



COLLEGE OF WILLIAM AND MARY
Curriculum Vitae

ROBERT J. HINKLE

09 November 2005

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POSITION:
Associate Professor, August 2002 to present
Assistant Professor, August 1996-August 2002

DEPARTMENT: Chemistry

EDUCATION

Ph. D. in Organic Chemistry: University of Utah, 1994 – Peter J. Stang, Distinguished Professor.

Thesis Title: *Conjugated Enynes and Dienes: Platinum Model Studies of Proposed Catalytic Intermediates and New Synthetic Methods.*

A. B.: Bowdoin College, 1986. *Cum Laude, Summa Cum Laude* in Chemistry.

ACADEMIC POSITIONS

Visiting Scholar, Indiana University under invitation of Professor P. Andrew Evans; July 2002 to December 2002.

Associate Professor of Chemistry, College of William and Mary; August 2002 to present.

Assistant Professor of Chemistry, College of William and Mary; August 1996 to August 2002.

Research Scientist, University of California, Irvine; 12 January 1996 to 15 July 1996.

National Institutes of Health Postdoctoral Fellow, University of California, Irvine; January 1994 to January 1996. Larry E. Overman as advisor.

HONORS, PRIZES AND AWARDS

Henry Dreyfus Teacher-Scholar, **\$60,000**, October 2002 to September 2007.
 Honorary Member of Eta Sigma Pi Honor Society.
 Honorary Member of Phi Eta Sigma Honor Society.
 Phi Kappa Phi, The University of Utah; April 1993.
 Stauffer Scholarship for Academic Excellence, University of Utah; April 1988, \$250.

COURSES TAUGHT

Chemistry 209; Organic Chemistry II for Concentrators.	F, '96, '97, '98, '99, '00, '01
Chemistry 457; Organic Synthesis (Senior Level course)	S, '00—'02 and '03--present
Chemistry 657; Organic Synthesis (Master's Level course).	S, '98--'01 and '03--present
Chemistry 252; Organic Laboratory I.	S, '97, '98, '99, '00
Chemistry 252; Organic Laboratory I (IN CHARGE).	S, '01, '02
Chemistry 291; Undergraduate Research	F, '96 to present
Chemistry 353; Organic Laboratory II.	F, '97--'01 and '03--present
Chemistry 353; Organic Laboratory II(IN CHARGE).	F, '03
Chemistry 409; Senior Research.	F, '97 to present
Chemistry 495/6; Honors Research.	F, '96 to present

FELLOWSHIPS AND GRANTS

Contributions to Other William & Mary Grant Proposals

- 1) NSF "Purchase of an X-ray Diffractometer," Robert D. Pike as lead author of this proposal submitted 25 June 2004.
- 2) Howard Hughes Medical Institute grant (Margaret Saha, P.I.), 1998; **Awarded \$88,353** (of ~ \$1.5 million total) was to develop microscale and computational experiments for the Organic Chemistry laboratories. Joint project with former colleague, Kathleen M. Morgan (chemistry).
- 3) Pedagogical Grant Proposal, University Fellowship Funds of William and Mary, "Modernization of Organic Chemistry Laboratory." Kathleen Morgan with Robert J. Hinkle and Christopher J. Abelt as collaborators. Each awarded **\$800.00** stipends for development of laboratory exercises.

Individual Grant Proposals While at William & Mary

- 1) Research Corporation, "Bi(III)-Catalyzed Tandem Addition and Silyl-Prins Cyclization Reactions," Submitted 15 November 2005 for \$35,127 for two years.

