

John C. DiCesare

Department of Chemistry
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Degrees Earned

Ph.D. Organic Chemistry, Georgia Institute of Technology, Atlanta, Georgia, September 1992.
Minor: Inorganic Chem.

B.S. Chemistry, University of Central Florida. Orlando, Florida., December 1987

Areas of Specialization

Organic Chemistry	Development of synthetic methodologies in asymmetric synthesis.
Material Science	Molecularly Imprinted Polymers, & Sol-Gel Chemistry
Nanotechnology	Covalently modified carbon nanotubes.
Medicinal Chemistry	Synthesis of compounds for biological evaluation.
Combinatorial Chemistry	Solid-phase synthetic methodology and automated library generation.

Professional Experience

7/09 -	Chair and Professor of Chemistry, Georgia Southern University, Statesboro, GA
8/01 - 6/09	Associate Professor of Chemistry, University of Tulsa, Tulsa, OK Promoted to Professor effective 7/09
8/95 - 8/01	Assistant Professor of Chemistry, University of Tulsa, Tulsa, OK.
8/94 - 8/95	Adjunct Assistant Professor, North Carolina Central University, Durham, NC.
8/94 - 8/95	Research Associate, Center for Organic and Medicinal Chemistry, Research Triangle Institute, Research Triangle Park, NC.
11/93 - 8/94	Process Development Scientist, Advanced ChemTech, Louisville, KY
7/92 - 10/93	Postdoctoral Fellow, Center for Organic and Medicinal Chemistry, Research Triangle Institute, Research Triangle Park, NC.
1/88 - 6/92	Teaching / Research Assistant, Georgia Institute of Technology, Atlanta, GA.
5/86 - 12/87	Undergraduate Research Assistant, University of Central Florida. Orlando, FL.

Honors/Awards

Recipient, Zelimir Schmidt Award for Research Excellence (2004)
3 Undergraduate Students have received Goldwater Scholarships
2 Undergraduate Students have received NSF Graduate Fellowships
2 Undergraduate Students have received Phi Kappa Phi Graduate Fellowships
Recipient, Residential School on Medicinal Chemistry Fellowship (1997)
Recipient, Monsanto / UCF Summer Research Fellowship (1987)
Abstracter, Molecular Design Limited REACCS Database (1988-91)

Professional Memberships / Service

Alternate Councilor, Savannah Section of the American Chemical Society (2012- present)
Member, ACS Exams Committee, 2008 Full Year Organic Chemistry (2007-2009)
Treasurer, Tulsa Section of the American Chemical Society (2002 - 2003)
Director, Tulsa Section of the American Chemical Society (1999 - 2001)
Past Chair, Tulsa Section of the American Chemical Society (1998, 2005)
Chair, Tulsa Section of the American Chemical Society (1997)
Chair-elect, Tulsa Section of the American Chemical Society (1996)
Member, American Chemical Society (1987 - present)
Member, Polymer Chemistry Division of the American Chemical Society (2011 - present)
Member, Organic Chemistry Division of the American Chemical Society (1987 - present)
Member, Medicinal Chemistry Division of the American Chemical Society (1992 - present)
Member, Council on Undergraduate Research (1995 - 1998)
Member, Tulsa section of the American Chemical Society (1995 - present)
Chair, Graduate Student Forum, Georgia Tech (1990-1992)
Presided, Organic and Medicinal Session, 45th Pentasectional ACS Meeting (2000)
Presided, Organic and Medicinal Session, 44th Pentasectional ACS Meeting (1999)
Presided, Organic Chemistry Session, 53rd Southwest Regional ACS Meeting (1997)
Organizer, General Session on Organic Chemistry, 53rd Southwest Regional ACS Meeting (1997)
Reviewer, Journal of Organic Chemistry (2004)
Reviewer, Applied Catalysis B: Environmental (2003, 2004)

Reviewer, Oklahoma NASA EPSCoR Travel Grants (2004)

Reviewer, Tetrahedron Letters (2000, 2004)

Reviewer, Letter in Organic Chemistry (2005)

Reviewer, International Science and Technology Center (2003)

Reviewer, National Science Foundation, Organic Chemistry (2001, 2002, 2003, 2005, 2006, 2007)

Reviewer, Tetrahedron (2001)

Reviewer, CambridgeSoft Corporation, e-Lab Notebook (2001)

Reviewer, CambridgeSoft Corporation, ChemOffice Ultra 2000 Enhanced (2000)

Reviewer, Organic Chemistry 1ed, Karty, Prentice Hall, (2006)

Reviewer, Organic Chemistry 1ed, Hardinger, Freeman, (2005)

Reviewer, Organic Chemistry 2ed, Fox & Whitesell, Jones & Bartlett, (2002)

Reviewer, Organic Chemistry 3ed, Bruice, Prentice Hall, (1999 and 2000)

Reviewer, Organic Chemistry for Freshman 1ed, Reingold, Houghton-Mifflin, (2000)

Reviewer, Writing Reaction Mechanism Organic Chemistry 2ed, Miller. Academic Press, (1999)

Reviewer, Petroleum Research Fund (1998)

Reviewer, CambridgeSoft Corporation, ChemOffice Ultra 98 (1998)

Reviewer, Organic Chemistry 7ed, Solomons, John Wiley, (1998)

Reviewer, ORAU Junior Faculty Enhancement Awards Program (1997)

Publications in Refereed Journals

16. Luciferase inhibition by a novel naphthoquinone. Bedford, Rebecca; LePage, Daniel; Hoffmann, Rachel; Kennedy, Steven; Gutschenritter, Tyler; Bull, Lauren; Sujijantararat, Nanthiya; DiCesare, John C.; Sheaff, Robert J., *Journal of Photochemistry and Photobiology, B: Biology* (**2012**), 107, 55-64.
15. Induction of cell death by a novel naphthoquinone containing a modified anthracycline ring system. Carvajal, Denisse; Kennedy, Steven; Boustani, Andre; Lazar, Monica; Nguyen, Suong; DiCesare, John C.; Sheaff, Robert J., *Chemical Biology & Drug Design* (**2011**), 78(5), 764-777.
14. Topoisomerase I inactivation by a novel thiol reactive naphthoquinone. Kennedy, Steven; DiCesare, John C.; Sheaff, Robert J., *Biochemical and Biophysical Research Communications* (**2011**), 410(1), 152-158.

13. Topoisomerase I/II inhibition by a novel naphthoquinone containing a modified anthracycline ring system. Kennedy, Steven; DiCesare, John C.; Sheaff, Robert J., *Biochemical and Biophysical Research Communications* (2011), 408(1), 94-98.
12. Parallel Synthesis of An Oligomeric Imidazole-4,5-dicarboxamide Library, Xu, Zhigang; DiCesare, John C.; Baures, Paul W. *Journal of Combinatorial Chemistry* (2010), 12(2), 248-254.
11. Parallel synthesis of a library of symmetrically- and dissymmetrically-disubstituted imidazole-4,5-dicarboxamides bearing amino acid esters. Solinas, Rosanna; DiCesare, John C.; Baures, Paul W., *Molecules* (2009), 14(1), 352-363.
10. Parallel synthesis of an imidazole-4,5-dicarboxamide library bearing amino acid esters and alkanamines. Solinas, Rosanna; DiCesare, John C.; Baures, Paul W., *Molecules* (2008), 13(12), 3149-3170.
9. The synthesis of 1-(4-(triethoxysilyl)phenyl)-4,4,4-trifluoro-1,3-butanedione, a novel trialkoxysilane monomer for the preparation of functionalized sol-gel matrix materials. Peeples, Christopher J.; Earni, Raghu Ram; DiCesare, John C., *Molecules* (2008), 13(10), 2601-2607.
8. Ethanol Levels in Honeybee Hemolymph Resulting from Alcohol Ingestion. Bozic, Janko; DiCesare, John; Wells, Harrington; Abramson, Charles I., *Alcohol*, 2007, 41, 281-284.
7. Rheokinetics of Ring-Opening Metathesis Polymerization of Norbornene-Based Monomers Intended for Self-Healing Applications. *Polymer Engineering & Science*, 2006, 46, 1804-1811. Gabriel Larin, Nate Bernklau, Michael Kessler and John C. DiCesare.
6. Modification of the Titanium(IV) Isopropoxide Reductive Amination Reaction: Application to Solid Phase Synthesis, *Synthetic Communications*. 2005, 35, 663-668, John C. DiCesare, Celesta E. White, Wendy Rasmussen, Bryan White, Laura Craft and Charles McComas.
5. Improved Procedure for the Large Scale Synthesis of 1,2,3,4,4a,9b-Hexahydrodibenzothiophene, *Org. Prep. Proced. Int.*, 2000, 32, 169-173, John C. DiCesare, L. Brian Thompson, Ryan J. Andersen and John Nail.
4. Large Scale Reductive Cleavage of Dibenzothiophene, *Heterocyclic Commun.*, 2000, 6, 29, John C. DiCesare and Bryan M. White.
3. Identification of the Factors Affecting the Rate of Deactivation of Hypochlorous Acid by Melatonin, *Biochemical and Biophysical Research Communications*, 1999, 257, 431-439, Shawn M. Dellagar, Shelly A. Murphy, Andrew E. Bourne, John C. DiCesare and Gordon H. Purser.
2. Synthesis and Structural Determination of 5H-Benzocyclohepten-5,8-imines, *J.Heterocyclic Chem.*, 1994, 31, 187, John C. DiCesare, Jason P. Burgess, S. Wayne Mascarella, Richard Rothman and F. Ivy Carroll.

