

VLADIMIR B. BIRMAN

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EDUCATION HISTORY

- **Ph.D.** in Chemistry, The University of Chicago, **2000**.
Thesis title: “*Application of the Heck Cyclization Methodology to the Synthesis of Geissoschizine and Strictamine*”; Advisor: Prof. Viresh H. Rawal.
- **B.S.** in Chemistry with Honors and *Magna cum laude*, University of North Carolina at Charlotte, **1995**.

PROFESSIONAL AFFILIATIONS

2009-present Associate Professor, Department of Chemistry,
Washington University in St. Louis

2003-2009 Assistant Professor, Department of Chemistry,
Washington University in St. Louis

2000-2003 Postdoctoral Fellow, Department of Chemistry, Columbia University,
Advisor: Prof. Samuel J. Danishefsky

HONORS

- Thieme Journals Award (**2007**)
- National Institutes of Health National Research Service Award (**2001-2003**)
- The American Institute of Chemists Foundation Student Award (**1999**)
- Division of Organic Chemistry Graduate Fellowship (**1998-1999**)
- Undergraduate Research Award, North Carolina Section of ACS (**1995**)

RESEARCH INTERESTS

- **Synthetic methodology.** Amidine-based enantioselective acyl transfer catalysts and their synthetic applications; chiral 2-(ortho-iodoxyphenyl)oxazolines and their application to enantioselective oxidation of phenols, anionic acyl transfer catalysis, new methods of constructing polycyclic structures.
- **Total synthesis of bioactive natural products.** Completed synthetic targets include (\pm)-sceptrin, prekinamycin, (-)-lobeline, and (+)-lingzhiol.

PUBLICATIONS (*asterisk indicates primary authors*)

1. Clements, J. L.; Pohl, F.; Muthupandi, P.; Rogers, S. C.; Mao, J.; Doctor, A.; Birman, V. B.; Held, J. M.,* A clickable probe for versatile characterization of S-nitrosothiols. *Redox Biology* **2020**, 101707.
2. Yin, J.; Khalilov, A. N.; Muthupandi, P.; Ladd, R.; Birman, V. B.,* Phenazine-1,6-dicarboxamides: redox-responsive molecular switches. *J. Am. Chem. Soc.* **2020**, *142*, 60-63. DOI: [10.1021/jacs.9b11160](https://doi.org/10.1021/jacs.9b11160)

