

Kazutaka Akiyoshi

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Education

2014 – 2019 Ph. D. The University of Tokyo (Engineering)

2010 – 2014 B. S. Tokyo University of Science (Engineering)

Professional Career

2023.04– Present Assistant Professor, Dpt. Eng., Nagoya University

2021.04 – 2023.03 Designated Assistant Professor, Dpt. Eng., Nagoya University

2019.04 – 2021.03 VBL Postdoctoral Researcher, Dpt. Eng., Nagoya University

Selected Publications

1. M. Tozawa, S. Ofuji, Mi. Tanaka, **K. Akiyoshi**, T. Kameyama, T. Yamamoto, G. Motomura, Y. Fujisaki, T. Uematsu, S. Kuwabata, T. Torimoto*, Spectrally Narrow Blue-Light Emission from Nonstoichiometric AgGaS₂ Quantum Dots for Application to Light-Emitting Diodes, *ACS Appl. Mater. Interfaces*, 2024, 16, 68169–68180.
2. W. Zhang, **K. Akiyoshi***, T. Kameyama, T. Torimoto, Tailoring Energy Structure of Low-Toxic Ternary Ag–Bi–S Quantum Dots through Solution-Phase Synthesis for Quantum-Dot-Sensitized Solar Cells, *ChemNanoMat*, 2024, 10, e202400029. **Selected as Front Cover.**
3. **K. Akiyoshi**, Y. Maeda, N. Yamaguchi, T. Kameyama, Y. Tsuboi, H. Yamane, H. Ishihara, T. Torimoto*, Size- and Shape-Dependent Separation of Multinary Quantum Dots with Plasmonic Thin-Layer Chromatography, *J. Phys. Chem. C*, 2023, 128, 908–918. **Selected as Supplementary Cover.**
4. **K. Akiyoshi**, Y. Watanabe, T. Kameyama, T. Kawawaki, Y. Negishi, S. Kuwabata, T. Torimoto*, Composition control of alloy nanoparticles consisting of bulk-immiscible Au and Rh metals via an ionic liquid/metal sputtering technique for improving their electrocatalytic activity, *Phys. Chem. Chem. Phys.* 2022, 24, 24335–24344.

Research Interests

1. Development of Less-Toxic Semiconductor Quantum Dots for Solar Cells and Light-Emitting Diodes
2. Development of Plasmonic Thin-Layer Chromatography for Size-, Shape-, and Optical-Property-Dependent Separation of Quantum Dots
3. Synthesis of Alloy Nanoparticles Consisting of Bulk-Immiscible Metals by an Ionic Liquid/Metal Sputtering Technique for Improving Their Electrocatalytic Activity

Awards

1. **Best Poster Presentation Award 2024**, Quantum Life Science Society
2. **Poster Award 2022 (PVSEC-33)**, 33rd International Photovoltaic Science and Engineering Conference
3. **Excellent Poster Award 2019**, The Electrochemical Society Kansai and Tokai Branch of Japan
4. **Encouragement Award 2017**, 11th University of Tokyo Invention Contest, Institute of Industrial Science
5. **Fujishima Prize 2016 (Excellent master's thesis presentation award)**, The University of Tokyo
6. **Poster Presentation Award 2015-2018 for Excellent Research**, The Chemical Society of Japan