1. The Reaction of Quaternary Ammonium Salts Derived From 2-Aryl-3-(N,N-Dimethylamino)-1-Propenes with Oxygen Containing Nucleophiles, *Synth. Commun.* **1989**, 19, 1413, John T. Gupton, John C. DiCesare and Joan Brown.

Proceedings in Refereed Publications

4. Progress in developing nerve agent sensors using combinatorial techniques., DiCesare, John C.; Parker, Jennifer; Horne, Starr N.; Kita, Justin; Earni, Raghu; Peeples, Christopher., Department of Chemistry and Biochemistry, The University of Tulsa, Tulsa, OK, USA. Materials Research Society Symposium Proceedings (2004), Volume Date 2003, 787 (Molecularly Imprinted Materials--2003), 17-22.
3. Photo-Catalytic Oxidation of 2-Propanol in a TiO₂/SiO₂ Catalytic Thin Film Reactor. _Atul Kumar and John C. DiCesare: Proceedings of AIChE Paper 396c. (2003), (1st Place Paper)
2. Development of a sensor for the hydrolysis product of the nerve agent soman utilizing molecular imprinting and silica sol-gel techniques. Parker, Jennifer L.; Horne, Starr N.; Kita, Justin M.; Peeples, Christopher J.; DiCesare, John C., *Polym Mater. Sci. Eng* (2003), 88, 328-329.
1. Chemical models of chloroform and dichloroacetic acid production from the use of chlorine and chloramine as a residual disinfectant. Moore, Evan R.; White, Brian D.; DiCesare, John C.; Purser, Gordon H. ACS, Division of Environmental Chemistry (2001), 41(1), 12-17.

Manuscripts in Preparation of Completed Work

5. The Rearrangement of a 5H-Benzocycloheptanaphthalene-5,12-imine to 5,12-Naphthacenequinone, In Revision to *Heterocyclic Commun* Suong Nguyen and John C. DiCesare
4. Mechanistic Insights Into the Titanium(IV) Isopropoxide Reductive Amination Reaction, *Tetrahedron Lett.* To be Submitted, Laura Craft, Holly Black, Celesta E. White and John C. DiCesare.
3. Carbohydrate Derived Enol Ethers 1: Asymmetric 1,2 Addition Reactions to Aldehydes, *Tetrahedron Lett.*, To be Submitted, John C. DiCesare, Reza J. Azadi and Patrick G. McDougal.
2. Carbohydrate Derived Enol Ethers 2: Asymmetric Reduction of Enones, *Tetrahedron Lett.*, To be Submitted, John C. DiCesare, Reza J. Azadi and Patrick G. McDougal.
1. Carbohydrate Derived Enol Ethers 3: Asymmetric Hydrogenation of Alkenes, *Tetrahedron Lett.*, To be Submitted, John C. DiCesare, Jonathan Pillow and Patrick G. McDougal.

Professional Presentations, Shows, Performances

27. Synthesis of Functionalized Carbon Nanotubes for Ring Opening Metathesis Polymerization Reactions, DiCesare, John C., Kessler, Michael., Peeples, Christopher J., and Kiker, Melanie., Presented to Oklahoma EPSCoR Annual State Conference, Norman, Oklahoma, May 18, 2006.
26. Sensor for Nerve Agents using Sol-Gel Chemistry, DiCesare, John C.; Horne, Starr N.; Parker, Jennifer L.; Boya, Sireesh; Peeples, Christopher J., 39th Midwest Regional Meeting of the American Chemical Society, Manhattan, KS, United States, October 20-22 (2004), MID04-351
25. Progress in developing nerve agent sensors using combinatorial techniques.. DiCesare, John C.; Parker, Jennifer; Horne, Starr N.; Kita, Justin; Earni, Raghu; Peeples, Christopher, Materials Research Society Symposium Proceedings (2004), 787(Molecularly Imprinted Materials), 17-22.
24. Second Generation Photocatalytic Oxidation Processes for the NASA Advanced Water Recovery System, John C. DiCesare, Presented to Oklahoma NASA EPSCoR Technical Advisory Committee, April 20, 2004, Oklahoma City, Oklahoma.
23. Development of Nerve Agent Sensors Using Combinatorial Techniques., John C. DiCesare, Presented to GE Global Research, Biosciences, Combichemistry and Characterization Technologies: Combinatorial Chemistry laboratory Seminar Series, June 16, 04, Schenectady, NY
22. Catalyst Development for Water Purification, John C. DiCesare, Presentation to NASA Johnson Space Center, June 2002, Houston Texas.
21. Nerve Agent Sensors, John C. DiCesare, Presentation Army Research Labs, December 2001. MD.
20. Development of Sensors for Nerve Agents Using Combinatorial Techniques. John C. DiCesare, Presented at the Gordon Research Conference on Combinatorial and Highthroughput materials Science,, July 2, 2002, New Hampshire
19. Insights into the Mechanism of the Titanium Isopropoxide Reductive Amination Reaction: Application to Solid Phase And Asymmetric Synthesis, J. C. DiCesare, L. Craft, H. Black and C. E. McGee, Presented at the 221st ACS National meeting, April 1, 2001, San Diego, CA.
18. Improved Procedure for the Large Scale, High Purity Synthesis of 1,2,3,4,4a,9b-Hexahydrodibenzothiophene., John C. DiCesare, John Nail, L. Brian Thompson,, Presented at the 219th ACS National meeting, March 28, 2000, San Francisco, California.
17. Improved Synthesis of 1,2,3,4,4a,9b-Hexahydrodibenzothiophene: An Intermediate in the Hydrodesulfurization of Dibenzothiophene., John C. DiCesare, John Nail, Robert Paschal and Brian Thompson, Presented at the 45th Pentasectional Meeting of the ACS, April 15, 2000, Stillwater, Oklahoma.

16. Insights into the Mechanism of the Titanium Isopropoxide Reductive Amination Reaction: Application to Solid Phase And Asymmetric Synthesis., John C. DiCesare, Celesta E. McGee and Laura Craft, Presented at 44th Pentasectional Meeting of the ACS, October 9, 1999, Tulsa, OK.
15. Titanium Isopropoxide Reductive Aminations: Application to Solid Phase And Asymmetric Synthesis John C. DiCesare, Presented to the Department of Chemistry, Kansas State University, July 22, 1999, Manhattan, Kansas.
14. Investigation of the Titanium Isopropoxide Catalyzed Reductive Amination Reaction and its Application to Solid Phase Synthesis John C. DiCesare, Presented to the Department of Chemistry, University of Oklahoma, May 1, 1998, Norman, Oklahoma.
13. The Introduction of Automation Into the Environmental Chemistry Curriculum., John C. DiCesare, Gordon H. Purser and Leslie J. Prader, Presented at the 215th ACS National Meeting, April 2, 1998, Dallas, Texas.
12. Using an Automated Synthesizer in an Enviromental Chemistry Laboratory, Gordon H. Purser, John C. DiCesare and Leslie J. Prader, Presented at the 15th Biennial Conference on Chemical Education, August 11, 1998, Waterloo, Ontario, Canada.
11. Development Of Solid Phase Reductive Amination Reactions., John C. DiCesare, Celesta McGee and Holly B. Black, Wendy E. Rasmussen, Bryan White and Ryan Andersen, Presented at the 53rd Southwest Regional ACS Meeting, October 1, 1997, Tulsa, Oklahoma.
10. Titanium Isopropoxide Catalyzed Reductive Amination, Reactions On Solid Support., John C. DiCesare, Celesta E. McGee, Holly B. Black and Wendy E. Rasmussen, Presented at the 213th ACS National Meeting, April 13, 1997, San Francisco, California.
9. Titanium Isopropoxide Catalyzed Reductive Amination, Reactions On Solid Support John C. DiCesare, Celesta E. McGee, Holly B. Black and Wendy E. Rasmussen, Presented at the 213th ACS National Meeting, April 14, 1997, San Francisco, California, Paper selected for Sci-Mix Poster Session and Reception.
8. Improvements in the Titanium Isopropoxide Catalyzed Reductive Amination Reaction with Anilines John C. DiCesare, Celesta McGee, and Charles B. McComas, Presented at the 41st ACS Pentasectional Meeting, October 5, 1996, Bartlesville, Oklahoma.
7. Carbohydrates as Chiral Auxiliaries in Catalytic Hydrogenation Reactions John C. DiCesare, Jonathan Pillow and Patrick G. McDougal, Presented at the 212th ACS National Meeting, August 28, 1996, Orlando, Florida.
6. Modification of the Titanium Isopropoxide Catalyzed Reductive Amination Reaction and Its Application to Solid Phase Synthesis John C. DiCesare, Charles B. McComas, Presented at the 211th ACS National Meeting, March 24, 1996, New Orleans, Louisiana.