3. Leace, D. M.; Straub, M. R.; Matz, B. A.; Birman, V. B.,* Organocatalyzed Rearrangement of S-(2-Oxoalkyl)-thioenoates. *J. Org. Chem.* **2019**, *84*, 7523-7531. DOI: [10.1021/acs.joc.9b00925](https://doi.org/10.1021/acs.joc.9b00925)
4. Straub, M. R.; Birman, V. B.,* Organocatalytic Enantioselective Synthesis of α -Fluoro- β -amino Acid Derivatives. *Org. Lett.* **2018**, *20*, 7550–7553 DOI: [10.1021/acs.orglett.8b03297](https://doi.org/10.1021/acs.orglett.8b03297) (Addition/correction DOI: [10.1021/acs.orglett.8b04089](https://doi.org/10.1021/acs.orglett.8b04089)).
5. Ahlemeyer, N. A.; Streff, E. V.; Muthupandi, P.; Birman, V. B.,* Dramatic Acceleration of an Acyl Transfer-Initiated Cascade by Using Electron-Rich Amidine-Based Catalysts. *Org. Lett.* **2017**, *19*, 6486-6489. DOI: [10.1021/acs.orglett.7b03044](https://doi.org/10.1021/acs.orglett.7b03044)
6. Dergunov, S. A.;* Khabiyev, A. T.; Shmakov, S. N.; Kim, M. D.; Ehterami, N.; Weiss, M. C.; Birman, V. B.; Pinkhassik, E.,* Encapsulation of Homogeneous Catalysts in Porous Polymer Nanocapsules Produces Fast-Acting Selective Nanoreactors” *ACS Nano*, **2016**, *10*, 11397, DOI: [10.1021/acsnano.6b06735](https://doi.org/10.1021/acsnano.6b06735)
7. Birman, V. B.,* Amidine-Based catalysts: Design, Development, and Applications. *Aldrichimica Acta* **2016**, *49*, 23.
8. Ahlemeyer, N. A.; Birman, V. B.,* Asymmetric Catalytic Synthesis of Thiochromenes via an Acyl Transfer-Initiated Cascade. *Org. Lett.* **2016**, *18*, 3454. DOI: [10.1021/acs.orglett.6b01639](https://doi.org/10.1021/acs.orglett.6b01639)
9. Sharmah Gautam, K.; Birman, V. B.,* Biogenetically Inspired Synthesis of Lingzhiol. *Org. Lett.* **2016**, *18*, 1499. DOI: [10.1021/acs.orglett.5b03212](https://doi.org/10.1021/acs.orglett.5b03212)
10. Abbott, G. L.; Wu, X.; Zhao, Z.; Guo, L.; Birman, V. B.; Hasinoff, B. B.; Dmitrienko, G. I.,* Prekinamycin and an isosteric-isoelectronic analogue exhibit comparable cytotoxicity towards K562 human leukemia cells. *MedChemComm* **2014**, *5*, 1364. DOI: [10.1039/C4MD00197D](https://doi.org/10.1039/C4MD00197D)
11. Ehterami, N.; Dergunov, S. A.; Ussipbekova, Y.; Birman, V. B.; Pinkhassik, E.,* Catalytic ship-in-a-bottle assembly within hollow porous nanocapsules. *New J. Chem.* **2014**, *38*, 481. DOI: [10.1039/C3NJ01449E](https://doi.org/10.1039/C3NJ01449E)
12. Bumbu, V. D.; Yang, X.; Birman, V. B.,* Kinetic Resolution of N-Acyl-Thiolactams via Catalytic Enantioselective Deacylation. *Org. Lett.* **2013**, *15*, 2790. DOI: [10.1021/ol401122g](https://doi.org/10.1021/ol401122g)
13. Yang, X.; Bumbu, V. D.; Liu, P.; Li, X.; Jiang, H.; Uffman, E. W. Guo, L.; Zhang, W.; Jiang, X.; Houk, K. N.;* Birman, V. B.,* Catalytic, Enantioselective N-Acylation of Lactams and Thiolactams Using Amidine-Based Catalysts. *J. Am. Chem. Soc.*, **2012**, *134*, 17605. DOI: [10.1021/ja306766n](https://doi.org/10.1021/ja306766n)
14. Yang, X.; Liu, P.; Houk, K. N.;* Birman, V. B.,* Manifestation of Felkin-Anh Control in Enantioselective Acyl Transfer Catalysis: Kinetic Resolution of Carboxylic Acids. *Angew. Chem., Int. Ed.* **2012**, *51*, 9638. DOI: [10.1002/anie.201203327](https://doi.org/10.1002/anie.201203327)
15. Liu, P.; Yang, X.; Birman, V. B.;* Houk, K. N.,* Origin of Enantioselectivity in Benzotetramisole-Catalyzed Dynamic Kinetic Resolution of Azlactones. *Org. Lett.* **2012**, *14*, 3288. DOI: [10.1021/ol301243f](https://doi.org/10.1021/ol301243f)
16. Li, X.; Jiang, H.; Uffman, E. W. Guo, L.; Zhang, Y.; Yang, X.; Birman, V. B.,* Kinetic Resolution of Secondary Alcohols Using Amidine-Based Catalysts. *J. Org. Chem.* **2012**, *77*, 1722. DOI: [10.1021/jo202220x](https://doi.org/10.1021/jo202220x)
17. Yang, X.; Birman, V. B.,* Kinetic Resolution of α -Substituted Alkanoic Acids Promoted by Homobenzotetramisole. *Chem. Eur. J.* **2011**, *17*, 11296. DOI: [10.1002/chem.201101028](https://doi.org/10.1002/chem.201101028)

