Author Profile



T. Kato

The author presented on this page has recently published his 10th article since 2000 in Angewandte Chemie: "From Nanostructured Liquid Crystals to Polymer-Based Electrolytes": T. Kato, Angew. Chem. 2010, 122, 8019–8021; Angew. Chem. Int. Ed. 2010, 49, 7847–7848.

Takashi Kato

Date of birth: April 22, 1959

Position: Professor of Chemistry and Biotechnology, School of Engineering, The University of Tokyo

(Japan)

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Education: 1983 BEng in Synthetic Chemistry, School of Engir

1983 BEng in Synthetic Chemistry, School of Engineering, The University of Tokyo

1983–1988 PhD with Professor Toshiyuki Uryu, The University of Tokyo

1988-1989 Postdoctoral Fellow with Professor Jean M. J. Fréchet, Cornell University, New York

(USA)

Awards: 2000 The Paper Award of the Japanese Liquid Crystal Society; 2001 The Wiley Polymer Science

Award (Chemistry); 2003 The 17th IBM Japan Science Award (Chemistry); 2004 The First JSPS Prize (Japan Society for the Promotion of Science); 2008 The Award of the Japanese Liquid Crystal Society; 2009 Molecular Science Forum Lecture Professorship of the Institute of Chemistry, Chinese Academy of Sciences; 2010 The Award of the Society of Polymer Science,

Japan

Current research Our research focuses on the development of molecular-based functional materials. In particular, **interests:** we are interested in the design, synthesis, control, and functionalization of assembled structures

such as liquid-crystalline materials, stimuli- and environment-responsive materials, nanostructured ion- and electron-active materials, liquid-crystalline physical gels, functional

polymers, and biomineralization-inspired organic/inorganic hybrids.

Traveling by train, hiking in nature, walking in towns and Japanese gardens, going to art

museums, baseball (only watching nowadays)

My favorite subjects at school were ... the sciences and geography.

When I was eighteen I wanted to be ... an engineer or a scientist.

My favorite piece of research is ... the story behind the early development of conductive polymers: the preparation of a poly(acetylene) film by serendipity and the finding of the effects of doping.

The three qualities that make a good scientist are ... a creative and optimistic mind and the ability to concentrate.

Chemistry is fun because ... chemistry is a "common" and "universal" language that can connect scientists in all fields all over the world.

chose chemistry as a career because ... it is a nice combination of logic and imagination.

If I could be a piece of lab equipment, I would be ... a polarizing optical microscope.

A good work day begins with ... a good breakfast of rice, miso soup, egg, and natto (fermented soybeans).

My favorite book is ... the world atlas.

Young people should study chemistry because ... it is creative and deserves devotion. At the same time, chemistry can help to provide a high quality of life to people in general.

My 5 top papers:

Hobbies:

- "Self-Organized Calcium Carbonate with Regular Surface-Relief Structures": A. Sugawara, T. Ishii, T. Kato, Angew. Chem. 2003, 115, 5457-5461; Angew. Chem. Int. Ed. 2003, 42, 5299-5303.
- "One-Dimensional Ion Transport in Self-Organized Columnar Ionic Liquids": M. Yoshio, T. Mukai, H. Ohno, T. Kato, J. Am. Chem. Soc. 2004, 126, 994–995.
- "Electroactive Supramolecular Self-Assembled Fibers Comprised of Doped Tetrathiafulvalene-Based Gelators": T. Kitamura, S. Nakaso, N. Mizoshita, Y. Tochigi, T. Shimomura, M. Moriyama, K. Ito, T. Kato, J. Am. Chem. Soc. 2005, 127, 14769–14775.
- "A Liquid-Crystalline Bistable [2]Rotaxane": I. Aprahamian, T. Yasuda, T. Ikeda, S. Saha, W. R. Dichtel, K. Isoda, T. Kato, J. F. Stoddart, Angew. Chem. 2007, 119, 4759–4763; Angew. Chem. Int. Ed. 2007, 46, 4675–4679
- "Stimuli-Responsive Luminescent Liquid Crystals: Change of Photoluminescent Colors Triggered by a Shear-Induced Phase Transition": Y. Sagara, T. Kato, Angew. Chem. 2008, 120, 5253-5256; Angew. Chem. Int. Ed. 2008, 47, 5175-5178.

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