- 2) National Institutes of Health, AREA, "Bi(III)-Initiated Chemistry: Stereoselectivity Studies & Silyl-Prins Reactions," Submitted 25 September 2005 for \$150,000 for a three year period.
- 3) Petroleum Research Fund of the American Chemical Society, "Bi(III) Complexes: Inexpensive, Environmentally-Friendly Achiral and Chiral Bi(III) Reagents for Asymmetric Allylation and Mukaiyama Aldol Reactions." Submitted 15 September 2005 for \$50,000 for three year period.
- 4) National Institutes of Health, AREA: Developing Bi(III)-Initiated Oxocarbenium Reactions," Submitted 25 January 2004 for \$150,000. Not funded.
- 5) National Science Foundation, CAREER Award, "Alkenyl(aryl)iodanes: Investigations of Reactivity and New Syntheses." Submitted on 7/22/99 and **Awarded \$294,810** for period of 01 March, 2000 to 29 February, 2004.
- 6) Coatings Technology, Ltd, "Understanding the Role of Diffusion and pH on a Color Indicator." Robert J. Hinkle and David E. Kranbuehl as co-investigators. **Awarded \$118,603** for period of September 1999 to August 2003.
- 7) Jeffress Memorial Trust, "Expanding the Scope of Alkenyl(aryl)iodonium Substitutions," Requested \$15,873. *Renewal* submitted 01 March, 1999. Awarded \$15,000. **Award including initial grant (6 below) totals \$29,952.**
- 8) Research Corporation, "Solvolysis of Electron-Deficient Alkenyl(aryl)iodonium Salts via Vinyl Cations," Requested \$32,319. Submitted 14 November 1997. **Awarded \$32,319**, June 1998.
- 9) William and Mary Summer Grant; Summer 1998, "Synthesis and Solvolysis of Electron-deficient Alkenyl(aryl)iodonium Triflates." **Awarded \$5000**. I declined award because of acceptance of **4** above.
- 10) Jeffress Memorial Trust, "Expanding the Scope of Alkenyl(aryl)iodonium Substitutions," Requested \$15,873. Submitted 30 August 1997. **Awarded \$14,952.**
- 11) Research Corporation, "The Synthesis and Solvolysis of Electron-Deficient Alkenyl(aryl)iodonium Salts." Requested \$29,658. Submitted 10/20/96. Not funded.
- 12) Jeffress Memorial Trust, "The Influence of Substituents on Iodonium Ylide Stability and Reactivity," Requested \$18,373. Submitted 2/28/97. Not funded.
- 13) Petroleum Research Fund of the ACS, "Investigations of Titanium Aryloxy Complexes as Carbocyclization Pre-Catalysts." Requested \$20,000. Submitted 12/7/96. **Awarded \$20,000** for period of 01 September 1997 to 31 August 1999. No cost extensions granted through 8/02.

- 14) William and Mary Summer Grant; Summer 1997, "Electrophilic Modification of Coordinated Ligands." **Awarded \$5250.**
- 15) NIH Postdoctoral National Research Service Award recipient; September 1993. **Awarded \$46,200** for stipends and institutional allowance.
- 16) Stauffer–Rozelle Fellowship, University of Utah; September 1987.
- 17) Surdna Foundation Fellowship, Bowdoin College; September 1985 to May 1986.

RESEARCH

Publications in Refereed Journals (W & M undergraduate names in boldface).

- 1) Robert J. Hinkle, Lian, Y.; **Litvinas, N. D.; Jenkins, A. T.; Burnette, D. C.** "BiBr₃ Initiated Cyclization-Addition Reactions: Effect of Nucleophile and Total Synthesis of (+)-(S,S)-(cis-6-methyltetrahydropyran-2-yl)acetic Acid and its *trans*-Diastereomer," *Tetrahedron* **2005**, *61*, 11679-11685.
- 2) Evans, P. A.; Cui, J.; Gharpure, S. J; Hinkle, R. J. "Stereoselective Construction of Cyclic Ethers using a Tandem Two-Component Etherification: Elucidation of the Role of Bismuth Tribromide," *J. Am. Chem. Soc.* **2003**, *125*, 11456-11457.
- 3) Hinkle, R. J. "**Mikowski, A. M.** "Kinetics of Stereoisomeric 2-Methyl-1-butenyl-(aryl)iodonium triflates," Included in a special issue of *ARKIVOC* **2003**, *vi*, 201-212, published 25 July 2003: <http://www.arkat-usa.org/ark/journal/2003/Varvoglis/AV-745A/745A.pdf>.
- 4) Tykwinski, R. R.[†]; Kamada, K.[‡]; Bykowski, D.[†]; Hegmann, F. A.[†]; Hinkle, R. J. "Nonlinear Optical Properties of Thienyl and Bithienyl Iodonium Salts as Measured by the Z-scan Technique," submitted to *J. Opt. A: Pure Appl. Opt.* **2002**, *4*, S202-206. .
- 5) Bykowski, D.[†]; McDonald, R.[†]; Hinkle, R. J.; Tykwinski, R. R.[†] "Structural and Electronic Characteristics of Thienyl(aryl)iodonium Triflates," *J. Org. Chem.*, **2002**, *67*, 2798-2804.
- 6) Hinkle, R. J.; McDonald, R.[†], "(Z)-2-Methyl-1-buten-1-yl(aryl)iodonium Triflates Containing Electron-Withdrawing Groups on the Aryl Moiety." *Acta Cryst. C.* **2002**, *C58*, o117-o121.
- 7) **McNeil, A. J.**; Hinkle, R. J.; **Rouse, E. A.; Thomas, Q. A.; Thomas, D. B.** "Vinyl Carbocations: Solution Studies of Alkenyl(aryl)iodonium Triflate Fragmentations," *J. Org. Chem.* **2001**, *66*, 5556-5565.

