



M. G. Organ

Michael G. Organ

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Education:	1986 Undergraduate degree, University of Guelph 1992 PhD supervised by Professor Gordon L. Lange, University of Guelph 1992–1994 Postdoctoral position with Professor Barry M. Trost, Stanford University
Awards:	2002 E.T.S. Walton Visitor Award; 2007 International Xerox Foundation Fellow; 2007 Merck–Frosst Canadian Academic Development Program Fellow; 2010 Japan Society for the Promotion of Science (JSPS) Fellow; 2011 Agilent Labs Fellow
Current research interests:	Catalysis, natural products, medicinal chemistry, flow chemistry, chemical engineering, sustainability
Hobbies:	Going to my children's hockey games

The author presented on this page has recently published his **10th article** in *Angewandte Chemie* in the last 10 years:

"2,2'-Azobis(2-methylpropanitrile)-Mediated Alkyne Hydrostannylation: Reaction Mechanism": M. S. Oderinde, R. D. J. Froese, M. G. Organ, *Angew. Chem.* **2013**, *125*, 11544–11548; *Angew. Chem. Int. Ed.* **2013**, *52*, 11334–11338.

My favorite piece of research is ... the hunt for the polio vaccine.

If I were not a scientist, I would be ... a farmer.

The best advice I have ever been given is ... "do the best you can at everything you do".

My top three films of all time are ... *American Beauty*, *The Godfather 1* and *2*, and *Back to School*.

My favorite piece of music is ... Beethoven's *Ode to Joy*.

My favorite saying is ... "your first loss is usually your best loss".

What I look for first in a publication is ... the advance.

The most important thing I learned from my parents is ... to be honest and self-reliant.

I chose chemistry as a career because ... it came naturally, was most interesting, and was fun.

My most exciting discovery to date has been ... the Negishi reaction mechanism.

My 5 top papers:

1. "Photoadditions and Dialkylcuprate Additions to *tert*-Butyl-2,6-dimethyl-1,3-dioxin-4-one and Related Heterocycles. Experimental, *Ab Initio* Theoretical, and X-ray Structure Studies of Facial Selectivity and Enone Pyramidalization": M. G. Organ, R. D. J. Froese, J. D. Goddard, N. J. Taylor, G. L. Lange, *J. Am. Chem. Soc.* **1994**, *116*, 3312–3323. (The first article to come from a research idea that I proposed and was allowed to pursue by my PhD mentor.)
2. "A Microreactor for Microwave-Assisted Capillary (Continuous Flow) Organic Synthesis": E. Comer, M. G. Organ, *J. Am. Chem. Soc.* **2005**, *127*, 8160–8167. (This work has subsequently led to commercialized technology for all scientists to use.)
3. "A User-Friendly, All-Purpose Pd–NHC (NHC = N-Heterocyclic Carbene) Precatalyst for the Negishi Reaction: A Step Towards an Universal Cross-coupling Catalyst": M. G. Organ, S. Avola, I. Dubovik, N. Hadei, E. A. B. Kantchev, C. J. O'Brien, C. A. Valente, *Chem. Eur. J.* **2006**, *12*, 4749–4755. (Introduced our PEPPSI family of Pd–NHC complexes, which was licensed by Sigma-Aldrich.)
4. "Pd-PEPPSI-*Ipent*: An Active, Sterically Demanding Cross-Coupling Catalyst and Its Application in the Synthesis of Tetra-*Ortho*-Substituted Biaryls": M. G. Organ, S. Çalimsiz, M. Sayah, K. H. Hoi, A. J. Lough, *Angew. Chem.* **2009**, *121*, 2419–2423; *Angew. Chem. Int. Ed.* **2009**, *48*, 2383–2387. (Moved NHC ligands beyond the steric limitation of the ubiquitous *N*-phenylimidazolium-based system.)
5. "Higher-Order Zincates as Transmetalators in Alkyl–Alkyl Negishi Cross-Coupling": L. C. McCann, H. N. Hunter, J. A. C. Clyburne, M. G. Organ, *Angew. Chem.* **2012**, *124*, 7130–7133; *Angew. Chem. Int. Ed.* **2012**, *51*, 7024–7027. (Laid out the complete story of the complex mechanism of the Negishi reaction.)

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