

imiD 2022

The 22nd International Meeting on Information Display
August 23-26, 2022 / BEXCO, BUSAN, KOREA

Dr. Whi Dong Kim

(Korea Institute of Industrial Technology
(KITECH), Korea)



Education

2012. 9 – 2016. 8 : Ph.D. in Chemical and Biomolecular Engineering, Korea Advanced Institute of Science and Technology (KAIST), Korea (Advisor: Prof. Doh C. Lee)
Dissertation Title: “Control of exciton dynamics in semiconductor nanocrystals and its application in photocatalytic reaction”
2009. 3 – 2011. 2 : M.S. in Nanofusion Technology, Pusan National University (PNU), Korea
(Advisor: Prof. Soo Hyung Kim)
2005. 3 – 2009. 2 : B.S. in Nanoscience and Nanotechnology, Pusan National University (PNU), Korea

Career

2016. 9 – 2018. 8: Postdoctoral Associate in KAIST Applied Science Research Center, Korea
(supervisor: Prof. Doh C. Lee)
2018. 9 – 2019. 2: Research Professor in Department of Chemical and Biomolecular Engineering, KAIST, Korea
2019. 3 – 2021. 10: Postdoctoral Associate in Los Alamos National Laboratory, USA (supervisor: Dr. Victor I. Klimov)
2021. 11 – Present: Senior Researcher in Carbon Neutral Technology R&D Department, Korea Institute of Industrial Technology (KITECH), Korea

Honors and Awards

- ✓ Best Oral Presentation Award in 2010 Korean Association for Particle and Aerosol Research (2010)
- ✓ 16th Samsung Human Tech. Paper Award Prize (2010)
- ✓ Best Poster Presentation Award in 2016 Korean Institute of Chemical Engineers (2016)

Research Interest

- ✓ Synthesis and characterization of semiconductor nanocrystals (quantum dots) with varying size, morphology, composition and anisotropic structure.

IMiD 2022

The 22nd International Meeting on Information Display
August 23-26, 2022 / BEXCO, BUSAN, KOREA

- ✓ Study of exciton dynamics in semiconductor nanocrystals and between assembled semiconductor nanocrystals using time-resolved photoluminescence, transient absorption spectroscopy and transient photocurrent measurement.
- ✓ Photocatalytic application (i.e. water splitting, CO₂ conversion) using semiconductor nanocrystals and metal-semiconductor nanohybrid materials

Research Highlights

- ✓ Over 36 publications in peer reviewed international journals
(11 publications as 1st author, 2 publications as corresponding author)
- ✓ 3 research awards
- ✓ 5 patents registered