- 8) Hinkle, R. J.; Leri, A. C.; David, G. A.; Erwin, W. M. "Addition of Benzylzinc Halides to Alkenyl(phenyl)iodonium Triflates: Stereoselective Synthesis of Trisubstituted Alkenes," *Org. Lett.* **2000**, 2, 1521-1523.
- 9) Hinkle, R. J.; McNeil, A. J.; Thomas, Q. A.; Andrews, M. N. "Vinyl Cations in Solution: Kinetics and Products of Alkenyl(aryl)iodonium Salt Fragmentations," *J. Am. Chem. Soc.*, **1999**, 121, 7437-7438.
- 10) Hinkle, R. J.; Thomas, D. B. "Facile Fragmentations of Alkenyl(aryl)iodonium Triflates," *J. Org. Chem.* **1997**, 62, 7534-7535.
- 11) Hinkle, R. J.; Stang, P. J. "Stereospecific Synthesis of Trisubstituted Alkenyl(phenyl)iodonium Salts from Vinylstannanes" *Synthesis* **1994**, 313.
- 12) Hinkle, R. J.; Poulter, G. T.; Stang, P. J. "Palladium(II) and Copper(I) Co-Catalyzed Coupling of Stereodefined Alkenyl(phenyl)iodonium Salts and Unsaturated Tri-*n*-butylstannanes" *J. Am. Chem. Soc.* **1993**, 115, 11626.
- 13) Hinkle, R. J.; Stang, P. J.; Arif, A. M. "Vinylplatinum Carbenes and Nitriles, Platinocyclic Complexes and Heck-Type Coupling Products Formed Via Reaction of (σ -2-propenyl)bis(triphenylphosphine)platinum(II) Triflate with Alkynols, Nitriles, and Acrylate Esters. Molecular Structure of [(PPh₃)₂PtCH₂C(O)OCH₃][OTf]" *Organometallics* **1993**, 12, 3510.
- 14) Zhong, Z.; Hinkle, R. J.; Arif, A. M.; Stang, P. J. "Novel Synthesis of (η^3 -Allyl)platinum(II) Complexes from Enol Triflates and Simple Olefins and Their Regiospecific Deprotonation" *J. Am. Chem. Soc.* **1991**, 113, 6196.
- 15) Hinkle, R. J.; Stang, P. J.; Kowalski, M. H. "Vinylphosphonium Salts: Stereoselective Palladium-Catalyzed Vinylation of Triphenylphosphine with Vinyl Triflates" *J. Org. Chem.* **1990**, 55, 5033.
- 16) Kowalski, M. H.; Hinkle, R. J.; Stang, P. J. "A Simple Highly Stereospecific Preparation of Vinylphosphonium Salts: Palladium-Catalyzed Vinylation of Triphenylphosphine via Vinyl Triflates" *J. Org. Chem.* **1989**, 54, 2783.
- 17) Pike, R. M.; Mayo, D. W.; Butcher, S. S.; Butcher, D. J.; Hinkle, R. J., "Microscale Organic Laboratory IV: A Simple and Rapid Procedure for Carrying Out Wittig Reactions" *J. Chem. Ed.* **1986**, 63, 917.

[†]University of Alberta, Edmonton, Alberta, Canada

Invited Scholarly Papers and Talks:

"Bi(III) Compounds in Sakurai Allylations and Mukaiyama Aldol Reactions: Catalysts or Pre-Catalysts?" Old Dominion University, Norfolk, VA, 11 November 2005.

“Alkenyl(aryl)iodonium Reactivity and Cyclic Ether Syntheses.” Brown University, Providence, RI, 24 October 2003.

“Alkenyl(aryl)iodonium Reactivity and Tetrahydropyran Syntheses.” Bowdoin College, Brunswick, ME, 25 April 2003.

"Alkenyl(aryl)iodonium Salts: Substitution and Fragmentation Reactions in Solution." The University of Delaware, Wilmington, Delaware, 30 August 2000.

“Fragmentations and Substitutions of Alkenyl(aryl)iodonium Triflates.” The University of Alberta, Edmonton Canada, 11 June 1999.

REVIEWS OF BOOKS, SOFTWARE, ETC.:

Proposals Reviewed:

- 1) PRF Type B Proposal, August 2005
- 1) NSF Review Panelist, October 2004
- 2) US Civilian Research and Development Foundation (CRDF), May 2004
- 3) NSF CHE—Organic Synthesis: Methodology and Organometallics, November 2003
- 4) NSF INT.-WESTERN EUROPE PROGRAM, February 2002
- 5) PRF Type B proposal, June 2001
- 6) NSF Major Research Instrumentation (MRI) Program proposal, April 2001
- 7) NSF CHE-Organic Synthesis: Methodology proposal, April 2001

Articles reviewed:

- 1) *Tetrahedron*, August 2005
- 1) *Arkivok*, August 2005
- 1) *J. Org. Chem.*, June 2005
- 2) *Chem. Commun.* April 2005
- 3) *Acc. Chem. Res.* March 2005
- 4) *J. Org. Chem.*, February 2005
- 5) *Arkivok*, Nov. 2004
- 6) *Arkivok*, Aug. 2004
- 7) *Org. Lett.*, Aug. 2004
- 8) *J. Org. Chem.*, Aug. 2004
- 9) *J. Org. Chem.*, Oct. 2002
- 10) *J. Org. Chem.*, Sept. 2002
- 11) *J. Org. Chem.*, Sept. 2002
- 12) *J. Org. Chem.*, June 2002
- 13) *J. Org. Chem.*, January 2002

- 14) *J. Phys. Org. Chem.* November 2001.
- 15) *J. Org. Chem.* November 2001.
- 16) *J. Org. Chem.* October 2001.
- 17) *J. Org. Chem.* June 2001.
- 18) *J. Org. Chem.* November 2000.
- 19) *J. Org. Chem.*, September 2000.
- 20) *J. Org. Chem.*, August 2000
- 21) *J. Org. Chem.*, May 2000.
- 22) *J. Org. Chem.*, July 1999.
- 23) *J. Org. Chem.*, May 1998.
- 24) *J. Am. Chem. Soc.* October 2001
- 25) *J. Am. Chem. Soc.*, July 1999.
- 26) *J. Am. Chem. Soc.*, July 1999.
- 27) *J. Am. Chem. Soc.*, August 1998.
- 28) *J. Am. Chem. Soc.*, July 1998.
- 29) *J. Am. Chem. Soc.*, November 1997
- 30) *J. Am. Chem. Soc.*, October 1997.
- 31) *J. Am. Chem. Soc.*, June 1997.

Unrefereed Publications Not Listed Above (W & M undergraduates in bold):

- 1) **Abstract:** Hinkle, R. J.; **Mattern, M. C.; Sprachman, M. M.; and Litvinas, N. D.**, "Bismuth(III) Initiated Diastereoselective Cyclization-Addition Reactions Toward 2,6-Disubstituted Tetrahydropyrans," Presented at the 56th Southeastern Regional Meeting of the American Chemical Society, Durham, NC, November 10-13, 2004. Abstract 200.
- 2) **Abstract:** Lian, Y.; Hinkle, R. J.; **Mikowski, A. M.; Brochu, M. C.; Knowles, R. R.**, "Isotope Effects and Mechanism(s) of Fragmentation of Alkenyl Iodonium Triflate Salts," Presented at the 56th Southeastern Regional Meeting of the American Chemical Society, Durham, NC, November 10-13, 2004. Abstract 255.
- 3) **Abstract:** Sprachman, M. M.; **Litvinas, N. D., Mattern, M. C.**; Hinkle, R. J.; **Jenkins, A. T.; Burnette, D. Cb**, "Stereoselective Tandem Cyclization-Addition Reactions Using Catalytic BiBr₃," Presented at the 56th Southeastern Regional Meeting of the American Chemical Society, Durham, NC, November 10-13, 2004. Abstract 800.
- 4) **Abstract:** Hinkle, R. J.; Evans, P. A.; Cui, J.; Delouvie, B. D., "Diastereoselective Syntheses of Di – and Trisubstituted Cyclic Ethers via Tandem Cyclization-Addition Reactions," Presented at the 225th American Chemical Society Meeting, New Orleans, LA, March 23-27, 2003. Abstract 666.
- 5) **Abstract:** Litvinas, N. D. Hinkle, R. J. "Trisubstituted Olefin Synthesis by Reaction of Benzylic Zinc Reagents with β,β -Disubstituted Alkenyl(phenyl)iodonium Triflates," Presented at the 225th American Chemical Society Meeting, New Orleans, LA, March 23-27, 2003. Abstract 579.

6) Abstract: Hinkle, R. J.; Mikowski, A. M. "Fragmentation Reactions of Alkenyl(aryl)iodonium Salts" Presented at the 223rd American Chemical Society Meeting, Orlando, FL, April 07-11, 2002. Abstract 332

7) Abstract: Hinkle, R. J.; Rouse, E. A.; McNeil, A. M.; Thomas, Q. A.; Thomas, D. B. "Vinyl Cations from Alkenyl(aryl)iodonium Salts: Are Primary Vinyl Cations involved?" Presented at the 221st American Chemical Society Meeting, San Diego, CA, April 01-05, 2001. Abstract 450

8) Abstract: Hinkle, R. J.; **McNeil, A. M.; Rouse, E. A.** "Vinyl Cations from Alkenyl(aryl)iodonium Salts: Are Primary Vinyl Cations involved?" 221st American Chemical Society Meeting, San Diego, CA, April 19-24, 2000. Abstract 450.

9) Abstract: Hinkle, R. J.; **Rouse, E. A.; McNeil, A. J.** "Fragmentation of Alkenyl(aryl)iodonium Triflates via Vinyl Cations," 220th American Chemical Society Meeting, Washington, DC, August 30, 2000. Abstract 295.