18. Yang, X.; Bumbu, V. D.; Birman, V. B.,* Kinetic Resolution of β -Lactams via Enantioselective N-Acylation. *Org. Lett.* **2011**, *13*, 4755. DOI: [10.1021/ol201911z](https://doi.org/10.1021/ol201911z)
19. Bumbu, V. D.; Birman, V. B.,* Kinetic Resolution of N-Acyl- β -Lactams via Benzotetramisole-Catalyzed Enantioselective Alcoholysis. *J. Am. Chem. Soc.* **2011**, *133*, 13902. DOI: [10.1021/ja2058633](https://doi.org/10.1021/ja2058633)
20. Yang, X.; Birman, V. B.,* Nonenzymatic Dynamic Kinetic Resolution of α -(Arylthio)- and α -(Alkylthio)alkanoic Acids. *Angew. Chem., Int. Ed.* **2011**, *50*, 553. DOI: [10.1002/anie.201007860](https://doi.org/10.1002/anie.201007860)
21. Lu, G.; Birman, V. B.,* Dynamic Kinetic Resolution of Azlactones Catalyzed by Chiral Brønsted Acids. *Org. Lett.* **2011**, *13*, 356. DOI: [10.1021/ol102736t](https://doi.org/10.1021/ol102736t) [Addition/Correction DOI: [10.1021/ol200367y](https://doi.org/10.1021/ol200367y)].
22. Seizert, C. A.; Bumbu, V. D.; Birman, V. B.,* A Cope Rearrangement-Based Route to Hexahydroazulenes. *Org. Lett.* **2010**, *12*, 3472. DOI: [10.1021/ol1013125](https://doi.org/10.1021/ol1013125)
23. Yang, X.; Lu, G.; Birman, V. B.,* Benzotetramisole-Catalyzed Dynamic Kinetic Resolution of Azlactones. *Org. Lett.* **2010**, *12*, 892. DOI: [10.1021/ol902969j](https://doi.org/10.1021/ol902969j)
24. Zhang, Y.; Birman, V. B.,* Effects of Methyl Substituents on the Activity and Enantioselectivity of Homobenzotetramisole-Based Catalysts in the Kinetic Resolution of Alcohols. *Adv. Synth. Catal.* **2009**, *351*, 2525. DOI: [10.1002/adsc.200900383](https://doi.org/10.1002/adsc.200900383)
25. Yang, X.; Birman, V. B.,* Homobenzotetramisole-Catalyzed Kinetic Resolution of α -aryl-, α -aryloxy-, and α -arylthioalkanoic Acids. *Adv. Synth. Catal.* **2009**, *351*, 2301. DOI: [10.1002/adsc.200900451](https://doi.org/10.1002/adsc.200900451)
26. Yang, X.; Birman, V. B.,* Acyl Transfer catalysis with 1,2,4-Triazole Anion. *Org. Lett.* **2009**, *11*, 1499. DOI: [10.1021/ol900098q](https://doi.org/10.1021/ol900098q)
27. Boppiseti, J. K.; Birman, V. B.,* Asymmetric Oxidation of o-Alkylphenols with Chiral 2-(o-Iodoxyphenyl)-Oxazolines. *Org. Lett.* **2009**, *11*, 1221. DOI: [10.1021/ol8029092](https://doi.org/10.1021/ol8029092)
28. Li, X.; Liu, P.; Houk, K. N.;* Birman, V. B.,* Origin of Enantioselectivity in CF₃-PIP-Catalyzed Kinetic Resolution of Secondary Benzylic Alcohols. *J. Am. Chem. Soc.* **2008**, *130*, 13836. DOI: [10.1021/ja805275s](https://doi.org/10.1021/ja805275s)
29. Birman, V. B.;* Li, X., Homobenzotetramisole: An Effective Catalyst for Kinetic Resolution of Arylcycloalkanols *Org. Lett.* **2008**, *10*, 1115. DOI: [10.1021/ol703119n](https://doi.org/10.1021/ol703119n)
30. Birman, V. B.;* Jiang, H.; Li, X., Enantioselective Synthesis of Lobeline via Nonenzymatic Desymmetrization. *Org. Lett.* **2007**, *9*, 3237. DOI: [10.1021/ol071064i](https://doi.org/10.1021/ol071064i)
31. Birman, V. B.;* Zhao, Z.; Guo, L., Benzo[b]fluorenes via Indanone Dianion Annulation. A Short Synthesis of Prekinamycin. *Org. Lett.* **2007**, *9*, 1223. DOI: [10.1021/ol0629768](https://doi.org/10.1021/ol0629768)
32. Birman, V. B.;* Li, X.; Han, Z., Nonaromatic Amidine Derivatives as Acylation Catalysts. *Org. Lett.* **2007**, *9*, 37. DOI: [10.1021/ol0623419](https://doi.org/10.1021/ol0623419)
33. Birman, V. B.;* Guo, L., Kinetic Resolution of Propargylic Alcohols Catalyzed by Benzotetramisole *Org. Lett.* **2006**, *8*, 4859. DOI: [10.1021/ol061906y](https://doi.org/10.1021/ol061906y)