5. Modification of the Titanium Isopropoxide Catalyzed Reductive Amination Reaction and Its Application to Solid Phase Synthesis., John C. DiCesare, Charles B. McComas, Presented at the 211th ACS National Meeting, March 25, 1996, New Orleans, Louisiana. Paper selected for Sci-Mix Poster Session and Reception.
4. Synthesis and Spectral Properties of 5H-benzocyclohepten-5,8-imines,, John C. DiCesare, Jason P. Burgess, S. Wayne Mascarella and F. Ivy Carroll, Presented at the 206th ACS National Meeting, August 22, 1993, Chicago, Illinois.
3. Carbohydrate Derived Enol Ethers as Acyl Anion Equivalents John C. DiCesare, Patrick G. McDougal and Leonard Starks, Presented at the 201st ACS National Meeting, April 17, 1991, Atlanta, Georgia.
2. Asymmetric Synthesis Via Chiral Lithiated Enol Ethers., Patrick G. McDougal, John C. DiCesare, John Kerrigan and Leonard J. Starks, Presented at the 199th ACS National Meeting, April 12, 1990 Boston, Massachusetts.
1. Homo-Chiral Acyl Anion Equivalents, Patrick G. McDougal and John C. DiCesare, Presented to the Canadian Society for Chemistry, Symposium on Carbanion Chemistry, July 23, 1989, Ottawa, Canada.

Graduate Student, Post-Doctoral and Research Associate Presentations:

6. Xu, Zhigang; DiCesare, John C.; Baures, Paul W., Synthesis of amino acid substituted oligomeric imidazole-4,5-dicarboxamide libraries. Abstracts of Papers, 237th ACS National Meeting, Salt Lake City, UT, United States, March 22-26, 2009 (2009), ORGN-366.
5. Atul Kumar and John C. DiCesare PhotoCatalytic Oxidation of 2-Propanol in a TiO₂/SiO₂ Catalytic Thin Film Reactor: Presented at the 2003 Annual AIChE Meeting, November 16-18, 2003, San Francisco, CA.
4. Kowkuntla, Kiran; Kumar, Atul; DiCesare, John. Photo-catalytic oxidation of 2-propanol using silica supported titania catalysts in a packed-bed photoreactor. Abstracts, 59th Southwest Regional Meeting of the American Chemical Society, Oklahoma City, OK, United States, October 25-28 (2003), 229
3. Earni, Raghu; Peebles, Christopher; DiCesare, John., Synthesis of a triethoxysilylated-b-diketo ligand for the fabrication of a chemical warfare agent sensor Abstracts, 59th Southwest Regional Meeting of the American Chemical Society, Oklahoma City, OK, United States, October 25-28 (2003), 202.

2. Jennifer L. Parker , Starr N. Horne , Justin M. Kita , Christopher J. Peeples and John C. DiCesare, "Development of a sensor for the hydrolysis product of the nerve agent soman utilizing molecular imprinting and silica sol-gel techniques", Presented to the Polymer division at the 225th ACS National Meeting, March 25, 2003, New Orleans, Louisiana.
1. Starr Horne, Jennifer Parker, Justin M. Kita, Christopher J. Peeples and John C. DiCesare, "Toward Molecularly-Templated Organophosphonate Sensors Using Silica Sol-Gel Techniques", Presented to the Polymer division at the 223rd ACS National meeting, April 9, 2002, Orlando Florida.

Undergraduate Student Presentations:

96. LePage, Daniel P.; DiCesare, John; Sheaff, Robert; Polen, Paul, Mitochondrial stress induced by a modified naphthaquinone. Abstracts of Papers, 241st ACS National Meeting & Exposition, Anaheim, CA, United States, March 27-31, 2011 (2011), CHED-451.
95. Price, Allison M.; Crane, Lindsey; Bedford, Rebecca; DiCesare, John; Sheaff, Robert J., Characterization of a novel topoisomerase inhibitor. Abstracts of Papers, 241st ACS National Meeting & Exposition, Anaheim, CA, United States, March 27-31, 2011 (2011), CHED-449.
94. Hoffmann, Rachel; Bedford, Rebecca; Laizure, Maddi; Potter, Jamie; LePage, Daniel; DiCesare, John; Sheaff, Robert J., Inhibition of Renilla luciferase by novel naphthaquinone with modified anthracycline ring system. Abstracts of Papers, 241st ACS National Meeting & Exposition, Anaheim, CA, United States, March 27-31, 2011 (2011), CHED-414.
93. Bedford, Rebecca; Laizure, Maddi; Potter, Jamie; LePage, Daniel; Hoffmann, Rachel; DiCesare, John; Sheaff, Robert J., Mechanism of firefly luciferase inhibition by novel naphthaquinone with modified anthracycline ring system. Abstracts of Papers, 241st ACS National Meeting & Exposition, Anaheim, CA, United States, March 27-31, 2011 (2011), CHED-412.
92. Bohn, Kevin A.; DiCesare, John C.; Sheaff, Robert J., Induction of cell stress by a novel naphthaquinone with modified anthracycline ring system. Abstracts of Papers, 241st ACS National Meeting & Exposition, Anaheim, CA, United States, March 27-31, 2011 (2011), CHED-398.
91. Shipman, Amber L.; DiCesare, John., Novel method to functionalized carbon nanotubes. Abstracts of Papers, 237th ACS National Meeting, Salt Lake City, UT, United States, March 22-26, 2009 (2009), CHED-703.
90. Chuck, Erin; Johnston, Rachael; DiCesare, John C.; Baures, Paul W., Imidazole-4,5-dicarboxylic acid libraries: Alkanamines and alcohol substituents. Abstracts of Papers, 237th ACS National Meeting, Salt Lake City, UT, United States, March 22-26, 2009 (2009), CHED-664.

89. Burkholder, Phillip R.; DiCesare, John., Optimization of a titania capped packed-bed photocatalyst. Abstracts of Papers, 237th ACS National Meeting, Salt Lake City, UT, United States, March 22-26, 2009 (2009), CHED-542.
88. Cantu, Jacob M.; Brumback, Karin J.; DiCesare, John; Purser, Gordon H., Reaction of hypochlorous acid with resveratrol. Abstracts of Papers, 237th ACS National Meeting, Salt Lake City, UT, United States, March 22-26, 2009 (2009), CHED-401.
87. Katseres, Nicholas S.; Reading, David W.; Shayya, Luay; DiCesare, John; Purser, Gordon H., Hydrolysis of creatine ethyl ester. Abstracts of Papers, 237th ACS National Meeting, Salt Lake City, UT, United States, March 22-26, 2009 (2009), CHED-350.
86. Medders, Greg R.; Brumback, Karin; DiCesare, John C.; Purser, Gordon H., Characterizing the reaction of the arginine side-chain with hypochlorous acid. Abstracts of Papers, 237th ACS National Meeting, Salt Lake City, UT, United States, March 22-26, 2009 (2009), CHED-302.
85. Winkler, Zachary R.; Magsam, Tegan K.; DiCesare, John C.; Purser, Gordon H., 5-Aminosalicylic acid as an antioxidant: Mechanism of reaction with hypochlorous acid. Abstracts of Papers, 237th ACS National Meeting, Salt Lake City, UT, United States, March 22-26, 2009 (2009), CHED-280.
84. Magsam, Tegan K.; Winkler, Zachary R.; DiCesare, John C.; Purser, Gordon H., 5-Aminosalicylic acid as an antioxidant: Mechanism of reaction with chloramine. Abstracts of Papers, 237th ACS National Meeting, Salt Lake City, UT, United States, March 22-26, 2009 (2009), CHED-279.
83. Kalstabakken, Kyle; DiCesare, John C., Synthesis of novel variations of n-methyl-5H-benzocycloheptanaphthaleneimines. Abstracts of Papers, 235th ACS National Meeting, New Orleans, LA, United States, April 6-10, 2008 (2008), CHED-1324.
82. Lawson, Kelly; DiCesare, John C.; Baures, Paul W., Optimization of imidazole-4,5-dicarboxylic acid libraries from anilines and alkanamines. Abstracts of Papers, 235th ACS National Meeting, New Orleans, LA, United States, April 6-10, 2008 (2008), CHED-1311.
81. Johnston, Rachael; DiCesare, John C.; Baures, Paul W., Imidazole-4,5-dicarboxylic acid libraries: Anilines and amino acid ester substituents. Abstracts of Papers, 235th ACS National Meeting, New Orleans, LA, United States, April 6-10, 2008 (2008), CHED-1303.
80. Huang, David; Burkholder, Phillip R.; DiCesare, John C., Photocatalyzed oxidation of alcohols for water purification. Abstracts of Papers, 235th ACS National Meeting, New Orleans, LA, United States, April 6-10, 2008 (2008), CHED-1115.
79. Beam, Kaitlin; DiCesare, John C.; Sheaff, Robert J., Inhibition of topoisomerase by a novel naphthaquinone adduct. Abstracts of Papers, 235th ACS National Meeting, New Orleans, LA, United States, April 6-10, 2008 (2008), CHED-861.

