

Department of Chemistry  
Butler University  
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## Adam M. Azman, Ph.D.

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### EDUCATION

- 2005-2010     The University of North Carolina at Chapel Hill  
Ph.D. Organic Chemistry received August 2010  
Dissertation Advisor: Dr. Michael T. Crimmins  
Dissertation Title: *Spiroketals as Natural Product Mimics and Progress toward the Total Synthesis of Milbemycin  $\beta_{14}$*
- 2001-2005     Xavier University, Cincinnati, Ohio  
B.S. Cum Laude, Chemistry, University Scholar (Honors) received May 2005  
Thesis Advisor: Dr. Richard J. Mullins  
Thesis Title: *Efforts toward the Total Synthesis of (+)-Kalkitoxin*

### TEACHING EXPERIENCE

- 2010-present     Lecturer in Organic Chemistry  
**Butler University, Indianapolis, IN**  
Courses Taught:  
CH 351 Organic Chemistry I (and integrated lab)  
CH 352 Organic Chemistry II (and integrated lab)  
CH 105 General Chemistry (lab only)  
NW 210 Chemistry and Society
- Fall 2009     Future Faculty Fellow  
Graduate Assistance in Areas of National Need (GAANN) Fellow  
**The University of North Carolina at Chapel Hill**  
Courses Taught:  
CHEM 261 Introductory Organic Chemistry I (4 Chapters)
- 2008-2009     GAANN Fellow  
**The University of North Carolina at Chapel Hill**  
Courses Taught:  
CHEM 261 Honors Organic Chemistry I (2 Chapters)  
CHEM 262 Honors Organic Chemistry II (1 Chapter)
- 2005-2006, 2008     Laboratory Teaching Assistant  
**The University of North Carolina at Chapel Hill**  
Courses Taught:  
CHEM 101L Quantitative Chemistry Laboratory (2 Sections)  
CHEM 262L Organic Chemistry Laboratory (3 Sections)

### HONORS AND MEMBERSHIPS

- 2004-present     Member, American Chemical Society  
2014-present     Co-Advisor, Butler University Chemistry Club  
2015     Butler University SGA Outstanding Faculty Member of the Year Award  
2015     Butler University SGA Annual "Apple for You" Teaching Award  
2014     Butler University SGA Annual "Apple for You" Teaching Award  
2013     Butler University SGA Annual "Apple for You" Teaching Award  
2012     Butler University SGA Annual "Apple for You" Teaching Award  
2011     Butler University SGA Annual "Apple for You" Teaching Award

2009-2010	Future Faculty Fellow
2008-2010	Graduate Assistance in Areas of National Need (GAANN) Fellow
2005	Francis Venable Summer Research Fellowship
2005	Frederick Miller, S.J. Award for the Highest Distinction in Chemistry
2004	American Chemical Society Polymer Education Committee Award

### ONLINE OUTREACH

<i>Websites</i>	<p>-Contributing Author, <i>chemistry-blog.com/author/azmanam</i> (2008–present). &gt;150 posts, ~1500 subscribers, ~10,000 page views/week</p> <ul style="list-style-type: none"><li>• Posts have been featured in or syndicated by:<ul style="list-style-type: none"><li>-<i>Chemical and Engineering News</i>: <b>89</b>(47), 34 (2011); <b>88</b>(19), 5 (2010); <b>87</b>(5), 32 (2009)</li><li>-<i>Nature Chemistry</i>: <b>5</b>(4), 247 (2013), <b>4</b>(7), 517 (2012); <b>3</b>(11), 835 (2011); <b>2</b>(7), 343 (2010)</li><li>-<i>New York Times</i>, Diner's Journal, 4 November 2011.</li></ul></li><li>-Senior Member, Chemical Forums, <a href="http://bit.ly/gOZnWY">http://bit.ly/gOZnWY</a></li><li>-Webmaster, Butler Chemistry Department Webpage, BU, <a href="http://bit.ly/BUChem">http://bit.ly/BUChem</a></li><li>-Redesigned M. T. Crimmins Group Homepage, UNC, <a href="http://bit.ly/MTCPPage">http://bit.ly/MTCPPage</a></li></ul>
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#### *Applications Created*