34. Birman, V. B.;* Jiang, H.; Li, X.; Guo, L.; Uffman, E. W., Kinetic Resolution of 2-Oxazolidinones via Catalytic, Enantioselective N-Acylation. *J. Am. Chem. Soc.* **2006**, *128*, 6536. DOI: [10.1021/ja061560m](https://doi.org/10.1021/ja061560m)
35. Birman, V. B.;* Li, X., Benzetetramisole: A Remarkably Enantioselective Acyl Transfer Catalyt. *Org. Lett.* **2006**, *8*, 1351. DOI: [10.1021/ol060065s](https://doi.org/10.1021/ol060065s)
36. Birman, V. B.;* Li, X.; Jiang, H.; Uffman, E. W., Influence of Electronic and Steric Factors on 2,3-Dihydroimidazo[1,2-*a*]pyridine-Based Enantioselective Acylation Catalysts. *Tetrahedron* **2006**, *62*, 285. (Symposium-in-Print on Organocatalysis). DOI: [10.1016/j.tet.2005.08.119](https://doi.org/10.1016/j.tet.2005.08.119)
37. Birman, V. B.;* Jiang, H., Kinetic Resolution of Alcohols Using a 1,2-Dihydroimidazo[1,2-*a*]quinoline Enantioselective Acylation Catalyst. *Org. Lett.* **2005**, *7*, 3445. DOI: [10.1021/ol051063v](https://doi.org/10.1021/ol051063v)
38. Birman, V. B.;* Uffman, E. W.; Jiang, H.; Li, X.; Kilbane, C. J., 2,3-Dihydroimidazo[1,2-*a*]pyridines: A New Class of Enantioselective Acyl Transfer Catalysts and Their Use in Kinetic Resolution of Alcohols. *J. Am. Chem. Soc.* **2004**, *126*, 12226. DOI: [10.1021/ja0491477](https://doi.org/10.1021/ja0491477)
39. Birman, V. B.;* Jiang, X.-T., Synthesis of Sceptrin Alkaloids. *Org. Lett.* **2004**, *6*, 2369. DOI: [10.1021/ol049283g](https://doi.org/10.1021/ol049283g)
40. Birman V. B.; Danishefsky, S. J.,* The Total Synthesis of (±)-Merrilactone A. *J. Am. Chem. Soc.* **2002**, *124*, 2080. DOI: [10.1021/ja012495d](https://doi.org/10.1021/ja012495d)
41. Iwama, T.; Birman, V. B.; Kozmin, S. A.; Rawal, V. H.,* Regiocontrolled Synthesis of Carbocycle-Fused Indoles via Arylation of Silyl Enol Ethers with *o*-Nitrophenylphenyliodonium Fluoride. *Org. Lett.* **1999**, *1*, 673. DOI: [10.1021/ol990759j](https://doi.org/10.1021/ol990759j)
42. Birman V. B.,* Rheingold, A. L.; Lam, K.-C., Spirobiindane-7,7'-diol: A Novel, C₂-Symmetric Chiral Ligand. *Tetrahedron: Asymmetry* **1999**, *10*, 125. DOI: [10.1016/S0957-4166\(98\)00481-9](https://doi.org/10.1016/S0957-4166(98)00481-9)
43. Birman V. B.; Rawal V. H.,* A General, Stereocontrolled Route to the Geissoschizine Family of Alkaloids. A Concise Synthesis of the Apogeissoschizine Skeleton. *J. Org. Chem.* **1998**, *63*, 9146. DOI: [10.1021/jo981415u](https://doi.org/10.1021/jo981415u)
44. Birman V. B.; Rawal V. H.,* A Novel Route to the Geissoschizine Skeleton: The Influence of Ligands on the Diastereoselectivity of the Heck Cyclization. *Tetrahedron Lett.* **1998**, *39*, 7219. DOI: [10.1016/S0040-4039\(98\)01591-3](https://doi.org/10.1016/S0040-4039(98)01591-3)
45. Birman V. B.; Chopra A.; Ogle C. A.,* A Novel Approach to Tricyclic Pharmaceuticals via Directed Dilithiation of Diaryl Compounds. *Tetrahedron Lett.* **1996**, *37*, 5073. DOI: [10.1016/0040-4039\(96\)01068-4](https://doi.org/10.1016/0040-4039(96)01068-4)

