

## **Hyojong Yoo, Ph.D.** **Professor**

Department of Materials Science and Chemical Engineering, Hanyang University,  
55 Hanyangdaehak-ro, Sangnok-gu, Ansan, Gyeonggi-do, 15588, Republic of Korea;  
E-mail: hjhaha73@hanyang.ac.kr, Home: 82-10-3015-7247, Work: 82-31-400-5224

---

### **CURRENT POSITIONS:**

2019. 09 – **Department of Materials Science and Chemical Engineering, Hanyang University**  
(Ansan, Gyeonggi-do, Republic of Korea)  
**Full Professor** (2019. 09 – )
2010. 03 – **Department of Chemistry, Hallym University**  
2019. 08 (Chuncheon, Gandwon-do, Republic of Korea)  
**Full Professor** (2019. 03 – 2019. 08)  
**Hallym Distinguished Professor** (한림특훈교수, 2019. 03 – 2019. 08)  
**Associate Professor** (Tenured, 2014. 03 – 2019. 02)  
**Assistant Professor** (2010. 03 – 2014. 02)
2016. 09 – **Department of Chemistry, University of Pennsylvania**  
2017. 08 **Visiting Scholar** (Prof. Christopher B. Murrall's Lab)
2014. 01 – **Editor, Journal of Industrial and Engineering Chemistry (IF=4.841 (2017))**  
**Administrator, The Korean Society of Industrial and Engineering Chemistry (KSIEC)**  
한국공업화학회 영문지편집이사
2019. 01 – **Chair, Colloid and Surface Chemistry Division,**  
**The Korean Society of Industrial and Engineering Chemistry (KSIEC)**  
한국공업화학회 콜로이드 계면화학 분과회 분과회장
2011. 09 – **Administrator, The Korean Silicon Society (KSiS)**  
(한국실리콘학회 총무이사, 학술이사, 기획이사)
2010. 03 – **The Korean Chemical Society (KCS)**  
재료분과 총무간사 (2015. 01 -2015. 12)  
**Regular Member**

### **FIELDS OF RESEARCH INTEREST:**

- **Synthesis and Application of Functional Nanohybrid Materials**
- **Superb-molecular Chemistry (Inorganic Supramolecular Chemistry)**
- **Coordination Polymers and Silicon Materials**
- **Materials for Energy Technology, Sensor, Catalysis, and Medical Application**

## ONGOING AND COMPLETED RESEARCH PROJECTS

- **Development and Application of Target-Oriented Functional Nanohybrid Materials** (2016. 06 – 2019. 05; 300,000,000 won/3 years; Sponsored by Basic Science Research Program through the National Research Foundation of Korea (NRF) (책임, 타겟지향형 기능성 나노복합재료의 개발 및 응용, 기초연구지원사업(중견연구), NRF-2016R1A2B4009281)
- **Intergrative Research Laboratory for Human on a Chip Based on 3D Printing** (2015. 09 – 2020. 02; 2,250,000,000 won/5 years; Sponsored by Basic Science Research Program through the National Research Foundation of Korea (NRF) (참여, 3D 프린팅 기반 휴먼온어칩 융합연구실, 한구연구재단, 기초연구실지원사업)
- **Development of Wearable Artificial Kidney System** (2014. 06 – 2017. 04; 50,000,000 won /1 year; Sponsored by the Korean Health Technology R&D Project, Ministry of Health & Welfare) (참여, 신개념 휴대형 인공신장용 요독 분해 바이오필터 및 요독 검출 바이오 센서 개발, 보건복지부, 의료기기기술개발사업, H14C0559)
- **Synthesis and Application of Functional Nano-Hybrid Materials for Clean Energy Technologies** (2013. 11 – 2016. 10; 50,000,000 won /1 year; Sponsored by Basic Science Research Program through the National Research Foundation of Korea (NRF) (책임, 기능성 나노-하이브리드 청정에너지 개발기술에의 이용, 한국연구재단, 일반연구자 지원사업, 기본연구, NRF-2013R1A1A2057675)
- **Synthesis of Metallic Nanoparticles with High Surface Area** (2015; 15,000,000 won) (책임, 크기조절 가능한 표면적이 넓은 금속 나노입자의 합성, 연구성과실용화진흥원, 연구성과사업화지원사업 (사업화 유망기술)\_기술이전형)
- **Solution-Phase Synthesis and Application of Anisotropic Nanomaterials and Highly Fluorescent Metal Nanodots** (2011. 05 – 2014. 04; 49,960,000 won/year; Sponsored by Basic Science Research Program through the National Research Foundation of Korea (NRF) (책임, 용액상에서 비등방성 나노구조체와, 고휘광의 금속성 나노점의 합성과 응용, 한국연구재단, 일반연구자 지원사업, 신진연구, 2011-0008968)
- **Development of New Nanocatalysts for Biomass Conversion** (2012. 08 – 2013. 08; 30,000,000 won; Sponsored by R&D Program through the Ministry for Food, Agriculture, Forestry and Fisheries (책임, 바이오매스 전환반응에 이용 가능한 새로운 나노촉매의 개발, 농림수산식품부 연구개발사업, 2012-112029-1)
- **Development of Biomolecules Detection Using Fluorescent Silica Nanoparticles** (2011. 06 – 2012. 03; 69,105,000 won; Sponsored by 2011 Business for Cooperative R&D between Industry, Academy, and Research Institute (책임, 형광성, 친수성 실리카 나노입자를 이용한 DNA 칩 개발, 2011 산학연 공동기술개발사업, 00046613)

## EDUCATIONS:

2001 – 2006     **University of Pennsylvania**, Philadelphia, PA  
 Ph.D. in Inorganic Chemistry (Silicon and Organometallic Chemistry)  
 Advisor: **Professor Donald H. Berry**  
 Thesis Research: “Activation of Silanes and Imidazolium Salts by Low Valent

Bis(imino)pyridyl Ruthenium Complexes”

- 1996 – 1998 **Seoul National University**, Seoul, Republic of Korea  
M.S. in Physical Chemistry (Laser Spectroscopy and Nanomaterials Chemistry)  
Advisor: **Professor Du-Jeon Jang**  
Thesis Research: “Preparation and Photophysics of C<sub>60</sub> Anion in Zeolites”
- 1992 – 1996 **Yonsei University**, Seoul, Republic of Korea  
B.S. in Chemistry

## PAST EMPLOYMENTS AND RESEARCH EXPERIENCES:

- 2009 – 2010 **Los Alamos National Laboratory** (Los Alamos, NM)  
Post-Doctoral Research Fellow  
Sponsor: **Dr. Jennifer S. Martinez** (Center for Integrated Nanotechnologies)
- Generated higher-ordered multilayer structures through the self-assembly of protein and DNA functionalized nanomaterials within lipid membrane assemblies
  - Synthesized metallic nanofibers and nanorings using controllable soft-templates
  - Prepared highly fluorescent gold and silver nanoclusters using biomolecules and polymers
- 2006 – 2009 **Northwestern University** (Evanston, IL)  
Post-Doctoral Research Fellow  
Sponsor: **Professor Chad A. Mirkin**
- Prepared and characterized functional supramolecular coordination complexes for sensing small molecules and catalysis regulations
  - Probed the mechanism for the ligand rearrangement reaction in Rh(I)-based metallocsupramolecular complexes with chelating hemilabile ligands
  - Developed the synthesis for colloidal triangular gold, gold/silver, and gold/palladium mono- and bimetallic nanocrystals and introduced a new method for field-wide testing of anisotropic colloid quality; collaborated with faculty experts to develop theoretical frameworks
  - Investigated colloid surface energetics, leading to control of nanocrystal shape and surface chemistry, with implications for catalysis and assembly
- 2001 – 2006 **University of Pennsylvania** (Philadelphia, PA)  
Doctoral Researcher
- Synthesized and characterized low valent ruthenium complexes with silicon and organic compounds to give ruthenium silylene, silyl, and carbene complexes
  - Investigated the chemical transformations of various organometallic complexes with metal-silicon bonds
  - Isolated possible intermediate complexes in olefin-silylation catalysis
  - Prepared inorganic polymers through catalytic reactions
- 1996 – 1998 **Seoul National University** (Seoul, Republic of Korea)  
Graduate Research Assistant
- Conducted time-resolved and static spectroscopic experiments to monitor reaction dynamics and chemical changes of C<sub>60</sub> in the condensed phase
  - Synthesized zeolitic and mesoporous nanomaterials
  - Investigated the intercalation of organic molecules into porous nanomaterials

## AWARDS AND HONORS:

- 2019 • 한림대학교 특훈교수 선정 (Hallym Distinguished Professor, 2019-2020)
- 2019 • 한국실리콘학회 공로상
- 2019 • 2018 제8회 한국실리콘학회 학술발표회 우수포스터상 (발표자: Tran Minh Ngoc)
- 2018 • 한국공업화학회 산학연 공로상
- 2018 • 제12회 일송상
- 2018 • 한국공업화학회 2018 추계 학술대회 우수구두발표상 (발표자: Hien Duy Mai)
- 2018 • 한국공업화학회 2018 추계 학술대회 우수포스터상 (발표자: Le Thi Cam Van)
- 2018 • 한국공업화학회 2018 추계 학술대회 우수포스터상 (발표자: Soeun Jung)
- 2018 • 2018 제7회 한국실리콘학회 학술발표회 우수포스터상 (발표자: Soeun Jung)
- 2017 • 한국공업화학회 산학연 공로상
- 2017 • 한국공업화학회 2017 추계 학술대회 우수포스터상 (발표자: Tran Minh Ngoc)
- 2017 • 한국공업화학회 2017 추계 학술대회 우수포스터상 (발표자: WonGyun Byoun)
- 2016 • 한국공업화학회 감사패
- 2016 • 한국공업화학회 산학연 공로상
- 2016 • 한국공업화학회 2016 추계 학술대회 우수논문발표상 (발표자: Hien Duy Mai)
- 2015 • 한국공업화학회 감사패
- 2015 • 한국공업화학회 2015 추계 학술대회 우수포스터상 (발표자: Youngseo Moon)
- 2015 • 한국공업화학회 2015 추계 학술대회 우수포스터상 (발표자: Soon Choi)
- 2015 • 2015 춘계 대한화학회 우수포스터상 (발표자: Hien Duy Mai)
- 2014 • 한국실리콘학회 공로상
- 2014 • 2014 제2회 한국실리콘학회 학술발표회 우수포스터상 (발표자: 서기욱)
- 2013 • 2013 추계 대한화학회 우수포스터상 / 동우화인켐(주) 우수 포스터상
- 2012 • 강원지방중소기업청장상 "2011년도 산학연 공동기술개발사업 우수과제"
- 2012 • 2012 춘계 대한화학회 우수포스터상 (발표자: 장민훈)
- 2011 • Hallym University Awards for Teaching Excellence (2011-1)  
2011년도 1학기 한림대학교 강의우수교수 표창장
- 2005 • Graduate school conference grant (University of Pennsylvania)
- 2004 • Graduate school conference grant (University of Pennsylvania)
- 1994 • Yonsei University merit-based scholarship as president of a student association
- 1992 • Yonsei University merit-based scholarship

## PRESS

- 2019. 2. 27 • 한국대학신문, 이뉴스투데이, 베리타스알파, "한림대 유효종 교수 연구팀, '무기 거대분자의 체계적 이해를 위한 단계적 조합이론' 발표"

