), Chungnam National University, Korea

ELEC.P-435 Effect of Electric Double Layer Overlapping on Electrochemical Reactions at Nanoporous Electrodes
Hyo Chan Lee, Hyun Ju Yang, Junhee Yu, Je Hyun Bae
Graduate School of Analytical Science and Technology (GRAST), Chungnam National University, Korea

ELEC.P-436 Operando Li Imaging: Elucidating lithium transport associated with internal strain-stress in individual NMC particles affected by interface conditions in polymer electrolyte
Junho Bae, Jongwoo Lim
Division of Chemistry, Seoul National University, Korea

ELEC.P-437 Bioelectrocatalytic nitrous oxide reduction to ammonia
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ELEC.P-438 Mediated Enzymatic Bioelectrocatalysis for highly efficient NADH regeneration and bioinspired redox flow battery
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ELEC.P-439 Stable and high-sensitivity enzymatic biosensor capable of phenol measurement based on nanostructured bioelectrodes using block copolymer lithography
Na Hui Geum, Yoo Seok Lee[1,*]
Tech University of Korea, Korea
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ELEC.P-440 Development of stretchable electrode based on metal nano fibers with improved elasticity through wrinkle structure
Sung Hyeok Lee, Hwan-Jin Jeon[1,*]
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ELEC.P-441 Direct/Mediated electron transfer based bioelectrocatalytic NADH regeneration for enzymatic biofuel cell

Yerin Jeon, Yoo Seok Lee[1,*], Hyenseong Ju[2], Geum Nahui[3]
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ELEC.P-442 Laser-induced graphene (LIG) based Electrochemical Sensor for the Colorimetric detection of Glucose

Kyu Sik Kim, Minjee Seo[1,*]
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ELEC.P-443 Highly efficient Enzyme cascade based Bioelectrocatalytic CO_2 conversion and PHB synthesis.

Junsup Shin, Bae Jaesung, Yoo Seok Lee
Department of Chemical Engineering & Biotechnology, Tech University of Korea, Korea

Poster Presentation

Chemistry Education Poster Presentation
April 25 (Thu), Exhibition Hall 2

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Hunsik Kang
Gifted Education, Seoul National University of Education, Korea

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Youngjoo Noh, JaeYoung Han
Department of Chemistry Education, Chungbuk National University, Korea

EDU.P-416 Service Learning Experiences of Pre-service Science Teachers at Chosun Space Lab STAR Bridge Center
Ju Ran Shin, HyunJu Park
Faculty of Chemistry Education, Chosun University, Korea

EDU.P-417 **[Withdrawal]** The study of Science Communicators' competencies in their curriculums
GeunHyung Lee
Pusan National University, Korea

EDU.P-418 Comparison of Attitudes Toward Chemistry Between Science Camp Participants and Regular Students
Hyunjung Kim*, **Jiyun Yang**[1]
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Haejung Ahn, Hyunjung Kim[1,*]
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EDU.P-420 Analysis of the effectiveness of the chemical virtual laboratory program for high school students in disadvantaged areas
Jihyeon Noh, Hyun Kyung Kim
Chemistry Education, Jeonbuk National University, Korea

EDU.P-421 Developing a TPACK training programme for science teachers and analysing its effects
Seong hye Kim, Seounghey Paik
Department of Chemical Education, Korea National University of Education, Korea

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Ee Seul Park, Jongseok Park[1,*]
Graduate School of Education(Chemistry Education), Kyungpook National University, Korea
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Jaehyeok Lee, Seounghey Paik[1,*]
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EDU.P-424 An Analysis of the Self-Assessments in the Matter Units of Elementary Science Textbooks for 3rd Grade Developed Under the 2015 Revised National Curriculum
Minhwan Kim, Taehee Noh[1,*]
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EDU.P-425 Gifted science students' perceptions of classes emphasizing observation and communication
Wonho Choi
Department of Chemistry Education, Sunchon National University, Korea

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Najin Jeong, Seounghey Paik
Department of Chemical Education, Korea National University of Education, Korea

ENVR.P-427 Enhancing Photocatalytic Hydrogen Production: Transitioning from Type I to Type II Heterojunction with CdS@PbS Heterostructures
Gitae Kim, Taeho Shin[1,*]
Chemistry, Jeonbuk National University, Korea
[1]Department of Chemistry, Jeonbuk National University, Korea

ENVR.P-428 2M Phase W1-xMoxSe2 Alloy Nanosheets to Enhance Electrocatalytic Hydrogen Evolution Reaction
Youn Jun Choi, Seo Yun Jung, Haeun Lee, JunHyeok Choi, Jeunghee Park
Department of Advanced Materials Chemistry, Korea University, Korea

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JunHyeok Choi, Youn Jun Choi, Seo Yun Jung, Haeun Lee, Jeunghee Park
Department of Advanced Materials Chemistry, Korea University, Korea

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Junaid Ihsan, Juyeon Kim, Jeunghee Park
Department of Advanced Materials Chemistry, Korea University, Korea