78. Brumback, Karin; Thomas, Matthew; DiCesare, John; Purser, Gordon H., Creatine as an antioxidant: Mechanism of the reaction between creatine and hypochlorous acid. Abstracts of Papers, 235th ACS National Meeting, New Orleans, LA, United States, April 6-10, 2008 (2008), CHED-806.
77. Lazar, Monica; DiCesare, John C.; Sheaff, Robert J., Characterization of cancer cell death by a novel naphthaquionone adduct. Abstracts of Papers, 235th ACS National Meeting, New Orleans, LA, United States, April 6-10, 2008 (2008), CHED-793.
76. Hastings, Nicholas A.; Post, Justin; DiCesare, John C., Alternative route to 4-hydroxyisoquinolines. Abstracts of Papers, 235th ACS National Meeting, New Orleans, LA, United States, April 6-10, 2008 (2008), CHED-650.
75. Shipman, Amber L.; Kessler, Michael R.; DiCesare, John C., Strength enhancement through carbon nanotube functionalization using a pendant norbornene. Abstracts of Papers, 235th ACS National Meeting, New Orleans, LA, United States, April 6-10, 2008 (2008), CHED-338.
74. Hinshaw, James; DiCesare, John C.; Baures, Paul W, Imidazole-4,5-dicarboxylic acid libraries: Anilines and secondary amine substituents. Abstracts of Papers, 233rd ACS National Meeting, Chicago, IL, United States, March 25-29, 2007 (2007), CHED-1337.
73. Lawson, Kelly; DiCesare, John C.; Baures, Paul W., Imidazole-4,5-dicarboxylic acid libraries: Anilines and primary amine substituents. Abstracts of Papers, 233rd ACS National Meeting, Chicago, IL, United States, March 25-29, 2007 (2007), CHED-1336.
72. Burkholder, Phillip R.; Mathew, Varsha; DiCesare, John C, Silica gel pellet development for water purification by use of titania photocatalyst Abstracts of Papers, 233rd ACS National Meeting, Chicago, IL, United States, March 25-29, 2007 (2007), CHED-1148.
71. Boustani, Andre Joseph; Sheaff, Robert J.; DiCesare, John C., Investigation of N-methyl-5H-benzocycloheptanaphthalene-5,12-imine induced cell toxicity. Abstracts of Papers, 233rd ACS National Meeting, Chicago, IL, United States, March 25-29, 2007 (2007), CHED-1037.
70. Brumback, Karin J.; Thomas, Matthew R.; DiCesare, John C.; Purser, Gordon H., Fate of creatine in the reaction with hypochlorous. Abstracts of Papers, 233rd ACS National Meeting, Chicago, IL, United States, March 25-29, 2007 (2007), CHED-937.
69. Vierling, Ryan J.; DiCesare, John C.; Vanderah, David J., (Oligo)ethylene oxide SAMs on Au: A system to understand protein adsorption on surfaces. Abstracts of Papers, 233rd ACS National Meeting, Chicago, IL, United States, March 25-29, 2007 (2007), CHED-880.
68. Hastings, Nicholas A.; Huang, David; DiCesare, John C., New synthetic route to 4-hydroxyisoquinolines. Abstracts of Papers, 233rd ACS National Meeting, Chicago, IL, United States, March 25-29, 2007 (2007), CHED-623.

67. Shipman, Amber L.; Kessler, Michael R.; Peeples, Christopher J.; Roberts, Kenneth P.; DiCesare, John C., Synthesis of functionalized carbon nanotubes for polymer strength. Abstracts of Papers, 233rd ACS National Meeting, Chicago, IL, US, March 25-29, 2007 (2007), CHED-493.
66. Brumback, Karin J.; DiCesare, John C.; Purser, Gordon H. Evaluating the capacity of creatine to deactivate the reactive chlorine atom in hypochlorous acid. Abstracts, 62nd Southwest Regional Meeting of the American Chemical Society, Houston, TX, US, October 19-22 (2006), SRM-339.
65. Nguyen, Suong and DiCesare, John C., Profile of the biochemistry of N-methyl-5H-benzocycloheptanaphthalene-5,12-imine., Abstracts of Papers, 231th ACS National Meeting, San Diego, CA, United States, March 26-30, 2006 (2006), CHED-1015
64. Kiker, Melanie K., Peeples, Christopher J., Kessler, Michael R., and DiCesare, John C., Synthesis of functionalized carbon nanotubes for ring opening metathesis polymerization reactions., Abstracts of Papers, 231th ACS National Meeting, San Diego, CA, United States, March 26-30, 2006 (2006), CHED-326
63. Kubarych, Colin J., and DiCesare, John C., Development of a new synthetic method for substituted 4-hydroxyisoquinolines., Abstracts of Papers, 231th ACS National Meeting, San Diego, CA, United States, March 26-30, 2006 (2006), CHED-377
62. Boustani, Andre, Richardson, John, Jones, Christopher W., and DiCesare, John C., Investigation of the reaction conditions that control benzylic bromination vs electrophilic aromatic substitution in electron rich aromatic systems., Abstracts of Papers, 231th ACS National Meeting, San Diego, CA, United States, March 26-30, 2006 (2006), CHED-419
61. Brumback, Karin J., Vierling, Ryan J., Fry, Alex L., DiCesare, John C., and Purser, Gordon H., Stoichiometry and product characterization of the reaction between creatine and hypochlorous acid., Abstracts of Papers, 231th ACS National Meeting, San Diego, CA, United States, March 26-30, 2006 (2006), CHED-785
60. Vierling, Ryan J., Brumback, Karin J., Fry, Alex L., DiCesare, John C., and Purser, Gordon H., Kinetics of the reaction between creatine and hypochlorous acid., Abstracts of Papers, 231th ACS National Meeting, San Diego, CA, United States, March 26-30, 2006 (2006), CHED-741
59. Barber, James R., DiCesare, John C., and Purser, Gordon H., Reactivity of aspartame, a common sweetener, in chlorinated drinking water., Abstracts of Papers, 231th ACS National Meeting, San Diego, CA, United States, March 26-30, 2006 (2006), CHED-478
58. Reading, David W., DiCesare, John C., and Purser, Gordon H., Stability of creatine ethyl ester, a new sports supplement. Abstracts of Papers, 231th ACS National Meeting, San Diego, CA, United States, March 26-30, 2006 (2006), CHED-783

