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## EDUCATIONAL AND PROFESSIONAL HISTORY

### Education

1994-1998 Ph.D., Chemistry, University of Missouri-Columbia (Advisor: Jerry L. Atwood)  
1990-1994 B.Sc. (Hons.), Saint Mary's University, Halifax, Nova Scotia, Canada

### Positions

2019- Department Chair (DEO), Department of Chemistry, University of Iowa  
2013- Professor, Secondary Appointment, Department of Pharmaceutical Sciences and  
Experimental Therapeutics, College of Pharmacy, University of Iowa  
2010- Professor, Department of Chemistry, University of Iowa  
2005-2010 Associate Professor, Department of Chemistry, University of Iowa  
2007 Invited Professor, Université Louis Pasteur, Strasbourg, France  
2000-2005 Assistant Professor, Department of Chemistry, University of Iowa  
1999-2000 Adjunct Research Professor, Ottawa-Carleton Chemistry Institute  
1998-2000 Research Associate, Steacie Institute for Molecular Sciences (SIMS), National  
Research Council of Canada, Ottawa, Canada

### Honors and Awards

2021 ACS Midwest Award, American Chemical Society (2021)  
2019-2024 Collegiate Fellow, College of Liberal Arts and Science, University of Iowa (2019)  
2018-2019 Graduate College Outstanding Faculty Mentor Award, University of Iowa (2019)  
Chair (2018) and Vice-Chair (2016), Gordon Research Conference on Crystal Engineering  
Fellow, American Chemical Society (2015)  
Recognition, 'Thank-A-Teacher' Program (2014)  
Distinguished Lecturer, Department of Biology and Chemistry, City University of Hong Kong  
(October 2012)  
Fellow, American Association for the Advancement of Science (2012)  
*Chemical Communications* (RSC) Theme Issue on "Emerging Investigators" (2011)  
American Association for the Advancement of Science Award (AAAS), Department of Chemistry,  
University of Iowa (2010)  
Collegiate Scholar, College of Liberal Arts and Sciences, University of Iowa (2010)  
1<sup>st</sup> Garth Spencer Memorial Lecture, Clemson University (March 2009)  
Invited Professor, Université Louis Pasteur, Strasbourg, France (2007)  
Faculty Scholar Award, University of Iowa (2007-2010)  
Arthur C. Cope Scholar Award (American Chemical Society) (2007)  
Fellow, Royal Society of Chemistry (2006)

Career Development Award, University of Iowa (2006)  
Dean's Scholar Award, University of Iowa (2005-2007)  
Margaret C. Etter Early Career Award (American Crystallographic Association) (2004)  
Inter-American Photochemical Society Young Investigator Award (2004)  
Second Old Gold Summer Fellowship, University of Iowa (2002)  
National Science Foundation Faculty Early Career Development (CAREER) Award (2002-2007)  
Research Corporation Research Innovation Award (2002-2007)  
Old Gold Summer Fellowship, University of Iowa (2001)  
National Research Council of Canada Entrepreneurship Program (2000)  
National Research Council of Canada, Research Associate Award (2000)  
Natural Sciences and Engineering Research Council of Canada (NSERC) Post Doctoral Fellowship  
(1998) Declined in favor of Research Associate Position at SIMS  
International Union of Crystallography Young Scientist Award (1997)  
Recognition by Who's Who of American College Students (1997)  
NATO ASI Summer School Fellowship (1996)  
Recognition by the Directory of the American Academy of Distinguished Students (1996)  
American Institute of Chemists Graduate Student Award (1996)  
Superior Graduate Achievement Award - University of Missouri-Columbia (1996)  
International Center for Diffraction Data Crystallography Scholarship (1995)  
NSERC, 1967 Science and Engineering Scholarship (1994-1998)  
3rd Place Undergraduate Poster Award, CIC National Conference (1994)  
Dean's List, Saint Mary's University (1991-1994)  
2nd Place Undergraduate Oral Presentation Award, CIC Atlantic Conference (1994)  
Saint Mary's University Alumni Science Gold Medal (1994)  
Betty Cleary Memorial Scholarship (1993)  
Saint Mary's University Achievement Scholarship (1993, 1992, 1991)  
Best Undergraduate Poster, CIC Atlantic Student Conference (1992)  
First Place Poster Prize, CIC Atlantic Conference (1991)  
Joseph and Charles Hinman Bursary (1991-1992)  
NSERC Summer Student Award (1991-1993)  
Canada Scholarship (1990-1994)  
Saint Mary's University Entrance Scholarship (1990)  
Highest Academic Award, Graham Creighton Junior High School (1987)