2018. 12. 16 • Advances in Engineering “A highly symmetric cage-like crystal packing architecture, resulting from the interaction among metallocavitands of in-situ generated supramolecular modules” <https://advanceseng.com/highly-symmetric-cage-like-crystal-packing-architecture-interaction-metallocavitands/>
2018. 3. 5 • 연합뉴스, 매일경제신문 등, “제 12 회 일송상에 김형수 한림대성심병원교수, 유효종 한림대 교수 수상”
2017. 3. 17 • 연합뉴스, 매일경제신문, 강원일보, 프레시안, 포커스뉴스, 강원신문, 참뉴스, 전파신문, news1, 이뉴스투데이 등, “한림대 유효종 교수팀 연구물, 국제 저널 표지 선정”
2017. 3. 7 • 연합뉴스, 매일경제신문, 포커스뉴스, 이뉴스투데이, 강원신문, 충청투데이, 참뉴스 등, “한림대 유효종 교수팀, 단계적 조합으로 ‘슈퍼초분자’ 합성”
2016. 11. 2 • 한국대학신문, 강원일보, 강원신문, 이뉴스투데이, “한림대 유학생, 한국공업화학회 우수논문발표상 수상”
2013. 7. 26 • 중앙일보 외 다수 언론사, “한림대 학부생, SCI 급 국제학술지 논문 게재”
2013. 3. 13 • 강원일보, “한림대 연구팀, 금 나노입자 배열 신기술 개발”
2011. 9. 3 • 강원일보, “마이크로 크기의 금반지 용액상 합성 성공”
2011. 9. 5 • American Chemical Society Homepage, “Making gold rings in aqueous solution”

## TEACHING AND MENTORING EXPERIENCES:

- 2019 - **Hanyang University (Professor)**
- “Battery Chemistry”, “Organic Chemistry”
- 2010 - 2019 **Hallym University (Professor)**
- “Inorganic Chemistry”, “Materials Chemistry”, “Cosmetic Science and Industry”, “Engineering Chemistry”, “Inorganic Chemistry Experiments”, “General Chemistry and Experiments”, “Chemistry Outlook”, “Textual Exposition for Chemistry”, “Organic Synthesis Experiment” for Undergraduate Students. “Cosmetic Science and Industry (Capstone Design)”
  - “Advanced Inorganic Chemistry”, “Advanced Organometallic Chemistry”, “Special Topics in Inorganic Chemistry”, “Nanotechnology”, “Graduate Study in Chemistry” for Graduate Students, “Silicon Chemistry”
  - “Seminars for Currier Development” for Undergraduate Students
- 2009 **Los Alamos national Laboratory**
- Designed summer research program to study soft-template growth of gold nanowire
  - Mentored freshman college student - Daily renew of experiments, results, and technique demonstrations
- 2001 – 2006 **University of Pennsylvania**  
Teaching Assistant - General Chemistry Laboratory
- Conducted weekly laboratory sessions including pre-lab lectures and technique demonstrations
    - Two sessions, 8 hours per week
    - 2002 spring – 2006 spring, 13 semesters

- Class size; ~ 20 students/session
- Held bi-weekly office hours
- Graded and recorded all laboratory reports and exams

**1998 – 2001 Korea Air Force Academy**

Full-Time Instructor

- Lectured on chemistry to cadets who were majoring in chemistry (Department of Chemistry)  
*“Physical Chemistry”, “Analytical Chemistry and Experiment”, “Basic Chemistry”, “General Chemistry and Experiment 1” (for 2 semesters), “General Chemistry and Experiment 2” (for 2 semesters)*  
 (\*All courses were presented to each class for 4 hours per week for 16 weeks (one semester), Class size; ~ 20 students/class)
- Lectured teaching methods and led discussion classes on realistic problem solving  
*Sep 2000 – Dec 2000 “Leadership Training Program” (52 hours)*  
*Jan 1999 – Feb 1999 “Recreation Leadership” (4 hours per week)*

**1997 – 1998 Seoul National University (Seoul, Republic of Korea)**

Teaching Assistant – Physical Chemistry

**LEADERSHIP EXPERIENCE:**

- 1998 – 2001** • Military service (Korean Air Force)  
 - Conducted military duties as a military officer (lieutenant)
- 1996** • Organized a group of four college students majoring in chemistry and published *Our Dreams and Trials* – a book informing college students of the future of chemistry
- 1994** • Worked as president of a student association in the Dept. of Chemistry (Yonsei University)

**PUBLICATIONS (Journals):**

- 51 Philjae Kang; Hyojong Yoo\*, “A Coordinative Helix-Helix Association of Heteroleptic Metallosupramolecular Helicates”, *Submitted*, **2019**.
- 50 Hien Duy Mai; Youngseo Moon; Hyojong Yoo\*, “Controllable Growth of Palladium Layer on Gold Multipod Nanoparticle and Their Oxygen Reduction Reaction Performances”, *Submitted*, **2019**.
- 49 Hien Duy Mai; Suncheol Kim; Hyojong Yoo\*, “Gold Nanodot-Decorated Flowerlike Nickel Hydroxide Nanostructures for Enhanced Electrochemical Oxygen Evolution Activity”, *Submitted*, **2019**.
- 48 Hien Duy Mai; Tran Minh Ngoc; Hyojong Yoo\*, “Multilevel Coordination-Driven Assemblies for Metallosupramolecules with Hierarchical Structures”, *Coordination Chemistry Review*, **2019**, 387, 180. (2019. 02. 25)
- 47 Van Cam Thi Le; Hien Duy Mai; Philjae Kang; Hyojong Yoo\*, “Metal-ion Tuning in Triple-Stranded Helicates-based Metallosupramolecules”, *Chemistry – A European Journal*, **2019**, 25, 2472. (2018. 12. 11).
- 46 Hien Duy Mai; Van Cam Thi Le; Hyojong Yoo\*, "Effective Fabrication and Electrochemical Oxygen Evolution Reaction Activity of Gold Multipod Nanoparticles Core - Cobalt Sulfide Shell Nanohybrids", *ACS Applied Nano Materials*, **2019**, 2, 678. (2019. 01. 04).
- 45 WonGyun Byoun; Hyojong Yoo\*, "Fabrication of Highly Fluorescent Multiple Fe<sub>3</sub>O<sub>4</sub> Nanoparticles Core - Silica Shell Nanoparticles", *Journal of Nanoparticle Research*, **2019**, 21, 1.

- (2018. 12. 26).
- 44 Tran Minh Ngoc; Hien Duy Mai; Hyojong Yoo\* "Fabrication of Zinc-based Coordination Polymer Nanocubes and Post-Modification through Copper Decoration", *Nano Research*, **2018**, *11*, 5890 (2018, 06. 05).
- 43 Hien Duy Mai; Inme Lee; Hyojong Yoo\*, "Controllable Synthesis of a Highly Ordered Polymeric Structure Assembled from Cobalt-Cluster-based Racemic Supramolecules", *Chemistry – An Asian Journal*, **2018**, *13*, 1915. (2018. 07. 18).
- 42 Wongyun Byoun; Soeun Jung; Tran Minh Ngoc; Hyojong Yoo\*, "Synthesis and Application of Dendritic Fibrous Nanosilica (DFNS)/Gold(Au) Hybrid Nanomaterials", *ChemistryOpen*, **2018**, *7*, 349. (2018. 05. 16).
- 41 Philjae Kang; Hien Duy Mai; Hyojong Yoo\*, "Cage-like Crystal Packing through Metallocavitands within a Cobalt Cluster-based Supramolecular Assembly", *Dalton Transactions*, **2018**, *47*, 6660. (2018.04.19).
- 40 Tae Hyun Kim; Hyojong Yoo; Jae-Hyeon Ko\*, "Acoustic Anomalies and Fast Relaxation Dynamics of Amorphous Progesterone as Revealed by Brillouin Light Scattering", *Materials*, **2017**, *10*, 1426. (2017.12.14).
- 39 Hien Duy Mai; Cam-Van Le-Thi; Minh-Thu Pham-Thi; Hyojong Yoo\*, "Controllable Synthesis and Structural Analysis of Nanohybrids with Gold Multipod Nanoparticles Core and ZIF-67 Shell (GMN@ZIF-67)", *ChemNanoMat*, **2017**, *3*, 857. (2017.09.22)
- 38 Hien Duy Mai; Inme Lee; Sangdon Lee; Hyojong Yoo\*, "Alkali-Metal-Mediated Frameworks based on Di-(2,6-Pyridinedicarboxylate) Cobalt(II) Species", *European Journal of Inorganic Chemistry*, **2017**, 3736. (2017.07.07).
- 37 Khezina Rafiq; Hien Duy Mai; Jin Kyung Kim; Jae Min Woo; Bo Mi Moon; Chan Hum Park; Hyojong Yoo\*, "Fabrication of a Highly Effective Electrochemical Urea Sensing Platform Based on Urease-Immobilized Silk Fibroin Scaffold and Aminated Glassy Carbon Electrode", *Sensors and Actuators B: Chemical*, **2017**, *251*, 472. (2017. 05. 12).
- 36 Wongyun Byoun; Hyojong Yoo\*, "Peapod Assemblies of Au and Au/Pt Nanoparticles Encapsulated within Hollow Silica Nanotubes", *ChemistrySelect*, **2017**, *2*, 2414 (2017. 03. 13).
- 35 Hien Duy Mai; Philjae Kang; Jin Kyung Kim; Hyojong Yoo\*, "A Cobalt Supramolecular Triple-Stranded Helicate-based Discrete Molecular Cage", *Scientific Reports*, **2017**, *7*, 43448 (2017. 03. 06).
- 34 Youngseo Moon; Hien Duy Mai; Hyojong Yoo\*, "Platinum Overgrowth on Gold Multipod Nanoparticles: Investigation of Synergetic Catalytic Effects in a Bimetallic Nanosystem", *ChemNanoMat*, **2017**, *3*, 196. (Cover Picture, 2017. 03. 14).
- 33 Hien Duy Mai; Khezina Rafiq; Hyojong Yoo\*, "Nano Metal-Organic Framework-derived Inorganic Hybrid Nanomaterials: Synthetic Strategies and Applications", *Chemistry-A European Journal*, **2017**, *23*, 5631. (2017. 01. 26).
- 32 Diana Kostyukova; Hyojong Yoo\*, "Facile Fabrication of Platinum Nanodots Assembly Core – Silica Shell Nanosystems", *Journal of Electronic Materials*, **2016**, *45*, 2361. (2016. 01. 04)
- 31 Soon Choi; Youngseo Moon; Hyojong Yoo\*, "Finely Tunable Fabrication and Catalytic Activities of Gold Multipod Nanoparticles", *Journal of Colloid and Interface Science*, **2016**, *469*, 269. (2016. 05. 01)
- 30 Dong Wook Kim; Ok Joo Lee; Seong-Wan Kim; Chang Seok Ki; Janet Ren Chao; Hyojong Yoo; Sung-il Yoon; Jeong Eun Lee; Ye Ri Park; HaeYong Kweon; Kwang Gill Lee; David L. Kaplan; Chan Hum Park\*, "Novel Fabrication of Fluorescent Silk utilized in Biotechnological and Medical Applications", *Biomaterials*, **2015**, *70*, 48. (2015.08.17)
- 29 Hien Duy Mai; Gun Yong Sung; Hyojong Yoo\* "Fabrication of NiO Nanostructure and Urease-based Amperometric Biosensor for Urea Detection", *RSC Advances*, **2015**, *5*, 78807. (2015.09.16)
- 28 Hyojong Yoo\*; Jeonghee Lee; Philjae Kang; Moon-Gun Choi, "Synthesis of Cobalt Cluster-based Supramolecular Triple-Stranded Helicates", *Dalton Transactions*, **2015**, *44*, 14213. (2015.07.14)
- 27 Hien Duy Mai; Kiouk Seo; Soon Choi; Hyojong Yoo\* "High Catalytic Performance of Raspberry-Like Gold Nanoparticles and Enhancement of Stability by Silica Coating", *RSC Advances*, **2015**, *5*,

