

Stanford



Kang Yong Loh

Ph.D. Student in Chemistry, admitted Autumn 2018

Bio

BIO

I am a PhD graduate student and a Stanford ChEM-H Chemistry/Biology Interface Predoctoral Trainee at Stanford University, Department of Chemistry under the supervision of D.H. Chen Professor of Bioengineering Karl Deisseroth. I am interested in developing new chemical/protein tools to study neuroscience.

I was previously a research assistant at the Institute of Materials Research and Engineering and the Department of Chemistry at the National University of Singapore under the supervision of Provost's Chair Professor of Chemistry Xiaogang Liu. I was an Arnold and Mabel Beckman Fellow at the Beckman Institute of Advanced Science and Technology, University of Illinois at Urbana-Champaign under the supervision of Jay and Ann Schenck Professor of Chemistry Yi Lu on bio-inspired nanomaterials, metalloDNAzymes and sensors. Prior to this, in 2010, I joined the Institute of Bioengineering and Nanotechnology in the laboratories of Professor Ying Jackie Yi-Ru, Professor Zhiqiang Gao and Principal Research Scientist Yanbing Zu to work on ultrasensitive DNA nanoparticle based biosensors. Subsequently in 2014, I worked on upconversion nanomaterials for biological applications under the supervision of Professor Xiaogang Liu at the National University of Singapore and the Institute of Materials Research and Engineering. In Summer 2015, Kang Yong returned to the National University of Singapore, the Institute of Materials Research and Engineering and the Institute of Molecular and Cell Biology under the supervision of Professor Yin Thai Chan to work on semiconductor quantum dots and microfluidics applications.

I obtained my B.S. degree in Chemistry (Highest Distinction and Edmund J. James Scholar Honors) from the University of Illinois at Urbana-Champaign in 2017.

EDUCATION AND CERTIFICATIONS

- B.S. in Chemistry, University of Illinois at Urbana-Champaign , Chemistry (2017)

STANFORD ADVISORS

- Karl Deisseroth, Doctoral Dissertation Advisor (AC)

LINKS

- Kang Yong Loh Research: <https://kangyongloh.com>

Publications

PUBLICATIONS

- **Recent advances in upconversion nanocrystals: Expanding the kaleidoscopic toolbox for emerging applications** *NANO TODAY*
Zheng, K., Loh, K., Wang, Y., Chen, Q., Fan, J., Jung, T., Nam, S., Suh, Y., Liu, X.
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- **Discovery of and Insights into DNA "Codes" for Tunable Morphologies of Metal Nanoparticles** *SMALL*
Satyavolu, N., Loh, K., Tan, L., Lu, Y.
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- **Recent Advances in the Catalytic Synthesis of 4-Quinolones** *CHEM*
Shen, C., Wang, A., Xu, J., An, Z., Loh, K., Zhang, P., Liu, X.
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- **Optical Control of Metal Ion Probes in Cells and Zebrafish Using Highly Selective DNazymes Conjugated to Upconversion Nanoparticles** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*
Yang, Z., Loh, K., Chu, Y., Feng, R., Satyavolu, N., Xiong, M., Huynh, S., Hwang, K., Li, L., Xing, H., Zhang, X., Chelma, Y. R., Grubele, et al
2018; 140 (50): 17656–65
- **Gapping into Ultrahigh Surface-Enhanced Raman Scattering Amplification** *ACS CENTRAL SCIENCE*
Loh, K., Liu, X.
2018; 4 (2): 137–39
- **The improved sensitive detection of C-reactive protein based on the chemiluminescence immunoassay by employing monodispersed PAA-Au/Fe₃O₄ nanoparticles and zwitterionic glycerophosphoryl choline** *JOURNAL OF MATERIALS CHEMISTRY B*
Xing, Y., Gao, Q., Zhang, Y., Ma, L., Loh, K., Peng, M., Chen, C., Cui, Y.
2017; 5 (21): 3919–26
- **DNzyme sensors for detection of metal ions in the environment and imaging them in living cells** *CURRENT OPINION IN BIOTECHNOLOGY*
McGhee, C. E., Loh, K., Lu, Y.
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- **A Broadly Applicable Assay for Rapidly and Accurately Quantifying DNA Surface Coverage on Diverse Particles** *BIOCONJUGATE CHEMISTRY*
Yu, H., Xu, X., Liang, P., Loh, K., Guntupalli, B., Roncancio, D., Xiao, Y.
2017; 28 (4): 933–43