

Sungjee Kim

Professor

Department of Chemistry, POSTECH

▶ Address : Department of Chemistry, Pohang University of Science and Technology, 77 Cheongam-Ro, Nam-Gu, Pohang, Gyeongbuk, Korea 37673, South Korea

▶ Nationality : Republic of Korea

▶ Telephone : +82-54-279-2108

▶ Fax : +82-54-279-1498

▶ E-mail : sungjee@postech.ac.kr

▶ Web : <http://www.nanotrio.com>

[Education]

2003	Ph.D	Massachusetts Institute of Technology	Physical Chemistry
1997	B.S.	Pohang University of Science and Technology	Chemistry

[Professional Career]

2017~present	Professor	Dept. of Chemistry	Pohang University of Science and Technology
2010~2017	Associate Professor	Dept. of Chemistry	Pohang University of Science and Technology
2005~2010	Assistant Professor	Dept. of Chemistry	Pohang University of Science and Technology
2004~2005	Postdoctoral Scholar	Dept. of Applied Physics	California Institute of Technology
2003~2004	Postdoctoral Fellow	Harvard Medical School/MIT	

[Recent Publications (last 3 years)]

1. Mihye Lim, Wonseok Lee, Gyuhyun Bang, Woo Jin Lee, Youngrong Park, Yongju Kwon, Yebin Jung, Sungjee Kim*, Jiwon Bang*, "Synthesis of far-red and near-infrared-emitting Cu-doped InP/ZnS (core/shell) quantum dots with controlled doping steps and their surface functionalization for bioconjugation", *Nanoscale*, **2019**, 11(21), 10463–10471
2. Hoibin Jeong, Sehui Kim, Beom-Ju Hong, Chan-Ju Lee, Young-Eun Kim, Seoyeon Bok, Jung-Min Oh, Seung-Hee Gwak, Min Young Yoo, Min Sun Lee,

- Seock-Jin Chung, Joan Defrêne, Philippe Tessier, Martin Pelletier, Hyeongrin Jeon, Tae-Young Roh, Bumju Kim, Ki Hean Kim, Ji Hyeon Ju, Sungjee Kim, Yoon-Jin Lee, Dong-Wan Kim, Il Han Kim, Hak Jae Kim, Jong-Wan Park, Yun-Sang Lee, Jae Sung Lee, Gi Jeong Cheon, Irving L. Weissman, Doo Hyun Chung, Yoon Kyung Jeon, and G-One Ahn*, "Tumor-Associated Macrophages Enhance Tumor Hypoxia and Aerobic Glycolysis", *Cancer Research*, **2019**, 79(4), 795-806
3. Wonseok Lee, Seunghwa Hong, and Sungjee Kim*, "Colloidal Synthesis of Lead-Free Silver–Indium Double-Perovskite Cs₂AgInCl₆ Nanocrystals and Their Doping with Lanthanide Ions", *The Journal of Physical Chemistry C*, **2019**, 123(4), 2665-2672
 4. Wonseok Lee, Juwon Oh, Woosung Kwon, Sang Hyeon Lee, Dongho Kim*, and Sungjee Kim*, "Synthesis of Ag/Mn Co-Doped CdS/ZnS (Core/Shell) Nanocrystals with Controlled Dopant Concentration and Spatial Distribution and the Dynamics of Excitons and Energy Transfer between Co-Dopants", *Nano Letters*, **2019**, 19(1), 308-317
 5. Juwon Park, Sungjae Hwang, Sanghwa Jeong, Sungjee Kim, Jiwon Bang*, and Seungho Cho*, "Heterojunction Area-Controlled Inorganic Nanocrystal Solar Cells Fabricated Using Supra-Quantum Dots", *ACS Applied Materials Interfaces*, **2018**, 10(50), 43768–43773
 6. Sanghwa Jeong, Yebin Jung, Seoyeon Bok, Yeon-Mi Ryu, Sumin Lee, Young-Eun Kim, Jaejung Song, Miyeon Kim, Sang-Yeob Kim,* G-One Ahn,* and Sungjee Kim*, "Multiplexed In Vivo Imaging Using Size-Controlled Quantum Dots in the Second Near-Infrared Window", *Advanced Healthcare Materials*, **2018**, 7, 1800695
 7. Sang Mun Bae, Dong-Jun Bae, Eun-Ju Do, Gyungseok Oh, Su Woong Yoo, Gil-Je Lee, Ji Soo FChae, Youngkuk Yun, Sungjee Kim, Ki Hean Kim, Euiheon Chung, Jun Ki Kim, Sung Wook Hwang, Sang Hyoung Park, Dong-Hoon Yang, Byong Duk Ye, Jeong-Sik Byeon, Suk-Kyun Yang, Jinmyoung Joo, Sang-Yeob Kim*, and Seung-Jae Myung*, "Multi-Spectral Fluorescence Imaging of Colon Dysplasia InVivo Using a Multi-Spectral Endoscopy System", *Translational Oncology*, **2018**, 12(2), 226-235
 8. Jaejung Song, Minhyuk Lee, Taeyoung Kim, Jeongkyeong Na, Yebin Jung, Gyoo Yeol Jung, Sungjee Kim, Nokyoung Park*, "A RNA producing DNA hydrogel as a platform for a high performance RNA interference system", *Nature Communications*, **2018**, 9(1), 4331