57. Underwood, William and DiCesare, John C., Development of a water reclamation system using a packed-bed photoreactor, Abstracts of Papers, 231th ACS National Meeting, San Diego, CA, United States, March 26-30, 2006 (2006), CHED-828
56. Barber, James R.; DiCesare, John C.; Purser, Gordon H. Kinetics of the hypochlorous acid degradation of a diketone nitrile metabolite of the herbicide, isoxaflutole, Abstracts of Papers, 229th ACS National Meeting, San Diego, CA, United States, March 13-17, 2005 (2005), CHED-971
55. Kiker, Melanie; Peeples, Christopher J.; DiCesare, John C. Synthesis of dehydro-L-difluoromethyllysine: A precursor to tritiated L-difluoromethyllysine, a lysine decarboxylate inhibitor. Abstracts of Papers, 229th ACS National Meeting, San Diego, CA, United States, March 13-17, 2005 (2005), CHED-529.
54. Rodriguez, Marianeli; Peeples, Christopher J.; DiCesare, John C. Resolution and isolation of (L)-difluoromethyllysine. Abstracts of Papers, 229th ACS National Meeting, San Diego, CA, United States, March 13-17, 2005 (2005), CHED-485
53. Boustani, Andre; DiCesare, John C. Formation of chiral tertiary amines. Abstracts of Papers, 229th ACS National Meeting, San Diego, CA, March 13-17, 2005 (2005), CHED-418.
52. Underwood, William; DiCesare, John C. Creation of an analytical method for the measurement of analytes leached from a molecularly imprinted polymer. Abstracts of Papers, 229th ACS National Meeting, San Diego, CA, March 13-17, 2005 (2005), CHED-301.
51. Lansdown, Meredith; Horne, Starr N.; DiCesare, John C., Development of lanthanide phosphors within a silica matrix using sol-gel techniques. Abstracts of Papers, 227th ACS National Meeting, Anaheim, CA, United States, March 28-April 1, 2004 (2004), CHED-390.
50. Rodriguez, Marianeli; Peeples, Christopher J.; DiCesare, John C., Synthesis of a radioactively-labeled lysine decarboxylase inhibitor: L-difluoromethyllysine (L-DMFL). Abstracts of Papers, 227th ACS National Meeting, Anaheim, CA, United States, March 28-April 1, 2004 (2004), CHED-508.
49. Why, Nicola; DiCesare, John C., Analyzing the lifespan of a photocatalyst. Abstracts of Papers, 227th ACS National Meeting, Anaheim, CA, United States, March 28-April 1, 2004 (2004), CHED-324.
48. Lawson, Jennifer; Horne, Starr N.; DiCesare, John C., Reduction of nitro-groups in explosive compounds. Abstracts of Papers, 227th ACS National Meeting, Anaheim, CA, United States, March 28-April 1, 2004 (2004), CHED-853.
47. Daugherty, Jennifer; Peeples, Christopher J.; DiCesare, John C., Lysine decarboxylase in periodontitis patients. Abstracts of Papers, 227th ACS National Meeting, Anaheim, CA, United States, March 28-April 1, 2004 (2004), CHED-497.

46. Nguyen, Suong; DiCesare, John C., The synthesis and mutagenicity of novel potential anticancer antibiotics. Abstracts of Papers, 227th ACS National Meeting, Anaheim, CA, United States, March 28-April 1, 2004 (2004), CHED-512.
45. Iski, Erin; Horne, Starr N.; DiCesare, John C., Development of a nerve agent sensor using sol-gel. Abstracts of Papers, 227th ACS National Meeting, Anaheim, CA, United States, March 28-April 1, 2004 (2004), CHED-622.
44. Nguyen, Suong; DiCesare, John. The rearrangement of a 5H-benzocycloheptanaphthalene-5,12-imine to 5,12-naphthacenequinone. Abstracts, 59th Southwest Regional Meeting of the American Chemical Society, Oklahoma City, OK, United States, October 25-28 (2003).
43. Suong Nguyen and John C. DiCesare, Developing a more efficient pathway for the synthesis of anticancer drugs, Presented at 225th ACS National meeting, March 24, 2003, New Orleans, LA.
42. Laura Craft and John C. DiCesare, Synthesizing potential anticancer therapeutics based on the 1-benzosuberone, Presented at the 225th ACS National meeting, March 24, 2003, New Orleans, LA.
41. Carrie R. Richardson and John C. DiCesare, Further investigation of an asymmetric reductive amination reaction, Presented at 225th ACS National meeting, March 24, 2003, New Orleans, LA.
40. Justin M. Kita, Jennifer L. Parker, Starr N. Horne and John C. DiCesare, Development of a thin-film sensor for the detection of nerve agents, Presented at the 225th ACS National meeting, March 24, 2003, New Orleans, LA.
39. Nicola Why and John DiCesare, "Developing photocatalytic materials for water purification", Presented at the 225th ACS National meeting, March 24, 2003, New Orleans, Louisiana
38. Andrew Bourne, John C. DiCesare and Gordon Purser, "Chlorination of 4-hydroxybenzoic acid: A model for the chlorination of natural organic matter", Presented at the 223rd ACS National meeting, April 8, 2002, Orlando Florida.
37. Loan Vo, John C. DiCesare and Gordon H. Purser, "Thermodynamic stability of cesium neonide: A novel ionic noble gas compound", Presented at the 223rd ACS National meeting, April 8, 2002, Orlando Florida.
36. Carrie R. Richardson and John C. DiCesare, "Progress Toward the Development of an Asymmetric Reductive Amination Reaction", Presented at the 223rd ACS National meeting, April 8, 2002, Orlando Florida.
35. Naziha Malik, Christopher J. Peebles and John C. DiCesare, "Development of New Methods for the Resolution of a-L-Difluoromethyl lysine", Presented at the 223rd ACS National meeting, April 8, 2002, Orlando Florida.

34. Justin M. Kita, Jennifer Parker, Starr N. Horne and John C. DiCesare, "Development of a Combinatorial Assay for the Optimization of a Nerve Agent Sensor", Presented at the 223rd ACS National meeting, April 8, 2002, Orlando Florida.
33. Carrie R. Richardson and John C. DiCesare, "Progress Towards Developing Methods for the Diastereoselective Synthesis of Imines" Presented at the 221st ACS National meeting, April 2, 2001, San Diego, California.
32. Laura E. Craft, and John C. DiCesare, "Synthesis of delta-opioid agonists." Presented at the 221st ACS National meeting, April 2, 2001, San Diego, California.
31. Ryan W. Davis and John C. DiCesare, "Synthesis of Molecularly Imprinted Polymers Using Combinatorial Chemistry." Presented at the 221st ACS National meeting, April 2, 2001, San Diego, California.
30. Robert W. Paschal and John C. DiCesare, "Developing Methods Towards the Synthesis of Precursors for Anti-Cancer Drugs." Presented at the 221st ACS National meeting, April 2, 2001, San Diego, California.
29. Moore, Evan R.; White, Brian D.; DiCesare, John C.; Purser, Gordon H, "Chemical models of chloroform and dichloroacetic acid production from the use of chlorine and chloramine as a residual disinfectant." Abstracts of Papers, 221st ACS National Meeting, San Diego, CA, United States, April 1-5, 2001 (2001), ENVR-174.
28. Shawn P. Nichols and John C. DiCesare, "Carbohydrate Auxiliaries in Hetero-Diels-Alder Reactions." Presented at the 221st ACS National meeting, April 2, 2001, San Diego, California.
27. Carrie R. Richardson and John C. DiCesare, "A New Method for the Diastereoselective Synthesis of Imines", Presented at 45th Pentasectional Meeting of the ACS, April 15, 2000, Stillwater, OK.
26. Shawn P. Nichols and John. C. DiCesare, "Carbohydrate Auxiliaries in Inverse Electron Demand Diels-Alder Reactions", Presented at the 219th ACS National meeting, March 28, 2000, San Francisco, California.
25. Reza J. Azadi and John C. DiCesare, "Investigating Steric Effects on the Selectivity of Carbohydrate-Derived Acyl Anion Equivalents", Presented at the 219th ACS National meeting, March 28, 2000, San Francisco, California.
24. Laura E. Craft, Carrie R. Richardson and John C. DiCesare, "Investigation of the Titanium(IV)-Promoted Reductive Amination Mechanism", Presented at the 219th ACS National meeting, March 28, 2000, San Francisco, California.
23. Daniel Z. Murphy and John C. DiCesare, "Synthesis of the A-B-C-D Rings of Radermachol: Investigation of the Thermal Rearrangement of 5H-Benzocyclohepten-5,8-imines", Presented at the 219th ACS National meeting, March 28, 2000, San Francisco, California.