BOOK CHAPTERS

1. Birman, V. B., 2,3,5,6-Tetrahydro-6-phenylimidazo- [2,1-*b*]thiazole (Tetramisole), in *Electronic Encyclopedia of Reagents for Organic Synthesis*, Paquette, L. A. Ed.; John Wiley and Sons, Ltd, 2016.
2. Li, X.; Jiang, H.; Birman, V. B., 2,3-dihydro-2-phenylimidazo[2,1- *b*]benzothiazole, in *Electronic Encyclopedia of Reagents for Organic Synthesis*, Paquette, L. A. Ed.; John Wiley and Sons, Ltd, 2016.

- Li, X.; Jiang, H.; Birman, V. B., 2,3-Dihydro-2-phenylimidazo[2,1-b]benzothiazole, in *Encyclopedia of Reagents for Organic Synthesis* Paquette, L. A. Ed.; John Wiley and Sons Ltd., Singapore, 2009, Vol. 5, 3814-5. DOI: [10.1002/047084289X.rn00976](https://doi.org/10.1002/047084289X.rn00976)

PATENTS

- Danishefsky, S. J.; Meng, Z.; Birman V. B. *Enantioselective Synthesis of Merrilactone A and its Analogs*” PCT Int. Appl. 2005 WO 2005051303
- Danishefsky, S. J.; Birman V. B. “*The Total Synthesis of Merrilactone A and its Analogs*” PCT Int. Appl. 2003 WO 2003051303.

INVITED LECTURES

- Missouri Organic Day: University of Missouri in Columbia, April 18, 2020.
- University of North Carolina at Charlotte, February 17, 2020.
- Lewis Base Catalyzed Asymmetric Transformations Symposium, 251st National ACS meeting, San Diego, CA, March 13, 2016, ORGN 73
- Recent Trends in Organocatalysis, Pacificchem 2015, Honolulu, HI, December 18, 2015
- Meyers Symposium for Organic Chemistry, Southern Illinois University Carbondale, April 18, 2015
- University of South Florida, Tampa, FL, October 22, 2014
- 1st Japan-USA Organocatalytic Symposium, Honolulu, HI, December 15, 2012.
- Illinois State University, Normal, IL, April 8, 2011.
- Jackson State University, Jackson, MS, January 21, 2011.
- University of Vermont, October 14, 2010.
- Washington University Medical School, April 20, 2010.
- University of Memphis, TN, April 2, 2010.
- University of South Carolina, Columbia, SC, November 13, 2009
- Cope Scholar Organic Synthesis symposium, 2009 Midwest Regional ACS Meeting, Iowa City, IA. October 21-24, 2009
- Vanderbilt University, Nashville, TN, September 14, 2009
- Rutgers University, October 24, 2008
- Syracuse University, October 14, 2008
- University of California-San Diego, May 12, 2008.
- Texas Christian University, Fort Worth, TX, April 29, 2008.
- Northern Illinois University, De Kalb, IL, April 28, 2008.
- Purdue University, November 20, 2007.
- University of Chicago, November 9, 2007.
- University of Minnesota-Duluth, September 28, 2007.

24. Texas A&M University, September 7, 2007.
25. Young Investigators' Symposium, 234th ACS Meeting, Boston, MA, August 19, 2007
26. Gordon Research Conference on Natural Products, Tilton, NH, July 23-27, 2007
27. Eli Lilly, Indianapolis, IN, June 19, 2007.
28. University of California-Los Angeles, March 19, 2007.
29. University of California-Santa Barbara, March 16, 2007.
30. Ohio State University, February 15, 2007.
31. International Symposium on Organocatalysis in Organic Synthesis: University of Glasgow, UK, July 6, 2006.
32. NSF workshop, Holderness, NH, June 2006.
33. Missouri Organic Day: University of Missouri in Columbia, April 29, 2006
34. University of Missouri in Kansas City, January 12, 2006
35. University of Missouri in St. Louis, November 7, 2005
36. Wichita State University, October 5, 2005
37. CV Therapeutics, Inc. Palo Alto, CA, September 23, 2005
38. University of North Carolina at Charlotte, 2003

