Author Profile



M. R. Gagné

The author presented on this page has recently published his 10th article since 2000 in Angewandte Chemie: "Terminating Platinum-Initiated Cation-Olefin Reactions with Simple Alkenes": J. G. Sokol, C. S. Korapala, P. S. White, J. J. Becker, M. R. Gagné, Angew. Chem. 2011, 123, 5776–5779; Angew. Chem. Int. Ed. 2011, 50, 5658–5661.

Michel R. Gagné

Date of birth: April 18, 1965

E-mail:

Position: Professor of Chemistry, University of North Carolina at Chapel Hill (USA)

mgagne@unc.edu

Homepage:http://www.chem.unc.edu/people/faculty/gagne/index.htmlEducation:1987 B.Sc., First Class Honors, University of Alberta (Canada)1991 PhD with Prof. Tobin J. Marks, Northwestern University (USA)

1991–1992 Postdoctoral fellow with Prof. Robert H. Grubbs, Caltech, Pasadena (USA) 1992–1995 Postdoctoral fellow with Prof. David A. Evans, Harvard University, Cambridge

(USA)

Awards: 1992 NSERC of Canada Postdoctoral Fellowship; 2000 Union Carbide Innovation Recognition

Faculty Award; 2000 Camille Dreyfus Teacher-Scholar Award; 2011 University of Alberta

Alumni Honor Award

Current research Our research falls into two main categories, catalysis and molecular recognition. Our catalysis **interests:** efforts are divided between the organometallic chemistry of carbohydrates, with a focus on

catalytic functionalization of sugars towards long-term problems in biomass conversion, and electrophilic metal catalysts for the activation of alkenes and allenes for cascade reactions that mimic terpene biosynthesis. These efforts span the inorganic and organic subdisciplines and are contributed to by co-workers from both areas. Our molecular recognition efforts seek to develop methods for the discovery of receptors (and also catalysts) from dynamic libraries of

potential receptors.

Hobbies: I would dearly love to have more time to work on old sports cars.

If I won the lottery, I would ... be able to finally stop writing grants!

n my opinion, the word "scientist" means ... explorer.

My secret/not-so-secret passion is ... to have the time and skill to fully restore a 1965 Porsche 356SC (Irish Green of course) and drive it across the country.

My worst nightmare is ... a phone call that one of my students has been injured in a lab accident. It hasn't yet happened, but I still live in fear of that call.

My biggest motivation is ... the satisfaction I get from exploring chemistry with my students and seeing them rise to the level where they take over and drive the projects as independent scientists.

Guaranteed to make me laugh is ... any advice that I give to a student or postdoc that starts with, "this should be really easy...". I should know better by now...

My 5 top papers:

- "Mechanistic Surprises in the Gold(I)-Catalyzed Intramolecular Hydroarylation of Allenes": D. Weber, M. A. Tarselli, M. R. Gagné, Angew. Chem. 2009, 121, 5843-5846; Angew. Chem. Int. Ed. 2009, 48, 5733-5736. (This publication was a watershed event for our work in Au-catalysis.)
- "Asymmetric Oxidative Cation/Olefin Cyclization of Polyenes: Evidence for Reversible Cascade Cyclization": C. A. Mullen, A. N. Campbell, M. R. Gagné, Angew. Chem. 2008, 120, 6100-6103; Angew. Chem. Int. Ed. 2008, 47, 6011-6014. (We have been working to develop catalysts for cation/olefin cyclization reactions for a number of years and this publication reports our first success at asymmetrically catalyzing terpene cyclase-like transformations.)
- "Persistent N-Chirality as the Only Source of Asymmetry in Non-Racemic N₂PdCl₂ Complexes": K. A. Pelz, P. S. White, M. R. Gagné, Organometallics 2004, 23, 3210-3217. (I've always been rather pleased with

- this not-so-well-cited paper, as it is representative of our early efforts to utilize coordination chemistry to create metastable chirality.)
- 4. "Effect of Chiral Cavities Associated with Molecularly Imprinted Platinum Centers on the Selectivity of Ligand-Exchange Reactions at Platinum": N. Brunkan, M. R. Gagné, J. Am. Chem. Soc. 2000, 122, 6217–6225. (This is one of my favorite papers as it represents the culmination of five years of effort at combining molecular recognition and catalysis in the context of molecularly imprinted catalysts.)
- "Organolanthanide-Catalyzed Hydroamination. A
 Kinetic, Mechanistic, and Diastereoselectivity Study
 of the Cyclization of N-Unprotected Amino Olefins":
 M. R. Gagné, C. L. Stern, T. J. Marks, J. Am. Chem.
 Soc. 1992, 114, 275-294. (This paper comprised the
 majority of my PhD dissertation and I was incredibly
 fortunate to work on a project at the intersection of
 organometallic chemistry and organic synthesis.)

DOI: 10.1002/anie.201105336



11286