- Chemistry Spell-Check Dictionary for Word Processors  
<http://chemistry-blog.com/dictionary>
- NMR Formatter  
<http://bit.ly/nmrformatter>
- Coin Flip Game to Teach NMR Coupling and J-Value Concepts  
<http://bit.ly/NMRgame>
- Random Structure Generator  
<http://bit.ly/RandomStructures>
- Organic Chemistry Reactions Mind Map  
<http://bit.ly/OrgoMindMap>
- Reagent Table Widget  
<http://bit.ly/rxntable>
- Reagent Properties Widget  
<http://bit.ly/rgtprop>

### PUBLICATIONS

#### PEER-REVIEWED JOURNAL ARTICLES

1. **Azman, A. M.**; Esteb, J. J. A Coin-Flipping Analogy and Web App for Teaching Spin–Spin Splitting in  $^1\text{H}$  NMR Spectroscopy. *J. Chem. Educ.* **2016**, *93*(8), 1478-1482. DOI: 10.1021/acs.jchemed.6b00133
2. **Azman, A. M.**; Barrett, J. A.; Darragh M.; Esteb, J. J.; McNulty, L. M.; Morgan, P. M.; O'Reilly, S. A.; Wilson, A. M. "Adding Gas Chromatography-Mass Spectrometry Data to a Melting Point and Thin-Layer Chromatography Laboratory." *J. Chem. Educ.* **2013**, *90*(1), 140-141. DOI: 10.1021/ed300490x
3. Crimmins, M. T.; **Azman, A. M.** "A Modular, Stereoselective Approach to Spiroketal Synthesis." *Synlett* **2012**, *23*(10), 1489-1492. DOI: 10.1055/s-0031-1290670
4. **Azman, A. M.** "A Chemistry Spell-Check Dictionary for Word Processors." *J. Chem. Educ.* **2012**, *89*(3), 412-413. DOI: 10.1021/ed2002994

5. Zhang, D.; Bender, D. M.; Frantz, V.; Peterson, J. A.; Boyer, R. D.; Stephenson, G. A.; **Azman, A.**; McCarthy, J. R. "Facile Rearrangement of  $N^4$ -( $\alpha$ -aminoacyl)cytidines to  $N$ -(4-cytidinyl)amino Acid Amides." *Tetrahedron Lett.* **2008**, 49(13), 2052-2055. DOI: 10.1016/j.tetlet.2008.02.015

#### BOOK CHAPTERS

1. **Azman, A. M.** Radical-Mediated C—H Bond Activation. In *C—H Bond Activation in Organic Synthesis*, Li, J. J., Ed. CRC Press: Boca Raton, Florida, **2015**; pp 21-58.
2. **Azman, A. M.**; Mullins, R. J. Oxazoles, Benzoxazoles, and Isoxazoles. In *Heterocyclic Chemistry in Drug Discovery*, Li, J. J., Ed. John Wiley & Sons, Inc.: Hoboken, New Jersey, **2013**; pp 231-282.
3. Mullins, R. J.; **Azman, A. M.** Thiazoles and Benzothiazoles. In *Palladium in Heterocyclic Chemistry*, 2nd ed.; Li, J. J., Gribble, G. W., Eds.; Tetrahedron Organic Chemistry Series 26; Elsevier Science: New York, **2007**; pp 345-377.
4. Mullins, R. J.; **Azman, A. M.** Imidazoles. In *Palladium in Heterocyclic Chemistry*, 2nd ed.; Li, J. J., Gribble, G. W., Eds.; Tetrahedron Organic Chemistry Series 26; Elsevier Science: New York, **2007**; pp 407-433.

