



K. Ishihara

The author presented on this page has recently published his **10th article** since 2000 in *Angewandte Chemie*:

“Enantioselective Diels–Alder Reactions with Anomalous *endo/exo* Selectivities Using Conformationally Flexible Chiral Supramolecular Catalysts”: M. Hatano, T. Mizuno, A. Izumiseki, R. Usami, T. Asai, M. Akakura, K. Ishihara, *Angew. Chem.* **2011**, 123, 12397–12400; *Angew. Chem. Int. Ed.* **2011**, 50, 12189–12192.



The work of K. Ishihara has been featured on the cover of *Angewandte Chemie*: “Enantioselective Kita Oxidative Spirolactonization Catalyzed by In Situ Generated Chiral Hypervalent Iodine(III) Species”: M. Uyanik, T. Yasui, K. Ishihara, *Angew. Chem.* **2010**, 122, 2221–2223; *Angew. Chem. Int. Ed.* **2010**, 49, 2175–2177.

## Kazuaki Ishihara

<b>Date of birth:</b>	April 26, 1963
<b>Position:</b>	Professor of Organic Chemistry, Graduate School of Engineering, Nagoya University (Japan)
<b>E-mail:</b>	ishihara@cc.nagoya-u.ac.jp
<b>Homepage:</b>	<a href="http://www.nubio.nagoya-u.ac.jp/nubio4/index.htm">http://www.nubio.nagoya-u.ac.jp/nubio4/index.htm</a>
<b>Education:</b>	1982–1986 BEng with Prof. Hisashi Yamamoto, Nagoya University 1986–1988 MEng with Prof. Hisashi Yamamoto, Nagoya University 1988–1991 PhD with Prof. Hisashi Yamamoto, Nagoya University 1991–1992 Postdoctoral fellow with Prof. Elias J. Corey, Harvard University
<b>Awards:</b>	<b>2005</b> JSPS Prize; <b>2007</b> IBM Japan Science Prize; <b>2009</b> Mukaiyama Award; <b>2011</b> Inoue Prize for Science
<b>Current research interests:</b>	Design and development of functional catalysts based on acid–base combination strategies for asymmetric catalysis, organocatalysis, hypervalent iodine catalysis, and dehydrative condensation catalysis, and of artificial enzymes for biomimetic cascade reactions; design and development of conformationally flexible chiral supramolecular catalysts that have enzymatic functions
<b>Hobbies:</b>	Nature (especially large trees), reading novels, traveling

**My favorite saying is ...** “Simple is best” (Occam’s razor).

**When I was eighteen I wanted to be ...** a great chemist!

**Chemistry is fun because ...** it allows one to be creative.

**The most important future applications of my research are ...** industrial syntheses using our tailor-made supramolecular catalysts.

**The secret of being a successful scientist is ...** to never give up and to maintain good health.

**My favorite time of day is ...** the early morning in my office before starting work.

**My favorite molecule is ...** iodine.

**Young people should study chemistry because ...** it is a central science that connects physics and biology.

**The most important thing I learned from my students is ...** their laboratory observations are far more powerful than the ideas and solutions that come from my desk.

**In a spare hour I ...** go the gym and then have a long bath.

**My favorite painter is ...** Hokusai Katsushika (an ukiyo-e artist of the Edo period, 1603–1868). The design of our recent cover picture (see left) was based on his picture “Red Fuji”.

### My 5 top papers:

1. “Enantioselective Diels–Alder Reactions with Anomalous *endo/exo* Selectivities Using Conformationally Flexible Chiral Supramolecular Catalysts”: M. Hatano, T. Mizuno, A. Izumiseki, R. Usami, T. Asai, M. Akakura, K. Ishihara, *Angew. Chem.* **2011**, 123, 12397–12400; *Angew. Chem. Int. Ed.* **2011**, 50, 12189–12192. (Designer chiral supramolecular catalysts that control not only enantioselectivity but also *endo/exo* selectivity.)
2. “Quaternary Ammonium (Hypo)iodite Catalysis for Enantioselective Oxidative Cycloetherification”: M. Uyanik, H. Okamoto, T. Yasui, K. Ishihara, *Science* **2010**, 328, 1376–1379. (The enantioselective oxidative cycloetherification of oxophenols.)
3. “Which is the Actual Catalyst: Chiral Phosphoric Acid or Chiral Calcium Phosphate?”: M. Hatano, K. Moriyama, T. Maki, K. Ishihara, *Angew. Chem.* **2010**, 122, 3911–3914; *Angew. Chem. Int. Ed.* **2010**, 49, 3823–3826. (The presence of small amounts of metal contaminants in “purified” phosphoric acid may produce unexpected results.)
4. “Rational Design of Highly Effective Asymmetric Diels–Alder Catalysts Bearing 4,4′-Sulfonamido-methyl Groups”: A. Sakakura, R. Kondo, Y. Matsumura, M. Akakura, K. Ishihara, *J. Am. Chem. Soc.* **2009**, 131, 17762–17764. (The design of chiral cationic catalysts based on hydrogen-bonding interactions.)
5. “Enantioselective halocyclization of polyprenoids induced by nucleophilic phosphoramidites”: A. Sakakura, A. Ukai, K. Ishihara, *Nature* **2007**, 445, 900–903. (A method for the halopolycyclization of simple polyprenoids to give polycyclic 3-iodoterpenoids with high enantioselectivity.)

DOI: 10.1002/anie.201200570