ENVR.P-431 ReS2-MoS2-VS2 Ternary Aloy Nanosheets with Enhanced Electrocatalytic Hydrogen Evolution Reaction
Jeong Eun An, Junaid Ihsan, Juyeon Kim, Hong seok Kang[1,*], Jeunghee Park
Department of Advanced Materials Chemistry, Korea University, Korea
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Seokhyeong Bu, Chiyoung Park[1,*]
Energy science & engineering, Daegu Gyeongbuk Institute of Science & Technology, Korea
[1]Department of Energy Science and Engineering, Daegu Gyeongbuk Institute of Science & Technology, Korea

ENVR.P-433 Flower-like heterostructure g-C3N4@NiO catalysts for efficient photodegradation of tetracycline and chlorpyrifos
Su-Bin Kim, Soo-Jin Park[1,*]
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ENVR.P-434 Titanium dioxide@Multi-walled carbon nanotubes Electrospun nanofiber mats for enhanced Cr(VI) photoreduction
Su-Bin Kim, Soo-Jin Park[1,*]
chemistry, Inha University, Korea
[1]Department of Chemistry, Inha University, Korea

ENVR.P-435 Electrochemical CO_2 reduction over surface-treated Au/TiO_2 electrodes
Soyoung Kim, Seon Young Hwang, Soo Yeon Bae, Yunji Gwon, Gaeun Yun[1], Choong Kyun Rhee[2], Youngku Sohn[2]
Departmemt of Chemistry, Chungnam National University, Korea
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ENVR.P-436 Synthesis of porous expanded graphite using piranha solution for high-performance storage and hydrogen adsorption.
YoungJin An, Soo-Jin Park[1,*]
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ENVR.P-437 Cu based electrochemical catalyst for ammonia synthesis
Gaeun Yun, Seon Young Hwang, Choong Kyun Rhee, Youngku Sohn
Department of Chemistry, Chungnam National University, Korea

ENVR.P-438 Manufacture of carbon nanotube(CNTs) and chitosan nano-composite materials for gas adsorbents
YoungJin An, Soo-Jin Park[1,*]
Inha University, Korea
[1]Department of Chemistry, Inha University, Korea

ENVR.P-439 Unique Surface modification of Pt/Cu for Electrochemical CO_2 Conversion

Soo Yeon Bae, Seon Young Hwang, Gaeun Yun, Yunji Gwon, Soyoung Kim[1], Choong Kyun Rhee[2], Youngku Sohn[2]
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ENVR.P-440 Role of Metallic Elements in Electrochemically Treated CuNiZn for Electrochemical CO_2 Reduction

Yunji Gwon, Seon Young Hwang, Soo Yeon Bae, Gaeun Yun, Soyoung Kim[1], Choong Kyun Rhee[2], Youngku Sohn[2]
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ENVR.P-441 Interface engineering of TMDs and CoP heterostructure on carbon cloth for efficient hydrogen evolution reaction

Sohyeon Hong, Soo Min Kim[1,*]
Chemistry, Sookmyung Women's University, Korea
[1]Sookmyung Women's University, Korea

ENVR.P-442 Solar liquid fuel production by using Mo-doped BiVO4 as photoanode and multilayered CuNi alloy/N-doped reduced graphene oxide/nafion as dark cathode

Harish reddy Inta, Ramesh Poonchi Sivasankaran[1], Young soo Kang[2,*]
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ENVR.P-443 Fe&Cu dual single atoms decorated N&S co-doped porous 2D Carbon Nanosheets/1D g-C3N4 hollow nanotubes heterojunction composite for enhanced photocatalytic CO2 reduction into solar liquid fuels

Ramesh Poonchi Sivasankaran, Young soo Kang[1,*]
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ENVR.P-444 Preparation of colloidal ZnTe/g-C3N4 quantum dots based efficient photocathode for photoelectrochemical reduction of CO2 into solar liquid fuels

