

MATTHIAS BREWER
The University of Vermont

Matthias.Brewer@uvm.edu

PROFESSIONAL MEMBERSHIPS:

American Chemical Society

1998

22. Jabre, N.D.; Watanabe, T.; Brewer, M. "Formal and Total Synthesis of (\pm)-Cycloclavine"
2014, (1), 197-199. () [Journal Impact
Factor: 2.391]
 21. Bercovici, D.A.; Ogilvie, J.M.; Tsvetkov, N.; Brewer, M. "Intramolecular Polar [4 + 2]-
Cycloadditions of Aryl-1-aza-2-azoniaallene Salts: Unprecedented Reactivity Leading to
Polycyclic Protonated Azomethine Imines" **2013**,
(50), 13338-13341. (:) [Journal Impact Factor: 11.336]
 20. Zhang, Z.; Giampa, G.M.; Draghici, C.; Huang, Q; Brewer, M. "Synthesis of demissidine by a
ring fragmentation/1,3-dipolar cycloaddition approach",
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11. Draghici, C.; Brewer, M. "Lewis acid promoted carbon-carbon bond cleavage of α -silyloxy- β -hydroxy- γ -diazoesters", *Journal of Organic Chemistry*, **2008**, *73* (12), 3766-3767. (DOI: 10.1021/jo80183a025) [Journal Impact Factor: 8.091]
 10. Wyman, J.M.; Jochum, S.; Brewer, M. "Chlorodimethylsulfonium Chloride-Mediated Formation of Phenyl- α -chloroazoalkanes", *Journal of Organic Chemistry*, **2008**, *73*, 3623-3630. (DOI: 10.1021/jo80183a025) [Journal Impact Factor: 0.981]
 9. Javed, M.I., Brewer, M. "Diphenyldiazomethane", *Journal of Organic Chemistry*, **2008**, *73*, 189-195. (DOI: 10.1021/jo80183a025)
 8. Harriman, G.C.; Brewer, M.; Bennett, R.; Kuhn, C.; Bazin, M.; Larosa, G.; Skerker, P.; Cochran, N.; Gallant, D.; Baxter, D.; Picarella, D.; Jaffee, B.; Luly, J.R.; Briskin, M.J. "Selective Cell Adhesion Inhibitors: Barbituric Acid Based α - β -MAdCAM Inhibitors" *Journal of Organic Chemistry*, **2008**, *73* (7), 2509-2512. (DOI: 10.1021/jo80183a025) [Journal Impact Factor: 2.531]
 7. Javed, M.I., Brewer, M. "Diazo Preparation via Dehydrogenation of Hydrazones with
-

development of therapeutic compounds for stress-related disorders and chronic pain" V. May, M. Brewer, J. Li

- 2) International Patent Application No.: PCT/US2020/018098; Based on US Patent Application No(s): 62/804,874; Title: "Small molecule antagonist to pacap receptor and uses thereof" Inventor(s): V. May, M. Brewer, J. Li

CURRENT RESEARCH SUPPORT:

7/1/21 – 6/30/24 **NSF Grant CHE-2102229**

P.I.: **Matthias Brewer**

9/1/18 – 8/31/23 **NIH Grant R01 GM129431**

P.I.: **Jianing Li, Ph.D.**

Co-Investigators: **Matthias Brewer, Victor May**

PRIOR RESEARCH SUPPORT:

7/1/17 – 6/30/21 **NSF Grant CHE-1665113**

P.I.: **Matthias Brewer**

6/1/14 – 5/31/18 **NSF Grant CHE-1362286**

P.I.: **Matthias Brewer**

5/1/15 – 8/30/16 **UVM REACH Grant**

Matthias Brewer, Victor May and Jianing Li – CO-PI's

4/15/10 – 3/31/16 **NIH R01 Grant 1R01GM092870-01**

P.I.: **Matthias Brewer, Ph.D.**

9/1/11 – 8/31/14 **NSF Major Research Instrumentation (MRI) Program (CHE-1126265)**