18977. (2015.02.09)
- 26 Jeonghee Lee; Philjae Kang; Moon-Gun Choi; Hyojong Yoo\*, "Synthesis, Structure, and Ligand Exchange of a Copper(II)-based Molecular Helix with 2,6-Pyridinedicarboxylic Acids", *Journal of Coordination Chemistry*, **2015**, 68, 461. (2015.01.13)
  - 25 Hyojong Yoo\*; Donald H. Berry, "Synthesis of Tridentate 2,6-Bis(imino)pyridyl Ruthenium(II) Complexes with N-Heterocyclic Carbene Ligands: Activation of Imidazolium Salts", *Inorganic Chemistry*, **2014**, 53, 11447. (2014.10.22)
  - 24 Joonsung Pak; Hyojong Yoo\*, "Synthesis and Catalytic Performance of Multiple Gold Nanodots Core-Mesoporous Silica Shell Nanoparticles", *Microporous and Mesoporous Materials*, **2014**, 185, 107. (2014.02.01)
  - 23 Hyojong Yoo\*; Soon Choi, "Nonionic Surfactant-Assisted, Seed-Mediated Growth of Gold Nanotoroids", *Journal of Nanoscience and Nanotechnology*, **2014**, 14, 5244. (2014. 07.11)
  - 22 Hyojong Yoo\*; Min Hoon Jang, "Size-Controlled Synthesis of Gold Bipyramids using an Aqueous Mixture of CTAC and Salicylate Anions as Soft Templates", *Nanoscale*, **2013**, 5, 6708-6712. (2013.05.13)
  - 21 Joonsung Pak; Hyojong Yoo\*, "Facile Synthesis of Spherical Nanoparticles with a Silica Shell and Multiple Au Nanodots as the Core", *Journal of Materials Chemistry A*, **2013**, 1, 5408-5413. (2013.03.08)
  - 20 Hyojong Yoo\*; Joonsung Pak, "Synthesis of Highly Fluorescent Silica Nanoparticles in a Reverse Microemulsion through Double-Layered Doping of Organic Fluorophores", *Journal of Nanoparticle Research*, **2013**, 15, 1609. (2013.04.06)
  - 19 Min Hoon Jang; Joonsung Pak; Hyojong Yoo\*, "Synthesis of Highly Emissive PIPES-Stabilized Gold Nanoclusters and Gold Nanocluster-Doped Silica Nanoparticles", *Journal of Nanoscience and Nanotechnology*, **2013**, 12, 2922-2928. (2013.04)
  - 18 Hyojong Yoo; Mari S. Rosen; Aaron M. Brown; Michael J. Wiester; Charlotte L. Stern; Chad A. Mirkin\*, "Elucidating the Mechanism of the Halide-Induced Ligand Rearrangement Reaction", *Inorganic Chemistry*, **2012**, 21, 11986-11995. (2012.10.22)
  - 17 Jin Kyung Kim; Hyojong Yoo\*, "Structure of New Tridentate 2,6-Bis(imino)-pyridyl Ruthenium(II) Complexes with 2,3,6-Trimethyl Benzenamine Ligand", *Journal of Structural Chemistry*, **2012**, 53, 347-353. (2012. 03)
  - 16 Min Hoon Jang; Jin Kyung Kim; Hyojong Yoo\*, "Nonionic Brij Surfactant-Mediated Synthesis of Raspberry-Like Gold Nanoparticles with High Surface Area", *Journal of Nanoscience and Nanotechnology*, **2012**, 12, 4088-4092. (2012.05)
  - 15 Min Hoon Jang; Jin Kyung Kim; Hyeongun Tak; Hyojong Yoo\*, "Controllable Synthesis of Multi-Layered Gold Spirangles", *Journal of Materials Chemistry*, **2011**, 21, 17606-17608. (2011.10.13)
  - 14 Hyojong Yoo\*; Jaswinder Sharma; Jin Kyung Kim, Andrew P. Shreve; Jennifer S. Martinez\*, "Tailored Microcrystal Growth: A Facile Solution-Phase Synthesis of Gold Rings", *Advanced Materials*, **2011**, 23, 4431-4434. (2011. 08. 23, Highlighted in *ACS Homepage - Noteworthy Chemistry*)
  - 13 Jin Kyung Kim; Donald H. Berry; Hyojong Yoo\*, "Synthesis of Tridentate 2,6-Bis(imino)pyridyl Aminehydro Ruthenium Complexes: The Convenient Use of amine hydrochlorides to Generate Metal-Hydride", *Journal of Organometallic Chemistry*, **2011**, 696, 1895-1898. (2011.05.01)
  - 12 Jaswinder Sharma; Hsin-Chih Yeh; Hyojong Yoo; James H. Werner; Jennifer S. Martinez\* , "Silver Nanocluster Aptamers: In Situ Generation of Intrinsically Fluorescent Recognition Ligands for Protein Detection", *Chemical Communications*, **2011**, 47, 2294-2296. (2010.12.09)
  - 11 Hyojong Yoo; Jaswinder Sharma; Hsin-Chih Yeh; Jennifer S. Martinez\*, "Solution Phase Synthesis of Au Fibers using Rod-Shaped Micelles as Shape Directing Agents", *Chemical Communications*, **2010**, 46, 6813-6815. (2010.08.16)
  - 10 Michael J. Wiester; Adam B. Braunschweig; Hyojong Yoo; Chad A. Mirkin\*, "Solvent and Temperature Induced Switching Between Structural Isomers of RhI Phosphinoalkyl Thioether (PS) Complexes", *Inorganic Chemistry*, **2010**, 49, 7188-7196. (2010.07.09)



- 9 Jaswinder Sharma; Hsin-Chih Yeh; Hyojong Yoo; James H. Werner; Jennifer S. Martinez\*, "A Complementary Palette of Fluorescent Silver Nanoclusters", *Chemical Communications*, **2010**, 46, 3280. (2010.02)
- 8 Hsin-Chih Yeh; Jaswinder Sharma; Hyojong Yoo; Jennifer S. Martinez; James H. Werner\*, "Photophysical Characterization of Fluorescent Metal Nanoclusters Synthesized using Oligonucleotides, Protein, and Small Molecule Ligands" SPIE Proceedings, **2010**, 7576, DOI: 10.1117/12.842192.
- 7 Hyojong Yoo; Jill E. Millstone; Shuzhou Li; Jae-Won Jang; Wei Wei; Jinsong Wu; George C. Schatz\*; Chad A. Mirkin\*, "Core-Shell Triangular Bifrustums" *Nano Letters*, **2009**, 9, 3038-3041. (2009.07.15, "Bimetallic Bifrustums", Highlighted in *C&EN Magazine*, **2009**, 87, 32, p31. <http://cen.acs.org/articles/87/i32/Bimetallic-Bifrustums.html>)
- 6 Jill E. Millstone; Wei Wei; Matthew R. Jones; Hyojong Yoo; Chad A. Mirkin\*, "Iodide Ions Control Seed-Mediated Growth of Anisotropic Gold Nanoparticles" *Nano Letters*, **2008**, 8, 2526-2529. (2008.07.22)
- 5 Hyojong Yoo; Chad A. Mirkin\*; Antonio G. DiPasquale; Arnold L. Rheingold; Charlotte L. Stern, "Reversible CO-Induced Chloride Shuttling in Rh(I) Tweezer Complexes Containing Urea Functionalized Hemilabile Ligands" *Inorganic Chemistry*, **2008**, 47, 9727-9729. (2008.10.04)
- 4 Hyojong Yoo; Patrick J. Carroll; Donald H. Berry\*, "Synthesis and Structure of Ruthenium-Silylene Complexes: Activation of Si-Cl bond in N-Heterocyclic Silanes" *Journal of the American Chemical Society*, **2006**, 128, 6038-6039. (2006.04.19)
- 3 Oh-Hoon Kwon; Hyojong Yoo; Du-Jeon Jang\*, "Photophysics of C<sub>60</sub> and C<sub>60</sub><sup>-</sup> in Faujasite Zeolites" *The European Physical Journal D* **2002**, 18, 69-75.
- 2 Oh-Hoon Kwon; Hyojong Yoo; Kyuchan Park; Bo Tu; Ryong Ryoo; Du-Jeon Jang\*, "Anionic and Upper Excited Fluorescence of C<sub>60</sub> Encapsulated in Y Zeolitic Nanocavity" *Journal of Physical Chemistry B*. **2001**, 105, 4195-4199. (2001.04.12)
- 1 Hyunung Yu; Hyojong Yoo; Du-Jeon Jang\*, "Excited State Protonation and Deprotonation Reactions of 6-Hydroxyquinoline Adsorbed in Y Zeolite Supercages" *Bulletin of the Korean Chemical Society* **1997**, 18, 131-133.

### PUBLICATIONS (Books):

- 2 노동윤; 이흥인; 이익모; 이동현; 김자현; 김승주; 윤호섭; 김영일; 유효종; 김종원; 명노승, "무기화학실험" 자유아카데미, 2014.
- 1 Tarun K. Panda; Michael T. Gamer; Peter W. Roesky; Hyojong Yoo; Donald H. Berry, "Sodium and Potassium Cyclopentadienide", *Inorganic Syntheses*, **2014**, 7, Volume 36 (eds G. S. Girolami and A. P. Sattelberger), John Wiley & Sons, Inc., Hoboken, New Jersey. doi: 10.1002/9781118744994.ch07.

### OTHER PUBLICATIONS :

- 2 유효종\*; 최 순, "소프트 템플레이트를 이용한 용액상에서의 금 나노와이어의 합성", 고분자 과학과 기술, **2015**, 26.
- 1 유효종\*; 최 순, "재미있는 총설 - 단백질 매개의 높은 형광을 내는 금속성 나노점의 합성과 응용", 광과학세계, **2013**, 48, 33.