Sachin Ghugal, Young soo Kang[1,*]
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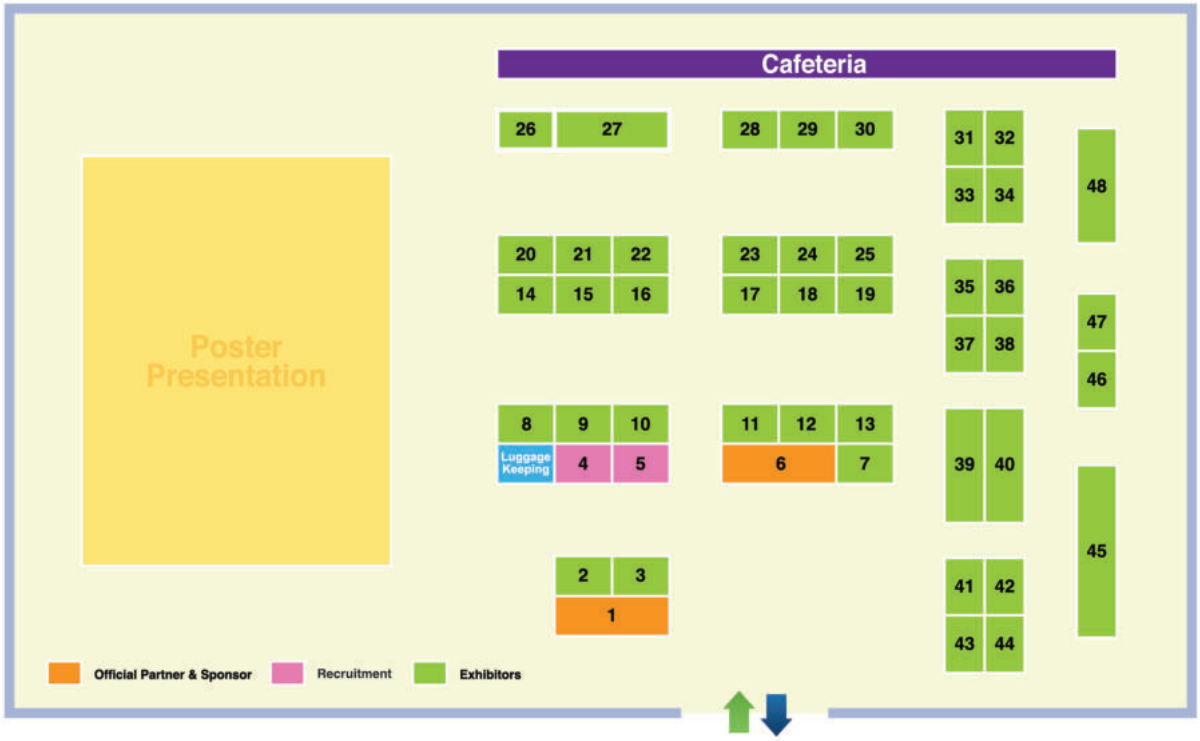

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Items Reagent, Premade Buffer, Electrophoresis, Plastic Consumables, Lab Tools, Marker&Enzyme, Antibiotics

LyoKorea co., Ltd

Address Room 509, 5th floor, 328, Wirye Gwangjang-ro, Sujeong-gu, Seongnam-si, Gyeonggi-do 13640, Korea
Tel 031-757-9255
Fax 031-757-9256
Web Site http://lyokorea.com
Contacts Chloe Choi
E-mail admin@lyokorea.com
Items Freeze Dryer, Freeze Drying Service, Lyobead Dispenser, DSC, FDM, Wireless Sensor, High Speed Rotaty Evaporator, TLC, HPTLC, MPLC, AutoExtraction System(PEL/ASE/SPE)/Autoclearnup System/Nitrate Concentration System, continuous flow hydrogenation reactor/lab hydrogen generator/photochemical reactor

Merck limited. Korea

Address 4F, 508 Teheran-ro, Gangnam-gu , Seoul , Republic of Korea
Tel 02-2185-1700
Fax 02-2185-3860
Web Site https://www.sigmaaldrich.com
Contacts YeonKyung Kim
E-mail yeon-kyung.kim@merckgroup.com
Items Chemical portfolios, Sigma-Aldrich® for Lab and Production Materials, Supelco® for Analytical Products

Micromeritics

Address 187, Techno 2-ro, Yuseong-gu, Daejeon, Republic of Korea
Tel 042-826-7633
Fax 02-3436-6222
Web Site https://www.micromeritics.com/?lang=ko
Contacts SeungNam Lee
E-mail seungnam.lee@micromeritics.com
Items Micromeritics is the world's leading supplier of high-performance systems to characterize particles, powders and porous materials with a focus on physical properties, chemical activity, and flow properties. Our industry-leading technology portfolio includes: pycnometry, adsorption, dynamic chemisorption, intrusion porosimetry, powder rheology, activity testing of catalysts, and particle size.

NANOBASE

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Tel 02-852-9011
Fax 02-852-9013
Web Site https://www.nanobase.co.kr/
Contacts Gideok Kim
E-mail kimgd@nanobase.co.kr
Items
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- Fast 2D scanning
- Interchangeable and rotatable volume phase holographic (VPH) grating selections
- Photoluminescence (PL)
- Electroluminescence (EL)
- Fluorescence lifetime imaging and measurement (FLIM)
- Photocurrent imaging and measurement
- White light interferometry (WLI)
- Battery testing/cycling

Netzsch Korea

Address Odo-ro 15 Paju, Korea
Tel 031-931-2300
Fax 031-931-2388
Web Site https://analyzing-testing.netzsch.com/ko
Contacts Unjoo Jang
E-mail Unjoo.Jang@netzsch.com
Items DSC, TGA, STA, TMA, DMA, RHEOMETER

OSANGJAIEL

Address 36, Yukdong-ro, Bupyeong-gu, Incheon, Republic of Korea
Tel 032-524-0700
Fax 032-517-6636
Web Site https://osangjaiel.co.kr/
Contacts SeoHyuk Lee
E-mail leesh@jaiel.co.kr
Items Electronic Laboratory Notebook (ELN)
Electronic Document Management System(EDMS)

Qbic Laser System Inc.

