



Prof. Kazuhiro Takanabe

高鍋 和広

Principal Investigator

[Department of Chemical System Engineering](#)

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Editorial contributions

- Editor: [Journal of Catalysis](#), Elsevier (2020.01-to date)
 - (Past) Associate Editor: (2017.09-2019.12)
- Editorial Board: [Molecular Catalysis](#), Elsevier (2017.09-to date)
- International Advisory Board: [ChemSusChem](#), Wiley (2020.01-to date)

Education

- Ph.D. (Engineering), Tokyo Institute of Technology, Japan, 2006 March: Prof. Ken-ichi Aika
- (Exchange program, University of Twente, The Netherlands, 2002 October - 2004 December): Prof. Kulathuier Seshan
- Master of Engineering, Tokyo Institute of Technology, 2003 March: Prof. Ken-ichi Aika
- Bachelor of Engineering, Tokyo Institute of Technology, 2001 March: Prof. Ken-ichi Aika

Professional Profile

- 2018 July - Current; Professor, Department of Chemical System Engineering, School of Engineering, The University of Tokyo
- 2018 January - 2018 June; Professor, King Abdullah University of Science and Technology (KAUST)
- 2016 July - 2017 December; Associate Professor, King Abdullah University of Science and Technology (KAUST)
- 2010 August - 2016 June; Assistant Professor, King Abdullah University of Science and Technology (KAUST)

- 2008 May - 2010 July; Assistant Professor, The University of Tokyo, Japan: Prof. Kazunari Domen
- 2006 May - 2008 April; Postdoctoral Fellow, University of California at Berkeley, USA: Prof. Enrique Iglesia

Research Interests

Dr. Takanabe's research interests are in the area of heterogeneous (photo)catalysis for energy conversion to develop sustainable system.

- Photocatalytic overall water splitting to generate harnessing hydrogen from solar energy
- Novel electrocatalysts for water splitting, CO₂ reduction, and fuel cells
- Hydrogen generation and carrier (steam and dry reforming) from fossil fuels, biomass
- Hydrogenation dehydrogenation (chemical hydrides)
- Natural gas conversion and radical chemistry (Oxidative Coupling of Methane: OCM)

Scientific and Professional Memberships

- Member, American Chemical Society
- Member, Materials Research Society
- Member, Electrochemical Society
- Member, International Society of Electrochemistry
- Member, Royal Society of Chemistry
- Member, Chemical Society of Japan
- Member, Catalysis Society of Japan
- Member, Japan Petroleum Institute
- Member, Hydrogen Energy Systems Society of Japan