### PATENTS:

- 27 유효종; 트란 민 응옥; 정소은, "돌기 섬유질형 나노실리카 코어 - Zn 기반 배위 고분자 쉘 혹은

- 돌기 섬유질형 나노실리카/금 나노입자 코어 - Zn 기반 배위 고분자 쉘의 혼성 나노구조체, 이의 생산방법 및 활용" 2018. 10. 30 출원 (10-2018-0130450)
- 26 유효종\*; 래 띠 깜 반; 히엔 두이 메이; 강필재, "이종 리간드와 전이금속 이온을 함유하는 나선형 초거대분자 및 그 합성방법" 2018. 10. 16 출원 (10-2018-0123010)
- 25 유효종\*; 히엔 두이 메이, "비등방성 귀금속 나노입자 코어-황화 코발트 쉘 나노케이지, 그 제조방법 및 이를 포함하는 불균일성 촉매" 2018. 09. 05 출원 (10-2018-0105640)
- 24 유효종\*; 트란 민 응옥; 히엔 두이 메이, "Zn 기반 배위 고분자 나노큐브와 Cu 치환된 Zn 기반 배위 고분자 나노큐브 및 그 합성방법" 2019. 06. 07 등록 (10-1988859), 2018. 01. 25 출원 (10-2018-0009064)
- 23 유효종\*; 변원균, "주름이 형성된 실리카 나노입자 코어와 금 레이어 쉘을 포함하는 나노입자, 이의 생산방법 및 응용" 2019. 06. 27 등록 (10-1995857), 2018. 01. 11 출원 (10-2018-0003630)
- 22 유효종\*; 히엔 두이 메이; 래 띠 깜 반, "다중 가치를 갖는 금 나노입자 코어-코발트 기반 금속/유기 복합 다공체 쉘 혼성 구조체 및 그 합성방법" 2019. 02. 19 등록 (10-1952023), 2017. 06. 30 출원 (10-2017-0082993)
- 21 유효종\*; 히엔 두이 메이; 이인미; 이상돈, "전이금속과 알칼리금속을 포함하는 혼합 금속-유기 구조체 및 그 합성방법" 2019. 06. 19 등록 (10-1992599), 2017. 03. 09 출원 (10-2017-0029851)
- 20 유효종\*; 문영서, "다중가지 금 나노입자 코어-타이타니아 쉘 나노입자 및 그 합성방법" 2018. 11. 09 등록 (10-1918927), 2016. 12. 28 출원 (10-2016-0180594)
- 19 유효종\*; 문영서, "다중가지 금 나노입자 코어-실리카 쉘 나노입자 및 그 합성방법" 2018. 12. 05 등록 (10-1927715), 2016. 12. 28 출원 (10-2016-0180593)
- 18 유효종\*; 문영서, "다중가지 금 나노입자 코어-팔라듐 쉘 나노입자 및 그 합성방법" 2018. 07. 31 등록 (10-1885561), 2016. 12. 19 출원 (10-2016-0173310)
- 17 유효종\*; 변원균, "금 나노입자 조합체 코어를 가진 중공형 실리카 나노튜브, 금/백금 나노입자 조합체 코어를 가진 중공형 실리카 나노튜브 및 그 합성방법" 2018. 07. 05 등록 (10-1877262), 2016. 10. 26 출원 (10-2016-0139973)
- 16 유효종\*; 문영서, "금 멀티포드 나노입자 코어-백금 쉘 나노입자 및 그 합성방법" 2016. 08. 17 출원 (10-2016-0104159)
- 15 유효종\*; 박찬흠; 케지나 라픽; 히엔 두이 메이, "요소분해효소가 고정된 실크 피브로인과 아민화된 유리탄소 전극을 이용한 요소 감지장치 및 그 제조방법" 2018. 07. 25 등록 (10-1883673), 2016. 02. 17 출원 (10-2016-0018314)
- 14 유효종\*; 히엔 두이 메이, "코발트 삼중가닥 초거대분자가 조합된 슈퍼브 분자 케이지 및 그 합성방법" 2017. 03. 27 등록 (10-1721907), 2016. 01. 26 출원 (10-2015-0009433)
- 13 유효종; 최순, "다중 가치를 지니는 별 모양 금 나노입자 및 그 제조방법" 2017. 01. 25 등록 (10-1701762), 2015. 07. 03 출원 (10-2015-0095224)
- 12 유효종; 이정희, "코발트 클러스터 기반 3중 가닥 초거대분자와 이를 이용하여 합성한 나선형 일차원성 고분자 및 그 제조방법" 2017. 05. 12 등록 (10-1737390), 2015. 01. 26 출원 (10-2015-0011863)
- 11 유효종; 히엔 두이 메이, "표면적이 큰 니켈 산화물 나노구조체 및 이를 이용한 우레아제-기반

- 바이오센서" 2016. 06. 27 등록 (10-1635552), 2015. 03. 23 출원 (10-2015-0040181)
- 10 유효종; 디아나 코스튜코바, "백금 나노닷 조합체를 포함하는 코어와 실리카 외각으로 형성되는 나노입자 및 그 합성방법" 2016. 01. 29 등록 (10-1591640), 2014. 10. 13 출원 (10-2014-0137531)
- 9 유효종; 박준성, "요크-헬 형태의 단일 금 나노닷 코어와 실리카 외각으로 이루어진 구형 나노입자 및 그 합성방법" 2014. 11. 20 등록 (10-1465440), 2013. 08. 01 출원 (10-2013-0091561)
- 8 유효종; 최순, "금 나노환상체 및 그 합성방법" 2014. 08. 27 등록 (10-1436857), 2013. 05. 31 출원 (10-2013-0062229)
- 7 유효종, "크기 제어 가능한 양추형 금 나노결정 합성방법" 2014. 11. 27 등록 (10-1468441), 2013. 03. 14 출원 (10-2013-0027057)
- 6 유효종; 박준성, "다중 금 나노닷 코어와 실리카 외각으로 이루어진 구형 나노입자 및 그 합성방법" 2014. 04. 24 등록 (10-1390657), 2013. 02. 21 출원 (10-2013-0018505)
- 5 유효종; 장민훈; 박준성, "안정화된 고발광 귀금속 나노클러스터가 도핑된 이중층 실리카 나노입자 및 그 제조방법" 2014. 05. 21 등록 (10-1400006), 2012. 11. 01 출원 (10-2012-0122865)
- 4 유효종; 장민훈, "표면적이 넓은 라즈베리 유사 귀금속 나노입자 및 그 제조방법" 2014. 05. 21 등록 (10-1400005), 2012. 10. 30 출원 (10-2012-0120958)
- 3 유효종; 박준성; 한웅태, "소수성 유기물질을 함유하는 이중층 실리카 나노입자 및 그 제조방법" 2012. 04. 06 출원 (10-2012-0035815)
- 2 Chad A. Mirkin; Hyojong Yoo; Jill E. Millstone; Jae-Won Jang; Wei Wei, "High Surface Plasmon Tunability of Triangular Bimetallic Au-Ag Nanoprisms" *PCT Int. Appl.* (2010), WO2010019843 A2 20100218.
- 1 Chad A. Mirkin; Jill E. Millstone; Wei Wei; Matthew R. Jones; Hyojong Yoo, "Halide Ion Control of Seed Mediated Growth of Anisotropic Gold Nanoparticles" *PCT Int. Appl.* (2009), WO2009143222 A2 20091126, A3 20100114.

## PRESENTATIONS (INTERNATIONAL):

- 40 Hyojong Yoo\*, "Synthesis and Application of Coordination-Driven Higher-Order Supramolecular Assemblies and Nanohybrids with Polymeric Framework Derivatives" ChinaNANO 2019, Beijing, People's Republic of China, **2019** (Invited Lecture)
- 39 Hien Juy Mai; Hyojong Yoo\*, "Effective Fabrication and Electrochemical OER Activity of Gold Multipod Nanoparticle Core – Cobalt Sulfide Shell Nanohybrids Derived from ZIF-67" ChinaNANO 2019, Beijing, People's Republic of China, **2019** (Oral Presentation)
- 38 Tran Minh Ngoc; Hyojong Yoo\*, "Controllable Synthesis and Application of Zinc-based Coordination Polymer Nanocubes and Their Hybrid Nanomaterials" ChinaNANO 2019, Beijing, People's Republic of China, **2019** (Oral Presentation)
- 37 Hyojong Yoo\*, "Fabrication and Application of Hollow Multi-Au@SiO<sub>2</sub> Nanosystems, and Nanohybrids with Coordination Polymer Framework Derivatives", The 7<sup>th</sup> Asian Silicon Symposium, Singapore, **2019** (Invited Lecture)
- 36 Soeun Jung; Tran Minh Ngoc; Hyojong Yoo\*, "Controllable Synthesis and Application of Dendritic Fibrous Nanosilica-based Hybrid Nanomaterials", The 7<sup>th</sup> Asian Silicon Symposium, Singapore, Singapore, **2019** (Poster Presentation)
- 35 Hyojong Yoo\*, "Fabrication and Application of Novel Nanohybrids with Coordination Polymer Framework Derivatives", 6<sup>th</sup> International Conference on Multifunctional, Hybrid and Nanomaterials, Sitges, Spain, **2019** (Poster Presentation)
- 34 Hyojong Yoo\*, "Multilevel Coordination-Driven Assembly of Cobalt Cluster-based

- Supramolecules with Hierarchical Architecture”, International Conference on Coordination Chemistry, Sendai, Japan, **2018** (Oral Presentation).
- 33 Hien Duy Mai; Hyojong Yoo\*, “Synthesis and Characterization of Functional Supramolecular Triple-Stranded Helicates and Their Controllable Higher-Order Assemblies”, International Conference on Coordination Chemistry, Sendai, Japan, **2018** (Poster Presentation).
- 32 Tran Minh Ngoc; Hyojong Yoo\*, “Fabrication of Zinc-based Coordination Polymer Nanocubes and Post-Modification through Copper Decoration”, International Conference on Coordination Chemistry, Sendai, Japan, **2018** (Poster Presentation).
- 31 Hyojong Yoo\*, “Rational Design of Functional Supramolecular Triple-Stranded Helicates and Their Controllable Higher-Order Assemblies”, The 10th International Symposium on Nano and Supramolecular Chemistry (ISNSC 2018), Dresden, Germany, **2018** (Oral Presentation).
- 30 Hyojong Yoo\*, “Controllable Syntheses and Catalytic Activities of Gold Multipod Nanoparticles Core and Nano Metal-Organic Framework Derivatives Shell Nanohybrids”, 8th International Colloids Conference, Shanghai, Republic of China, **2018** (Poster Presentation).
- 29 Hyojong Yoo\*, “Finely Tunable Fabrication and Catalytic Activities of Metallic Nanoparticles-Silica Hybrid Nanomaterials”, ISOS-18 and ASiS-6, Jinan, China, **2017** (Invited Lecture).
- 28 WonGyun Byun; Hyojong Yoo\*, “Peapod Assemblies of Au and Au/Pt Nanoparticles Encapsulated within Hollow Silica Nanotubes”, ISOS-18 and ASiS-6, Jinan, China, **2017** (Poster Presentation).
- 27 Hyojong Yoo\*, “Finely Tunable Fabrication and Catalytic Activities of Anionic Au Nanomaterials and Hollow Multi-Au@SiO<sub>2</sub> Nanosystems”, 2017 TechConnect World Innovation Conference and Expo, Washington, DC, United States, **2017** (Poster Presentation).
- 26 Hyojong Yoo\*, “Self-Templating Strategies for Anionic Au Nanomaterials and Hollow Multi-Au@SiO<sub>2</sub> Nanosystems”, 2017 MRS Spring Meeting & Exhibit, Phoenix, AZ, United States, **2017** (Oral Presentation).
- 25 Hyojong Yoo\*, “Cobalt Supramolecular Triple-Stranded Helicate-based Discrete Molecular Cage”, 253<sup>rd</sup> ACS National Meeting, San Francisco, CA, United States, **2017** (Oral Presentation).
- 24 Hyojong Yoo\*, “Self-Templating Strategies for Anionic Au Nanomaterials and Hollow Multi-Au@SiO<sub>2</sub> Nanosystems” 253<sup>rd</sup> ACS National Meeting, San Francisco, CA, United States, **2017** (Poster Presentation).
- 23 Hyojong Yoo\*, “Facile Fabrication and Application of 1D- and Star-Shaped Hybrid Nanomaterials” CINT Users Conference, Santa Fe, NM, United States, **2016** (Poster Presentation).
- 22 Hien Mai Duy; Sangdon Lee; Hyojong Yoo\*, “Cobalt Supramolecular Triple-Stranded Helicate-based “Superb”-Cage”, Young Giants of Nanoscience 2016, Hong Kong, **2016** (Poster Presentation).
- 21 Youngseo Moon; Hyojong Yoo\*, “Solution-Phase Synthesis of Gold and Hybrid Multipod Nanomaterials”, Young Giants of Nanoscience 2016, Hong Kong, **2016** (Poster Presentation).
- 20 Hien Mai Duy; Gun Yong Sung; Hyojong Yoo\*, “Fabrication of Nickel Oxide Urease-based Biosensor for Urea”, Biosensors 2016, Gothenburg, Sweden, **2016** (Poster Presentation).
- 19 Hyojong Yoo\*, “Facile Fabrication and Application of Functional Nano-Hybrid Materials”, International Workshop on Nanoscience and Nanotechnology: Opportunities for Academia & High Tech Industry Joint 4th Asia-Pacific Chemical and Biological Microfluidics Conference (IWNN-APCBM 2015), Da Nang, Vietnam, **2015** (Invited Talk).
- 18 Hien Mai Duy; Hyojong Yoo\*, “Facile fabrication of nickel oxide and its application for highly sensitive non-enzymatic urea sensors”, International Workshop on Nanoscience and Nanotechnology: Opportunities for Academia & High Tech Industry Joint 4th Asia-Pacific Chemical and Biological Microfluidics Conference (IWNN-APCBM 2015), Da Nang, Vietnam, **2015** (Poster Presentation).
- 17 Hyojong Yoo\*, “Facile Fabrication and Application of Anisotropic Nanoparticles”, IUPAC-2015, Busan, South Korea, **2015** (Invited Talk).
- 16 Hyojong Yoo\*, “Synthesis and Coordination Polymerization of Cobalt Cluster-based Supramolecular Triple-Stranded Helicates”, 2015 International Conference on Nanospace