22. Robert W. Paschal and John C. DiCesare, "Synthesis of Trans-1,2,3,4,4a,9b-Hexahydrodibenzothiophene: Effect of Stereochemistry on Physical Properties", Presented at the 219th ACS National meeting, March 28, 2000, San Francisco, California.
21. Evan R. Moore, John C. DiCesare and Gordon H. Purser, "Identifying Aromatic Chloroform Precursors in a Municipal Water Supply", Presented at the 219th ACS National meeting, March 28, 2000, San Francisco, California.
20. Laura Craft, Celesta E. McGee and John C. DiCesare, "Investigation of the Titanium(IV) Promoted Reductive Amination Mechanism", Presented at the 44th Pentasectional Meeting of the ACS, October 9, 1999, Tulsa, Oklahoma.
19. Reza J. Azadi and John C. DiCesare, "Investigating Steric Effects on the Selectivity of Carbohydrate Derived Acyl Anion Equivalents", Presented at the 44th Pentasectional Meeting of the ACS, October 9, 1999, Tulsa, Oklahoma.
18. Evan J. Moore, John C. DiCesare and Gordon H. Purser, "The Development of a Method for Identifying Chloroform Precursors in the Tulsa, Oklahoma Municipal Water Supply", Presented at the 44th Pentasectional Meeting of the ACS, October 9, 1999, Tulsa, Oklahoma.
17. Bryan White and John C. DiCesare, "Solid Phase Reductive Amination Reactions with Aldehydes and Ketones", Presented at the 217th ACS National Meeting, March 22, 1999, Anaheim, CA.
16. Celesta E. McGee and John C. DiCesare, "Insights into the Mechanism of the Titanium(IV) Promoted Reductive Amination Reaction", Presented at the 217th ACS National Meeting, March 22, 1999, Anaheim, California.
15. Ryan Andersen and John C. DiCesare, "Carbohydrates as Chiral Auxiliaries in Asymmetric Addition and Cycloaddition Reactions", Presented at the 217th ACS National Meeting, March 22, 1999, Anaheim, California.
14. Reza J. Azadi and John C. DiCesare, "Effect of Carbohydrate substituents on the selectivity in Addition Reactions", Presented at 217th ACS National Meeting, March 22, 1999, Anaheim, CA.
13. Ryan Andersen and John C. DiCesare, "Preparation of High Purity Compounds For Thermodynamic Evaluation", Presented at the 215th ACS National Meeting, March 30, 1998, Dallas, Texas.
12. Jonathan Pillow and John C. DiCesare, "Developing Asymmetric Methodologies Utilizing Carbohydrate Derived Acyl Anion Equivalents", Presented at the 215th ACS National Meeting, March 30, 1998, Dallas, Texas.
11. Holly B. Black and John C. DiCesare, "Progress Towards Understanding the Mechanism of the Titanium Isopropoxide Catalyzed Reductive Amination Reaction", Presented at the 215th ACS National Meeting, March 30, 1998, Dallas, Texas.

10. Bryan White and John C. DiCesare, "Progress Towards Titanium(IV) Catalyzed Reductive Amination Reactions on Solid Supports Utilizing Weakly Basic Amines", Presented at the 215th ACS National Meeting, March 30, 1998, Dallas, Texas.
9. Shawn Dellagar, Gordon H. Purser, Shelly Murphy and John C. DiCesare, "Rate of Deactivation of Hypochlorous Acid by Melatonin, a Biological Antioxidant", Presented at the 215th ACS National Meeting, March 30, 1998, Dallas, Texas.
8. Celesta E. McGee, Bryan White and John C. DiCesare, "Solution Phase Studies for Determining Optimal Reaction Conditions for a Solid Phase Reductive Amination Reaction", Presented at the 53rd Southwest Regional ACS Meeting, October 2, 1997, Tulsa, Oklahoma.
7. Jonathan Pillow and John C. DiCesare, "Carbohydrates as Chiral Auxiliaries in Organometallic Reactions", Presented at the 53rd Southwest Regional ACS Meeting, October 2, 1997, Tulsa, Oklahoma.
6. Ryan Andersen, Brian Thompson and John C. DiCesare, "Improved Synthesis of 1,2,3,4,4a,9b-Hexahydrodibenzothiophene", Presented at the 53rd Southwest Regional ACS Meeting, October 2, 1997, Tulsa, Oklahoma.
5. Brian Thompson and John C. DiCesare, "Synthesis of High Purity Compounds for Thermodynamic Evaluation", Presented at the 213th ACS National Meeting, April 14, 1997, San Francisco, California.
4. Celesta E. McGee, Wendy E. Rasmussen and John C. DiCesare, "Investigation of the Solid Phase Titanium Isopropoxide Catalyzed Reductive Amination Reaction with Hindered Ketones", Presented at the 213th ACS National Meeting, April 14, 1997, San Francisco, California.
3. Holly B. Black and John C. DiCesare, "Investigation Into the Mechanism of the Titanium Isopropoxide Catalyzed Reductive Amination Reaction", Presented at the 213th ACS National Meeting, April 14, 1997, San Francisco, California.
2. Wendy E. Rasmussen, Celesta E. McGee and John C. DiCesare, "Investigation of the Solid Phase Titanium Isopropoxide Catalyzed Reductive Amination Reaction with Weakly Basic Amines", Presented at the 213th ACS National Meeting, April 14, 1997, San Francisco, California.
1. Charles B. McComas and John C. DiCesare, "Application of the Titanium Isopropoxide Catalyzed Reductive Amination Reaction to Solid Phase Synthesis," Presented at the 211th ACS National Meeting, March 25, 1996, New Orleans, Louisiana.

Technical Reports

Synthesis of 3-Methylbenzothiophene, BDM-PT, 1998.

Synthesis of 2-Phenylthiophenol, BDM-PT, 1998.

Synthesis of 1,2,3,4-Tetrahydrodibenzothiophene, BDM-OK, 1997.

Synthesis of 1,2,3,4,4a,9b-Hexahydrodibenzothiophene, BDM-OK, 1997.

Invention Disclosure, "Solid phase organic synthesizer for combinatorial library optimization and library generation", Research Triangle Institute, November 1994.

Other Publications

ChemOffice Ultra: A Valuable Tool For Research and Teaching, September 1998, CS Catalyst, Web edition, <http://products.camsoft.com/reviews/review.cfm?ID=43>.

ChemOffice Ultra 2000 Enhanced: New Features, August 2000, CS Catalyst Web edition, <http://www.chemnews.com/art.cfm?S=127>.

Research Proposals (Principal Investigator: John C. DiCesare unless noted otherwise)

67. Georgia Southern University REU: The Diversity of Chemistry submitted to NSF REU, John C. DiCesare PI and Simone Charles Co-PI.
66. Acquisition of a laser-scanning confocal microscope for Georgia Southern University Submitted to NSF MRI (\$373,531); Christopher Cutler PI (Biology) and John DiCesare Co-PI.
65. Internal proposal to support a new graduate student. This proposal was **funded** and a graduate student from engineering was hired to synthesize and evaluate new polymer composites containing carbon nanotubes. Dr. Xu from Mechanical Engineering was added to the grant once the student was selected. This grant will pay the graduate student a stipend for two years (including summer funding) and also provide a tuition waiver. (\$15,000)
64. Materials World Network: Investigating solid state in catalysis mechanisms: the role of electron/photon exoemission and surface polarization in kinetics of heterogeneous catalysis Submitted to NSF (\$205,271) June 2011 - May 2013, Gustavo Molina PI (Mechanical Engineering) and John C. DiCesare Co-PI
63. Materials World Network: Bridging the interface of solid state and heterogeneous catalysis. Investigating and modeling the role of electron and photon surface emissions in catalytic properties, Submitted to NSF (\$154,000) May 2010 - April 2012, Gustavo Molina PI (Mechanical Engineering) and John C. DiCesare Co-PI
62. Science Master's Programs: Professional Science Master's as an Interdisciplinary Bridge from Academe to Industry in Southern Georgia, Submitted to NSF (\$700,000) Aug. 2010 - Aug 2013, Shannon Davis PI, Li Ma Co-PI (Physics), John DiCesare Co-PI, Mark Edwards Co-PI (Physics) and John Pascarella Co-PI (Dean's Office).

61. Molecular Libraries from Imidazole-4,5-dicarboxylic Acid (Supplement), NIH-GMS, **Funded**, August 2006, (\$197,676), Sept. 08 - Aug, 09, Co-PI with Paul Baures (PI-Chemistry)
60. Chemical Analysis of Biological Metabolites., Submitted to Merck Institute for Science Education, **Funded**, Jan. 2008, (\$60,000), June 2008 - May 2011. CO-PI with Robert Sheaff (PI-Chemistry).
59. Advanced Signaling through Photophysical Quenching, Submitted to OSRHE, **Funded**, (\$51,520), June 07 - May 08.
58. Novel Anti-Tumor Agent, OCAST Oklahoma Heath Research Program, Jan. 2007 (\$120,000), June 2007 - May 2010.
57. Molecular Libraries from Imidazole-4,5-dicarboxylic Acid, Submitted to NIH-GMS. **Funded**, Feb. 2006, (\$646,172), Co-Principal Investigator with Paul Baures (P.I.-Chemistry), Sept. 06 - Aug. 09.
56. Molecular libraries from imidazole-4,5-dicarboxylic acid., Teledyne Isco, Organic Purification Grant, **Funded**, (\$9,000), Sept. 06, Co-PI with Paul Baures (P.I.-Chemistry).
55. Development of Visible light packed bed photocatalyst, TU Faculty Research Grant, **Funded**, Spring 2005, (\$1,000). Funds for a UV Crosslinker reactor.
53. Enhanced Instrumentation for Fundamental Understanding and Modeling of Hydrate Formation and Plugging Mechanisms in Pipelines, Submitted to NSF, January 2006, (\$428,830), PI. Mike Volt, 10 month equipment grant.
52. Polymer Nanocomposites Derived from Functionalized Carbon Nanotubes via ROMP, Submitted to NSF, October 2005, (TU Share \$148,890), Co-Principal Investigator with Michael Kessler (PI. Iowa State University), July 06 - June 09.
51. Polymer Nanocomposites: Property Enhancement with ROMP Functionalized Carbon Nanotubes. Oklahoma State Regents for Higher Education. **Funded**, July 2005 (\$38,750), Aug. 05-May 06.
50. Pliable Structural MMOD Shield with Integral Self-Healing Pressure Retention, NASA Sept. 2004, (\$892,472), Co-Principal Investigator with Michael Kessler (PI. Mech. Eng.).
49. Composites with Self-Diagnosis and Self-Healing Functionality, DoD white paper to BAA 04-021, Aug. 2004, Co-Principal Investigator with Michael Kessler (PI. Mech. Eng.), Kenneth Roberts, Peter LoPresti (EE) and Scott Holmstrom (Phys.)
48. Second Generation Photocatalytic Oxidation Processes for the NASA Advanced Water Recovery System, NASA EPSCoR Years 4 and 5, **Funded**, June 2004, (TU Share \$126,500), Co-P.I. with James Harmon (OSU) and Mark Nanny and Elizabeth Butler (OU). Sept 04- Aug 06

