

## Editorial Board Focus: Professor Hideki Yorimitsu (Kyoto University, Japan)

**Background and Purpose.** From time to time, SYNFORM portraits Thieme Chemistry Editorial Board or Editorial Advisory Board members who answer several questions regarding their research interests and revealing their impressions and views on the developments in organic chemistry as a general research field. This Editorial Board Focus presents Professor Hideki Yorimitsu (Kyoto University, Japan) who joined the Editorial Board of *Synthesis* with effect of January 2019.

### Biographical Sketch



Prof. H. Yorimitsu

**Hideki Yorimitsu** was born in Kochi, Japan, in 1975. He obtained his B.Eng. and Ph.D. in 1997 and 2002, respectively, from Kyoto University (Japan) under the supervision of Professor Koichiro Oshima. He then served as a JSPS postdoctoral fellow with Professor Eiichi Nakamura at the University of Tokyo (Japan). He became an Assistant Professor in 2003 and an Associate Professor in 2008 in the Graduate School of Engineering, Kyoto University. He moved to the Department of Chemistry, Graduate School of Science in the same university in 2009 and became a Professor in 2015. He was also a visiting professor at the Institute for Molecular Science (Japan, 2014–2016) as well as a project leader of ACT-C, Japan Science and Technology Agency (Japan, 2012–2018), and is currently an Honorary International Chair Professor at the National Taipei University of Technology (Taiwan). His research program focuses on the development of new organic transformations for creating new molecules, phenomena, and concepts. He has received the Thieme Journals Award (2006), the Chemical Society of Japan Award for Young Chemists (2009), Mitsui Chemicals Catalysis Science Award of Encouragement (2011), Young Scientists' Prize from MEXT (2011), Mukaiyama Award (2016), and Negishi Award (2018).

### INTERVIEW

**SYNFORM** Please comment on your role as a member of the Editorial Board of *Synthesis*.

**Prof. Yorimitsu** Since I was a PhD candidate, I have been a big fan of Thieme journals. I naturally consider it a great honor to join the Thieme family as an Associate Editor of *Synthesis*. Under the leadership of Paul Knochel and in effective collaboration with the other excellent Associate Editors, I will be happy to contribute to the development of organic synthesis and to open up new avenues through the editorial activity.

The Thieme family has already been achieving successful generational change. On the *Synthesis* side, Franziska Schoenebeck and I have just joined, effective January 2019. I believe that the new editorial team considers organic synthesis to be as important as ever, with deeper sympathy and closer communication with young researchers and readers. I hope that the synthetic community will become more attractive than ever before.

I will serve as the Regional Editor for Japan and Korea mainly. Both countries are very strong in organic synthesis. To steadily strengthen the binational community, I will be very happy to support good research and researchers through my editorial activity. I wish to handle more submissions from these countries and to receive fruitful comments from reviewers, especially from the younger Japanese and Korean generations.

**SYNFORM** What is the focus of your current research activities?

**Prof. Yorimitsu** I love to discover novel organic transformations, especially those which proceed via unexpected/beautiful reaction mechanisms, with high efficiency/selectivity, and/or to produce useful/unusual molecules. One of my favorite

research topics is aromatic metamorphosis, wherein a hetero-aromatic ring is converted into a different ring via partial disassembly and reconstruction of ring systems. For example, we invented transformations of dibenzothiophenes into triphenylenes, carbazoles, dibenzophospholes, etc. For details, please see our *Synlett* Account (*Synlett* **2016**, *27*, 1765–1774). I hope aromatic metamorphosis is a game-changing strategy in organic synthesis. Another favorite is the use of unsaturated onium cations, mainly sulfonium cations, in organic synthesis. For instance, we invented a metal-free regioselective C–H/C–H coupling producing biaryls from aryl sulfoxides and phenols. The key in this transformation is concomitant loss of the aromaticity of the two aromatic substrates via sulfonium-tethered intermediates. I will submit a manuscript about this sulfonium chemistry to *Synlett* in a couple of months.

**SYNFORM** *You are a leading researcher with regard to synthetic organic and organometallic chemistry. Could you tell us more about how important you perceive this particular topic to be?*

**Prof. Yorimitsu** The Sustainable Development Goals have been set by the United Nations. Some of the goals about environmental issues are essentially equivalent to goals about chemistry. Our society is based on organic molecules, and naturally thus on organic synthesis and organometallic chemistry, two key technologies of transforming organic molecules. More efficient, selective, and atom-economical transformations should be pursued. However, simply pursuing such environmental criteria would not be sufficient. Deep understanding of reaction mechanisms, physical organic chemistry of reactions and molecules, discovery of unexpected reaction outcomes, and synthesis of unusual molecules will often lead to quantum leaps in our chemical community. Our community should cherish curiosity-driven chemistry.