- Materials, Taipei, Taiwan, **2015** (Invited Talk).
- 15 Hien Mai Duy; Gun Yong Sung; Hyojong Yoo\*, “Facile Fabrication of Nickel Oxide Nanostructures and Its Application for Urea-based Biosensor for Urea Detection”, 2015 MRS Spring Meeting & Exhibit, San Francisco, CA, United States, **2015** (Poster Presentation).
  - 14 Hyojong Yoo\*, “Spherical Nanoparticles with a Silica Shell and Gold Nanodots Assembly as the Core”, the 2<sup>nd</sup> International Symposium on Applied Silicon Chemistry, Seoul, South Korea, **2013** (Oral Presentation).
  - 13 Joonsung Pak; Hyojong Yoo\*, “Facile Synthesis and Catalytic Application of Spherical Nanoparticles with a Porous Silica Shell and Multiple Au Nanodots as the Core”, the 2<sup>nd</sup> International Symposium on Applied Silicon Chemistry, Seoul, South Korea, **2013** (Poster Presentation).
  - 12 Hyojong Yoo\*, “Facial Synthesis of Spherical Nanoparticles with a Porous Silica Shell and Multiple Au Nanodots as the Core”, ChinaNANO 2013, Beijing, People’s Republic of China, **2013** (Oral Presentation).
  - 11 Soon Choi; Hyojong Yoo\*, “Nonionic Surfactant-Assisted, Seed-Mediated Synthesis of Gold Nanotoroids”, ChinaNANO 2013, Beijing, People’s Republic of China, **2013** (Poster Presentation).
  - 10 Hyojong Yoo\*, “Preparation of Anisotropic Au Materials: Use of Surfactants as Shape-Directing Agents” CINT Users Conference, Albuquerque, NM, United States, **2010** (Poster Presentation).
  - 9 Hyojong Yoo; Jill E. Millstone; Jae-Won Jang; Wei Wei; Jinsong Wu; Shuzhou Li; George C. Schatz; Chad A. Mirkin\*, “Seed-Mediated Synthesis and Optical Characterization of Triangular Bimetallic Au/Ag Nanocrystals” 236<sup>th</sup> ACS National Meeting, Philadelphia, PA, United States, **2008** (Poster Presentation).
  - 8 Noah L. Wieder; Noah S. Frank; Hyojong Yoo; Patrick J. Carroll; Donald H. Berry\*, “Activation of Silicon-Chloride Bonds with Ruthenium(0) Complexes and Reactivity of Chloro(organosilyl)ruthenium(II) Complexes with Acetylene” 40<sup>th</sup> Silicon Symposium, Victoria, BC, Canada, **2007** (Poster Presentation).
  - 7 Hyojong Yoo; Chad A. Mirkin\*, “Tuning the Structural and Anion Recognition Properties of Urea Functionalized Rh(I) and Cu(I) Tweezers via the Weak Link Approach” Japan-USA Joint Symposium on Chemistry of Coordination Space, Northwestern University, United States, **2007** (Poster Presentation).
  - 6 Hyojong Yoo; Michelle Gallagher; Donald H. Berry\*, “Activation of Silicon-Chloride Bond as a Route to Silyls, Silylenes, and Alkene Silylation” The 14th International Symposium on Organosilicon Chemistry, ISOSXIV, University of Würzburg, Germany, **2005** (Poster Presentation).
  - 5 Hyojong Yoo; Patrick J. Carroll; Donald H. Berry\*, “Oxidative Addition of Silicon Chloride Bonds to Ruthenium(0) Complexes: Synthesis, Characterization, and Reactivity of the Chloro(organosilyl)ruthenium(II) Species” 230<sup>th</sup> ACS National Meeting, Washington, DC, United States, **2005** (Oral Presentation).
  - 4 Hyojong Yoo; Patrick J. Carroll; Donald H. Berry\*, “Synthesis and Structure of Ruthenium-Silylene Complexes: Two-Step Activation of N-Heterocyclic Silanes” 37<sup>th</sup> Silicon Symposium, University of Pennsylvania, PA, United States, **2004** (Poster Presentation).
  - 3 Hyojong Yoo; Patrick J. Carroll; Donald H. Berry\*, “Synthesis and Structure of Ruthenium-Silylene Complexes: Two-Step Activation of N-Heterocyclic Silanes” 227<sup>th</sup> ACS National Meeting, Anaheim, CA, United States, **2004** (Poster Presentation).
  - 2 Oh-Hoon Kwon; Hyojong Yoo; Kyuchan Park; Du-Jeon Jang\*, “Anionic and Upper-Excited Fluorescence of C<sub>60</sub> Encapsulated in Y Zeolitic Nanocavity” 222<sup>nd</sup> ACS National Meeting, Chicago, IL, United States, **2001** (Poster Presentation).
  - 1 Hyunung Yu; Hyojong Yoo; Du-Jeon Jang\*, “Proton Transfer Cycle of 6-Hydroxyquinoline in Zeolite Cages”, Asian photochemistry conference at the Hong Kong university of science and technology, Hong Kong, **1996** (Poster Presentation).

**PRESENTATIONS (DOMESTIC):**

- 116 Hyojong Yoo\*, “Fabrication and Application of Novel Nanohybrids with Coordination Polymer Framework Derivatives”, the 8th Annual Meeting of the Korean Silicon Society, Chuncheon, South Korea, **2019** (Oral Presentation)
- 115 Ngoc Minh Tran, Soeun Jung and Hyojong Yoo\*, “Facile Synthesis of DFNS/Au@Zn-CPNs Hybrid Nanomaterials toward the Enhancement of Catalytic Performance”, the 8th Annual Meeting of the Korean Silicon Society, Chuncheon, South Korea, **2019** (Poster Presentation)
- 114 Soeun Jung, Ngoc Minh Tran, and Hyojong Yoo\*, “Controlled Fabrication and Application of Dendritic Fibrous Nanosilica (DFNS)/Gold (Au) Hybrid Nanomaterials”, the 8th Annual Meeting of the Korean Silicon Society, Chuncheon, South Korea, **2019** (Poster Presentation)
- 113 Soeun Jung, Hien Duy Mai, and Hyojong Yoo\*, “Integration of Magnetic and Fluorescent Properties within Silica-Based Hybrid Nanomaterials”, the 8th Annual Meeting of the Korean Silicon Society, Chuncheon, South Korea, **2019** (Poster Presentation)
- 112 Suncheol Kim, Hyojong Yoo\*, “Peapod-like Fabrication of Multi-compositional Noble Metal Nanoparticles Embedded within Hollow Silica Nanotubes”, the 8th Annual Meeting of the Korean Silicon Society, Chuncheon, South Korea, **2019** (Poster Presentation)
- 111 Ngoc Minh Tran; Hyojong Yoo\*, “Controllable Fabrication of Zinc-Based Coordination Polymer Nanocubes and Post-Modification through Metal Coordination”, KSIEC Fall Meeting, Jeju, South Korea, **2018** (Oral Presentation).
- 110 Hien Duy Mai; Hyojong Yoo\*, “Effective Encapsulation of Gold Multipod Nanoparticle Cores within ZIF-67 Shells Nanohybrids (GMN@ ZIF-67) with Structural Tunability”, KSIEC Fall Meeting, Jeju, South Korea, **2018** (Poster Presentation).
- 109 Hien Duy Mai; Hyojong Yoo\*, “Controllable Synthesis of a Highly Ordered Polymeric Structure Assembled from Cobalt-Cluster-based Racemic Supramolecules”, KSIEC Fall Meeting, Jeju, South Korea, **2018** (Poster Presentation).
- 108 Suncheol Kim; Hyojong Yoo\*, “금 나노입자 조합체 코를 가진 중공형 실리카 나노튜브, 금/백금 나노입자 조합체 코어를 가진 중공형 실리카 나노튜브 및 그 합성방법”, KSIEC Fall Meeting, Jeju, South Korea, **2018** (Poster Presentation).
- 107 Ngoc Minh Tran; So Eun Jung; Hyojong Yoo\*, “Controllable Fabrication and Application of Dendritic Fibrous Nanosilica/Metallic Nanoparticles/Coordination Polymer Hybrid Nanomaterials”, KSIEC Fall Meeting, Jeju, South Korea, **2018** (Poster Presentation).
- 106 Ngoc Minh Tran; Hien Duy Mai; Hyojong Yoo\*, “Facile Synthesis of Coordination Polymer Nanocubes and Post-Modification through Secondary Metal Ion Decoration”, KSIEC Fall Meeting, Jeju, South Korea, **2018** (Poster Presentation).
- 105 So Eun Jung; Hyojong Yoo\*, “Controllable Synthesis and Application of Dendritic Fibrous Nanosilica (DFNS)/Gold (Au) Hybrid Nanomaterials”, KSIEC Fall Meeting, Jeju, South Korea, **2018** (Poster Presentation).
- 104 So Eun Jung; Hien Duy Mai; Hyojong Yoo\*, “Integration of Fluorescent and Magnetic Properties within Silica Hybrid Nanosystems”, KSIEC Fall Meeting, Jeju, South Korea, **2018** (Poster Presentation).
- 103 Philjae Kang; Hien Duy Mai; Hyojong Yoo\*, “Metallocavitand-Induced Cage-like Crystal Packing within High-Order Cobalt Cluster-based Supramolecular Assemblies”, KSIEC Fall Meeting, Jeju, South Korea, **2018** (Poster Presentation).
- 102 Hai Minh Van Ho; Hien Duy Mai; Hyojong Yoo\*, “Synthesis of Metallosupramolecular Nanocages through the Assembly of Triple-Stranded Helicates”, KSIEC Fall Meeting, Jeju, South Korea, **2018** (Poster Presentation).
- 101 Van Cam Thi Le; Hien Duy Mai; Hyojong Yoo\*, “Facile Fabrication of Heterometallic Nanostructures through a Controllable Growth of Palladium Shells onto Gold Multipod Nanoparticle Cores”, KSIEC Fall Meeting, Jeju, South Korea, **2018** (Poster Presentation).
- 100 Van Cam Thi Le; Philjae Kang; Hien Duy Mai; Hyojong Yoo\*, “Metal-ion Tuning in Amine-Functionalized Supramolecular Triple-Stranded Helicates and Their Higher-Order Polymeric

