



Donghwan KIM

Professor, School of Chemical Engineering,
Biomedical Institute for Convergence at SKKU
Director, Precision Biology Research Center
Sungkyunkwan University

Address : Seobu-ro 2066, Jangan-gu, Suwon, Gyeonggi-do, 16419 South Korea Room#25535A

Office : +82 31 299 4717

Email : dhkim1@skku.edu

Homepage : [RESEARCH CENTER] pbrc.skku.edu, [LAB] bsel.skku.edu

ACADEMIC QUALIFICATIONS

Ph.D., University of Michigan, Ann Arbor, MI Biomedical Engineering, 2005

M.S., Seoul National University, Seoul, Korea, Materials Science and Engineering, 2001

B.S., Yonsei University, Seoul, Korea, Materials Science and Engineering, 1999

PROFESSIONAL CAREER

2015 - present : Associate/Full Professor, SKKU, Sch. Chem. Eng., Korea

2008 - 2015 : Tenured Assist/Assoc Prof., Nanyang Tech. Univ., Sch. Chem. Biomed. Eng., Singapore

2005 - 2008 : Research Associate, Duke University, Durham, NC, Biomedical Eng.

2005 - 2005 : Postdoctorate Fellow, Univ. of Michigan, Ann Arbor, MI, Biomedical Eng.

2001 - 2005 : Graduate Research Assistant, Univ. of Michigan, Ann Arbor, MI, Biomed Eng.

1999 - 2001 : Graduate Research Assistant, Seoul National Univ., Korea, Mat. Sci. and Eng.

SELECTED PUBLICATIONS

Moon BS, Kim HE, and Kim DH*, Ultrafast Single-band Upconversion Luminescence in a Liquid-quenched Amorphous Matrix	Advanced Materials, 30 (25), 2018
Xu W, Lee TK, Moon BS, Song H, Chen X, Chun B, Kim YJ, Kwak SK, Chen P*, and Kim DH*, Broadband Plasmonic Antenna Enhanced Upconversion and Its Application in Flexible Fingerprint Identification	Advanced Optical Materials, 6 (6), 2018
Ferhan AR, Jackman JA, Park JH, Cho NJ*, Kim DH*, Nanoplasmonic Sensors for Detecting Circulating Cancer Biomarkers.	Advanced Drug Delivery Review, 125, 48-77, 2017
Ferhan AR and Kim DH* Nanoparticle Polymer Composites on Solid Substrates for Plasmonic Sensing Applications	Nano Today, 11, 415-434, 2016
Chen X, Xu W, Zhang L, Bai X, Cui S, Zhou D, Yin Z, Song H, and Kim DH, Large Upconversion Enhancement in the "Islands" Au-Ag Alloy/NaYF ₄ : Yb ³⁺ , Tm ³⁺ /Er ³⁺ Composite Films, and Fingerprint Identification	Advanced Functional Materials, 25,(34) 5462-5471, 2015

Guo L, Jackman JA, Yang HH, Chen P, Cho NJ and Kim DH* Strategies for Enhancing the Sensitivity of Plasmonic Nanosensors	Nano Today, 10, 213—239, 2015.
Guo L, Xu Y, Ferhan AR, Chen G and Kim DH* Oriented gold nanoparticle aggregation for colorimetric sensors with surprisingly high analytical figures of merit	Journal of American Chemical Society 135, 2338—12345, 2013
Huang Y, Lin W, Chen X, Bai P, Kim DH* Synthesis of Anisotropic Concave Au Nanocuboids and Discovering Three Distinctive Plasmonic Peaks in Cuboidal Structure	Chemistry of Materials 25(12), 2470-2475, 2013
Guo L, Ferhan RA, Chen HL, Li C, Chen G, Hong S, Kim DH* Distance-mediated plasmonic dimers for reusable colorimetric switches: a measurable peak shift of over 60 nm	Small 9, 2, 234-240, 2013
Si P, Ding S, Yuan J, Lou XW and Kim DH* Hierarchically structured one-dimensional TiO ₂ for protein immobilization, direct electrochemistry and mediator-free glucose sensing	ACS Nano 5 (9), 7617-7626, 2011