## **Memberships**

American Association for the Advancement of Science Award (AAAS) (2011- )  
Environmental Science Program, University of Iowa (2007- )  
Nanoscience and Nanotechnology Institute, University of Iowa (2006- )  
American Crystallographic Association (2004- )  
Inter-American Photochemical Society (2004- )  
Optical Science and Technology Center, University of Iowa (2002- )  
Biocatalysis Group, University of Iowa (2000- )  
American Chemical Society (1994- )

## TEACHING AT THE UNIVERSITY OF IOWA

<u>Semester, Year</u>	<u>Course</u>	<u>Enrollment</u>
Fall 2021	Chemistry Colloquium	59
Spring 2021	Chemistry Colloquium	37
Fall 2020	Chemistry Colloquium	34
Spring 2020	Chemistry Colloquium	33
Fall 2019	Chemistry Colloquium	38
Spring 2019	Organic Chemistry Laboratory	140
Fall 2018	Advanced Organic Chemistry	23
Spring 2018	Organic Chemistry Laboratory	140
Spring 2017	Organic Chemistry Laboratory	140
Fall 2016	Organic Chemistry I	400
Spring 2016	Organic Chemistry Laboratory	140
Fall 2015	Organic Chemistry I	410
Spring 2015	Organic Chemistry Laboratory	140
Fall 2014	Organic Chemistry I	353
Spring 2014	Organic Chemistry Laboratory	140
Fall 2013	Organic Chemistry I	398
Spring 2013	Organic Chemistry Laboratory	132
Spring 2013	Organic Seminar Series	5
Fall 2012	Organic Chemistry I	434
Fall 2011	Organic Chemistry I	370
Spring 2011	Organic Chemistry Laboratory	166
Fall 2010	Advanced Organic Chemistry	45
Spring 2010	Organic Chemistry Laboratory	153
Spring 2009	Organic Chemistry Laboratory	150
Fall 2008	Organic Seminar Series	9
Fall 2007	Advanced Organic Chemistry	52
Fall 2006	Advanced Organic Chemistry	55
Spring 2006	Organic Chemistry II for Majors	27
Fall 2005	Organic Chemistry Laboratory	114
Spring 2005	Organic Seminar Series	7
Spring 2005	Organic Chemistry II for Majors	22
Fall 2004	Organic Chemistry Laboratory	113
Spring 2004	Research Frontiers in Chemistry	22
Fall 2003	Organic Chemistry Laboratory	91
Spring 2003	Organic Chemistry II for Majors	41
Fall 2002	Organic Chemistry Laboratory	74
Spring 2002	Organic Chemistry II for Majors	34
Fall 2001	Organic Seminar Series	5
Spring 2001	Principles of Chemistry I	490
Fall 2000	Principles of Chemistry I	677

### Other Teaching Assignments

## CHEM:3530 Inorganic Laboratory (Fall 2009-2019)

During 2009-2018, I administered a two-week laboratory that I developed entitled "Template-Directed [2+2] Photodimerization in the Solid State Mediated by Argentophilic Forces". For the lab, I give a one-hour lecture and provide one to three hours of instruction on single-crystal X-ray structure determination and refinement.

