

## Douglas W. Stephan

<b>Date of birth:</b>	July 27, 1953
<b>Nationality:</b>	Canadian
<b>Position:</b>	Professor and Canada Research Chair, University of Toronto
<b>Education:</b>	1972–1976 B.Sc. McMaster University, Hamilton (Canada) 1976–1980 PhD with N.C. Payne, “Studies in Asymmetric Synthesis”, University of Western Ontario 1980–1982 NATO Postdoctoral Fellow with R. H. Holm, Harvard University
<b>Awards:</b>	2005 LeSueur Memorial Award, 2004 Ciapetta Lectureship Award, 2003 Synergy Award, 2003 University of Windsor Award for Scholarship, 2002 Humboldt Foundation Research Award, 2001 Alcan Award
<b>Current research interests:</b>	Synthesis and applications of transition-metal and/or main-group compounds; early-transition-metal phosphinimide-based catalysts for the polymerization of ethylene; new transition metal catalyst systems for applications in polymer hydrogenation and metathesis; uncovered the concept of “frustrated Lewis pairs” (FLPs) and exploited this idea to develop metal-free approaches to activate a variety of small molecules and hydrogenation catalysis
<b>Hobbies:</b>	Running, golf, and cottage life



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The author presented on this page has recently published his **10th article** since 2000 in *Angewandte Chemie*:  
“Hydrogen and Amine Activation by a Frustrated Lewis Pair of a Bulky N-Heterocyclic Carbene and  $B(C_6F_5)_3$ ”, P. A. Chase, D. W. Stephan, *Angew. Chem.* **2008**, 120, 7543–7547; *Angew. Chem. Int. Ed.* **2008**, 47, 7433–7437.

**I chose chemistry as a career because...** I like pragmatic science.

**A good work day begins with...** an early morning 10K run.

**The secret of being a successful scientist is...** fostering the synergy among creativity, curiosity, and work ethic.

**The part of my job which I enjoy the most is...** working with younger and/or smarter people.

**I would have liked to have discovered...** Wilkinson’s Catalyst.

**The best advice I have ever been given is...** “hard work and determination can open any door” ... eventually.

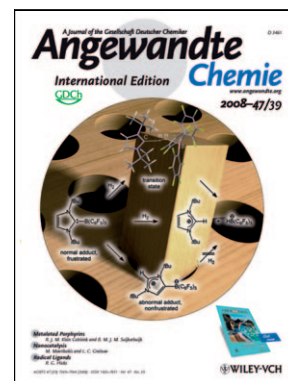
**The most exciting thing about research is...** those rare eureka moments when one gains some new understanding.

**My most exciting discovery to date has been...** metal-free  $H_2$  activation and hydrogenation catalysis.

**In a nutshell, my research involves...** reactivity.

### My five top papers:

1. “Reversible Metal-Free Activation of Hydrogen”: G. C. Welch, R. San Juan, J. D. Masuda, D. W. Stephan, *Science* **2006**, 314, 1124–1126.
2. “Metal-Free Catalytic Hydrogenation”, P. Chase, T. Jurca, D. W. Stephan, *Angew. Chem.* **2007**, 119, 8196–8199; *Angew. Chem. Int. Ed.* **2007**, 46, 8050–8053.
3. “Facile Heterolytic Cleavage of Dihydrogen by Phosphines and Boranes”: G. C. Welch, D. W. Stephan, *J. Am. Chem. Soc.* **2007**, 129, 1880–1881.
4. “The Road to Early Transition Metal Phosphinimide Olefin Polymerization Catalysts”: D. W. Stephan, *Organometallics* **2005**, 24, 2548–2560.
5. “Zirconium-Phosphorus Chemistry: Strategies in Synthesis, Reactivity, Catalysis and Utility”: D. W. Stephan, *Angew. Chem.* **2000**, 112, 322–338; *Angew. Chem. Int. Ed.* **2000**, 39, 314–329.



D. W. Stephan has featured on the cover of *Angewandte Chemie*:  
P. A. Chase, D. W. Stephan, *Angew. Chem.* **2008**, 120, 7479; *Angew. Chem. Int. Ed.* **2008**, 47, 7369.

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