- Assemblies”, the 122<sup>th</sup> Annual Meeting of Korean Chemical Society, Daegu, South Korea, **2018** (Poster Presentation).
- 99 Hien Duy Mai; Hyojong Yoo\*, “Controlled Synthesis and Catalytic Activities of Gold Multipod nanoparticle Cores and NMOF-Derived Shell Nanohybrids”, KSIEC Fall Meeting, Jeju, South Korea, **2018** (Oral Presentation).
- 98 Hien Duy Mai; Hyojong Yoo\*, “Effective Encapsulation of Gold Multipod Nanoparticle Cores within ZIF-67 Shells Nanohybrids (GMN@ ZIF-67) with Structural Tunability”, the 122<sup>th</sup> Annual Meeting of Korean Chemical Society, Daegu, South Korea, **2018** (Poster Presentation)”.
- 97 Hien Duy Mai; Hyojong Yoo\*, “Controllable Synthesis of a Highly Ordered Polymeric Structure Assembled from Cobalt-Cluster-based Racemic Supramolecules”, the 122<sup>th</sup> Annual Meeting of Korean Chemical Society, Daegu, South Korea, **2018** (Poster Presentation)”.
- 96 Suncheol Kim; Hyojong Yoo\*, “Peapod-like Arrangement of Multicompositional Noble Metal Nanoparticles Embedded within Hollow Silica Nanotubes”, the 122<sup>th</sup> Annual Meeting of Korean Chemical Society, Daegu, South Korea, **2018** (Poster Presentation)”.
- 95 Ngoc Minh Tran; So Eun Jung; Hyojong Yoo\*, “Controllable Fabrication and Application of Dendritic Fibrous Nanosilica/Metallic Nanoparticles/Coordination Polymer Hybrid Nanomaterials”, the 122<sup>th</sup> Annual Meeting of Korean Chemical Society, Daegu, South Korea, **2018** (Poster Presentation)”.
- 94 Ngoc Minh Tran; Hien Duy Mai; Hyojong Yoo\*, “Facile Synthesis of Coordination Polymer Nanocubes and Post-Modification through Secondary Metal Ion Decoration”, the 122<sup>th</sup> Annual Meeting of Korean Chemical Society, Daegu, South Korea, **2018** (Poster Presentation)”.
- 93 So Eun Jung; Hyojong Yoo\*, “Controllable Synthesis and Application of Dendritic Fibrous Nanosilica (DFNS)/Gold (Au) Hybrid Nanomaterials”, the 122<sup>th</sup> Annual Meeting of Korean Chemical Society, Daegu, South Korea, **2018** (Poster Presentation)”.
- 92 So Eun Jung; Hien Duy Mai; Hyojong Yoo\*, “Integration of Fluorescent and Magnetic Properties within Silica Hybrid Nanosystems”, the 122<sup>th</sup> Annual Meeting of Korean Chemical Society, Daegu, South Korea, **2018** (Poster Presentation)”.
- 91 Philjae Kang; Hien Duy Mai; Hyojong Yoo\*, “Metallocavitand-Induced Cage-like Crystal Packing within High-Order Cobalt Cluster-based Supramolecular Assemblies”, the 122<sup>th</sup> Annual Meeting of Korean Chemical Society, Daegu, South Korea, **2018** (Poster Presentation)”.
- 90 Hai Minh Van Ho; Hien Duy Mai; Hyojong Yoo\*, “Synthesis of Metallosupramolecular Nanocages through the Assembly of Triple-Stranded Helicates”, the 122<sup>th</sup> Annual Meeting of Korean Chemical Society, Daegu, South Korea, **2018** (Poster Presentation)”.
- 89 Van Cam Thi Le; Hien Duy Mai; Hyojong Yoo\*, “Facile Fabrication of Heterometallic Nanostructures through a Controllable Growth of Palladium Shells onto Gold Multipod Nanoparticle Cores”, the 122<sup>th</sup> Annual Meeting of Korean Chemical Society, Daegu, South Korea, **2018** (Poster Presentation).
- 88 Van Cam Thi Le; Philjae Kang; Hien Duy Mai; Hyojong Yoo\*, “Metal-ion Tuning in Amine-Functionalized Supramolecular Triple-Stranded Helicates and Their Higher-Order Polymeic Assemblies”, the 122<sup>th</sup> Annual Meeting of Korean Chemical Society, Daegu, South Korea, **2018** (Poster Presentation).
- 87 Hien Duy Mai; Hyojong Yoo\*, “Cage-like Crystal Packing through Metallocavitands within a Cobalt Cluster-based Supramolecular Assembly”, the 121<sup>st</sup> Annual Meeting of Korean Chemical Society, Jeju, South Korea, **2018** (Poster Presentation)
- 86 Hien Duy Mai; Hyojong Yoo\*, “Rational Design of Discrete Inorganic Supramolecules with Superb-Hierarchical Structures through a Multilevel Coordination-Driven Assembly”, the 121<sup>st</sup> Annual Meeting of Korean Chemical Society, Jeju, South Korea, **2018** (Poster Presentation)
- 85 Van Cam Thi Le; Hyojong Yoo\*, “Synthesis of Isomorphous Nickel Triple-Stranded Helicate-Based Molecular Cages with Superb- Hierarchical Structures”, the 121<sup>st</sup> Annual Meeting of Korean Chemical Society, Jeju, South Korea, **2018** (Poster Presentation)
- 84 Inme Lee; Van Cam Thi Le; Hien Duy Mai; Hyojong Yoo\*, “Synthesis and Characterization of Functional Cobalt Supramolecular Triple-Stranded Helicates and Their Controllable Higher-

- Order Assemblies”, the 121<sup>st</sup> Annual Meeting of Korean Chemical Society, Daegu, South Korea, **2018** (Poster Presentation)
- 83 Hien Duy Mai; Hyojong Yoo\*, “Metallocavitand-induced Cage-Like Crystal Packing within High-Order Cobalt Cluster-Based Supramolecular Assemblies”, the 7<sup>st</sup> Annual Meeting of the Korean Silicon Society, Daegu, South Korea, **2018** (Oral Presentation)
- 82 Van Cam Thi Le; Inme Lee; Hien Duy Mai; Philjae Kang; Hyojong Yoo\*, “Rational Design of Functional Supramolecular Triple-Stranded Helicates and Their Controllable Higher-Order Assemblies”, the 7<sup>st</sup> Annual Meeting of the Korean Silicon Society, Daegu, South Korea, **2018** (Poster Presentation)
- 81 Hien Duy Mai; Hyojong Yoo\*, “Multilevel Coordination-Driven Assembly of Discrete Inorganic Supramolecule with Superb-Hierarchical Structures”, the 7<sup>st</sup> Annual Meeting of the Korean Silicon Society, Daegu, South Korea, **2018** (Poster Presentation)
- 80 Hien Duy Mai; Le Thi Cam Van; Hyojong Yoo\*, “Controllable Synthesis and Structural Analysis of Gold Multipod Nanoparticles Core and ZIF-67 Shell Nanohybrids (GMN@ZIF-67)”, the 7<sup>st</sup> Annual Meeting of the Korean Silicon Society, Daegu, South Korea, **2018** (Poster Presentation)
- 79 Tran Minh Ngoc; Hien Duy Mai; Hyojong Yoo\*, “Fabrication of Highly Effective Electrochemical Bio-sensing Platform Based on Urease-Immobilized Silk Fibroin Scaffold and Aminated Glassy Carbon Electrode”, the 7<sup>st</sup> Annual Meeting of the Korean Silicon Society, Daegu, South Korea, **2018** (Poster Presentation)
- 78 Tran Minh Ngoc; Hyojong Yoo\*, “Zn-based Coordination Polymer Nanocubes: The Effect of 2,6-Bis[(4-carboxyanilino)carbonyl]pyridine as Shape-Directing Modulator”, the 7<sup>st</sup> Annual Meeting of the Korean Silicon Society, Daegu, South Korea, **2018** (Poster Presentation)
- 77 Soeun Jeong; Wongyun Byoun; Hyojong Yoo\*, “Controllable Synthesis and Application of Silica Multi-Branched Nanoparticle (SMN)/Au Nanohybrids”, the 7<sup>st</sup> Annual Meeting of the Korean Silicon Society, Daegu, South Korea, **2018** (Poster Presentation)
- 76 Soeun Jeong; Wongyun Byoun; Hyojong Yoo\*, “Peapod Assemblies of Au and Au/Pt Nanoparticles Encapsulated within Hollow Silica Nanotubes”, the 7<sup>st</sup> Annual Meeting of the Korean Silicon Society, Daegu, South Korea, **2018** (Poster Presentation)
- 75 Hyojong Yoo\*, “Fabrication of Highly Effective Enzyme-based Electrochemical Biosensors for Urea Detection”, KSIEC Fall Meeting, Busan, South Korea, **2017** (Oral Presentation)
- 74 Tran Minh Ngoc; Hien Duy Mai; Hyojong Yoo\*, “Fabrication of Highly Effective Electrochemical Bio-sensing Platform Based on Urease-Immobilized Silk Fibroin Scaffold and Aminated Glassy Carbon Electrode”, KSIEC Fall Meeting, Busan, South Korea, **2017** (Poster Presentation)
- 73 Tran Minh Ngoc; Hyojong Yoo\*, “Synthesis of Zn-based Coordination Polymer Nanocubes with 2,6-Bis[(4-carboxyanilino)carbonyl]pyridine as Effective Shape-Directing Modulator”, KSIEC Fall Meeting, Busan, South Korea, **2017** (Poster Presentation)
- 72 Hien Duy Mai; Hyojong Yoo\*, “Platinum Overgrowth on Gold Multipod Nanoparticles: Investigation of Synergistic Catalytic Effects in a Bimetallic Nanosystem”, KSIEC Fall Meeting, Busan, South Korea, **2017** (Poster Presentation)
- 71 Hien Duy Mai; Le Thi Cam Van; Hyojong Yoo\*, “Controllable Synthesis and Structural Analysis of Gold Multipod Nanoparticles Core and ZIF-67 Shell Nanohybrids (GMN@ZIF-67)”, KSIEC Fall Meeting, Busan, South Korea, **2017** (Poster Presentation)
- 70 Hien Duy Mai; Hyojong Yoo\*, “Multilevel Coordination-Driven Assembly of Discrete Inorganic Supramolecule with Superb-Hierarchical Structures”, KSIEC Fall Meeting, Busan, South Korea, **2017** (Poster Presentation)
- 69 Le Thi Cam Van; Hien Duy Mai; Hyojong Yoo\*, “Rational Design of Isomorphous Nickel Triple-Stranded Helicate-Based Molecular Cages with Superb- Hierarchical Structure”, KSIEC Fall Meeting, Busan, South Korea, **2017** (Poster Presentation)
- 68 Le Thi Cam Van; Hien Duy Mai; Hyojong Yoo\*, “Controllable Coordination-Driven Assembly of Amine-Functionalized Cobalt Triple-Stranded Helicates into Higher-Order Polymer Structure