Address 303-901 (Bucheon Techno Park), Seokcheon-ro 345, Ojeong-gu, Bucheon-si, Gyeonggi-do, 14501, Korea
Tel 032-325-4544
Fax 032-323-4736
Web Site http://www.qbiclaser.com
Contacts Sujin Kwon
E-mail sjkwon@qbiclaser.com
Items 1. Optical System Manufactured by Qbic Laser System Inc.
- Beam Homogenized System
- Stand-alone Motorized Laser Beam Attenuators
- Fiber Coupled Diode Laser System

2. Imported Products
- Pulsed Q-switched Nd:YAG Lasers
- Diode Pumped Solid State Lasers
- Fiber Lasers
- Femtosecond Lasers
- Laser Energy and Power meters
- Laser Optics / Fiber Optics

SB BIOSCIENCE

Address 27, Dongtancheomdansaneop 1-ro, Hwaseong-si, Gyeonggi-do, Republic of Korea
Tel 031-373-5535
Fax 031-373-5536
Web Site http://sbbioscience.com
Contacts MinKyeong Kim
E-mail sb.minkyeong@sbbioscience.com
Items Research consumables, Reagent

Schrödinger Korea LLC

Address (13486) 2F, Pangyo Innovalley A, 253, Pangyo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, Republic of Korea
Tel 010-5498-1657
Fax --
Web Site https://newsite.schrodinger.com/
Contacts HyoJu Lee
E-mail hyoju.lee@schrodinger.com
Items - Life Science small molecule drug design / Biologic simulation tool
- Quantum mechanics / Molecular mechanics simulation tool
- Live Design (Platform)

SCINCO

Address SCINCO #627, BONGEUNSA-RO, GANGNAM-GU, SEOUL, KOREA
Tel 02-2143-8334
Fax 02-2143-8354
Web Site http://www.scinco.com
Contacts SeongWon Park
E-mail swpark@scinco.com
Items UV-Vis Spectrophotometer
Fluorescence Spectrophotometer
Color Spectrophotometer
Oven

SCIPLUS

Address #1106, 14, Yangpyeong-ro 30-gil, Yeongdeungpo-gu, Seoul, Republic of Korea
Tel 02-332-6171
Fax 02-332-6185
Web Site http://www.sciplus.co.kr
Contacts Yeongbok Kim
E-mail sciplus@sciplus.co.kr
Items books

SHIMADZU SCIENTIFIC KOREA

Address 609, Eonju-ro, Gangnam-gu, Seoul, Republic of Korea
Tel 02-540-5541
Fax 02-541-2163
Web Site www.shimadzu.co.kr
Contacts KwanSoo Kim
E-mail kskim@shimadzu.co.kr
Items Chemical analysis instruments such as LC, GC, UV, FTIR, EDX, TOC, etc. Test instruments, laboratory safety dvices and consumables.

Smart Jack

Address 19, Seongsuil-ro, Seongdong-gu, Seoul, Republic of Korea
Tel 02-497-3060
Fax 02-6280-9045
Web Site lab-manager.com
Contacts Yeobeom Yoon
E-mail yeobeom.yoon@smartjackwp.com
Items LAB MANAGER STORE
We sell over 110 brands of reagents and laboratory products at best prices.

SMtech

Address 36 International Science 2-ro, Daejeon Metropolitan City
Tel 042-824-4413
Fax 042-824-4415
Web Site http://smtech.co.kr
Contacts SeHun Yu
E-mail ysh@smtech.co.kr
Items Optical Table, Isolation Table, Stage, Laser

SULIM COMMERCE CO., LTD.

Address Anyang Megavalley #623, Hakuiro 268, Dongan-ku, Anyang-Si, 14056, Korea
Tel 031-420-8670
Fax 031-420-8673
Web Site http://www.sulim.com
Contacts YoungJin Cho
E-mail suliminfo@naver.com
Items Chemistry diaphragm vacuum pump, VARIO chemistry pumping unit, Rotary vane pump (chemistry oil pump), Chemistry oil-free screw pump, Chemistry HYBRID pump, Vacuum controller, Vacuum gauge & sensor, High vacuum manifolds (schlenk line), Freeze dryer, Rotational vacuum concentrator

SUNILEYELA CO., LTD.

Address 5, Dongwon-ro 21beon-gil, Bundang-Gu, Sungnam-Si, Gyeonggi-Do, 13547 Korea
Tel 031-715-5641
Fax 031-715-5648
Web Site http://www.sunileyela.co.kr/
Contacts YunMi Han
E-mail eyela@sunileyela.co.kr
Items Rotary Evaporator System, Low Temp. Reactor, Freeze Dryer System, Shaker, etc.