P.I.: **Dwight Matthews**

Co-P.I.: **Matthias Brewer, Giuseppe Petrucci**

3/1/08 – 2/28/13 **NSF CAREER Award grant CHE-0748058**

P.I.: **Matthias Brewer, Ph.D.**

1/1/08 – 8/31/10 **ACS PRF Type G Grant (PRF# 47627-G1)**

27. Department of Chemistry, Colorado College, Colorado Springs, CO, Mar. 3, 2017
26. Department of Chemistry, University of Massachusetts-Lowell, Lowell, MA, Oct. 3, 2014
25. Department of Chemistry, University of Southern California, Los Angeles, CA, Apr. 23, 2014
24. Department of Chemistry, California Institute of Technology, Pasadena, CA, Mar. 26, 2014
23. Department of Chemistry, University of California-Riverside, CA, Mar. 14, 2014
22. Department of Chemistry, Clark University, Worcester, MA, Nov. 6, 2013
21. Department of Chemistry, Queens College of The City University of New York, Oct. 21, 2013
20. Overman Symposium; Eli Lilly and Co., Indianapolis, IN, Sep. 12, 2013
19. Department of Chemistry, Juniata College, Huntingdon, PA, Mar. 13, 2012
18. Department of Chemistry, Penn-State University, College Station, PA, Mar. 12, 2012
17. Gordon Research Conference; Heterocyclic Compounds, Newport, RI, June 2011
16. Flohet XII, Florida Heterocyclic and Synthetic Conference, Gainesville, FL, Mar. 7, 2011
15. Department of Chemistry, Colby College, Waterville, ME, Feb. 25, 2011
14. Symposium on Metals in Organic Synthesis, American Chemical Society 37th North East Regional Meeting, Potsdam, NY, June 3, 2010
13. Department of Chemistry, Wayne State University, Detroit, MI, May 12, 2010
12. Department of Chemistry, UCLA, Los Angeles, CA, Feb. 12, 2010
11. Department of Chemistry, University of California-Santa Barbara, CA, Feb. 11, 2010
10. Department of Chemistry, University of California-Irvine, Irvine, CA, Feb. 10, 2010
9. Department of Chemistry, Indiana University, Bloomington, IN Feb. 8, 2010
8. Department of Chemistry, Dartmouth College, Hanover, NH, Jan. 7, 2010
7. Department of Chemistry, Université de Montréal, Montréal, Quebec Canada, Dec. 4, 2009
6. Department of Chemistry, University of Minnesota, Minneapolis, MN, Nov. 17, 2009
5. Department of Chemistry, University of Delaware, Newark, DE, Nov. 4, 2009
4. Department of Chemistry, University of Rochester, Rochester, NY, Oct. 29, 2009
3. Department of Chemistry, University of Massachusetts Dartmouth, North Dartmouth, MA, Mar. 11, 2009
2. 15th Annual American Chemical Society Undergraduate Day, Northeast ACS Section, Department of Chemistry, Simmons College, Boston, MA, Nov. 1, 2008
1. Department of Chemistry, University of New Hampshire, Durham, NH, Dec. 11, 2007.

CONFERENCE ABSTRACTS: (presenting author underlined)

41. Matthias Brewer (2022). ACS Project SEED at the University of Vermont: A mentor's perspective. 2022 South East Regional ACS Meeting, Puerto Rico.
40. Matthias Brewer (2022).
. 2022 South East Regional ACS Meeting, Puerto Rico.
39. Matthias Brewer (2020). . The 3rd
Symposium of Metal-Carbene Consortium. San Antonio Texas.
38. Cleary, S., Brewer, M. Cyclopentenone formation via remote C-H insertion of vinyl cations
Abstracts of Papers of the 45st National Organic Symposium, **2017** University of California, Davis
[Poster].
37. Srinivasan, R., Brewer, M. The diverse reactivity of 1-aza-2-azoniaallene salts and its
application in the total synthesis of (+)-ibophyllidine Abstracts of Papers of the 45st National Organic
Symposium, **2017** University of California, Davis [Poster].

36. Dhakal, R., Brewer, M. A green method to form tricyclic and tetracyclic heterocycles, such as protonated azomethine imine salts. 21st Annual Green Chemistry and Engineering Conference, 2017, Reston, Virginia [Poster].
35. Brewer, M., Al-Bataineh, N., Bercovici, D., Dhakal, R., Javed, M., Ogilvie, J., Srinivasan, R. "The diverse reactivity of 1-Aza-2-azoniaallene salts leads to a wide range of nitrogen heterocycles" Abstracts of Papers of the 44st National Organic Symposium, College Park, MD, June 2015 [Poster]
34. Brewer, M., Giampa, G. "Efforts Toward a Ring Fragmentation/1,3-Dipolar Cycloaddition Route to Aspidospermine" Abstracts of Papers of the 44st National Organic Symposium, College Park, MD, June 2015 [Poster]
33. Giampa, G., Brewer, M. "Work Toward the Synthesis of Aspidospermine Via a Ring Fragmentation and 1,3-Dipolarcycloaddition Sequence" Abstracts of Papers of the American Chemical Society 249th National Meeting, Denver, CO, March, 2015 [Poster Presentation]
32. Brewer, M.; Zhang, Z., Giampa, G., Draghici, C., Jabre, N., "Application of a ring fragmentation/azomethine ylide 1,3-dipolar cycloaddition sequence in alkaloid natural product synthesis", Abstracts of Papers of the American Chemical Society 246th National Meeting, Indianapolis, IN, September 2013 [Oral Presentation]
31. Zhang, Z., Giampa, G., Brewer, M. "Application of a Lewis acid catalyzed ring fragmentation to the synthesis of demissidine. Abstracts of Papers of the American Chemical Society 244th National Meeting, Philadelphia, PA, August 2012 [Oral Presentation]
30. Bayir, A., Tsvetkov, N., Brewer, M. "Macrocycles through fragmentation of fused bicyclic ring systems", Abstracts of Papers of the American Chemical Society 244th National Meeting, Philadelphia, PA, August 2012 [Poster Presentation]
29. Tsvetkov, N., Bayir, A., Brewer, M. "Preparation of medium sized cyclic 2-alkynones by fragmentation of α -diazo carbonyl compounds", Abstracts of Papers of the American Chemical Society 243rd National Meeting, San Diego, CA, March 2012 [Poster Presentation]
28. Brewer, M., "A fragmentation / 1,3-dipolar cycloaddition approach to polycyclic 2,5-dihydropyrroles", The 12th Annual Florida Heterocyclic and Synthetic Conference, Gainesville, FL, March 2011.
27. Brewer, M., Wyman J., Al-Bataineh, N., Javed, M.I. "Bridged and fused bicyclic diazenium salts derived from aryl hydrazone precursors", Pacificchem 2010, Honolulu, HI, December 2010.
26. Brewer, M., Draghici, C., Huang, Q. "Efficient route to polycyclic 2,5-dihydropyrroles via ring fragmentation/1,3-dipolar cycloaddition", Pacificchem 2010, Honolulu, HI, December 2010. [Oral Presentation]