47. Lysine Decarboxylase Activity in Periodontitis Patients, NIH-NIDCR, **Funded**, March 2002, (TU Share \$26,014), Sub-Contract from Martin Levine, OU- Health Sciences Center. June 03- Dec 04.
46. Characterization and Mechanism of Formation of Chlorinated Organic Species Produced During Water Disinfection, American Water Works Association Research Foundation, February 2002, (\$150,000), Co-Principal Investigator with Gordon Purser (PI).
45. Delta Opioid Protection Against HIV Neurotoxicity, OCAST Oklahoma Heath Research Program, January 2002, (TU Share \$28,557) Sub-Contract from David Wallace, Oklahoma State University - College of Osteopathic Medicine.
44. Processes for In-Situ Incapacitation of Explosives, Memorial Institute for the Prevention of Terrorism (MIPT), **Funded**, August 2001 (TU Share \$144,155), Co-Principal Investigator with Allen Applett, Oklahoma State University. January 02 - December 04.
43. Development of Sensors for the Detection of Explosives and Weapons of Mass Destruction, Memorial Institute for the Prevention of Terrorism (MIPT), May 2001 (\$906,208),
42. Lysine Decarboxylase Activity in Periodontitis Patients, NIH-NIDCR, June 2001, (TU Share \$26,014), Sub-Contract from Martin Levine, University of Oklahoma Health Sciences Center.
41. Delta Opioid Protection Against HIV Neurotoxicity, OCAST Oklahoma Heath Research Program, January 2001, (TU Share \$28,557) Sub-Contract from David Wallace, Oklahoma State University - College of Osteopathic Medicine.
40. Bacteria Making Lysine Decarboxylase in Periodontitis, OCAST Oklahoma Heath Research Program, January 2001, (TU Share \$20,000) Sub-Contract from Martin Levine, University of Oklahoma Health Sciences Center.
39. Second Generation Photocatalytic Oxidation Processes for the NASA Advanced Water Recovery System, NASA EPSCoR, **Funded**, December 2000, (TU Share \$189,750), Co-Principal Investigator with James Harmon (OSU) and Mark Nanny and Elizabeth Butler (OU). September 01 - August 04.
38. Development of Molecularly Imprinted Polymer Sensors for Chemical Warfare Agents Utilizing Combinatorial Chemistry Techniques, DOD DEPSCoR, **Funded**, September 2000 (\$425,000). April 01 - December 04.
37. Solid-State Biological Agent Sensors, DARPA, August 2000, (TU Share 441,995), Co-Principal Investigator with James Harmon, Oklahoma State University.
36. The Chemistry of Disinfection By-Product Formation During Chloramination, American Water Works Association Research Foundation, 2000, (\$380,396), Co-Principal Investigator with Gordon Purser (PI).

35. Solid-State Chemical and Biological Agent Sensors for the Prevention of Terrorism, Memorial Institute for the Prevention of Terrorism (MIPT), 2000 (TU Share \$520,000), Co-Principal Investigator with James Harmon, Oklahoma State University.
34. Software Grant for reviewing ChemOffice Ultra 2000 Enhanced, CambridgeSoft Corporation, **Funded**, 2000 (\$2,000).
33. Molecular Mechanism of Histamine H3 Receptor Activation, NIH R01, 2000 (TU Share \$128,000), Co-Principal Investigator with Paul Baures, Kansas State University.
32. Lysine Decarboxylase and Periodontal Disease, NIH R01, 2000 (TU Share \$31,800), Sub-Contract from Martin Levine, University of Oklahoma Health Sciences Center.
31. Oklahoma Center for Neurosciences, NSF EPSCoR Program, 2000 (TU Share ~ \$250,000), Co-Principal Investigator with Paula Grammas, University of Oklahoma Health Sciences Center.
30. Center for Advances in Tissue Engineering Biosensor Systems, NSF EPSCoR Program, 2000 (TU Share ~ \$250,000). Co-Principal Investigator with Edgar O'Rear, University of Oklahoma.
29. Oklahoma Center for Neurosciences, NIH-IDEA Centers for Biomedical Research Excellence, 2000 (TU share ~ \$350,000), Co-Principal Investigator with Paula Grammas, University of Oklahoma Health Sciences Center.
28. Oklahoma Cancer Center, NIH-IDEA Centers for Biomedical Research Excellence, 2000, (TU share \$675,000), Co-Principal Investigator with Marie Hanigan, University of Oklahoma Health Sciences Center.
27. Development of Selective Opioid Receptor Ligands, OCAST Oklahoma Health Research Program, 1999, (\$135,000).
26. Oklahoma Catalyst Center, DOE EPSCoR Program, 1999 (TU share \$225,000), Co-Principal Investigator with Kenneth Nicholas, University of Oklahoma.
25. Synthesis of Rigid Histamine H3 Compounds, TU Faculty Development Summer Fellowship, **Funded**, 2000, (\$5,070).
24. Contaminated Activated Aluminas from the Petrochemical Industry: Recycling as a Cost-Effective Means of "Disposal", IPEC, 1999, (\$116,000), Co-P.I. with Winton Cornell.
23. Chlorination Disinfection Byproduct Formation Kinetics, American Water Works Association Research Foundation/ EPA, 1999, (\$357,187), Co-Principal Investigator with Gordon Purser.
22. Investigation of the Reaction Mechanism of the Titanium Isopropoxide Reductive Amination Reaction, TU Faculty Development Summer Fellowship, **Funded**, 1999, (\$4,555).

21. Used Energy Related Equipment Grant, U.S. Department of Energy, **Funded**, 1998, (\$244,000). January 99 - December 99.
20. Development of Alumina and Calcium Aluminate Refractories Through Recycling of Hydrocarbon-Containing, Specialized Feed Stocks from Petroleum Processing Plants, OCAST/Sintertec, 1998, (\$150,000), Co-Principal Investigator with Winton Cornell (PI).
19. Phase II: Preparation of High Purity Compounds for Thermodynamic Evaluation, BDM-Petroleum Technologies., **Funded**, 1997, (\$49,995). September 97 - August 98.
18. Investigation of Carbohydrates as Chiral Auxiliaries in Asymmetric Synthesis, TU Faculty Development Summer Fellowship, **Funded**, 1998, (\$4,389).
17. Software Grant for reviewing ChemOffice Ultra 98, CambridgeSoft Corporation, **Funded**, 1998 (\$1,995).
16. National Demonstration site for CombiTec Automated Synthesizer, Tecan, 2 year lease, **Funded**, 1996 –1998 (approx. \$40,000).
15. Fundamentals of Delayed Coking, Joint Industrial Project Collaborative Agreement, 1997, (\$3,600,000), Principal investigators: Dr. Green (BDM-PT) and Dr. Shirazi.
14. Investigation of the Solid Phase Titanium Isopropoxide Catalyzed Reductive Amination Reaction, Council on Undergraduate Research, **1st Alternate**, 1997, (\$3,500).
13. Development of Asymmetric Synthetic Methodologies, TU Faculty Research Grant, **Funded**, Summer 1997, (\$450).
12. Investigation of Synthetic Methodologies in Combinatorial Chemistry: Titanium(IV) Catalyzed Reductive Aminations, ACS - Petroleum Research Fund, 1997, (\$20,000).
11. Travel Grant to Attend the 1997 Residential School on Medicinal Chemistry, **Funded**, 1997, (\$2,500).
10. Investigation of Synthetic Methodologies in Combinatorial Chemistry: Titanium(IV) Catalyzed Reductive Aminations, Research Corporation, 1997, (\$30,074).
9. Integration of a Digital Polarimeter into the Undergraduate Chemistry Curriculum, Camille & Henry Dreyfus Foundation, 1997, (\$25,000).
8. Investigation Into the Mechanism of the Titanium(IV) Catalyzed Reductive Amination Reaction in Solution and Solid Phase Synthesis, ACS - Petroleum Research Fund, 1996, (\$20,000).
7. Investigation of Synthetic Methodologies in Combinatorial Chemistry: Titanium(IV) Catalyzed Reductive Aminations, Research Corporation, 1996, (\$38,297).