CONTRIBUTED PRESENTATIONS

(asterisk indicates primary author; presenting author is underlined)

1. Yin, J.; Khalilov, A. N.; Muthupandi, P. Ladd, R., Birman, V.B.* “Toward redox-responsive foldamers: a phenazine-based molecular switch” Gordon Research Conference on Artificial Molecular Switches and Motors, Holderness, NH, June 9-14, 2019 (poster).
2. Straub, M. R.; Birman, V.B.* “Organocatalytic enantioselective synthesis of α -fluoro- β -amino acid derivatives” National ACS meeting, Orlando, FL, March 31-April 4, 2019, ORGN 336 (oral)
3. Straub, M. R.; Leace, D. M.; Matz, B. A.; Birman, V.B.* “Lewis base-catalyzed rearrangement of S-phenacyl thioesters” 257th National ACS meeting, Orlando, FL, March 31-April 4, 2019, ORGN 337 (oral)
4. Sharmah Gautam, K.; Birman, V.B.* “Biogenetically inspired total synthesis of lingzhiol” 251st National ACS meeting, San Diego, CA, March 13-17, 2016, ORGN 416 (oral)
5. Sharmah Gautam, K.; Birman, V.B.* “Axially chiral N-heterocyclic carbenes: Design and application to asymmetric catalysis” 251st National ACS meeting, San Diego, CA, March 13-17, 2016, ORGN 141 (poster)
6. Ahlemeyer, N.A.; Birman, V.B.* “Fused imidazoline ligands: Design and application to asymmetric catalysis” 251st National ACS meeting, San Diego, CA, March 13-17, 2016, ORGN 140 (poster)
7. Ahlemeyer, N.A.; Birman, V.B.* “Asymmetric catalytic synthesis of thiochromenes” 251st National ACS meeting, San Diego, CA, March 13-17, 2016, ORGN 86 (oral)
8. Yang, X.; Bumbu, V. D.; Lu, G.; Birman, V.B.;* Liu P.; Houk, K. N.* “Enantioselective alcoholysis of acyl donors in the presence of amidine-based catalysts: scope, limitations, and

- origins of enantioselectivity” International Conference on Catalysis in Organic Synthesis (ICCOS-2012) September, 2012, Moscow, Russia (poster).
9. Bumbu, V. D.; Yang, X.; Birman, V. B.* “Kinetic resolution of β -lactams via catalytic, enantioselective N-acylation” Joint 46th Midwest and 39th Great Lakes Regional Meeting of ACS, St. Louis, MO, October 19-22, 2011, MWGL-394.
 10. Bumbu, V. D.; Birman, V. B.* “Kinetic resolution of N-acyl- β -lactams via nonenzymatic enantioselective alcoholysis” 242nd ACS National Meeting, Denver, CO, August 28-September 1, 2011, ORGN 22 (oral).
 11. Lu, G.; Birman, V. B.* “Brønsted acid-catalyzed dynamic kinetic resolution of azlactones” 241st ACS National Meeting, Anaheim, CA, March 27-31, 2011, ORGN 903 (oral)
 12. Yang, X.; Lu, G.; Birman, V. B.* “Benzotetramisole-catalyzed dynamic kinetic resolution of azlactones” 239th ACS National Meeting, San Francisco, CA, March 21-25, 2010, ORGN 502 (oral)
 13. Padakanti, P. K.; Zhang, Y.; Birman, V. B.* “Enantioselective Steglich rearrangement catalyzed by HBTM and its analogs” 238th ACS National Meeting, Washington, DC, August 16-20, 2009, ORGN 384 (oral)
 14. Zhang, Y.; Birman, V. B.* “HBTM and its analogs: Remarkable effects of methyl substituents” 238th ACS National Meeting, Washington, DC, August 16-20, 2009, ORGN 383 (oral)
 15. Yang, X.; Birman, V. B.* “Kinetic resolution of 2-arylalkanoic acids using amidine-based catalysts” 238th ACS National Meeting, Washington, DC, August 16-20, 2009, ORGN 332 (oral)
 16. Seizert, C.A.; Birman, V. B.* “Cope rearrangement route to hexahydroazulenes” 237th ACS National Meeting, Salt Lake City, UT, March 22-26, 2009. ORGN 195 (oral)
 17. Yang, X.; Birman, V. B.* “1,2,4-Triazolide anion: An active nucleophilic catalyst for ester aminolysis” 237th ACS National Meeting, Salt Lake City, UT, March 22-26, 2009. ORGN 187 (oral)
 18. Li, X.; Lu, P.; Cheong, P. H.-Y.; Um, J. A.; Houk, K. N.;* Birman, V. B.* “Origins of enantioselectivity in CF₃-PIP-catalyzed asymmetric acylation: A computational study” 236th ACS National Meeting, Philadelphia, PA, August 17-21, 2008. ORGN 438 (poster)
 19. Vladimir B. Birman* “Design, Development and Applications of a New Class of Enantioselective Acyl Transfer Catalysts” Gordon Research Conference on Natural Products, Tilton, NH, July 20-25, 2008 (Poster).
 20. Jiang, H.; Li, X.; Birman, V. B.;* “Enantioselective synthesis of (-)-lobeline via nonenzymatic desymmetrization” Gordon Research Conference on Natural Products, Tilton, NH, July 23-27, 2007 (Poster).
 21. Birman, V. B.;* Li, X.; Jiang, H.; Guo, L.; Boppiseti, J. K.; Uffman, E. W.; Jiang, X.; Han, Z.; Kilbane, C. J.; Flor, E. L.; Krylov, V. B. “Design, Development and Applications of a New Class of Enantioselective Acyl Transfer Catalysts” Eighth Tetrahedron Symposium June 27 – 29, 2007, Berlin, Germany (Poster).
 22. Birman, V. B.;* Zhao, Z.; Guo, L. “Studies Towards the Total Synthesis of Kinamycins” Eighth Tetrahedron Symposium June 27 – 29, 2007, Berlin, Germany (Poster).

