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### **Departmental and Institutional Affiliations**

Department of Chemistry  
University of California, Berkeley

### **Disciplinary Field(s)**

Organic Chemistry  
Organometallic Chemistry  
Chemical Biology

### **Educational Background**

#### *Undergraduate Education:*

Macalester College, St. Paul, MN.  
Bachelor of Arts Degree (Chemistry Major), May 1995 (Advisor Prof. Rebecca C. Hoye)

#### *Graduate Education:*

Princeton University, Princeton, NJ  
Master of Science Degree (Organic Chemistry), May 1997  
Ph. D. in Organic Chemistry, May 2001 (Advisor Prof. Martin F. Semmelhack)

#### *Postdoctoral Institution:*

California Institute of Technology, Pasadena, CA  
UNCF•Pfizer Postdoctoral Fellow in Organic Synthesis, 2001-2004 (Advisor Prof. Brian M. Stoltz)

### **Professional Positions Held**

University of California, Berkeley  
Assistant Professor, Department of Chemistry (2004 – Present)

### **Honors and Awards**

Camille Dreyfus Teacher-Scholar Award (2009)  
Alfred P. Sloan Foundation Fellow (2009)  
American Cancer Society Research Scholar (2009-2012)  
Eli Lilly Grantee Award (2009-2010)  
National Academies of Science Kavli Fellow (2008)  
University of California Hellman Faculty Award (2008-2009)  
AstraZeneca Excellence in Chemistry Award (2008)  
Dupont Young Professor Award (2008-2010)  
Johnson and Johnson Focused Giving Award (2008-2010)  
GlaxoSmithKline Scholar Award (2008)  
Amgen Young Investigator Award (2007)  
National Science Foundation CAREER Award (2007-2011)  
Abbott Young Investigator Award (2007-2008)  
Eli Lilly Young Investigator Grantee (2004)

