



Jérôme Waser

Date of birth: October 18, 1977

Position: Associate Professor, École Polytechnique Fédérale de Lausanne (EPFL)

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Education: 2001 Diploma in Chemistry, ETH Zurich

2006 PhD with Prof. Erick M. Carreira, ETH Zurich

2006-2007 postdoc with Prof. Barry M. Trost, Stanford University

Awards: 2009 Thieme Journal Award; 2011 A. F. Schläfli Award, Swiss Academy of Sciences; 2012 Silver

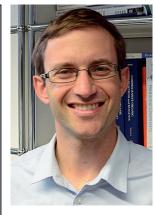
Medal, European Young Chemist Award; 2013 ERC Starting Grant; 2014 Werner Prize, Swiss

Chemical Society

Current research Development and application of synthetic methods, involving in particular electrophilic

interests: alkynylation, hypervalent iodine reagents and strained rings.

Hobbies: Mountain running, badminton, reading



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My biggest motivation is to see young students become independent researchers.

My best investment was to wait one year for a good PhD student to join my group.

The downside of my job is to sound like a broken record (an expression of my postdoc advisor, Prof. Barry M. Trost, meaning always repeating the same things each time a new group member arrives).

In retrospect I would never again believe that interpersonal relations are inconsequential for research.

My favorite songs/pieces of music are the Valses by Chopin, Clair de Lune by Debussy, and Yesterday by the Beatles.

My favorite quote is "Knowing is not enough; we must apply. Willing is not enough; we must do" (Johann Wolfgang von Goethe).

What I look for first in a publication is the proposed reaction mechanism.

My favorite place on earth is next to the Cabane du Grand Mountet in Val d'Anniviers (a mountain hut in the Swiss Alps surrounded by mountains and glaciers).

My most exciting discovery to date has been the use of cyclic "hyperviolent" reagents for the umpolung of alkynes.

My worst nightmare is that results from our research cannot be reproduced.

The best advice I have ever been given is don't talk yourself out of an experiment (Erick M. Carreira).

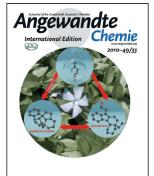
My 5 top papers:

- "Direct Alkynylation of Indole and Pyrrole Heterocycles": J. P. Brand, J. Charpentier, J. Waser, Angew. Chem. Int. Ed. 2009, 48, 9346; Angew. Chem. 2009, 121, 9510. (Ethynylbenziodoxolone (EBX) reagents together with a gold catalyst for the alkynylation of heterocycles.)
- "Catalytic Selective Cyclizations of Aminocyclopropanes: Formal Synthesis of Aspidospermidine and Total Synthesis of Goniomitine": F. De Simone, J. Gertsch, J. Waser, Angew. Chem. Int. Ed. 2010, 49, 5767; Angew. Chem. 2010, 122, 5903. (Strained aminocyclopropanes are used in the synthesis of two different classes of alkaloids.)
- "Dynamic Kinetic Asymmetric [3+2] Annulation Reactions of Aminocyclopropanes": F. de Nanteuil, E. Serrano, D. Perrotta, J. Waser, J. Am. Chem. Soc.

- **2014**, *136*, 6239. (Nitrogen-substituted strained rings can also be used in enantioselective intermolecular annulation reactions.)
- "Fast and Highly Chemoselective Alkynylation of Thiols with Hypervalent Iodine Reagents Enabled through a Low Energy Barrier Concerted Mechanism": R. Frei, M. D. Wodrich, D. P. Hari, P. A. Borin, C. Chauvier, J. Waser, J. Am. Chem. Soc. 2014, 136, 16563. (A fascinating mechanism and high potential for applications in chemical biology.)
- "Platinum-Catalyzed Domino Reaction with Benziodoxole Reagents for Accessing Benzene-Alkynylated Indoles": Y. Li, J. Waser, Angew. Chem. Int. Ed. 2015, 54, 5438; Angew. Chem. 2015, 127, 5528. (An alternative synthetic method complementary to C-H alkynylation.)

International Edition: DOI: 10.1002/anie.201600180 German Edition: DOI: 10.1002/ange.201600180 The author presented on this page has recently published **15 articles** since 2005 in Angewandte Chemie, including:

"Room-Temperature Decarboxylative Alkynylation of Carboxylic Acids Using Photoredox Catalysis and EBX Reagents": F. Le Vaillant, T. Courant, J. Waser, Angew. Chem. Int. Ed. 2015, 54, 11200; Angew. Chem. 2015, 127, 11352.



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The work of J. Waser has been featured on the inside cover of Angewandte Chemie:

"Catalytic Selective Cyclizations of Aminocyclopropanes: Formal Synthesis of Aspidospermidine and Total Synthesis of Goniomitine": F. De Simone, J. Gertsch, J. Waser, Angew. Chem. Int. Ed. 2010, 49, 5767; Angew. Chem. 2010, 122, 5903.