## Students, Postdoctoral Fellows, and Visiting Scientists Supervised at Iowa

<u>Name</u>	<u>Years</u>	<u>Outcome</u>
a. Ph.D. candidates		
Dushyant B. Varshney <i>Awarded Center for Biocatalysis and Bioprocessing Fellowship (2002-2005)</i>	Jan. 2001-May 2005	Ph.D. degree awarded, Postdoc, Univ. of Minnesota, <i>Bristol-Myers Squibb</i> (Senior Scientist) Director, Manufacturing Assessment, Hospira, Inc. departed graduate program
David W. Beckett	Jan. 2001-May 2001	Ph.D., University of Patras
Giannis S. Papaefstathiou	Feb. 2001-Aug. 2001	Ph.D. degree awarded,
Tamara D. Hamilton	Sept. 2001-May 2005	Postdoc, U of Montreal Assoc. Prof., Barry Univ., 2008-
	<i>i) Awarded Natural Sciences and Engineering Research Council of Canada (NSERC) Postdoctoral Fellowship (2006-2008)</i>	
	<i>ii) Awarded American Crystallographic Association Margaret C. Etter Student Lecturer Award (2005)</i>	
	<i>iii) Awarded ACS Division of Inorganic Chemistry (DIC) Young Investigator (2005)</i>	
	<i>iv) Awarded NSERC PGS B Predoctoral Fellowship (Declined) (2004-2006)</i>	
	<i>v) Awarded University of Iowa Graduate College Dean's Fellowship (2004-2006)</i>	
	<i>vi) Awarded Best Oral Presentation, 14th Midwest Organic Solid-State Chemistry Symposium (2004)</i>	
Xiuchun Gao	Sept. 2001-Feb. 2003	deceased
Qianli L. Chu	Jan. 2002-Dec. 2006	Ph.D. degree awarded, Postdoc, U of Pittsburgh Asst. Prof., U of N. Dakota, 2009-2015 Assoc. Prof., U of N. Dakota 2015-
	<i>i) Awarded China Scholarship Council Grant for Studying Abroad (2004-2006)</i>	
	<i>ii) Awarded top poster prize, 13th International Symposium on Supramolecular Chemistry (2004)</i>	
Tomislav Friscic	Jan. 2002-Jan. 2006	Ph.D. degree awarded, Postdoc, Cambridge University Herschel Smith Research Fellow of Sidney Sussex College, Asst. Prof., McGill U., 2011-2015 Assoc. Prof., McGill U., 2016-
	<i>i) Awarded Center for Biocatalysis and Bioprocessing Fellowship (2003-2006)</i>	
	<i>ii) Awarded 3<sup>rd</sup> place as Top Presentation in Mathematical &amp; Physical Sciences &amp; Engineering at the Iowa Graduate College James F. Jakobsen Graduate Forum (2003)</i>	
Costas Milios	Sept. 2002-Mar. 2003	Ph.D., University of Patras
Ivan Georgiev	Jul. 2003-Aug. 2007	Ph.D. degree awarded Director of Investment, DZI Insurance, Bulgaria, 2008-
	<i>Awarded American Chemistry Society, Division of Inorganic Chemistry Student Travel Award (2006)</i>	
Anatolij N. Sokolov	Jan. 2004-Dec. 2007	Ph.D. degree awarded

