# Konishi, Katsuaki

## Professor

Faculty of Environmental Earth Science and Graduate School of Environmental Science, Hokkaido University, North 10 West 5, Sapporo 060-0810 Japan Phone/Facsimile: +81-11-706-4538/+81-11-706-4538 Email: konishi@ees.hokudai.ac.jp

### Education:

1983-1987 B.S. The University of Tokyo, Japan 1987-1989 M.S. The University of Tokyo, Japan 1989-1991 PhD course, The University of Tokyo, Japan 1993 Dr. of Eng. The University of Tokyo, Japan



#### Academic Careers:

1991-2000: Assitant Professor, Department of Synthetic Chemistry, The University of Tokyo 2000: Lecturer, Graduate School of Engineering, Department of Chemistry and Biotechnology, The University of Tokyo

2000-2008: Associate Professor, Graduate School of Environmental Science, Hokkaido University 2008-present: Professor, Graduate School of Environmental Science, Hokkaido University 2013-present: Visiting professor, Green Nanotechnology Research Center, Research Institute of Electric Science, Hokkaido University

#### Awards:

1993: CSJ Special Lectureship for Young Scientists 2000-2003: JST PRESTO project leader 2015: The CSJ Award for Creative Work (2015)

#### **Representative Publications:**

- 1) Unexpected electronic perturbation effects of simple PEG environments on the optical properties of small cadmium chalcogenide clusters, Fukunaga, N.; Konishi, K., *Nanoscale*, 2015, *7*, 20557–20563.
- Sugiuchi, M; Shichibu, Y.; Nakanishi, T.; Hasegawa, T.; Konishi, K. Cluster-π electronic interaction in a superatomic Au<sub>13</sub> cluster bearing σ-bonded acetylide ligands, *Chem. Commun.*, 2015, *51*, 13519-13522.
- Shichibu, Y.; Zhang, M; Kamei, Y.; Konishi, K. [Au<sub>7</sub>]<sup>3+</sup>: A Missing Link in the Four-Electron Gold Cluster Family, J. Am. Chem. Soc., 2014, 135, 12892-12894.
- Kobayashi, N.; Kamei, Y.; Shichibu, Y.; Konishi. K. Protonation-induced Chromism of Pyridylethynyl-appended [core+exo]-type Au<sub>8</sub> Clusters. Resonance-coupled Electronic Perturbation through π-Conjugated Group. J. Am. Chem. Soc., 2013, 135, 16078-16081 (featured in JACS spotlights).
- Shichibu, Y.; Kamei, Y.; Konishi, K. Unique [core+two] structure and optical property of dodeca-ligated undecagold cluster: Critical contribution of the exo gold atoms to the electronic structure, *Chem. Commun.*, 2012, 48, 7559-61
- 6) Kamei, Y.; Shichibu, Y.; Konishi, K. Generation of Small Gold Clusters with Unique Geometries through Cluster-to-Cluster Transformation. Octanuclear Clusters with Edge-sharing Gold Tetrahedron Motifs. *Angew. Chem. Int. Ed.*, 2011, *50*, 7442-7445.