10) Abstract: Hinkle, R. J.; **Leri, A. C.; David, G. A.; Erwin, W. M.** "Addition of Benzylzinc Halides to Alkenyl(phenyl)iodonium Triflates: Stereoselective Synthesis of Trisubstituted Alkenes," 219th American Chemical Society Meeting, Newsletter and Abstracts. Abstract 535.

11) Abstract: Hinkle, R. J.; **Aubry, Q. D.; McNeil, A. J.** "Synthesis and Decomposition of Alkenyl(aryl)iodonium Triflates via Vinyl Cations." 216th American Chemical Society Meeting, Newsletter and Abstracts. Abstract 640.

Research Reports for Grants.

1) Henry Dreyfus Teacher-Scholar Award, 2nd year report. Submitted 05 December 2004.

2) Investigations of Titanium Aryloxy Complexes as Carbocyclization Pre-Catalysts. Petroleum Research Fund (PRF) of the American Chemical Society. Submitted 28 September 2002.

3) Research Corporation, "Solvolysis of Electron-Deficient Alkenyl(aryl)iodonium Salts via Vinyl Cations." Submitted June 2002.

3) Coatings Technology, Ltd, "Understanding the Role of Diffusion and pH on a Color Indicator." Submitted September 2002.

4) Jeffress Memorial Trust, "Expanding the Scope of Alkenyl(aryl)iodonium Substitutions." Submitted June 2002.

5) Investigations of Titanium Aryloxy Complexes as Carbocyclization Pre-Catalysts. Petroleum Research Fund (PRF) of the American Chemical Society. Submitted 28 September 2001.

- 6) Coatings Technology, Ltd, "Understanding the Role of Diffusion and pH on a Color Indicator." Submitted March 2002.
- 7) Coatings Technology, Ltd, "Understanding the Role of Diffusion and pH on a Color Indicator." Submitted February 2002.
- 8) Coatings Technology, Ltd, "Understanding the Role of Diffusion and pH on a Color Indicator." Submitted September 2001
- 9) Research Corporation, "Solvolysis of Electron-Deficient Alkenyl(aryl)iodonium Salts via Vinyl Cations." Submitted 28 June 2002.
- 10) Jeffress Memorial Trust, "Expanding the Scope of Alkenyl(aryl)iodonium Substitutions." Submitted 28 June 2001.
- 11) Coatings Technology, Ltd, "Understanding the Role of Diffusion and pH on a Color Indicator." Submitted May 2001
- 12) NSF CAREER Award, "Alkenyl(aryl)iodanes: Investigations of Reactivity and New Syntheses," Submitted 01 May 2001.
- 13) Coatings Technology, Ltd, "Understanding the Role of Diffusion and pH on a Color Indicator." Submitted February 2001.
- 14) Coatings Technology, Ltd, "Understanding the Role of Diffusion and pH on a Color Indicator." Submitted April 2001.
- 15) Research Corporation, "Solvolysis of Electron-Deficient Alkenyl(aryl)iodonium Salts via Vinyl Cations." Submitted 28 June 2000.
- 16) Jeffress Memorial Trust, "Expanding the Scope of Alkenyl(aryl)iodonium Substitutions." Submitted 28 June 2000.
- 17) Coatings Technology, Ltd, "Understanding the Role of Diffusion and pH on a Color Indicator." Submitted 15 November 1999.
- 18) Coatings Technology, Ltd, "Understanding the Role of Diffusion and pH on a Color Indicator." Submitted 15 December 1999.
- 19) Coatings Technology, Ltd, "Understanding the Role of Diffusion and pH on a Color Indicator." Submitted 15 November 1999.
- 20) Coatings Technology, Ltd, "Understanding the Role of Diffusion and pH on a Color Indicator." Submitted 15 December 1999.
- 21) Investigations of Titanium Aryloxy Complexes as Carbocyclization Pre-Catalysts.

Petroleum Research Fund (PRF) of the American Chemical Society. Submitted 28 September 1999.

22) Research Corporation, "Solvolysis of Electron-Deficient Alkenyl(aryl)iodonium Salts via Vinyl Cations." Submitted 28 June 1999.

23) Investigations of Titanium Aryloxy Complexes as Carbocyclization Pre-Catalysts. Petroleum Research Fund (PRF) of the American Chemical Society. Submitted 29 September 1998.

24) "Bis-Heck Cyclization Approach to the Growth Hormone Stimulant Psycholeine." NIH Fellowship progress report and continuation application. Submitted 11 November 1994.