6. Acquisition of Instrumentation for an Oklahoma Statewide Shared NMR Facility, Subcontract for purchase of UNIX workstation, National Science Foundation, **Funded**, 1996, (\$10,000). June 96 - May 97.
5. Phase I: Preparation of High Purity Compounds for Thermodynamic Evaluation, BDM-Oklahoma, Inc., **Funded**, 1996, (\$60,061). September 96 - August 97.
4. Investigation of Synthetic Methodologies in Combinatorial and Asymmetric Chemistry: Titanium(IV) Catalyzed Reductive Aminations, Research Corporation, 1995, (\$39,790).
3. Development of Solid Phase Reductive Amination Reactions, TU Faculty Research Grant, **Funded**, Summer 1996, (\$750).
2. Development of Synthetic Methodologies in Combinatorial Chemistry: Reductive Aminations, TU Faculty Development Summer Fellowship, **Funded**, 1996, (\$4,300).
1. Development of Selective Opioid Antagonists, NIH, **Funded**, 1995, (\$381,308), Principal Investigator, Dr. Ivy Carroll, Research Triangle Institute.

Masters and Doctoral Committees at The University of Tulsa

Sonali Gavali	M.S. Chemistry	(Current Student)	(Chair)
Vamsi Jamalapuram	M.S. Chemical Engineering	(Aug. 2006)	(Chair)
Sireesh Boya	M.S. Chemical Engineering	(Dec. 2005)	(Chair)
Nathaniel Bernklau	M.S. Mechanical Engineering	(Aug. 2005)	(Committee)
Syed Ahmed	M.S. Mechanical Engineering	(Dec. 2004)	(Committee)
Raghu Earni,	M.S. Chemistry	(Dec. 2003)	(Chair)
Kiran Kowkuntla	M.S. Chemistry	(Dec. 2003)	(Chair)
Atul Kumar,	M.S. Chemical Engineering	(Nov. 2003)	(Chair)
Jennifer Parker,	M.S. Chemistry	(Aug. 2003)	(Chair)
Riza Pasikki,	M.S. Chemical Engineering	(April 2002)	(Co-Chair)
Jacqueline Beers	Left for Pharmacy School	8/99 - 6/00	(Chair)

Undergraduate Honors Thesis:

1997/98	Jonathan Pillow (Best Thesis Award, Sciences)
1998/99	Celesta (McGee) White (Best Thesis Award, Sciences) Bryan White Ryan Andersen

Continuing Education/Short Course Activity

Sharp-Chapman Seminar: A semester long, collegial seminar for faculty on The Nature and Nurture of the University, Spring Semester 2003.

Gordon Research Conference on Combinatorial and High Throughput Materials Science, Summer 2002 (1 week)

Residential School on Medicinal Chemistry, Drew University, Summer 1997 (1 week).

UNIX for beginners, Tulsa, Oklahoma, Summer 1996 (1 week).

Recent Advances in NMR Technology, Stillwater, Oklahoma, October 24, 1995.

Technical Consulting

SemMaterials, L.P., Tulsa, OK. Investigating methods of incorporating ground tire polymers into road materials (2008)

Sapphire Energy, CA. Investigating methods of producing gasoline from algae growth on carbon dioxide from power plants (2008)

Energy Recovery, LLC, Tulsa, OK. Investigating methods of converting tires into fuels and commodity chemicals. (2006 and 2007)

Syntroleum, Inc, Tulsa, OK. Investigating methods of converting fats and oils into diesel. (2007)

Highgate Ltd. (Biyag Oilfield Services LLC), Mina al Fahal, Sultanate of Oman. Investigated claims of uniqueness of formulations obtained from the purchase of a company. (2005).

Tecan U.S., SLT Lab instruments, Research Triangle Park, North Carolina: Resulted in an Automated Combinatorial Synthesizer being placed in our laboratories (1996 - 1999).

Department of Justice, Public Defenders Office, Expert Witness, (1999).

Teaching Experience

CHEM 7113 / 5113	Advanced Organic Chemistry
CHEM 6213 / 4213	Medicinal Chemistry
CHEM 4012	Qualitative Analysis
CHEM 4012L	Qualitative Analysis Lab
CHEM 3023	Organic Chemistry II
CHEM 3013	Organic Chemistry I

CHEM 3021	Organic Chemistry Lab II
CHEM 3011	Organic Chemistry Lab I
CHEM 1013	General Chemistry I
CHEM 1004	Chemistry in Medicine
CHEM 1003	Introductory Chemistry
CHEM 4873	Organic Synthesis

Civic Activities

Mentor, Anderson Elementary Chess Club (2006 - present)

Advisor, Jenks High School student (2002).

Demonstrator, Science Odyssey, Tulsa City-County Library System, (February 1998).

Judge, Tulsa Regional Science Fair, on behalf of Tulsa Section of the ACS (1996, 1999, 2000).

Judge, The Durham Herald Journal Front Page Award, Science Division, (1995).

Judge, State Regional Science Bowl, (1999, 2000).

The University of Tulsa Service Activities

Mentor, TU Orientation Camp (2002 - present).

Participant, TU Orientation Move in Day (1996 - present).

Member, Outstanding Researcher Award Selection Committee (2005- present)

Reviewer, Faculty and Student Research Grant Program (2004, 2005)

Member, University Student Affairs Committee (2001-2004)

Member, E&NS College Committee on Rights and Responsibilities (2002 - present)

Member, University Faculty Senate (2000 - 2004)

Member, E&NS College Assessment Committee (1998 - 2007).

Chair, Organic Faculty Search Committee (1998 and 2004).

Member of the Policy Board, Oklahoma Statewide Shared NMR Facility (1995-2002).

Faculty Advisor, Student Affiliate Chapter; American Chemical Society (1996-2003).

Member, Pre-Med Advisory Board (1998 - present).

Pre-Pharmacy Advisor (1999 - present).

Participant, TU Pre-Med Day (1997 - present).

Participant, OU Annual Pre-Professional Counselor's Workshop (1998 - 2002).

Student Researchers (Goldwater Awardees in Bold - NSF Fellows Underlined)

- | | |
|--|----------------------------------|
| 1. McComas (8/95 - 5/97) | 2. Thompson (8/96 - 8/97) |
| 3. Rasmussen (8/96 - 5/97) | 4. Black (8/96 - 5/98) |
| 5. <u>McGee (White) (5/96 - 5/99)</u> | 6. Pillow (5/96 - 5/98) |
| 7. Sterling (5/96 - 8/96) | 8. White (5/97 - 5/99) |
| 9. Andersen (5/97 - 5/99) | 10. Prader (8/97 - 6/98) |
| 11. Azadi (5/98 - 8/00) | 12. Richardson (6/99 - 5/03) |
| 13. Murphy (8/99 - 5/00) | 14. Nichols (8/99 - 5/01) |
| 15. Paschal (8/99 - 5/01) | 16. Craft (6/99- 5/03) |
| 17. Davis (8/00- 6/01) | 18. Malik (5/01- 5/02) |
| 19. <u>Kita (5/01 -5/03)</u> | 20. Lansdown (5/02 -5/04) |
| 21. Why (5/02 -5/04) | 22. Nguyen (5/02- 5/06) |
| 23. Daugherty (5/03 -5/04) | 24. Iski (5/03-5/04) |
| 25. Lawson (8/03- 5/04) | 26. Rodriguez (8/03 - 5/05) |
| 27. Moody (6/04 - 5/05) | 28. Underwood (1/04 - 8/06) |
| 29. Kiker (6/04 - 5/06) | 30. Boustani (1/04 - 5/07) |
| 31. Kubarych (8/05 - 5/06) | 32. Burkholder (1/06 - 6/09) |
| 33. Hastings (6/06 - 6/09) | 34. Huang (6/06 - 6/09) |
| 35. Shipman (6/06 - 6/10) | 36. Vierling (8/06 - 6/09) |
| 37. Post (6/07 - 6/09) | 38. Lazar (6/07 - 6/09) |
| 39. Kalstabakken (8/07 - 5/08) | 40. John Bauman (6/08 - 6/09) |
| 41. Jacob Cantu (6/08 - 6/09) | 42. Josh Clutter (6/08 - 6/09) |
| 43. Stacy Keller (1/08 - 6/09) | 44. Landon Massoth (6/08 - 6/09) |