## **Author Profile**



K. Itami

The author presented on this page has recently published his 10th article since 2000 in Angewandte Chemie: "Concise Synthesis and Crystal Structure of [12]Cycloparaphenylene": Y. Segawa, S. Miyamoto, H. Omachi, S. Matsuura, P. Šenel, T. Sasamori, N. Tokitoh, K. Itami, Angew. Chem. 2011, 123, 3302–3306; Angew. Chem. Int. Ed. 2011, 50, 3244–3248.

## Kenichiro Itami

**Date of birth:** April 4, 1971

**Position:** Professor of Organic Chemistry, Department of Chemistry, Graduate School of Science, Nagoya

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Education: 1994 Undergraduate studies with Prof. Hisanobu Ogoshi, Kyoto University (Japan)

1997–1998 Exchange student with Prof. Jan E. Bäckvall, Uppsala University (Sweden)

1998 PhD with Prof. Yoshihiko Ito, Kyoto University

Awards: 2005 The Chemical Society of Japan Award for Young Chemists; 2005 Mitsui Chemicals

Catalysis Science Award of Encouragement; 2006 Minister Award for Distinguished Young

Scientists from MEXT, Japan; 2008 Merck-Banyu Lectureship Award

**Current research** The main emphasis of our research is on the development of new synthetic methods, strategies, interests: and concepts to solve challenging synthetic problems, realizing ideal chemical synthesis, and for

generating as-yet unexplored molecules of significant interest. Representative projects include

1) new reactions and catalysts for C-H bond transformation, 2) programmed chemical

synthesis, 3) biologically active molecules and natural products, 4) optoelectronic materials, and

5) nanocarbon materials.

Hobbies: Cars, hard rock, and visiting hot springs (onsen)

The biggest problem that scientists face is ... the efficient utilization of solar energy.

f I won the lottery, I would ... buy as many sports cars of all kinds as possible.

The most important thing I learned from my parents is ... "Work hard! Play harder! Dream even more!", which became the slogan of my research group.

f I were not a scientist, I would be ... a much better husband and father.

My most exciting discovery to date has been ... the finding of amazing similarity in connecting molecules and connecting people; this is what my research and life is all about.

My biggest motivation is ... the joy associated with my endeavors toward making molecules and inspiring students.

When I'm frustrated I ... get into my car, turn on my favorite music, drive hard, and then jump into a hot spring (onsen).

My favorite pieces of music are by ... Guns N' Roses, Van Halen, Queen, Helloween, and Mozart.

## My 5 top papers:

- "Multisubstituted Olefins: Platform Synthesis and Applications to Materials Science and Pharmaceutical Chemistry": K. Itami, J. Yoshida, *Bull. Chem. Soc. Jpn.* 2006, 79, 811–824. (We have focused on multisubstituted olefins motivated by synthetic challenges as well as potential applications to many areas.)
- "Direct C-H Arylation of (Hetero)arenes with Aryl Iodides via Rhodium Catalysis": S. Yanagisawa, T. Sudo, R. Noyori, K. Itami, J. Am. Chem. Soc. 2006, 128, 11748-11749. (This is the first paper from my time in Nagoya that describes the development of new rhodium catalyst that bear a strongly π-accepting ligand, P[OCH(CF<sub>3</sub>)<sub>2</sub>]<sub>3</sub>, for the direct C-H arylation of (hetero)arenes with aryl iodides.)
- "Programmed Synthesis of Tetraarylthiophenes through Sequential C-H Arylation": S. Yanagisawa, K. Ueda, H. Sekizawa, K. Itami, J. Am. Chem. Soc. 2009, 131, 14622-14623. (Three years after we reported the above-mentioned initial foray into this

- area, we developed a general protocol for the programmed synthesis of tetraarylthiophenes through regioselective sequential C–H bond arylations.)
- "Regioselective Unsymmetrical Tetraallylation of C<sub>60</sub> through Palladium Catalysis": M. Nambo, A. Wakamiya, S. Yamaguchi, K. Itami, J. Am. Chem. Soc. 2009, 131, 15112–15113. (This is one of my favorite papers describing a Pd-catalyzed tetraallylation of C<sub>60</sub> that selectively occurs with an unsymmetrical addition pattern.)
- 5. "Selective Synthesis of [12]Cycloparaphenylene": H. Takaba, H. Omachi, Y. Yamamoto, J. Bouffard, K. Itami, *Angew. Chem.* 2009, 121, 6228–6232; *Angew. Chem. Int. Ed.* 2009, 48, 6112–6116. (This is our first paper in the project aiming at a bottom-up organic synthesis of structurally uniform carbon nanotubes. In this paper we established a modular synthesis of cycloparaphenylene, a short segment of armchair carbon nanotubes.)

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