Posters and Presentations to Which I contributed (presenter underlined, undergraduates in bold):

1) Hinkle, R. J.; Lian, Y.; **Litvinas, N. D.**; **Jenkins, A. T.**; **Burnette, D. C.** "BiBr₃ Initiated Cyclization-Addition Reactions: Total Synthesis of (+)-(S,S)-(cis-6-Methyltetrahydropyran-2-yl)acetic Acid, its *trans*-Diastereomer and Effect of Nucleophile on Oxocarbenium Ion Additions, Presented at the National Organic Symposium, Salt Lake City, Utah, June 12-16, 2005. Poster Presentation B21.

2) Hinkle, R. J.; **Mattern, M. C.**; **Sprachman, M. M.** and **Litvinas, N. D.**, "Bismuth(III) Initiated Diastereoselective Cyclization-Addition Reactions Toward 2,6-Disubstituted Tetrahydropyrans," Presented at the 56th Southeastern Regional Meeting of the American Chemical Society, Durham, NC, November 10-13, 2004. *Oral Presentation 200.*

4) Lian, Y.; Hinkle, R. J.; **Mikowski, A. M.**; **Brochu, M. C.**; **Knowles, R. R.**, "Isotope Effects and Mechanism(s) of Fragmentation of Alkenyl Iodonium Triflate Salts," Presented at the 56th Southeastern Regional Meeting of the American Chemical Society, Durham, NC, November 10-13, 2004. Poster Presentation 255.

5) Sprachman, M. M.; **Litvinas, N. D.**, **Mattern, M. C.**; Hinkle, R. J.; **Jenkins, A. T.**; **Burnette, D. C.**, "Stereoselective Tandem Cyclization-Addition Reactions Using Catalytic BiBr₃," Presented at the 56th Southeastern Regional Meeting of the American Chemical Society, Durham, NC, November 10-13, 2004. Poster Presentation 800.

6) Mattern, M. C.; Hinkle, R. J.; "Selective Tandem Reactions Using Catalytic Bismuth Bromide," 11th Annual William & Mary Undergraduate Research Symposium, Sept. 3, 2004. Poster Presentation.

7) Hassink, M. D.; Hinkle, R. J. "Coupling Using Iodonium Salts," 11th Annual William & Mary Undergraduate Research Symposium, Sept. 3, 2004. Poster Presentation.

- 8) **Sprachman, M. M.**; Hinkle, R. J., "The Use of Bismuth Catalysts in Cyclic Ether Synthesis," 11th Annual William & Mary Undergraduate Research Symposium, Sept. 3, 2004. Poster Presentation.
- 9) **Vortherms, A.**; Hinkle, R. J., "Iodonium Salt Synthesis and Palladium-Catalyzed Tandem Coupling Reactions," 11th Annual William & Mary Undergraduate Research Symposium, Sept. 3, 2004. Poster Presentation.
- 10) **Gharpure, S. J.**; **Hinkle, R. J.**; Cui, J.; Evans, P. A. "Bismuth Catalyzed Diastereoselective Etherification Reactions: Application to the Synthesis of Non-Adjacent and Fused Polycyclic Ethers," Presented at the National Organic Symposium, Bloomington, IN June 8-12, 2003. Poster Presentation C94.
- 11) **Hinkle, R. J.**; Evans, P. A.; Cui, J.; Delouvie, B. D., "Diastereoselective Syntheses of Di- and Trisubstituted Cyclic Ethers via Tandem Cyclization-Addition Reactions," Presented at the 225th American Chemical Society Meeting, New Orleans, LA, March 23-27, 2003. *Oral Presentation 666.*
- 12) **Litvinas, N. D.** Hinkle, R. J. "Trisubstituted Olefin Synthesis by Reaction of Benzylic Zinc Reagents with β,β -Disubstituted Alkenyl(phenyl)iodonium Triflates," Presented at the 225th American Chemical Society Meeting, New Orleans, LA, March 23-27, 2003. Poster Presentation 579.
- 13) Hinkle, R. J.; **Mikowski, A. M.** "Fragmentation Reactions of Alkenyl(aryl)iodonium Triflates Salts." Presented at the 223rd American Chemical Society Meeting, Orlando, FL, April 06-11, 2002. Poster Presentation 332.
- 14) **Litvinas, N. D.** Hinkle, R. J. "Trisubstituted Olefin Synthesis by Reaction of Benzylic Zinc Reagents with β,β -Disubstituted Alkenyl(phenyl)iodonium Triflates." Verizon Undergraduate Research Symposium at William and Mary, September 2002. Poster Presentation.
- 15) **Henry, C. E.**; Hinkle, R. J. "Investigation of Titanium Aryloxy Complexes as Carbocyclization Pre-Catalysts." Verizon Undergraduate Research Symposium at William and Mary, September 2002. Poster Presentation.
- 16) **Hill, A.**; Hinkle, R. J. "Addition of Organozinc Reagents to Alkenyl(phenyl)iodonium Salts: Syntheses of Trisubstituted Olefines." Verizon Undergraduate Research Symposium at William and Mary, September. 2002. Poster Presentation.
- 17) **Brochu, M. P.**; Hinkle, R. J. "Deuterium Isotope Effects in Iodonium Salt Fragmentations," Verizon Undergraduate Research Symposium at William and Mary, September. 2001. Poster Presentation.