## Publications

### Independent Publications (Berkeley) (Most recent first)

1. Simmons, E. M.; Hardin, A. R.; Guo, X.; Sarpong, R. Formal Total Synthesis of ( $\pm$ )-Cortistatin A. (Submitted).
2. West, S. P.; Bisai, A.; Lim, A. D.; Narayan, R. Sarpong, R. Unified Strategy to ‘Miscellaneous’ *Lycopodium* Alkaloids: Total Synthesis of Lyconadin A. (Submitted).
3. Jeffrey, J. L.; Sarpong, R. An Approach to the Synthesis of Dimeric Resveratrol Natural Products via a Palladium-Catalyzed Domino Reaction. *Tetrahedron Lett.* **2009**, *50*, 1969-1972.
4. Miller, L. C.; Ndungu, J. M.; Sarpong, R. Parallel Kinetic Resolution Approach to the Cyathane and Cyanthiwigin Diterpenes Using a Cyclopropanation/Cope Rearrangement. *Angew. Chem. Int. Ed.* **2009**, *48*, (Early View).
5. Simmons, E. M.; Hardin, A. R.; Guo, X.; Sarpong, R. Rapid Construction of the Cortistatin Pentacyclic Core. *Angew. Chem. Int. Ed.* **2008**, *47*, 6650-6653.
6. Marcus, A. P.; Lee, A. S.; Davis, R. L.; Tantillo, D. J.; Sarpong, R. Pronounced Steric Effects of Substituents in the Nazarov Cyclization of Aryl Dienyl Ketones. *Angew. Chem. Int. Ed.* **2008**, *47*, 6379-6383.
7. Ly, T.; Liu, Z.; Pujanauski, B. G.; Sarpong, R.; Julian, R. R. Surveying Ubiquitin Structure by Noncovalent Attachment of Distance Constrained Bis(crown) Ethers. *Anal. Chem.* **2008**, *80*, 5059-5064.
8. Bisai, A.; West, S. P.; Sarpong, R. Unified Strategy for the Synthesis of the “Miscellaneous” *Lycopodium* Alkaloids: Total Synthesis of ( $\pm$ )-Lyconadin A. *J. Am. Chem. Soc.* **2008**, *130*, 7222-7223.
9. Bunnelle, E. M.; Smith, C. R.; Lee, S. K.; Singaram, W. S.; Rhodes, A. J.; Sarpong, R. “Pt-catalyzed cyclization/migration of propargylic alcohols for the synthesis of 3(2H)-furanones, pyrrolones, indolizines and indolizinones. *Tetrahedron* **2008**, *64*, 7008-7014.
10. Hardin, A. R.; Sarpong, R. Electronic Effects in the Pt-Catalyzed Cycloisomerization of Propargylic Esters: Synthesis of 2,3-Disubstituted Indolizines as a Mechanistic Probe. *Org. Lett.* **2007**, *9*, 4547.
11. Simmons, E. M.; Yen, J. R.; Sarpong, R. Reconciling Icetexane Biosynthetic Connections with Their Chemical Synthesis: Total Synthesis of ( $\pm$ )-5,6-Dihydro-6 $\alpha$ -hydroxysalviasperanol, ( $\pm$ )-Brussonol and ( $\pm$ )-Abrotanone. *Org. Lett.* **2007**, *9*, 2705-2708.
12. Motamed, M.; Bunnelle, E. M.; Singaram, S. W.; Sarpong, R. Pt(II)-Catalyzed Synthesis of 1,2-Dihydropyridines from Aziridinyl Propargylic Esters. *Org. Lett.* **2007**, *9*, 2167-2170.
13. Smith, C. R.; Bunnelle, E. M.; Rhodes, A. J.; Sarpong, R. Pt-Catalyzed Cyclization/1,2-Migration for the Synthesis of Indolizines, Pyrrolones and Indolizinones. *Org. Lett.* **2007**, *9*, 1169-1171.
14. Yao, T.; Hong, A.; Sarpong, R. Synthesis of Multifunctionalized Furans from Diazoallenes: Rearrangement of 6-Methylcyclo[3.1.0]hexanes, *Synthesis* **2006**, 3605-3610.
15. Simmons, E. M.; Sarpong, R. Ga(III)-Catalyzed Cycloisomerization Strategy for the Synthesis of Icetexane Diterpenoids: Total Synthesis of ( $\pm$ )-Salviasperanol. *Org. Lett.* **2006**, *8*, 2883-2886.
16. Pujanauski, B. G.; Bhanu Prasad, B. A.; Sarpong, R. Pt-Catalyzed Tandem Epoxide Fragmentation/Pentannulation of Propargylic Esters. *J. Am. Chem. Soc.* **2006**, *128*, 6786-6787.
17. Ro, D.; Paradise, E. M.; Ouellet, M.; Fisher, K. J.; Newman, K. L.; Ndungu, J. M.; Ho, K. A.; Eachus, R. A.; Ham, T. S.; Kirby, J.; Chang, M. C. Y.; Withers, S. T.; Shiba, Y.; Sarpong, R.; Keasling, J. D. Production of the Antimalarial Drug Precursor Artemisinic Acid in Engineered Yeast. *Nature* **2006**, *440*, 940-943.
18. Ndungu, J. M.; Larson, K. K.; Sarpong, R. The Development of an Anomalous Heck Reaction: Skeletal Rearrangement of Divinyl and Enyne Carbinols. *Org. Lett.* **2005**, *7*, 5845-5848.
19. Bhanu Prasad, B. A.; Yoshimoto, F. K.; Sarpong, R. Pt-Catalyzed Pentannulations from In Situ Generated Metallo-Carbenoids Utilizing Propargylic Esters. *J. Am. Chem. Soc.* **2005**, *127*, 12468-12469.

*Prior Publications*

20. Semmelhack, M. F.; Sarpong, R. Kinetic Analysis of a Reactive Model Ene-diyne. *J. Phys. Org. Chem.* **2004**, *17*, 807-813.
21. Su, J. T.; Sarpong, R.; Stoltz, B. M.; Goddard, III. W. C. Substituent Effects and Nearly Degenerate Transition States: Rational Design of Substrates for the Tandem Wolff/Cope Reaction. *J. Am. Chem. Soc.* **2004**, *126*, 24-25.
22. Sarpong, R.; Su, J. T.; Stoltz, B. M. The Development of a Facile Tandem Wolff/Cope Rearrangement for the Synthesis of Fused Carbocyclic Skeletons. *J. Am. Chem. Soc.* **2003**, *125*, 13624-13625.
23. Garg, N. K.; Sarpong, R.; Stoltz, B. M. The First Total Synthesis of Dragmacidin D. *J. Am. Chem. Soc.* **2002**, *124*, 13179-13184.
24. Semmelhack, M. F.; Jaskowski, M. E.; Sarpong, R.; Ho, D. M. A Simple Synthesis and Evaluation of the Bicyclo[8.3.0] Ene-diyne Framework. *Tetrahedron Lett.* **2002**, *43*, 4947-4950.
25. Semmelhack, M. F.; Sarpong, R.; Bergman, J.; Ho, D. M. Evaluation of Alkene Isomerization as a Trigger for Ene-diyne Activation. *Tetrahedron Lett.* **2002**, *43*, 541-544.