



Scientific Program

▪ Organization of Conference

- 72 Symposia in 12 themes
- 9 Plenary lectures

▪ Invitation of Scientists

- Plenary speakers including 4 Nobel Laureates
- Eminent young scientists
- Chairs and organizers of symposia

Conference Topics

Physical Chemistry	Molecular Synthesis	Advances in Inorganic Chemistry	Materials for Energy and Environment
Analytical Chemistry & Environment	Macromolecular Science and Technology	Chemistry of Life	Nanoscience and Materials
Open Innovation for Enlightening Chemistry Education	Green Chemistry for World Needs	Chemistry for Industry Innovation	Women in Chemistry: Gaining Momentum

Physical Chemistry

Organizer	Sang Kyu Kim (KAIST, Korea)
Co-organizers	Young Min Rhee (POSTECH, Korea), Hyotcherl Ihee (KAIST, Korea)

1. Natural and Artificial Photosynthesis (Tae Kyu Ahn, Sungkyunkwan University, Korea / Akihito Ishizaki, Institute for Molecular Science, Japan)
2. Current Status of Computational Chemistry (Sihyun Ham, Sookmyung Women's University, Korea)
3. New Chemical Theories for Exploring the Unexplored (Bong June Sung, Sogang University, Korea / Ryan Steele, The University Utah, USA)
4. New aspects of chemical reaction dynamics and laser spectroscopy (Nam Joon Kim, Chungbuk National University, Korea / Mitsuhiro Miyazaki, Tokyo Institute Technology, Japan)
5. Molecular Structural Dynamics by Structural Probes (Tae Kyu Kim, Pusan National University, Korea / Nils Huse, CFEL, German)
6. Physical Chemist's View on Biology (Nam Ki Lee, POSTECH, Korea)

Molecular Synthesis

Organizer

Chulbom Lee (Seoul National University, Korea)

1. Natural Product Synthesis I (David Chen, Seoul National University, Korea / Sanghee Kim, Seoul National University, Korea)
2. Natural Product Synthesis II (David Chen, Seoul National University, Korea / Sanghee Kim, Seoul National University, Korea)
3. Metal Mediated Catalysis I (Young Ho Rhee, POSTECH, Korea / Seunghoon Shin, Hanyang university, Korea)
4. Metal Mediated Catalysis II (Young Ho Rhee, POSTECH, Korea / Seunghoon Shin, Hanyang university, Korea)
5. Metal Mediated Catalysis III (Young Ho Rhee, POSTECH, Korea / Seunghoon Shin, Hanyang university, Korea)
6. Organocatalysis I (Masahiro Terada, Tohoku University, Japan)
7. Organocatalysis II (Masahiro Terada, Tohoku University, Japan)
8. Green Chemistry (Soon Hyeok Hong, Seoul National University, Korea)
9. New Synthetic Methodology I (Sungwoo Hong, KAIST, Korea)
10. New Synthetic Methodology II (Sungwoo Hong, KAIST, Korea)
11. New Synthetic Methodology III (Sungwoo Hong, KAIST, Korea)

Advances in Inorganic Chemistry

Organizer

Suk Joong Lee (Korea University, Korea)

1. Compounds for Bio-Applications (Wonwoo Nam, Ewha womans University, Korea / Jaeheung Cho, DIGIST, Korea)
2. New Strategies of Functional Inorganic Materials (Ok Sang Jung, Pusan National University, Korea)
3. Functional Coordination Polymers (Chang seop Hong, Korea University, Korea / Myoung Soo Lah, UNIST, Korea)
4. Advances in Coordination and Organometallic Chemistry (Shim Sung Lee, Gyeongsang National University, Korea)
5. Solid State Chemistry (Kwangyeol Lee, Korea University, Korea)

Materials for Energy and Environment

Organizer

Nam-Gyu Park (Sungkyunkwan University, Korea)

1. Energy Conversion Materials I: Solar Cells (Hyun Suk Jung, Sungkyunkwan University, Korea)
2. Energy Conversion Materials II: Photocatalyst (Hyunwoong Park, Kyungpook National University, Korea)
3. Energy Storage Materials: Rechargeable Batteries (Kisuk Kang, Seoul National University, Korea / Jong Hyeok Park, Sungkyunkwan University, Korea)
4. Advances in Fuel Cells (Suk-Won Cha, Seoul National University, Korea)
5. Inorganic and Hybrid Materials for Hydrogen (Jaheon Kim, Soongsil University, Korea)

Analytical Chemistry & Environment

Organizer

Myeong Hee Moon (Yonsei University, Korea)

1. Advances in Separation Methods (Seong Ho Kang, Kyung Hee University, Korea)
2. Fundamentals of MS based analysis (Sunghwan Kim, Kyungpook National University, Korea)
3. MS for Life Sciences (Kwang Pyo Kim, Kyung Hee University, Korea)
4. Electroanalysis & Nano-Bio Sensor (Taek Dong Chung, Seoul National University, Korea)
5. Spectroscopy in Bio-Analytical Detection (Hoeil Chung, Hanyang university, Korea)
6. Environmental Nanochemistry (Woojin Lee, KAIST, Korea)