TCI-SEJIN CI

Address SEJIN B/D, 20, Sinmok-ro, Yangcheon-gu, Seoul,
Tel 02-2655-2480
Fax 00-000-0000
Web Site www.sejinci.co.kr
Contacts Junghum Moon
E-mail mounhj@sejinci.co.kr
Items TCI is a brand that has been specializing in reagents for more than 100 years and its quality is recognized by researchers around the world.
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Fine & Specialty Chemicals
Custom Synthesis / Bulk Chemicals
- Chemistry
- Materials Science
- Life Science
- Analytical Chemistry
- Glycoscience

Thermo Fisher Scientific

Address 12FL, 281, Gwangpyeong-ro, Gangnam-gu, Seoul, Korea
Tel 1661-9555
Fax 000-000-000

Web Site http://www.alfa.co.kr
Contacts Minjeong kim
E-mail Minjeong.kim@thermofisher.com
Items Analytical chemistry, Life Science Reagent, Organic reagents, Inorganic reagents, Metals and materials, High Purity Inorganics, Screening libraries

TS SCIENCE

Address A507, 123, Digital-ro 26-gil, Guro-gu, Seoul, Republic of Korea
Tel 010-2920-9123
Fax 02-6969-7810
Web Site http://www.tsscience.co.kr
Contacts Jihwan Choi
E-mail jhchoi@tsscience.co.kr
Items [Spectroscopy]
UV/Vis/NIR Spectrophotometer, FTIR Spectrometer and Microscopes, SpectroFluorometer[PL], Digital Polarimeter, Circular Dichroism Spectrometer[CD], Circularly Polarized Luminescence[CPL], Raman Microscope, Probe Raman, Palmtop Raman
[Chromatography]
Analytical HPLC, Preparative HPLC, UPLC, GPC, SFE/C, Preparative SFC

UniOTech corp.

Address B313, 17, Techno 4-ro, Yuseong-gu, Daejeon, Republic of Korea, 34013
Tel 042-933-9870
Fax 0303-0959-9870
Web Site http://www.uniotech.kr
Contacts JungMin Nam
E-mail sales@uniotech.kr
Items Laser diode, Pulsed Laser Diode, APD, LED, VCSEL, DPSS Laser, Diode Laser, HeNe Laser, Fiber Laser, Tunable Laser, Fiber components, Optics(Lens, Mirror, Filter, Beam expander, collimation lens..etc), Beam profiler, Power meter, spectrometer, FSM, Scanner,

University of Science and Technology

Address UST, 217 Gajeong-ro, Youseong-gu, Daejeon, Korea
Tel 042-865-2425
Fax 042-864-5554
Web Site http://ust.ac.kr
Contacts Jung-il Namgung
E-mail wavers@ust.ac.kr
Items Promotional materials

WizOptics

Address #208, 68, Heungan-daero, 94beon-gil, Dongan-gu, Anyang-si, Gyeonggi-do, 14120, KOREA
Tel 031-477-3785
Fax 031-477-3486
Web Site http://www.wizoptics.com
Contacts HyoSoo Kim
E-mail info@WizOptics.com
Items Real Time Monitoring Raman System

Recruitment

Hansol Chemical

Address 513, Teheran-ro, Gangnam-gu, Seoul, Republic of Korea
Tel 02-2152-2399
Fax 02-2152-2391
Web Site https://hansolchemical.com/
Contacts Ji Han Song
E-mail jhsong6@hansol.com

KUMHO PETROCHEMICAL

Address Signature Tower East Wing, 100 Cheonggyecheon-ro, Jung-gu, Seoul
Tel 02-6961-1114
Fax 02-6961-1449
Web Site www.kkpc.com
Contacts Jaerin Lee
E-mail jrlee08@kkpc.com