	<i>i) American Chemical Society, Division of Organic Chemistry Student Travel Award (2007)</i>	Postdoc, Stanford Univ.
	<i>ii) Selected to attend the Meeting of Nobel Laureates in Lindau, Germany (2006)</i>	Senior Engineer, Dow, 2012-
	<i>iii) Pauling Poster Prize, 2005 Annual Meeting of the American Crystallographic Association (2005)</i>	
	<i>iv) Awarded top poster prize, 13th International Symposium on Supramolecular Chemistry (2004)</i>	
Dejan Kresimir Bucar	Aug. 2005-Dec. 2010	Ph.D. degree awarded
	<i>i) USP Fellowship, U.S. Pharmacopeia (2008-2009)</i>	Postdoc, Cambridge
	<i>ii) Awarded Graduate Student of the Year (Dept. of Chemistry, Univ. of Iowa, 2008)</i>	University (Newton Fellow)
	<i>iii) International Centre for Diffraction Data Ludo Frevel Crystallography Scholarship Award (2008-2009)</i>	Lecturer, Univ. College London, 2013-
	<i>iv) European Crystallographic Meeting Student Poster Prize (2007)</i>	
	<i>v) American Crystallographic Association Special Recognition in Supramolecular Chemistry Session (2007)</i>	
Manza B.J. Atkinson	Aug. 2005-Aug. 2011	Ph.D. degree awarded
	<i>Dean's Scholar Award</i>	Postdoc, Harvard University (2011-2014)
		Primerica, 2015-
Poonam Kaushik	Jan. 2006-2009	Ph.D. degree awarded
	<i>Awarded Center for Biocatalysis and Bioprocessing Fellowship (2007-2009)</i>	<i>Ranbaxy</i> (Senior Scientist), BP-Castrol (Team Leader)
Saikat Dutta	Jan. 2007-2010	Ph.D. degree awarded
		Postdoc, Univ. Cal. Davis
		Asst. Prof., U Petrol. & Energy Studies, India, 2014-2015
		Asst. Prof., Natl. Instit. Tech. Karnataka, India, 2015-
Joseph C. Sumrak	Jan. 2007-Jul. 2011	Ph.D. degree awarded
		Visiting Assist. Prof., Kansas St. Univ., 2012-2014
		Asst. Prof., Concordia U Chicago, 2015-
John R. G. Sander	Jan. 2008-2012	Ph.D. degree awarded
	<i>i) Awarded American Crystallographic Association Margaret C. Etter Student Lecturer Award (2011)</i>	Postdoc, Univ. Ill.-UC
	<i>ii) Center for Biocatalysis &amp; Bioprocessing Fellow (2008-2011)</i>	Adj. Fac., Simp. Coll., 2014-2015
Elizabeth Elacqua	Jan. 2008-2012	Assoc. Scientist, Kemin, 2015-
		Ph.D. degree awarded
		Postdoc, NYU, 2012-2017
		Assist. Prof., Penn State Univ., 2017-
Jelena Stojakovic	Jan. 2009-May 2014	Ph.D. degree awarded
	<i>i) Awarded 2<sup>nd</sup> place as Top Presentation in Mathematical &amp; Physical Sciences &amp; Engineering, Iowa Graduate College James F. Jakobsen Graduate Forum (2014)</i>	Postdoc, MIT, 2014-
	<i>ii) Awarded Best Oral Presentation, 22nd Midwest Organic Solid-State Chemistry Symposium (2012)</i>	Scientist, Illumina, 2017-
Rebecca C. Laird	Jan. 2010-Aug. 2014	Ph.D. degree awarded
		Postdoc, Univ. Iowa, 2014-2015

Kristin M. Hutchins	Jun. 2011-2015	Lecturer, Univ. Iowa, 2015- Ph.D. degree award
<i>i) Awarded Best Oral Presentation, 24th Midwest Organic Solid-State Chemistry Symposium (2014)</i>		Postdoc, Univ. Ill.-UC, 2015-2017
<i>ii) Awarded Lynn Anderson Research Excellence Award (2015)</i>		Assoc. Prof., Texas Tech Univ.
Katherine E. Peterson	Aug. 2011-2019	Ph.D. degree awarded
Michael A. Sinnwell	Jan. 2012-Jun. 2017	Ph.D. degree awarded
<i>Awarded Lynn Anderson Research Excellence Award (2017)</i>		Postdoc, PNNL, 2017-2020
		Visiting Assist. Prof., Univ. Iowa, 2020-
Andrew J. E. Duncan	Jan. 2012-2017	Ph.D. degree awarded
		Postdoc, Univ. Iowa, 2018
		Postdoc, Dartmouth, 2018-2019
		Assoc. Mang. Editor, Wiley, 2020-
Shalisa M. Oburn	Aug. 2014-2019	Ph.D. degree awarded
<i>Awarded Lynn Anderson Research Excellence Award (2019)</i>		Postdoc, Penn St. U., 2019-2021
		Senior Scientist, Merck, 2021-
Shweta Yelgaonkar	Jan. 2015-Aug. 2020	Ph.D. degree awarded
		Postdoc, UC-Davis, 2020-
Gonzalo Campillo-Alvarado	Aug. 2015-Jun. 2020	Ph.D. degree awarded
<i>i) Awarded Best Oral Presentation, 28th Midwest Organic Solid-State Chemistry Symposium (2018)</i>		Postdoc, Univ. Ill.-UC, 2020-2022
<i>ii) Awarded Paul R. Sharp Award, Midwest ACS Meeting (2019)</i>		Assist. Prof., Reed College, 2022-
Jay Q. Bell	Aug. 2016-May 2022	PhD. Degree awarded
		Senior Process Chemist, Exemplify Biopharma, 2022-
Celymar Ortiz de Leon	Jan. 2018-	Ph.D. program
Changan Li	Mar. 2018-Aug. 2022	Ph.D. program
<i>Awarded Lynn Anderson Research Excellence Award (2022)</i>		
<i>Awarded Best Oral Presentation, Midwest ACS Meeting (2021)</i>		
Christopher J. Hartwick	Jan. 2019-	Ph.D. program
<i>Awarded Top Poster Prize, 16th International Symposium of Macrocyclic and Supramolecular Chemistry (2022)</i>		
Aladen Tiba	Jan. 2019-	Ph.D. program
Deanna Castellon	Jan. 2020-Dec. 2020	departed program
Samantha J. Kruse	Jan. 2021-	Ph.D. program
Nevindee Samarathne Muhandiramge	Jan. 2022-	Ph.D. candidate
Charles Ezekiel	Jan. 2022-	Ph.D. candidate
b. Master's candidates		
Adam R. Mattox	Sept. 2003-May 2004	MS (w/o thesis), U Iowa
David M. Drab	Jul. 2003-Jul. 2005	MS (w/o thesis), U Iowa
Michael A. Hellstein	Jun. 2005-Jul. 2006	MS (w/thesis), U Iowa
c. Postdoctoral fellows		
Giannis S. Papaefstathiou	Jun. 2002-Jun. 2004	Greek army service, Lecturer, Univ. of Athens
<i>Awarded Biosciences Initiative Postdoctoral Fellowship (2002)</i>		