- “, KSIEC Fall Meeting, Busan, South Korea, **2017** (Poster Presentation)
- 67 Soeun Jeong; Tran Minh Ngoc; Hyojong Yoo\*, “Synthesis of Silica Core – Zinc Coordination Polymer Shell (SMN@[N3]Zn-CPPs) Nanohybrid Materials with High Surface Area “, KSIEC Fall Meeting, Busan, South Korea, **2017** (Poster Presentation)
- 66 Inme Lee; Hyojong Yoo\*, “Preparation of Urease-Embedded Porous PDMS Membranes and Electrochemical Detection of Urea”, KSIEC Fall Meeting, Busan, South Korea, **2017** (Poster Presentation)
- 65 Inme Lee; Hien Duy Mai; Hyojong Yoo\*, “Rational Design of Hydroxyl-Functionalized Cobalt Triple-Stranded Helicate and its Higher-Order Assembly into Polymeric Structures”, KSIEC Fall Meeting, Busan, South Korea, **2017** (Poster Presentation)
- 64 Inme Lee; Hien Duy Mai; Hyojong Yoo\*, “Synthesis and Characterization of Alkali-Metal-Mediated Frameworks Based on Di-(2,6-Pyridinedicarboxylate) Cobalt(II) Species”, KSIEC Fall Meeting, Busan, South Korea, **2017** (Poster Presentation)
- 63 Wongyun Byoun; Hyojong Yoo\*, “Controllable Synthesis and Application of Silica Multi-Branched Nanoparticle (SMN)/Au Nanohybrids”, KSIEC Fall Meeting, Busan, South Korea, **2017** (Poster Presentation)
- 62 Wongyun Byoun; Hyojong Yoo\*, “Fluorescent Iron Oxide Core-Silica Shell Nanoparticles; Fabrication of Multi-Functional Nanosystems”, KSIEC Fall Meeting, Busan, South Korea, **2017** (Poster Presentation)
- 61 Wongyun Byoun; Hyojong Yoo\*, “Peapod Assemblies of Au and Au/Pt Nanoparticles Encapsulated within Hollow Silica Nanotubes”, KSIEC Fall Meeting, Busan, South Korea, **2017** (Poster Presentation)
- 60 Wongyun Byoun; Hyojong Yoo\*, “Peapod Assemblies of Au and Au/Pt Nanoparticles Encapsulated within Hollow Silica Nanotubes” the 6<sup>st</sup> Annual Meeting of the Korean Silicon Society, Incheon, South Korea, **2017** (Poster Presentation)
- 59 Hyojong Yoo\*, “Cobalt Supramolecular Triple-Stranded Helicate-based Discrete Molecular Cage”, 2016 MOF & Beyonds Workshops, Daejeon, South Korea, **2016** (Invited Talk)
- 58 Hien Mai Duy; Sangdon Lee; Hyojong Yoo\*, “Cobalt Supramolecular Triple-Stranded Helicate-based “Superb”-Cage”, KSIEC Fall Meeting, Jeju, South Korea, **2016** (Oral Presentation\_Best Presentation Award).
- 57 Hien Mai Duy; Sangdon Lee; Hyojong Yoo\*, “Rational Design of Functional Cobalt Triple-Stranded Helicates”, KSIEC Fall Meeting, Jeju, South Korea, **2016** (Poster Presentation).
- 56 Khezina Rafiq; Hyojong Yoo\*, “Fabrication of Highly Effective Electrochemical Urea Sensing Platform using Urease-Immobilized Silk Fibroin-based Aminated Glassy Carbon Electrode”, KSIEC Fall Meeting, Jeju, South Korea, **2016** (Poster Presentation).
- 55 Tran Minh Ngoc; Hyojong Yoo\*, “Synthesis of Zinc Coordination Polymer Particles Using 2,6-Bis[(4-carboxyanilino)carbonyl]pyridine as a Ligand and Theirs Applications”, KSIEC Fall Meeting, Jeju, South Korea, **2016** (Poster Presentation)
- 54 Wonkyun Byun; Hyojong Yoo\*, “Convenient Manufacture and Characterization of Multiple Gold Core-Silica Shell Hollow Nanowires”, KSIEC Fall Meeting, Jeju, South Korea, **2016** (Poster Presentation)
- 53 Hyojong Yoo\*, “Solution-Phase Synthesis of 1D- and Star-Shaped Gold Hybrid Nanomaterials”, KSIEC Spring Meeting, Yeosu, South Korea, **2016** (Invited Talk).
- 52 Hyojong Yoo \*, “Cobalt Supramolecular Triple-Stranded Helicate-based “Superb”-Cage”, the 117<sup>th</sup> Annual Meeting of Korean Chemical Society, Ilsal, South Korea, **2016** (Invited Talk).
- 51 Hyojong Yoo\*, “Facile Fabrication and Application of Metallic Nanoparticles-Silica Hybrid Nanomaterials”, the 5<sup>st</sup> Annual Meeting of the Korean Silicon Society, Daejeon, South Korea, **2016** (Invited Talk).
- 50 Wongyun Byoun; Hyojong Yoo\*, “Synthesis of Fe<sub>3</sub>O<sub>4</sub>@Organic Dyes@SiO<sub>2</sub> NPs; Highly Fluorescent Silica Nanoparticles with Magnetic Properties”, KSIEC Fall Meeting, Jeju, South Korea, **2015** (Poster Presentation).
- 49 Jaemin Woo; Hyojong Yoo\*, “Facile Synthesis of Nickel-based Coordination Polymer and Nickel

- Oxide Microparticles Employed for Urea Biosensor”, KSIEC Fall Meeting, Jeju, South Korea, **2015** (Poster Presentation).
- 48 Sangdon Lee; Hyojong Yoo\*, “Synthesis of Cobalt Triple-Stranded Helicates as Supramolecular Building Blocks for a Higher-Order Network Construction”, KSIEC Fall Meeting, Jeju, South Korea, **2015** (Poster Presentation).
- 47 Sangdon Lee; Hyojong Yoo\*, “Tridentate 2,6-Bis(imino)pyridyl Ruthenium(II) Complexes with N-Heterocyclic Carbene Ligands”, KSIEC Fall Meeting, Jeju, South Korea, **2015** (Poster Presentation).
- 46 Soon Choi; Hyojong Yoo\*, “Finely Tunable Fabrication and Catalytic Activities of Star-Shaped Au Nanoparticles (Au SSNPs)”, KSIEC Fall Meeting, Jeju, South Korea, **2015** (Poster Presentation).
- 45 Soon Choi; Hyojong Yoo\*, “Solution-Phase Synthesis of Au Nanofibers using Binary Surfactants as the Soft Template and Controllable Growth of Au<sub>core</sub>-Pt<sub>shell</sub> Nanofibers”, KSIEC Fall Meeting, Jeju, South Korea, **2015** (Poster Presentation).
- 44 Soon Choi; Hyojong Yoo\*, “Controllable Fabrication of Gold Bipyramid”, KSIEC Fall Meeting, Jeju, South Korea, **2015** (Poster Presentation).
- 43 Youngseo Moon; Hyojong Yoo\*, “Morphological Changes of Multiple Gold (Au) Core-Silica (SiO<sub>2</sub>) Shell Nanoparticles in Polymeric Solution: Mechanistic Investigations”, KSIEC Fall Meeting, Jeju, South Korea, **2015** (Poster Presentation).
- 42 Youngseo Moon; Hien Mai Duy; Soon Choi; Hyojong Yoo\*, “High Catalytic Performance of Raspberry-Like Gold Nanoparticles (Au RLNPs) and Enhancement of Stability by Silica Coating”, KSIEC Fall Meeting, Jeju, South Korea, **2015** (Poster Presentation).
- 41 Hien Mai Duy; Hyojong Yoo\*, “Synthesis of Cobalt-based Supramolecular Triple-Stranded Helicates”, KSIEC Fall Meeting, Jeju, South Korea, **2015** (Poster Presentation).
- 40 Hien Mai Duy; Hyojong Yoo\*, “Urease-immobilized Aminated Glassy Carbon Electrode and its Application for Urea Detection”, KSIEC Fall Meeting, Jeju, South Korea, **2015** (Poster Presentation).
- 39 Hien Mai Duy; Hyojong Yoo\*, “Fabrication of Nickel Oxide Nanostructures with High Surface Area and Application for Urease-based Biosensor for Urea Detection”, KSIEC Fall Meeting, Jeju, South Korea, **2015** (Poster Presentation).
- 38 Diana Kostyukova, Hyojong Yoo\*, “Facile Fabrication of Platinum Nanodots Assembly Core-Silica Shell Nanosystems”, KSIEC Fall Meeting, Jeju, South Korea, **2015** (Poster Presentation).
- 37 Hyojong Yoo\*, “Tailored Synthesis and Application of Anisotropic Nanoparticles”, the 115<sup>th</sup> Annual Meeting of Korean Chemical Society, **2015** (Invited Talk).
- 36 Hyojong Yoo\*, “Synthesis and Coordination Polymerization of Cobalt Cluster-based Supramolecular Triple-Stranded Helicates”, the 115<sup>th</sup> Annual Meeting of Korean Chemical Society, Ilsal, South Korea, **2015** (Poster Presentation).
- 35 Diana Kostyukova, Hyojong Yoo\*, “Synthesis and Structural Properties of Multicomponent Nanodots Assemblies Core - Silica Shell Nanosystem”, the 115<sup>th</sup> Annual Meeting of Korean Chemical Society, Ilsal, South Korea, **2015** (Invited Talk).
- 34 Diana Kostyukova, Hyojong Yoo\*, “Synthesis and Structural Properties of Platinum Nanodots Assemblies Core-Silica Shell Nanoparticles”, the 115<sup>th</sup> Annual Meeting of Korean Chemical Society, Ilsal, South Korea, **2015** (Poster Presentation).
- 33 Hien Mai Duy; Hyojong Yoo\*, “Synthesis and application of Flower-like Ni-based Coordination Polymer Particles and NiO Microparticles”, the 115<sup>th</sup> Annual Meeting of Korean Chemical Society, Ilsal, South Korea, **2015** (Poster Presentation).
- 32 Hien Mai Duy; Hyojong Yoo\*, “Facile fabrication of highly porous nickel oxide and its application in amperometric urea biosensor”, the 115<sup>th</sup> Annual Meeting of Korean Chemical Society, Ilsal, South Korea, **2015** (Poster Presentation).
- 31 Sangdon Lee; Hyojong Yoo\*, “Synthesis, structure, and ligand exchange of a copper(II)-based molecular helix with 2,6-pyridinedicarboxylates”, the 115<sup>th</sup> Annual Meeting of Korean Chemical Society, Ilsal, South Korea, **2015** (Poster Presentation).