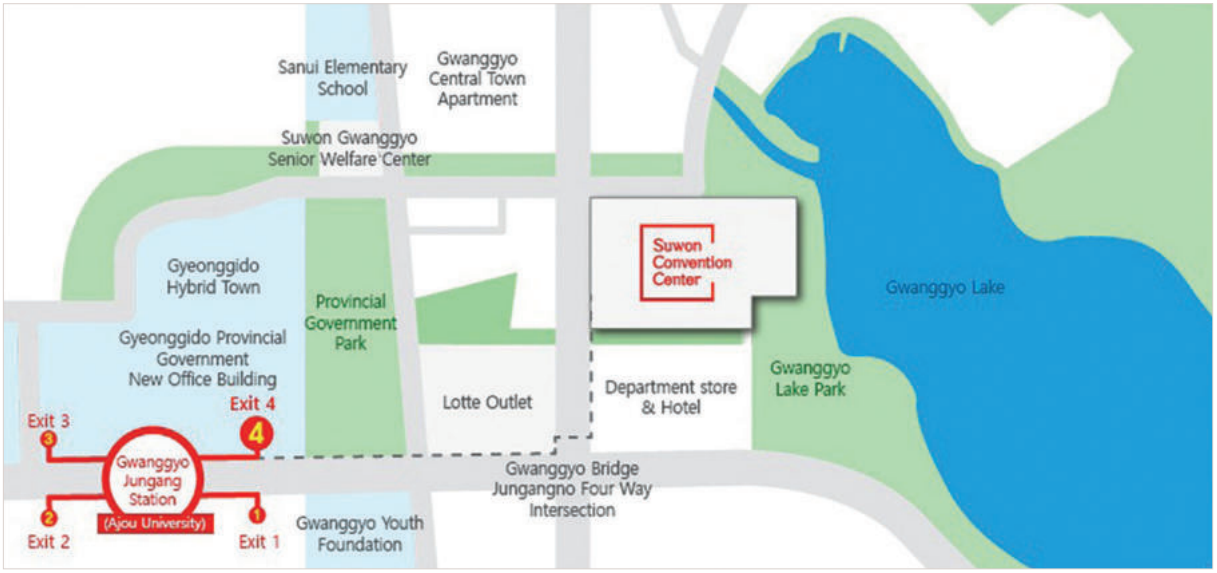
Transportation

Access to Suwon Convention Center

▣ By Subway

「Gwanggyo Jungang(Ajou Univ.) Station」, Sinbundang Line

Get off Gwanggyo Jungang Station(Exit 4) → Walk to Suwon Convention Center(Approx. 10 minutes on foot)



Transportation

▣ By Bus

Express Bus Stop : 「Gwanggyo Jungang·Ajou University Transfer Center」

Seoul Station M5121 / Gangnam Station M5422

Get off at Gwanggyo Jungang·Ajou University Transfer Center(Exit 4) Walk to Suwon Convention Center(Approx. 10 minutes on foot)

Intra-city Bus Stop : 「Suwon Convention Center · Lotte Outlet」

11, 19, 20, 20-1, 20-2, 32-4, 201, 670, 720-3, 999

Get off at Suwon Convention Center · Lotte Outlet Walk to Suwon Convention Center (Approx. 3 minutes on foot)

Transportation

▣ By Airport Limousine

Incheon International Airport

Airport limousine bus for 「Gwanggyo Jungang·Ajou University Transfer Center」Take Bus No. 8877(60~80 minutes) → Get off at Suwon Convention Center→ Suwon Convention Center(Approx. 10 minutes on foot)

Operation Hours	(For Airport) The First Bus 04:30, The Last Bus 17:30 (For Suwon) The First Bus T1 06:50, T2 06:30, The Last Bus T1 20:30, T2 20:10
Time	75min(73km)
Bus Route	Terminal 2 ↔ Terminal 1 ↔ Gwanggyo Jungang Ajou University Transfer Center ↔ Suwon Convention Center ↔ Heung-deok Zone Entrance ↔ Singal(Yongin) ↔ Korean Folk Village
Fare	KRW 12,200
Location	(Terminal 1) Gate 7 on the 1st floor, (Terminal 2) Gate 40 on 1st basement level, Transportation Center

Route Schedule

Bus Schedule(T1/Weekday)	06:50 / 07:50 / 09:20 / 09:50 / 10:20 / 12:10 / 13:30 / 15:20 / 16:50 / 17:25 / 18:00 / 19:00 / 20:30
Bus Schedule(T1/Weekend)	06:50 / 07:50 / 09:20 / 09:50 / 10:20 / 12:10 / 13:30 / 15:20 / 16:50 / 17:25 / 18:00 / 19:00 / 20:30
Bus Schedule(T2/Weekday)	06:30 / 07:30 / 09:00 / 09:30 / 10:00 / 11:50 / 13:10 / 15:00 / 16:30 / 17:05 / 17:40 / 18:40 / 20:10
Bus Schedule(T2/Weekend)	06:30 / 07:30 / 09:00 / 09:30 / 10:00 / 11:50 / 13:10 / 15:00 / 16:30 / 17:05 / 17:40 / 18:40 / 20:10

Gimpo International Airport

Intercity Bus for 「Dongsuwon Station」Take Bus No. A4300(80min) → Get off at Dongsuwon Station → Take a taxi(10min) or take a bus(30min) → Suwon Convention Center

Operation Hours	(For Airport) The First Bus 04:50, The Last Bus 20:40 (For Suwon) The First Bus 08:30, The Last Bus 23:00
Time	80min
Bus Route	(Normal Bus) Gimpo Airport ↔ Gwanak Station ↔ Anyang(Beomgye) ↔ Hogye Four Way ↔ Uiwang(Gocheon) ↔ Hanil Town ↔ Dong Suwon (Express Bus) Gimpo Airport ↔ Seo Suwon Bus Terminal ↔ Suwon Station ↔ Dong Suwon
Fare	KRW 8,000
Location	(International Terminal) No. 1 on the 2nd floor, (Domestic Terminal) No. 11-4

Transportation

▣ By Car

Address : 140, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16514, Republic of Korea