Heba Abourahma	Jul. 2004-Jun. 2005	Associate Professor, TCNJ The College of New Jersey
Andrew J. Duncan	Jan. 2018-Jun. 2018	Assoc. Mang. Editor, Wiley, 2020-
Maria G. Vasquez Rios	Nov. 2019-	
d. Visiting Scientists		
Prof. Claude M. Mertzenich	Aug. 2003-Aug. 2004	returned to Luther College
	Jan. 2007-Feb. 2007	returned to Luther College
Prof. Ryan H. Groeneman	Aug. 2008-Dec. 2008	returned to Webster Univ.
Prof. Charles Liberko	Aug. 2010-Jan. 2011	returned to Cornell College
e. Undergraduates		
Alex J. Kipp	Oct. 2000-May 2001	completed required work
Michelle M. Siebke	Oct. 2000-Feb. 2001	completed required work
Arach J. Wilson	Jan. 2001-May 2001	completed required work
Brett G. Darrow	Jan. 2001-Dec. 2003	completed required work
Adam R. Mattox	Sept. 2002-May 2003	BS (Hons. thesis), Iowa (2003)
Jason R. Healy	Jan. 2002-May 2003	completed required work
Justan M. Klaus	Oct. 2002-Mar. 2003	completed required work
Tony N. Sokolov	Jun. 2003-Dec. 2003	completed required work
Manza B.J. Atkinson	Jun. 2002-Aug. 2002	SROP program
David M. Drab	Jun. 2002-Aug. 2002	NSF REU program
Michael A. Hellstein	Aug. 2004-May 2005	completed required work
Daniel J. McCabe	Jan. 2005-May 2005	completed required work
Manza B.J. Atkinson	Jun. 2005-Aug. 2005	completed required work
Stacy C. Sommerfeld	Jan. 2006-May 2006	completed required work
	Aug. 2006-May 2006	completed required work
	Sept. 2007-Jan. 2008	completed required work
Nathaniel R. Ross	Jan. 2006-May 2006	completed required work
Courtney D. Howe	Jan. 2006-May 2006	completed required work
	Aug. 2006-Mar. 2007	completed required work
	Sept. 2007-Dec. 2007	completed required work
Hyun O. Jo	Jan. 2006-May 2006	completed required work
Asher Chevannes	Jun. 2006-Jul. 2006	NSF AGEP program
Chanceity N. Robinson	Jun. 2006-Jul. 2006	NSF AGEP program
Jake Houghton	Jun. 2006-Sept. 2006	completed required work
Jason D. Prantner	Jun. 2006-Jun. 2007	completed required work
Naif Sinada	Jul. 2006-Mar. 2007	completed required work
	Jun. 2008-Aug. 2008	completed required work
Sean Gu	Aug. 2006-Jun. 2006	completed required work
	Aug. 2007-Dec. 2007	completed required work
Mahmood Bilal	Jan. 2007-Jun. 2007	completed required work
	Sept. 2007-Dec. 2007	completed required work
	May 2008-Dec. 2008	completed required work
Phuong Dau	Jun. 2007-Sept. 2007	completed required work
	Jan. 2008-Feb. 2008	completed required work
	Jun. 2008-Sept. 2008	completed required work