23. Li, X.; Birman, V. B.* “Ring-expanded tetramisole analogues as enantioselective acyl transfer catalysts” 234th ACS National Meeting, Boston, MA, August 19-23, 2007, ORGN 650.
24. Boppiseti, J. K.; Birman, V. B.* “The first asymmetric oxidation of phenols to ortho-quinols using a new class of enantioselective oxidants” 234th ACS National Meeting, Boston, MA, August 19-23, 2007, ORGN 389.
25. Birman, V. B.* ”Design, development and applications of a new class of enantioselective acyl transfer catalysts” 234th ACS National Meeting, Boston, MA, August 19-23, 2007, ORGN 061 (Young Academic Investigators' Symposium).
26. Boppiseti, J. K.; Li, X.; Birman, V. B.* “Structural variation of Cl-PIQ and BTM, enantioselective acyl transfer catalysts” 233rd ACS National Meeting, Chicago, IL, March 26-30, 2007, ORGN 740 (Poster).
27. Birman, V. B.;* Guo, L. “Kinetic resolution of propargylic alcohols using Cl-PIQ and BTM” 233rd ACS National Meeting, Chicago, IL, March 26-30, 2007, ORGN 739 (Poster).
28. Achanta, S.; Padakanti, P. Birman, V. B.* “Dimerization strategies for the construction of the central core of lomaiviticins” 233rd ACS National Meeting, Chicago, IL, March 26-30, 2007, ORGN 405 (Poster).
29. Li, X.; Han, Z.; Birman, V. B.* “Catalytic activity of nonaromatic amidine derivatives in acylation reactions” 233rd ACS National Meeting, Chicago, IL, March 26-30, 2007, ORGN 367.
30. Zhao, Z.; Guo, L.; Birman, V. B.* “Total synthesis of prekinamycin and progress towards kinamycins” 233rd ACS National Meeting, Chicago, IL, March 26-30, 2007, ORGN 341.
31. Jiang, H.; Li, X.; Birman, V. B.* “Enantioselective synthesis of lobeline via nonenzymatic desymmetrization” 233rd ACS National Meeting, Chicago, IL, March 26-30, 2007, ORGN 297.
32. Zhao, Z.; Guo, L.; Birman, V. B.* “Synthetic studies towards diazobenzo[b]fluorene antibiotics” 231st ACS National Meeting, Atlanta, GA, March 26-30, 2006, ORGN 473.
33. Li, X.; Jiang, H.; Uffman, E. W.; Birman, V. B.* “Variation of steric and electronic parameters of DHIP catalysts” 231st ACS National Meeting, Atlanta, GA, March 26-30, 2006, ORGN 176 (Poster).
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