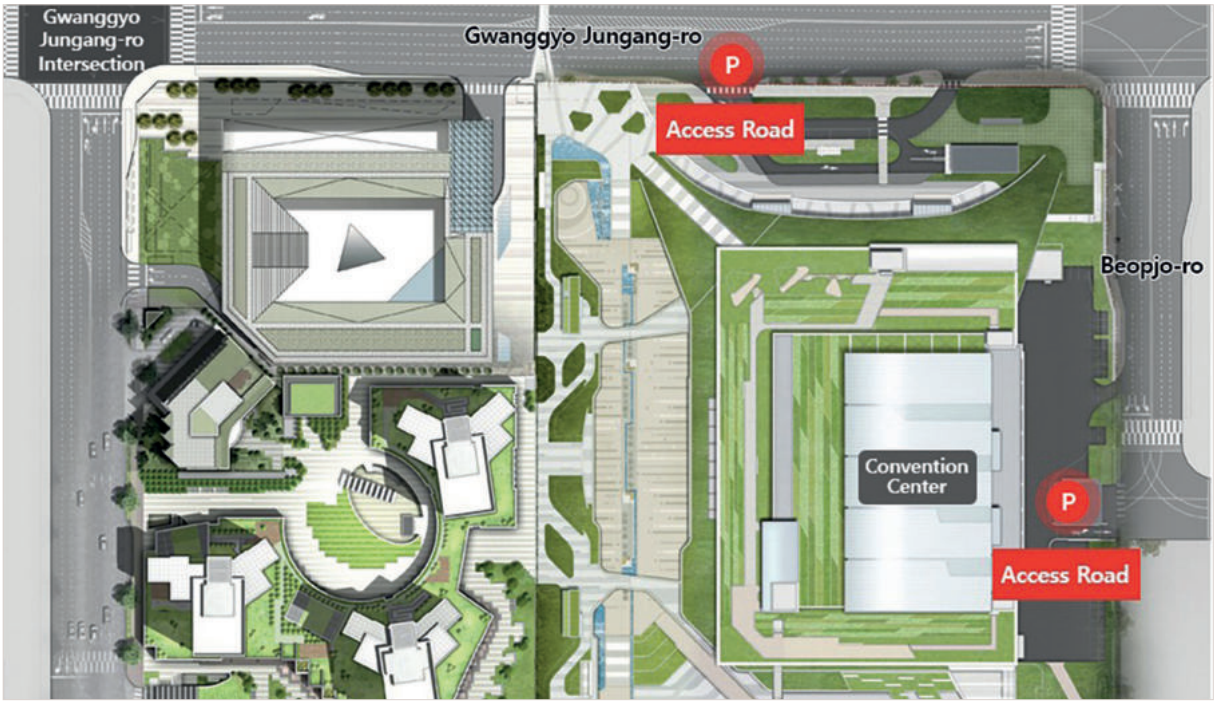
From Seoul Station

Banpo Daero → Umyeonsallo → Gwacheon Bongdam Dosi Gosokhwa Road → Yeongdong Expressway → Gwanggyo Jungang Station(60min, 40km)
Gyeongbu Expressway → Anyangpangyo-ro → Yongin Seoul Expressway → Gwanggyo Jungang Station(70min, 41km)

From Gangnam Station

Gyeongbu Expressway → Anyangpangyo-ro → Yongin Seoul Expressway → Gwanggyo Jungang Station(48min, 32km)
Umyeonsallo → Gwacheon Bongdam Dosi Gosokhwa Road → Yeongdong Expressway → Gwanggyo Jungang Station(44min, 24km)

Parking



Food

Map of Suwon Convention Center District

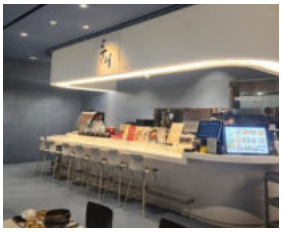
❶ Gwanggyo Galleria Department Store (Dining)

❷ Lotte Outlet (Dining)

❸ Gwanggyo L'Fort Mall (Dining)

Food

❶ Gwanggyo Galleria Department Store (Dining)



Dure

Korean food

-

B1, 124, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Tonari Udon

Japanese food(Noodles)

-

B1, 124, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Pyun

jokbal

-

B1, 124, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Tam Tam

Vietnamese food(Rice Noodles)

+82-31-5174-7017

B1, 124, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Sushi Azi

Sushi

-

B1, 124, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Food

Hyobundang

Japanese food(Shabu-Shabu, donburi)

+82-507-1373-2755

B1, 124, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Junghwagajeong

Chinese food(jajangmyeon, jjamppong)

+82-31-5174-7023

B1, 124, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Outback steak house

Family restaurant(Steak, pasta)

+82-31-303-0797

B1, 124, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Mies container

Italian food(Spaghetti, Risotto)

+82-31-303-6920

B1, 124, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Downtowner

Hamburger

+82-31-5174-7979

9F, 124, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

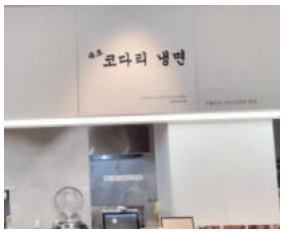
Food

Baengnyeon-ok

Korean food(Soft tofu, chopped noodles)

-

9F, 124, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

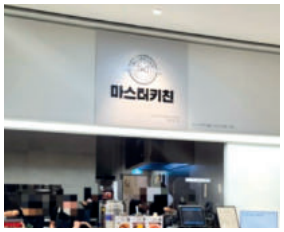


Sokcho Kodari

Naengmyeon

-

9F, 124, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea



Masterkitchen

pork cutlet, omurice

-

9F, 124, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Onkijung

Japanese food(Tendon)