18) Mikowski, A. M.; Hinkle, R. J. "Fragmentation Reactions of Alkenyl(aryl)iodonium Salts," Verizon Undergraduate Research Symposium at William and Mary, September. 2001. Poster Presentation.

19) Litvinas, N. D.; Hinkle, R. J. "Organozinc Reactions with Alkenyl(aryl)iodonium Triflates," Verizon Undergraduate Research Symposium at William and Mary, September. 2001. Poster Presentation.

20) Carra, R. J.; Hinkle, R. J., "Cyclization Reactions Utilizing Titanium Aryloxy Compounds," Hinkle, R. J. Verizon Undergraduate Research Symposium at William and Mary, September. 2001. Poster Presentation.

21) Henry, C. E.; Hinkle, R. J., "Titanium Aryloxy Pre-catalysts for Intramolecular Cyclizations," Hinkle, R. J. Verizon Undergraduate Research Symposium at William and Mary, September. 2001. Poster Presentation.

22) Hinkle, R. J.; Rouse, E. A.; McNeil, A. M.; Thomas, Q. A.; Thomas, D. B. "Vinyl Cations from Alkenyl(aryl)iodonium Salts: Are Primary Vinyl Cations involved?" Presented at the 221st American Chemical Society Meeting, San Diego, CA, April 01-05, 2001. *Oral Presentation 450.*

23) Pasek, M.; Hinkle, R. J., "An Investigation of the Reaction of Alkenyl(aryl)iodonium Salts with Zinc Reagents," Verizon Undergraduate Science Research Symposium, 15 September 2000; poster 54.

24) Mikowski, A. M.; Hinkle, R. J., "The Attempted Synthesis of Alkenylbenziodoxole Derivatives," Verizon Undergraduate Science Research Symposium, 15 September 2000; poster 52.

25) Rouse, E. A.; Hinkle, R. J., "Primary Vinyl Cations: The Fragmentation of Alkenyl(aryl)iodonium Triflates," Verizon Undergraduate Science Research Symposium, 15 September 2000; poster 62.

26) Hinkle, R. J.; Rouse, E. A.; McNeil, A. J. "Fragmentation of Alkenyl(aryl)iodonium Triflates via Vinyl Cations," Presented at the 220th American Chemical Society Meeting, Washington, DC, August 19-24, 2000. *Oral Presentation 295.*

27) Hinkle, R. J.; Leri, A. C.; David, G. A.; Erwin, W. M. "Addition of Benzylzinc Halides to Alkenyl(phenyl)iodonium Triflates: Stereoselective Synthesis of Trisubstituted Alkenes," presented at the 219th National American Chemical Society Meeting, San Francisco, CA, March 26-30, 2000; poster 535.

28) McNeil, A. J.; Hinkle, R. J. "Synthesis and Decomposition of β -Disubstituted Alkenyl(aryl)iodonium Triflates." Arnold and Mabel Beckman Scholars Symposium, Irvine, CA, July 1999. Poster Presentation.

29) Hinkle, R. J.; David, G. A.; Erwin, W. M. "Addition of Organozinc Reagents to Alkenyl(phenyl)iodonium Triflates: Synthesis of Trisubstituted Alkenes." Southeast

Regional Meeting of the American Chemical Society (SERMACS), Knoxville, TN, 17-20 October 1999, abstract 381. Poster Presentation.

30) Leri, A. C.; Hinkle, R. J. "Cross-couplings Between Alkenyl(aryl)iodonium Salts and Organozinc Reagents." Undergraduate Meeting in Miniature of the Southeast Regional Meeting of the American Chemical Society (SERMACS), Knoxville, TN, 16-17 October 1999, abstract 40. **Poster presenter awarded \$75.00 cash for excellence in the session.**

31) David, G. A.; Hinkle, R. J. "Reactions of Vinyl Iodonium Triflate Salts and Organozinc Reagents." GTE Undergraduate Science Research Symposium, 10 September 1999. Poster Presentation.

32) Leri, A. C.; Hinkle, R. J. "Cross-couplings Between Alkenyl(aryl)iodonium Triflate Salts and Organozinc Reagents." GTE Undergraduate Science Research Symposium, 10 September 1999. Poster Presentation.

33) Andrews, M. N.; Hinkle, R. J. "Attempted Syntheses of Vinyl Benziiodoxoles." GTE Undergraduate Science Research Symposium, 10 September 1999. Poster Presentation.

34) McNeil, A. J.; Thomas, Q. B.; Andrews, M. N. (Robert J. Hinkle), 13th National Conference on Undergraduate Research, April 8-10, University of Rochester, Rochester, NY. Poster Presentation.