- 30 Soon Choi; Hyojong Yoo\*, “Tailored Solution-Phase Synthesis of Au Nanofibers by using Mixed Surfactants”, the 115<sup>th</sup> Annual Meeting of Korean Chemical Society, Ilsal, South Korea, **2015** (Poster Presentation).
- 29 Soon Choi; Hyojong Yoo\*, “Controllable Fabrication of Star-shaped Gold Nanoparticles (Au SSNPs) with Multi-branches and Their High Catalytic Performanc”, the 115<sup>th</sup> Annual Meeting of Korean Chemical Society, Ilsal, South Korea, **2015** (Poster Presentation).
- 28 Soon Choi; Hyojong Yoo\*, “Synthesis of Highly Fluorescent Amine-Stabilized Gold Nanoclusters”, the 115<sup>th</sup> Annual Meeting of Korean Chemical Society, Ilsal, South Korea, **2015** (Poster Presentation).
- 27 Youngseo Moon; Hien Mai Duy; Soon Choi; Hyojong Yoo\*, “Synthesis, characterization, and Catalytic Activity of Raspberry-Like Gold Nanoparticles (Au RLNPs) and Au RLNP@SiO<sub>2</sub>nanoparticles”, the 115<sup>th</sup> Annual Meeting of Korean Chemical Society, Ilsal, South Korea, **2015** (Poster Presentation).
- 26 Sangdon Lee; Hyojong Yoo\*, “Synthesis of Tridentate 2,6-Bis(imino)pyridyl Ruthenium(II) Complexes with N-Heterocyclic Carbene Ligands: Activation of Imidazolium Salts”, the 115<sup>th</sup> Annual Meeting of Korean Chemical Society, Ilsal, South Korea, **2015** (Poster Presentation).
- 25 Hien Mai Duy; Gun Yong Sung; Hyojong Yoo\*, "Fabrication of NiO Nanostructure and Urease-based Amperometric Biosensor for Urea Detection", The 17<sup>th</sup> Korean MEMS Conference, Jeju, South Korea, **2015** (Poster Presentation).
- 24 Hyojong Yoo\*, “Tailored Synthesis and Application of Anisotropic Nanoparticles”, KSIEC Spring Meeting, Jeju, South Korea, **2014** (Invited Talk).
- 23 Jeong Hee Lee; Soon Choi; Hyojong Yoo\*, “Size-Controlled Synthesis of Gold Bipyramids using an Aqueous Mixture of CTAC and Salicylate Anions as the Soft Template”, KSIEC Spring Meeting, Jeju, South Korea, **2014** (Poster Presentation).
- 22 Joonsung Pak; Soon Choi; Hyojong Yoo\*, “Facile Synthesis and Catalytic Application of Spherical Nanoparticles with a Porous Silica Shell and Multiple Au Nanodots as the Core”, KSIEC Spring Meeting, Jeju, South Korea, **2014** (Poster Presentation).
- 21 Kiouk Seo; Hyojong Yoo\*, “Synthesis, Structure, and Catalytic Activity of Raspberry-Like Gold Nanoparticles (Au RLNPs) and Au RLNP@SiO<sub>2</sub> nanoparticles”, KSIEC Spring Meeting, Jeju, South Korea, **2014** (Poster Presentation).
- 20 Soon Choi; Hyojong Yoo\*, “Nonionic Surfactant-Assisted, Seed-Mediated Synthesis of Gold Nanotoroids”, KSIEC Spring Meeting, Jeju, South Korea, **2014** (Poster Presentation).
- 19 Jeong Hee Lee; Hyojong Yoo\*, “Synthesis and Properties of Copper-based One-Dimensional Inorganic Polymer, [Cu(PDA)(DMF)]<sub>n</sub>”, KSIEC Spring Meeting, Jeju, South Korea, **2014** (Poster Presentation).
- 18 Kiouk Seo; Hyojong Yoo\*, “Synthesis, Structure, and Catalytic Activity of Raspberry-Like Gold Nanoparticles (Au RLNPs) and Au RLNP@SiO<sub>2</sub> nanoparticles”, the 3<sup>rd</sup> Annual Meeting of the Korean Silicon Society, Seoul, South Korea, **2014** (Poster Presentation).
- 17 Joonsung Pak; Soon Choi; Hyojong Yoo\*, “Facile Synthesis and Catalytic Application of Spherical Nanoparticles with a Porous Silica Shell and Multiple Au Nanodots as the Core”, the 3<sup>rd</sup> Annual Meeting of the Korean Silicon Society, Seoul, South Korea, **2014** (Poster Presentation).
- 16 Hyojong Yoo\*, “Spherical Nanoparticles with a Silica Shell and Gold Nanodots Assembly as the Core”, the 112<sup>nd</sup> Annual Meeting of Korean Chemical Society, Changwon, South Korea, **2013** (Invited Talk).
- 15 Soon Choi; Hyojong Yoo\*, “Nonionic Surfactant-Assisted, Seed-Mediated Synthesis of Gold Nanotoroids”, the 112<sup>nd</sup> Annual Meeting of Korean Chemical Society, Changwon, South Korea, **2013** (Poster Presentation – the best poster award & Dongwoo Fine-Chem, Inc. poster award).
- 14 Hyojong Yoo\*, “Size-Controlled Synthesis of Gold Bipyramids using an Aqueous Mixture of CTAC and Salicylate Anions as the Soft Template”, the 112<sup>nd</sup> Annual Meeting of Korean Chemical Society, Changwon, South Korea, **2013** (Poster Presentation)
- 13 Joonsung Pak; Hyojong Yoo\*, “Facile Synthesis and Catalytic Application of Spherical Nanoparticles with a Porous Silica Shell and Multiple Au Nanodots as the Core”, the 112<sup>nd</sup>

- Annual Meeting of Korean Chemical Society, Changwon, South Korea, **2013** (Poster Presentation).
- 12 Joonsung Pak; Hyojong Yoo\*, “Synthesis and Structural Properties of Multi-Pt@SiO<sub>2</sub> and Multi-Au/Pt@SiO<sub>2</sub> Nanoparticles”, the 112<sup>nd</sup> Annual Meeting of Korean Chemical Society, Changwon, South Korea, **2013** (Poster Presentation).
  - 11 Jeong Hee Lee; Hyojong Yoo\*, “Synthesis and Properties of Copper-based One-Dimensional Inorganic Polymer, [Cu(PDA)(DMF)]<sub>n</sub>”, the 112<sup>nd</sup> Annual Meeting of Korean Chemical Society, Changwon, South Korea, **2013** (Poster Presentation).
  - 10 Kiouk Seo; Hyojong Yoo\*, “Catalytic Oxidation of Bio-based Compounds over Raspberry-like Gold Nanoparticles (Au RLNPs)”, the 112<sup>nd</sup> Annual Meeting of Korean Chemical Society, Changwon, South Korea, **2013** (Poster Presentation).
  - 9 Joonsung Pak; Min Hoon Jang; Hyojong Yoo\*, “Synthesis of Multiple Gold Nanoparticles- or Gold Nanoclusters-Doped Silica Nanoparticles”, the 110<sup>th</sup> Annual Meeting of Korean Chemical Society, Busan, South Korea, **2012** (Poster Presentation).
  - 8 Min Hoon Jang; Hyojong Yoo\*, “Nonionic Brij Surfactant-Mediated Synthesis of Au Nanomaterials with High Surface Area”, the 109<sup>th</sup> Annual Meeting of Korean Chemical Society, Ilsan, South Korea, **2012** (Poster Presentation).
  - 7 Joonsung Pak; Woong Tae Han; Hyojong Yoo\*, “Synthesis of Fluorescent Silica Nanoparticles in a Reverse Microemulsion through Double-Layered Doping of Fluorescein”, the 109<sup>th</sup> Annual Meeting of Korean Chemical Society, Ilsan, South Korea, **2012** (Poster Presentation).
  - 6 Joonsung Pak; Woong Tae Han; Hyojong Yoo\*, “Synthesis of Fluorescent Double-Layered in a Reverse Microemulsion”, the 1<sup>st</sup> Annual Meeting of the Korean Silicon Society, Seoul, South Korea, **2012** (Poster Presentation).
  - 5 Hyojong Yoo\*, “Tailored Microcrystal Growth: Solution-Phase Syntheses of Anisotropic Gold Materials” the 108<sup>th</sup> Annual Meeting of Korean Chemical Society, Daejeon, South Korea, **2011** (Invited Talk).
  - 4 Hyojong Yoo\*, “Solution-Phase Synthesis of Anisotropic Au Nanomaterials: Use of Nonionic Polymeric Surfactants as Shape-Directing Agents” Inorganic Chemistry Subcommittee Symposium of Korean Chemical Society, Cheonan, South Korea, **2011** (Oral Presentation).
  - 3 Jin Kyung Kim; Scott McN. Sieburth\*; Hyojong Yoo, “Synthesis of  $\alpha$ -Amino- $\alpha$ -Alkylsilanediol Precursors and Silanediol Amino Acids” 26<sup>th</sup> Organosilicon Chemistry Research Workshop”, Wonju, South Korea, **2011** (Poster Presentation).
  - 2 Hyojong Yoo\*, “Solution-Phase Synthesis of Anisotropic Au Materials: Use of Surfactants as Shape-Directing Agents” the 106<sup>th</sup> Annual Meeting of Korean Chemical Society, Daegu, South Korea, **2010** (Poster Presentation).
  - 1 Hyojong Yoo; Du-Jeon Jang\*, “Intercalation and Optical Characterization of C<sub>60</sub> in Zeolite Cages”, the 79<sup>th</sup> annual meeting of Korean Chemical Society, Seoul, South Korea, **1997** (Poster Presentation).

#### **Ph.D. STUDENTS SUPERVISED:**

- 1 Mai Duy Hien, Ph.D., Chemistry, 2017, now a Post-Doctoral Researcher at Hallym University.

#### **M. S. STUDENTS SUPERVISED:**

- 9 Inme Lee, M. S. Chemistry, 2018, now a Scientist at Young In Scientific Co. LTD.
- 8 Wongyun Byoun, M. S. Chemistry, 2017, now a Research Scientist at Samchun Chemical Co. LTD.
- 7 Sangdon Lee, M. S., Chemistry, 2017, now a Research Scientist at YCAM Co. LTD.
- 6 Youngseo Moon, M. S., Chemistry, 2017, now a Scientist at Young In Scientific Co. LTD.

- 5 Soon Choi, M. S., Chemistry, 2016, now an Analytical Scientist at Welcos, Inc.
- 4 Kiouk Seo, M. S., Chemistry, 2015, now a Research Scientist at YCAM Co. LTD.
- 3 Jeonghee Lee, M. S., Chemistry, 2015, now a Research Scientist at ENDSS, Inc.
- 2 Joonsung Park, M. S., Chemistry, 2014, now a Research Scientist at Welcos, Inc.
- 1 Minhoon Jang, M. S., Chemistry, 2013, now a Research Scientist at HRS, Inc.