Brittany Rogers	June. 2009-Aug. 2009	completed required work
Cody Kenkel	Jun. 2007-Jul. 2007	NSF AGEP program
Wessam Michael	Jun. 2007-Aug. 2007	completed required work
Paul T. Jurgens	Jan. 2008-Aug. 2008	completed required work
	Jun. 2008-Dec. 2008	completed required work
	Feb. 2009-Jun. 2009	completed required work
	Aug. 2009-Jun. 2010	completed required work
	Aug. 2010-Jun. 2011	completed required work
Kristin Kester	Jan. 2009-May 2011	completed required work
Michael C. Tiedman	Aug. 2009-Jun. 2010	completed required work
	Aug. 2010-Dec. 2010	completed required work
Rhonda-Kaye J. Trusty	Jan. 2010-May 2010	completed required work
Brian S. Farris	Jun. 2010-Aug. 2011	completed required work
Brady S. France	Jun. 2010-Aug. 2010	completed required work
	Jan. 2011-Jun. 2011	completed required work
Brittany N. Giangiorgi	Aug. 2010-Jun. 2011	completed required work
Taylor Carlson	Jun. 2011-Jul. 2011	NSF REU program
Avery M. Whitis	Jun. 2011-Dec. 2012	completed required work
Sara F. Rusch	Jun. 2011-May 2012	completed required work
Bradley P. Loren	Aug. 2011-Jun. 2013	completed required work
Nam P. Nguyen	Feb. 2012-Jun. 2013	completed required work
	Aug. 2013-Dec. 2013	completed required work
Jacob T. Edwards	Jun. 2012-Jul. 2012	NSF REU program
Trevor M. White	Jun. 2013-May 2014	completed required work
Teneme G. Konne	Jan. 2014-Jun. 2014	completed research project
	Aug. 2014-Jun. 2015	completed research project
Mark L. Miller	Jan. 2014-Jun. 2014	completed research project
	Aug. 2014-Jun. 2015	completed research project
Zachary J. Monroe	Jan. 2014-Dec. 2014	completed research project
Roxanne L. Dudovitz	Jan. 2014-Jun. 2014	completed research project
	Aug. 2014-Jun. 2015	completed research project
	Aug. 2015-Jun. 2016	completed research project
Shawna L. Dudovitz	Jan. 2014-Jun. 2014	completed research project
	Aug. 2014-Jun. 2015	completed research project
	Aug. 2015-Jun. 2016	completed research project
Jeremy A. Bobera	Jan. 2016-May 2017	completed research project
Jared N. Blad	Jan. 2016-May 2017	completed research project
Logan Thomas	Jan. 2016-Aug. 2016	completed research project
Jay Q. Bell	May 2016-Jul. 2016	completed research project
Olivia A. Ray	Jun. 2016-Jun. 2018	completed research project
Kayla L. Carrothers	Oct. 2017-Jun. 2018	completed research project
Megan Fishel	Jun. 2016-Jun. 2018	completed research project
Alexis D. Brannan	Oct. 2017-May 2019	completed research project
Zhiting Feng	Oct. 2017-May 2019	completed research project
Joshua Snetzler	Jun. 2018-Dec. 2019	completed research project