9. Yong Woong Jun, Taejun Wang, Sekyu Hwang, Dokyoung Kim, Donghee Ma, Ki Hean Kim, Sungjee Kim, Junyang Jung, Kyo Han Ahn* , "A Ratiometric Two-Photon Fluorescent Probe for Tracking Lysosomal ATP: Direct In Cellulo Observation of Lysosomal Membrane Fusion Processes", *Angewandte Chemie International Edition*, **2018**, 57(32), 10142-10147
10. Bomi Kim‡, Kangwook Kim‡, Yongju Kwon, Woojin Lee, Weon Ho Shin, Sungjee Kim, and Jiwon Bang*, "CuInS₂/CdS-Heterostructured Nanotetrapods by Seeded Growth and Their Photovoltaic Properties", *ACS Applied Nano Materials*, **2018**, 1(6), 2449-2454
11. Jun Ho Lee, Viet-Hoan Le, Seunghun Lee, Jin Hyoung Park, Jin Ah Leec, Hungwon Tchah, Sungjee Kim, Myoung Joon Kim*, Ki Hean Kim*, "Two-photon microscopy of fungal keratitis-affected rabbit cornea ex vivo using moxifloxacin as a labeling agent", *Experimental Eye Research*, **2018**, 174, 51-58
12. Youngrong Park+, Yeon-Mi Ryu+, Taejun Wang, Yebin Jung, Sohee Kim, Sekyu Hwang, Joonhyuck Park, Dong-Jun Bae, Jaeil Kim, Heejo Moon, Hyun-Suk Lim, Sang-Yeob Kim, Euiheon Chung, Ki Hean Kim*, Sungjee Kim*, and Seung-Jae Myung*, "Colorectal Cancer Diagnosis Using Enzyme-Sensitive Ratiometric Fluorescence Dye and Antibody–Quantum Dot Conjugates for Multiplexed Detection", *Advanced Functional Materials*, **2018**, 28(4), 1703450
13. Sungwook Jung+, Joonhyuck Park+, Jiwon Bang, Jae-Yeol Kim, Cheolhee Kim, Yongmoon Jeon, Seung Hwan Lee, Ho Jin, Sukyung Choi, Bomi Kim, Woo Jin Lee, Chan-Gi Pack, Jong-Bong Lee, Nam Ki Lee, and Sungjee Kim*, "Light-Induced Fluorescence Modulation of Quantum Dot-Crystal Violet Conjugates: Stochastic Off–On–Off Cycles for Multicolor Patterning and Super-Resolution", *Journal of the American Chemical Society*, **2017**, 139(22), 7603-7615
14. Seunghyun Lee, Owoong Kwon, Mansik Jeon, Jaejung Song, Seungjun Shin, HyeMi Kim, Minguk Jo, Taiuk Rim, Junsang Doh, Sungjee Kim, Junwoo Son, Yunseok Kim*, and Chulhong Kim*, "Super-resolution visible photoactivated atomic force microscopy", *Light: Science & Applications*, **2017**, 6(11), 17080
15. Sungwan Kim, Gyeongwon Yun, Suman Khan, Jinhwan Kim, James Murray, Yeong Mi Lee, Won Jong Kim, Gyudong Lee, Sungjee Kim, Dinesh Shetty, Joo Hyun Kang, Jung Young Kim, Kyeng Min Park*, Kimoon Kim*, "Cucurbit[6]uril-based Polymer Nanocapsules as a Non-covalent and Modular Bioimaging Platform For Multimodal In vivo Imaging", *Materials Horizons*, **2017**, 4(3), 450-455

16. Seulgi Han, Songeun Beack, Sanghwa Jeong, Byung Woo Hwang, Myeong Hwan Shin, Hyemin Kim, Sungjee Kim and Sei Kwang Hahn*, "Hyaluronate modified upconversion nanoparticles for near infrared light-triggered on-off tattoo systems", *RSC Advances*, **2017**, 7(24), 14805-14808
17. Sanghwa Jeong, Jaejung Song, Wonseok Lee, Yeon Mi Ryu, Yebin Jung, Sang-Yeob Kim, Kangwook Kim, Seong Cheol Hong, Seung Jae Myung, and Sungjee Kim*, "Cancer-Microenvironment-Sensitive Activatable Quantum Dot Probe in the Second Near-Infrared Window", *Nano Letters*, **2017**, 17(3), 1378–1386
18. Gyugnseok Oh, Youngrong Park, Su Woong Yoo, Soonjoo Hwang, Alexey V. Dan Chin-Yu, Yeon-Mi Ryu, Sang-Yeob Kim, Eun-Ju Do, Ki Hean Kim, Sungjee Kim, Seung-Jae Myung, and Euiheon Chung*, "Clinically compatible flexible wide-field multi-color fluorescence endoscopy with a porcine colon model", *Biomedical Optics Express*, **2017**, 8(2), 764-775
19. Youngrong Park, Sanghwa Jeong, Sungjee Kim*, "Medically Translatable Quantum Dots for Biosensing and Imaging", *Journal of Photochemistry and Photobiology C*, **2017**, 30, 51-70

[Brief Biosketch]

Sungjee Kim obtained his B.S. from Department of Chemistry, POSTECH in 1997 and Ph.D. from Department of Chemistry, MIT in 2003. He worked at Harvard Medical School from 2003 to 2004 and at Applied Physics Department at CALTECH from 2004 to 2005 as a postdoctoral scholar. Since 2005, he has worked as a professor in the Department of Chemistry at POSTECH and an adjunct professor in the School of Interdisciplinary Bioscience and Bioengineering and Division of Environmental Science and Engineering at POSTECH. He has published over 100 peer-reviewed journal articles in the area of nanophotonics, nanoplasmonics, and nanobiotechnology, and is an inventor of dozens of patents. His work has been cited over 10,000 times so far.