-

9F, 124, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Bongasushi

Sushi

+82-507-1384-7907

9F, 124, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Food

Gwanghwamun Mijin

Korean food(buckwheat noodles, Stir-fried Octopus)

+82-507-1339-7915

9F, 124, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

since 1999
매몬당

Maeondang

Korean food

+82-31-5174-7906

9F, 124, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Cuchara

Mexican food

+82-31-5174-7908

9F, 124, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Jungdon

Korean food(Tontkatsu)

+82-507-1327-7912

9F, 124, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Darling kitchen

Brunch & Pasta

+82-31-5174-7904

9F, 124, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Food

Chalseuuisigtag

Pizza, Hamburger Steak

+82-31-5174-7902

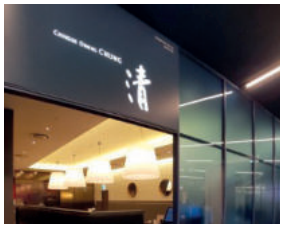
9F, 124, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Min's kitchen lab

Korean food(Bibimbap)

+82-31-5174-7909

9F, 124, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea



Chung

Chinese food

+82-31-5174-7911

9F, 124, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Konthai

Asian food(phat thai, curry)

+82-31-5174-7905

9F, 124, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Food

❷ Lotte Outlet (Dining)

The man Taco

Mexican food

+82-31-8064-2328

3F, 10, Docheong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Geumpa donkkaseu

Korean food(cutlet)

+82-31-8064-2326

3F, 10, Docheong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Gamasot Gimbap

Korean food(Gimbap)

+82-31-8064-2329

3F, 10, Docheong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Goonsan Ojing-oh

Korean food

+82-31-8064-2310

3F, 10, Docheong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Daega-yeon

Korean food(beef bone soup)

+82-31-8064-2313

3F, 10, Docheong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Food

Ma It Da Kitchen

Italian food

+82-31-8064-2308

3F, 10, Docheong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

CoCo ICHBANYA

Indian curry and Japanese food

+82-31-8064-2307

3F, 10, Docheong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Doomyeonban

Korean food(chopped noodles, dumpling)

+82-31-8064-2325

3F, 10, Docheong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Chai Hong

+82-31-8064-2398

Chinese food

3F, 10, Docheong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Food

❸ Gwanggyo L'Fort Mall (Dining)

Gamsung Taco&Grill

Mexican grilled cuisine

+82-31-212-8898

B1, 145, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

mokbohanwoo

barbecued beef short ribs

+82-31-217-2713

B1, 145, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Delhi Curry

Indian food

+82-507-1328-1984

B1, 145, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Cangee GoGo

Chinese cuisine

+82-507-1484-5988

B1, 145, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Samcheongdong shabu

Korean food

+82-31-215-4007

1F, 145, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

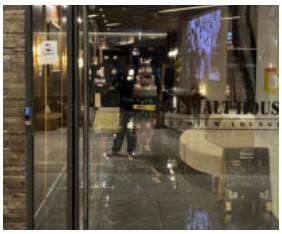
Food

Menji

Japanese food(Noodle)

+82-31-212-5050

1F, 145, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea



The malt house

italian food

+82-31-308-8889

2F, 145, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Makinochaya

Seafood buffet restaurant

+82-2-565-1116

3F, 145, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

Geongangbapsang Sim-mani

Korean food

+82-31-212-5050

3F, 145, Gwanggyojungang-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea

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BK21 FOUR 생물리광화학 창의인재양성사업팀

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중앙대학교 화학과 4단계 BK21 사업팀인 생물리광화학 창의인재양성팀은 생명/의료/에너지 분야에 다양한 사회적 수요를 충족시킬 수 있는 생물리광화학 기초와 응용 분야에 우수 연구인력들을 균형 있게 배출하여 사회 발전에 기여하는 것을 목적으로 설립되었습니다. 특히 4차 산업혁명, 감염병 확산, 에너지/환경 문제 등으로 급변하고 있는 우리 사회에 대두되는 새로운 지식 수요와 의료 및 에너지 관련 기술 수요에 능동적으로 대응할 수 있는 창의적, 도전적 연구인력을 양성하는 데 역점을 두고, 이 과정에서 생물리광화학을 학문적으로 발전시켜 얻어진 학술적 성과들을 응용하여 우리 사회가 직면하고 있거나 가까운 미래에 직면하게 될 사회문제와 산업적 문제들을 해결하는데 기여하고자 합니다. 사업목표 달성을 위해 교육연구팀을 기초학문으로서의 생물리광화학을 발전시킬 기초 연구팀과 관련 사회문제 해결 역량을 갖춘 응용 연구팀으로 균형 있게 구성하고, 기초 연구팀과 응용 연구팀 간 상승효과를 극대화 하여 사업목표를 효과적으로 달성하는 교육 및 연구 프로그램을 마련하여 추진하고 있습니다.
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