Megan D'mello	Jun. 2018-May 2020	completed research program
Alejandra Castillo Mora	Aug. 2018-May 2019	completed research project
Elizabeth A. Keene	Jul. 2019-May 2021	completed research project
Alex Julius	Sept. 2020-May 2021	completed research project
Clara A. Stuedemann	Aug. 2021-	research underway
Karah A. Putnam	Aug. 2022-	research underway
Claire Stevens	Oct. 2022-	research underway

f. High school student

Madeleine Grossman	Jun. 2004-Aug. 2004	SSTP program
Jorge Rivera	Jun. 2010-Aug. 2011	Upward Bound program
Isaak Sunleaf	Jul. 2010-Aug. 2010	completed required work
Talbot Morris-Downing	Jul. 2013-Aug. 2013	completed required work
Carlson Sunleaf	Jun. 2015-Dec. 2015	completed required work
Melissa J. Bak	Jun. 2016-Aug. 2016	SSTP program
Tighe Didden	Jun. 2017-Aug. 2017	SSTP program
Mingyu Zhu	Jun. 2018-Aug. 2018	SSTP program

**External Examiner**

<u>Name</u>	<u>Years</u>	<u>Institution</u>	<u>Outcome</u>
a. Ph.D. candidates			
Yuegang Zhang	2001	University at Buffalo-SUNY	Ph.D.
Heba Abourahma	2004	University of South Florida	Ph.D.
Felaniaina Rakotondradany	2004	McGill University, Canada	Ph.D.
Omer Memmer	2005	University of Iowa (Physics)	Ph.D.
Ammar M.N. Khawam	2006	University of Iowa (Pharmacy)	Ph.D.
Madhushree Sarkar	2007	Indian Institute of Technology, Kharagpur	Ph.D.
Rajput Lilitkumar Dilipsing	2010	Indian Institute of Technology, Kharagpur, India	Ph.D.
Subash Chandra Sahoo	2010	Indian Institute of Technology, Guwahati, India	Ph.D.
Ran Lin	2012	University of Iowa (Physics)	Ph.D.
Sandipan Roy	2013	Indian Institute of Technology, Kharagpur, India	Ph.D.
Arijit Mukherjee	2014	Indian Institute of Science, Bangalore, India	Ph.D.
Oleksandr S. Bushuyev	2016	McGill University, Canada	Ph.D.
S. Viswanadha Ganesh	2017	Pondicherry University, India	Ph.D.
Yifei Wang	2017	University of Iowa (Physics)	Ph.D.
Aditya B. Singaraju	2018	University of Iowa (Pharmacy)	Ph.D.
Shaunak Chakraborty	2018	Indian Institute of Science, India	Ph.D.
Shoushun Chen	2018	Western University, Canada	Ph.D.
Pablo Martinez-Bulit	2019	University of Windsor, Canada	Ph.D.

K S Narayana Konavarapu	2019	Indian Institute of Technology, Kharagpur, India	Ph.D.
Amy Hall	2020	Durham University, United Kingdom	Ph.D.
b. M.Sc candidates			
Julia Park	2015	University of Iowa	M.Sc.
c. Undergraduates			
Nicholas Zafiroopoulos	2003	Knox College	B.S. (Honors)

### Prior to the University of Iowa

### Students Supervised at Ottawa-Carleton Chemistry Institute

<u>Name</u>	<u>Years</u>	<u>Outcome</u>
a. Master's candidates		
Jennifer L. Reid	Aug. 1999-May 2001	M.Sc. (w/thesis)
b. Undergraduates		
Jennifer L. Reid	Aug. 1998-May 1999	B.Sc. (Honors w/thesis)
Irene A.M. Zuger	Aug. 1999-May 2000	B.Sc. (Honors w/thesis)
Heather A. Spinney	Aug. 1999-May 2000	B.Sc. (Honors w/thesis)
Steven P. Blais	Aug. 1999-May 2000	B.Sc. (Honors w/thesis)

### SCHOLARSHIP

### Publications (Refereed) (independent contributions designated by asterisk\*)

H-index: 57

\*257. Li, C.; Keene, E.A.; Ortiz-de Leon, C., "Hydrogen and Halogen Bonds in Drug-Drug Cocrystals of X-Uracil (X = F, I) and Lamivudine: Extended Quadruplex and Layered Assemblies", *J. Supramol. Chem.*, in press..

\*\*256. Peach, A.A.; Holmes, S.T.; MacGillivray, L.R. Schurko, R.W., "The Formation and Stability of Fluoxetine HCl Cocrystals Investigated by Multicomponent Milling", *CrystEngComm.*, **2023**, *25*, 213-224.