35) Hinkle, R. J.; Aubry, Q. D.; McNeil, A. J.; presented at the 216th National American Chemical Society Meeting, Boston, MA, August 23-27, 1998; poster 240.

36) Hinkle, R. J.; Thomas, D. B. "Generation of Primary Vinyl Cations from Alkenyl(aryl)iodonium Triflates, presenting at 49th ACS Southeast Regional Meeting, Roanoke VA, October 19-22, 1997; poster.

37) Hinkle, R. J.; Stang, P. J.; Arif, A. M. "Novel Formation of Platinaoxacyclic Compounds and Heck Coupling Product via Reaction of (σ -2-propenyl)(PPh₃)₂Pt(II) Triflate with Acrylate Esters," presented at 205th National ACS Meeting, Denver, CO, March/April, 1993; included in special "Sci-Mix" session; poster 056.

38) Hinkle, R. J.; Zhong, Z.; Stang, P. J., " σ -Metal Triflates: The Reaction of (σ -vinyl) Platinum(II) Triflates with Acrylates," presented at 16th NSF Organometallic Workshop, Snowbird, Utah, May, 1992; poster.

39) Mayo, D. W.; Butcher, S. S.; Hinkle, R. J.; Bartlett, L. G.; Sewall, C. J.; Hirth, B. H.; Pike, R. M.; †Ryan, J.; †Riley, L., "A High Resolution Short Path Microscale Distillation Column: The Hickman-Hinkle Still," presented at Pittsburg Conference, Atlanta, GA, March, 1989; Abstract 967. †Ace[®] Glass Company.

40) Mayo, D. W.; Hinkle, R. J.; Butcher, S. S.; Pike, R. M.; †Ryan, J., "A Simple, Highly Efficient Spinning Band Microdistillation Column," presented at Pittsburg Conference, Atlantic City, NJ, February, 1987; Abstract 089. †Ace[®] Glass Company.

PATENTS

Coinventor of Hickman-**Hinkle** and similar distillation columns sold by Ace[®] and Corning[®] Glass companies; U. S. Patent 4,770,746 (1987).

PROFESSIONAL SERVICE (past and present)

- 1) NSF Review Panel Participant (2004)
- 2) Chair of Chemistry Seminar Committee
- 3) Rogers Expansion and Renovation Committee
- 4) Space Management Committee (beginning 8/03).
- 5) Goldwater Scholarship Committee member and Chemistry Liason (beginning 08/01).
- 6) Faculty Search Committee (Fall, '01), Department of Chemistry.
- 7) College Committee on Academic Space Planning (beginning 08/01).
- 8) Appeared before Board of Visitors for chemistry building renovation hearing.
- 9) Provided information and conducted a departmental tour for a State Council of Higher Education of Virginia (SCHEV) Capital Spending Representative.
- 10) Provided information and conducted a departmental tour for the Board of Visitors Buildings and Grounds Committee.
- 11) Rogers Hall Renovation and Expansion Pre-Planning Committee.
- 12) Howard Hughes Medical Institute Planning Committee.
- 13) Co-Chair (with Patty Zwollo of Biology) of Howard Hughes Medical Institute Seminar Committee.
- 14) Beckman Scholars Grant Participant.
- 15) Chair of Chemistry Library Committee.
- 16) Alpha Lamda Phi Honor Society Advisor.
- 17) Curriculum Committee, Department of Chemistry.
- 18) Computer Proficiency Assessment Committee, Department of Chemistry.
- 19) Presented annual student GRE review session ('99-'00).
- 20) Monroe Scholar Luncheon Speaker.
- 21) Departmental Secretary 1/97-8/97.
- 22) Volunteer for Student Open House (April 19, 1997).
- 23) Freshmen Student Advising:

1997-1998

Bridget Finn	Kimberly Irby
Gretchen Forbes	Michael Laccheo
Kathryn Guy	Amy Sprinkle
Tyler Henry	Baninder "Bonnie" Taneja
Ronald Houk	Skye Watanabe

1998-1999

Laura Bottalico	Rekha Durga
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Janet Chapman
Ross Dodge
Stephanie Kelley
Jennifer Lim
Matthew Rossi

Lauren Connolly
Joshua Hall
Amy Lemau
Andrew Ridenour
Michael Wagner

Ph. D. Committees:

Zhenrong Guo, July 2005

2004-2005

Sarah R. Bennett
Zachary R. Bradford
Mark W. Cohee
Katherine E. Harris
Carter N. Kirk

Christopher D. Landry
Catherine S. Martin
Ashwin Rastogi
Samuel R. Rhodes

COMMUNITY

Board of Directors, Colonial Road Runners

HOBBIES

Running, Bicycling, Furniture making, Motorcycle riding.