American Peptide Symposium, San Diego, CA, June 9-14, 2001; Houghten, R.A., Lebl, M. Eds.; Kluwer Academic Publishers: New York, 2002 [Poster]

1. Brewer, M., Rich, D.H. "Azides to Protected Guanidines: A One-Pot Conversion Applied to the Synthesis of the Phe-Arg Hydroxyethylene Dipeptide Isostere." Abstracts of Papers of the American Chemical Society, 222th National Meeting of the American Chemical Society, Chicago, IL, August 26-30, 2001; American Chemical Society: Washington, DC, 2001; MEDI-277 [Poster]

AWARDS AND FELLOWSHIPS:

2022	Tim Shiner Ally Award for working with the UVM community of color to create social change.
2019	UVM College of Arts and Sciences Dean's Lecture Award
2009	Thieme Chemistry Journals Award
2008	NSF CAREER Award

(9/13 – 5/14), Patrick Cooke (6/15 – 5/16), Ian Kent (7/15 – 5/16) Kevin Nikolaides (1/15 –

9. CHEM 146: Advanced Organic Laboratory, the University of Vermont, fall 2008.
10. CHEM 39: Introduction to Research, the University of Vermont, fall 2008.
11. CHEM 488: Research Problem Conception and Solution, the University of Vermont, fall 2008.

12nBT/F5 12 Tf1 0 0 1 173.3 650.38 Tm0 g0 G[()] TJETQ EMC /P 2 792 reW*nBT/F3 12 Tf1 0 0 1 57.6 632.38 5

33. CHEM 048: Organic Chemistry 2 for Majors, the University of Vermont, spring 2020.
34. CHEM 047: Organic Chemistry 1 for Majors, the University of Vermont, fall 2020.
35. CHEM 048: Organic Chemistry 2 for Majors, the University of Vermont, spring 2021.
36. CHEM 144: Advanced Synthesis Techniques, the University of Vermont, Fall 2022.

INTRAMURAL SERVICE ACTIVITIES:

- 9/05 – 3/06 Member, Department of Chemistry Faculty Search Committee in Organic Chemistry
9/05 – 1/08 Member, Department of Chemistry Safety Committee
9/05 – 8/12 Member, Department of Chemistry Graduate Student Admissions Committee
1/06 CAS Spring Incoming Student Advising
9/06 – 12/06 Member, Search Committee for the Department of History Chair
9/06 – 3/07 Member, Department of Chemistry Faculty Search Committee in Organic Chemistry
9/06 – present Member, Kidder Scholarship Selection Panel
4/07 – 8/07 Member, Laboratory Remodeling Committee (for Prof. Waters' lab space)
9/07 – 8/13 Chair, Department of Chemistry Safety Committee
4/08 UVM Student Research Conference Poster Competition Judge
5/08 – present Department of Chemistry Library Liaison
9/08 – 9/09 Member, College of Arts and Sciences Nominations and Elections Committee
1/09 – present Member, Department of Chemistry Instrumentation Committee
9/09 – 5/11 Chair, College of Arts and Sciences Nominations and Elections Committee
9/10 – 12/10 Member, Biology Chair Five Year Review Committee
8/11 – 12/11 Member of the Risk Management and Safety Search Committee for Senior Assistant Director for Safety & Health Position
9/11 – 5/12 Chair, Department of Chemistry Faculty Search Committee in Organic Chemistry
9/12 – 5/15 Member, Faculty Senate Curricular Affairs Committee
5/13 CAS Commencement Assistant Faculty Marshal
7/14 – present CAS Co-Director of the Undergraduate Biochemistry Program
8/14 – present Member, Chemistry Dept. Budget Committee
8/14 – present
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2010 EPSRC (United Kingdom) International Peer Reviewer
2011 External Peer Reviewer for the American Chemical Society Petroleum Research Fund
2012 Member, NSF Division of Chemistry Organic Synthesis Panel
2013 UVM REACH Grant Review Panel
2013 External Peer Reviewer for the American Chemical Society Petroleum Research Fund
2013 Ad-