7. Environmental Biogeochemistry (Seunghee Han, GIST, Korea)

Macromolecular Science and Technology

Organizers	Chulhee Kim (Inha University, Korea) Byeong-Hyeok Sohn (Seoul National University, Korea)
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1. Polymer Synthesis (Tae-Lim Choi, Seoul National University, Korea / Patrick Theato, University of Hamburg, Germany)
 2. Macromolecular Biotechnology (Cheol Hee Ahn, Seoul National University, Korea)
 3. Macromolecular Nanotechnology (Unyong Jeong, Yonsei University, Korea)
 4. Macromolecules for Electronics and Photonics (Taiho Park, POSTECH, Korea)
 5. Macromolecules for Energy (Min Jae Ko, KIST, Korea)
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Chemistry of Life

Organizer	Seung Bum Park (Seoul National University, Korea)
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1. Marine Natural Product & Biosynthesis (Dong-chan Oh, Seoul National University, Korea)
 2. Fluorescent Bioprobe & Sensors (Juyoung Yoon, Ewha Womans University, Korea)
 3. Advances in Chemical Biology (Seung Bum Park, Seoul National University, Korea)
 4. Advances in Molecular Diversity (Seung Bum Park, Seoul National University, Korea)
 5. Advance in Drug Discovery (Medicinal Chemistry) (Taebo Sim, KIST, Korea)
 6. Advances in Protein Research (Biochemistry) (Sang Jeon chung, Dongguk University, Korea)
 7. Synthetic Biology & Genome Engineering (Jin-Soo Kim, Seoul National University, Korea)
 8. Structures of Biopolymers (Jie-Oh Lee, KAIST, Korea)
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Nanoscience and Materials

Organizer	Wan Soo Yun (Sungkyunkwan University, Korea)
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1. Nanomaterials and Nanostructures : Synthesis/Fabrication and Characterization (Sungho Park, Sungkyunkwan University, Korea)
 2. Nanoscaled Carbon Allotropes : Graphene, CNT, and others (Byung Hee Hong, Seoul National University, Korea)
 3. Nano and Bio/Medical Interface (Sangyong Jon, KAIST, Korea)
 4. Nanodevices : Molecular Electronics, Photonics and Sensors (Hee Cheul Choi, POSTECH, Korea)
 5. Emerging Materials and Techniques: Smart Materials, Biomimetics, and Self Assembly (Moonhyun Oh, Yonsei University, Korea)
 6. Environmental Impact and Standardization of Nanomaterials (Tae Hyun Yoon, Hanyang University, Korea)
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Open Innovation for Enlightening Chemistry Education

Organizer	Hyunju Park (Chosun University, Korea)
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1. Chemistry Education for the Future: A Global Perspective (Mei-Hung Chiu, National Taiwan Normal University, Taiwan)
2. Curriculum and Evaluation (Xiufeng Liu, State University of New York, USA)
3. Chemistry Education and STEM/STEAM (Nobuyoshi Koga, Hiroshima University, Japan)
4. Best Practices in the Teaching and Learning of Chemistry (Helen Meyer, University of Cincinnati, USA)
5. Research and Practice (Sandi-Urena Santiago, University of South Florida, USA)
6. Sustainable Chemistry Education (Rola Khishfe, American University of Beirut, Lebanon)
7. Workshops (Okja Kim, Busan High School, Korea)

Green Chemistry for World Needs

Organizer	Kew-Ho Lee (KRICT, Korea)
Co-organizer	Bong Jun Chang (KRICT, Korea)
Supporters	TBA

1. Membranes for Water Treatment and Desalination (Kew-Ho Lee, KRICT, Korea)
2. CO₂ Separation and Conversion (Kyungbyung Yoon, Sogang University, Korea)
3. Development of Unconventional Resources (Hyundon Shin, Inha University, Korea)
4. Green to Blue Chemistry (Jin-Ook Baeg, KRICT, Korea)
5. PhosAgro/UNESCO/IUPAC (Pietro Tundo, Chair of IUPAC Sub-Committee on Green Chemistry, Università Ca' Foscari di Venezia, Italy)
6. Novel Molecular and Supramolecular Theory and Synthesis Approaches for Sustainable Catalysis (Laura L. McConnell, President of IUPAC Chemistry and the Environment Division Committee; Bayer CropScience, USA / Todd B. Marder, University of Wurzburg, Germany)

Chemistry for Industry Innovation

Organizer	Chul Wee Lee (KRICT, Korea)
Supporters	TBA

1. Printed Electronics: a New Process Innovation (Changjin Lee, KRICT, Korea)
2. Materials Innovation For the Electronic Industry (Sung-Ho Jin, Pusan National University, Korea)
3. Basic Feedstocks from Petrochemical Industry (Chul Wee Lee, KRICT, Korea)
4. C-Industry Based on Petrochemistry and Steel Chemistry (Young-Seak Lee, Chungnam National University, Korea)
5. Fine Chemical Industry with Green Technology (Doo Kyung Moon, Konkuk University, Korea)

Women in Chemistry: Gaining Momentum

Organizers	Angela K. Wilson (VP of IUPAC Physical and Biophysical Chemistry Division Committee; University of North Texas, USA) Carolyn Ribes (Secretary of IUPAC Committee on Chemistry and Industry; Dow Benelux BV, Netherlands)
Supporter	Eunji Sim (Yonsei University, Korea)