

NANO KOREA 2020

July 1~3, KINTEX, Korea

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EDUCATION

MIT	Ph.D	Biological Engineering	2010
KAIST	MS	Biological Sciences	1999
Seoul National University	BS	Chemical Engineering	1997

PROFESSIONAL ACTIVITIES

- Position, Department, Affiliation, Nation, Period (ex. January 2006 to Present.)
- Associate Professor (2014.9 – present) and Assistant Professor (2011.6 - 2014.8), Department of Materials Science and Engineering, KAIST
- George W. Beadle Argonne Scholar - Postdoctoral Fellow, Argonne National Laboratory (2010.5 - 2011.6)
- Scientific Researcher, Amore Pacific Corporation R&D Center (1999.3 - 2004.8)

AWARD AND HONORS

- 2019 Chungwoong Award, The Korean Institute of Metals and Materials
- 2018 KINC Fusion Research Award, KAIST Institute for NanoCentury
- 2018 Scientific Contribution Award, Targeting Phage and Antibiotic Resistance, Florence, Italy
- 2017 New Excellent Technology (NET) Certificated by Korea Industry Technology Association (KOITA)
- 2004 DuPont Fellowship, DuPont-MIT Alliance Program, MIT (Cambridge, MA, USA)
- 1999 Japan-Korea Biomaterials Research Young Investigator's Award, The Korean and Japanese Societies for Biomaterials (Tokyo, Japan)

MAIN SCIENTIFIC PUBLICATION

- Sub-nanomolar FRET-based DNA Assay Using Thermally Stable Phosphorothioated DNA-functionalized Quantum Dots, Jae Chul Park, Se Yeon Choi, Moon Young Yang, Lin Nan, Hyebin Na, Ha Neul Lee, Hyun Jung Chung, Cheol Am Hong*, and Yoon Sung Nam*, ACS Applied Materials & Interfaces (2019) 11, 37, 33525-33534

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- A Ruthenium-based Plasmonic Hybrid Photocatalyst for Aqueous Carbon Dioxide Conversion with a High Reaction Rate and Selectivity, Hwiseok Jun, Shinyoung Choi, Moon Young Yang*, Yoon Sung Nam*, *Journal of Materials Chemistry A* (2019) 7, 17254-17260
- Photochemically-enhanced Selective Adsorption of Gold Ions on Tannin-coated Porous Polymer Microspheres, Jeonga Kim, Kyeong Rak Kim, Yeongran Hong, Sunyoung Choi, Cafer Yavuz, Jin Woong Kim*, Yoon Sung Nam*, *ACS Applied Materials & Interfaces* (2019) 11, 24, 21915-21925
- Cancer-targeted Reactive Oxygen Species-degradable Polymer Nanoparticles for Near Infrared Light-induced Drug Release, Geok Leng Seah, Jeong Heon Yu, Bon Il Koo, Dong Jae Lee, and Yoon Sung Nam*, *Journal of Materials Chemistry B* (2018) 6, 7737 – 7749
- DNA-mediated Self-assembly of Taste Cells and Neurons for Taste Signal Transmission, Junsu Yun, Ann-Na Cho, Seung-Woo Cho*, and Yoon Sung Nam*, *Biomaterials Science* (2018) 6, 3388 – 3396
- Paclitaxel-induced Formation of 3D Nanocrystal Superlattices within Injectable Protein-based Hybrid Nanoparticles, Jeong Yu Lee, Ho Yeon Son, Jae Chul Park, Jongnam Park, and Yoon Sung Nam*, *Chemical Communications* (2018) 54, 11586 – 11589
- Low-power and Low-drug-dose Photodynamic Chemotherapy via the Breakdown of Tumor-targeted Micelles by Reactive Oxygen Species, Geok Leng Seah, Jeong Heon Yu, Moon Young Yang, Woo Jin Kim, Jin-Ho Kim, Keunchil Park, Jae-Woo Cho, Jee Seon Kim*, and Yoon Sung Nam*, *Journal of Controlled Release* (2018) 286, 240-253
- Tannin-Titanium Oxide Multilayer as a Photochemically Suppressed Ultraviolet Filter, Ho Yeon Son†, Bon Il Koo†, Jun Bae Lee, Kyeong Rak Kim; Woojin Kim; Jihui Jang, Moungh Seok Yoon, Jae-Woo Cho, and Yoon Sung Nam*, *ACS Applied Materials & Interfaces* (2018) 10 (32), 27344-27354 († equal contribution)
- Plasmonically-assisted Nanoarchitectures for Solar Water Splitting: Obstacles and Breakthroughs, Joong Bum Lee, Shinyoung Choi, Jeonga Kim, Yoon Sung Nam*, *Nano Today* (2017) 16, 61-81
- Virus-templated Self-mineralization of Ligand-free Colloidal Palladium Nanostructures for High Surface Activity and Stability, Insu Kim†, Kyungnam Kang†, Mi Hwa Oh, Moon Young Yang, Inkyu Park*, and Yoon Sung Nam*, *Advanced Functional Materials* (2017) 27, 1703262 († equal contribution)
- Polyglycerolated Nanocarriers with Increased Ligand Multivalency for Enhanced In vivo Therapeutic Efficacy of Paclitaxel, Trang Huyen Le Kim†, Jeong Heon Yu†, Hwiseok Jun†, Moon Young Yang, Mi-Jin Yang, Jae-Woo Cho, Jin Woong Kim*, Jee Seon Kim*, and Yoon Sung Nam*, *Biomaterials* (2017) 145, 223-232 († equal contribution)
- Role of Ordered Ni atoms in Li Layers for Li-rich Layered Cathode Materials, Moon Young Yang, Sangryun Kim, Kyungsu Kim, Woosuk Cho, Jang Wook Choi, and Yoon Sung Nam*, *Advanced Functional Materials* (2017) 27, 1700982
- DNA Lipoplex-based Light-harvesting Antennae, Sung Duk Jo†, Jee Seon Kim†, Inhye Kim, Jun Su Yun, Jae Chul Park, Bon Il Koo, Eunji Lee, and Yoon Sung Nam*, *Advanced Functional Materials* (2017) 27, 1700212 († equal contribution).
- Spontaneous Linker-free Binding of Polyoxometalates on N-dopant Sites in Graphene Plane for Efficient Water Oxidation, Gil Yong Lee†, Insu Kim†, Joonwon Lim, Moon Young Yang, Dong Sung Choi, Yujin Gu, Youngtak Oh, Seok Hun Kang, Yoon Sung Nam*, and Sang Ouk Kim*, *Journal of Materials Chemistry A* (2017) 5: 1941-1947.(† equal contribution)