#### EDITOR-REVIEWED ARTICLES

1. **Azman, A. M.** "Teaching Chemistry through History." *Nature Chemistry* **2013**, 5(5), 353. DOI: 10.1038/nchem.1635. - **INVITED**
2. **Azman, A. M.** "Blogroll: Real-time Chemistry." *Nature Chemistry* **2013**, 5(1), 5. DOI: 10.1038/nchem.1534. - **INVITED**
3. **Azman, A.M.** "A Few of Our Favorite Chemical Reactions: Diels-Alder Reaction." *Chemical & Engineering News* **2011**, 89(47), 34-36. URL: bit.ly/DAFavRxn
4. **Azman, A. M.** On Creating a Chemistry Dictionary File. *ChemSpider J. Chem.* **2009**, 1. URL: bit.ly/ChemSpiderArticle - **INVITED**

#### PRESENTATIONS

1. Esteb, J. J.; McNulty, L. M.; Wilson, A. M.; Morgan, P.; **Azman, A. M.** Effect of Discussion Sessions on Student Learning in the Organic Laboratory: What Do Our Students Know? *Abstracts of Papers*, 248<sup>th</sup> National Meeting of the American Chemical Society, San Francisco, CA, United States, August 10-14, 2014; American Chemical Society: Washington, DC, **2014**.
2. **Azman, A. M.**; Esteb, J. J. Coin-Flipping Game for Teaching NMR Spin-spin Splitting. *Abstracts of Papers*, 246<sup>th</sup> National Meeting of the American Chemical Society, Indianapolis, IN, United States, September 8-12, 2013; American Chemical Society: Washington, DC, **2013**.
3. **Azman, A. M.** "Wednesday Fun Facts" Make Chemistry Exciting, Accessible. Presented at SENCER Summer Institute, Santa Clara, CA, August 1-5, **2013**.
4. McNulty, L.; Esteb, J.; Wilson, A.; Morgan, P.; **Azman, A.** Effect of Discussion Sessions on Student Learning in the Organic Laboratory. *Abstracts of Papers*, 245<sup>th</sup> National Meeting of the American Chemical Society, New Orleans, LA, United States, April 7-11, 2013; American Chemical Society: Washington, DC, **2013**.
5. McNulty, L.; Esteb, J.; Wilson, A.; Morgan, P.; **Azman, A.** Incorporation of NMR spectroscopy into organic chemistry laboratory at Butler University. *Abstracts of Papers*, 245<sup>th</sup> National Meeting of the American Chemical Society, New Orleans, LA, United States, April 7-11, 2013; American Chemical Society: Washington, DC, **2013**.

6. **Azman, A. M.** Spiroketals as Natural Product Mimics & Synthesis of the Northern Hemisphere of Milbemycin  $\beta_{14}$ . Xavier University, March 14, **2011**. – **INVITED**
7. Frantz, V.; Deyi, Z.; Bender, D. M.; Peterson, J. A.; Boyer, R. D.; Stephenson, G. A.; **Azman, A. M.**; McCarthy, J. R. Conversion of  $N^4$ -( $\alpha$ -aminoacyl)cytidines to  $N$ -(4-cytidinyl)amino Acid Amides by a Novel Rearrangement Reaction. *Abstracts of Papers*, 232 National Meeting of the American Chemical Society, San Francisco, CA, Sept 10-14, 2006; American Chemical Society: Washington, DC, **2006**.
8. **Azman, A. M.**; Rohlf, R. L.; Mullins, R. J. Synthesis and Medicinal Chemistry of Kalkitoxin. National Conference for Undergraduate Research, Lexington, VA, April, 2005; Council on Undergraduate Research, **2005**.

#### STUDENT PRESENTATIONS

1. “Preparation of Novel  $\beta$ -Lactams for Antibiotic Synthesis.” Snyder, A.; Esteb, J. J.; **Azman, A. M.** Eli Lilly & Company Undergraduate Research Grant Symposium, Indianapolis, IN. August 16, **2011**.

#### GRANTS

1. *Chemistry Outreach Program and Demo Kit*. Co-PI with student Jericha Mill. Butler University Innovation Fund. **\$7500 FUNDED** – Spring 2015.