\*255. Zu, H.; Henry, R.F.; Zhang, G.Z.Z.; MacGillivray, L.R., "Inhibiting Sublimation of Thymol by Cocrystallization", *J. Pharma. Sci.* **2023**, *112*, 350-353.

\*254. Ortiz-de Leon, C.; Hartwick, C.J.; Stuedemann, C.A.; Brogden, N.K.; MacGillivray, L.R., "Mechanochemistry Facilitates a Single-Crystal X-ray Structure Determination of Free base Naloxone Anhydrate", *Cryst. Growth Des.* **2022**, *22*, 6622-6626.

**\*253.** Tiba A.A.; Perman, J.A.; Tivanski, A.V.; MacGillivray, L.R., “Supramolecular modification of a metal-organic framework increases sorption switching: Insights into reversible structural deformation of ZIF-8”, *J. Mater. Chem. A*, **2022**, *10*, 21053-21060.

**\*252.** Li, C.; Swenson, D.C.; MacGillivray, L.R., “Programming Rapid Functional Group Diversification into a Solid-State Reaction: Aryl Nitriles for Self-Assembly, Click Reactivity, and Discovery of Coexisting Supramolecular Synthons”, *Chem. Eur. J.* **2022**, *28*, e202200978.

(Inside Cover Article)

**\*251.** Guadalupe Vasquez-Rios, M.; Campillo-Alvarado, G.; Swenson, D.C.; Hopfl, H.; MacGillivray, L.R., “Structures and Reactivities of Cocrystals Involving Diboronic Acids and Bipyridines: In Situ Linker Reaction and 1D-to-2D Dimensionality Change via Crystal-to-Crystal Photodimerization”, *Chem. Eur. J.* **2022**, e202104604.

**\*250.** Quentin, J.; Reinheimer, E.W.; MacGillivray, L.R., “Halogen-Bond Mediated [2+2] Photodimerizations: à la Carte Access to Unsymmetrical Cyclobutanes in the Solid State”, *Molecules*, **2022**, *27*, 1048.

(Special Issue: ‘Halogen Bond in Crystalline Systems’)

**\*249.** Yelgaonkar, S.P.; MacGillivray, L.R., “Supramolecular Catalysis via Organic Solids: Templates to Mechanochemistry to Cascades”, in *Supramolecular Catalysis: New Directions and Developments* (Eds. van Leeuwen, P.V.N.M.; Raynal, M.), (Wiley, 2022), *27*, 401-411 (invited).

**248.** Nguyen, J.L.; Ricke, E.A.; Liu, T.T.; Gerona, R.; MacGillivray, L.; Wang, Z.; Timms, B.G.; Bjorling, D.E.; vom Saa, F.S.; Ricke, W.A., “Bisphenol-A Analogs Induce Lower Urinary Tract Dysfunction in Male Mice”, *Biochem. Pharmacol.*, **2022**, *197*, 114889.

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1. Piers, W.E.; Koch, L.; Ridge, D.S.; MacGillivray, L.R.; Zaworotko, M.J., "C-S Bond Cleavage at an Electrophilic Zirconium Center: Synthesis, Structure, and Thermal Decomposition of  $[\text{Cp}_2\text{Zr(S-t-C}_4\text{H}_9)(\text{THF})][\text{BPh}_4]$ ", *Organometallics* **1992**, *11*, 3148-3152.

#### Patents (Refereed)

9. MacGillivray, L.R.; Campillo-Alvarado, G. "Separations using boron containing hydrocarbon sponges", **2020** (US Patent No. 10,889,601 B2).

8. MacGillivray, L.R. "Therapeutic compounds", **2017** (US Patent No. 2017/0304304 A1)

7. MacGillivray, L.R.; Campillo-Alvarado, G. "Therapeutic cocrystals based on boronic acid hemiesters", **2017**, provisional patent, submitted.

6. MacGillivray, L.R. "Co-crystals and salts of contrast agents and imaging", **2014** (US Patent No. S 2014/0004051A1).

5. MacGillivray, L.R. "Data storage materials", **2010** (US Patent No. 7,772.416 B2)

4. MacGillivray, L.R.; Sokolov, A.N. "Apparatus and semiconductor co-crystal", **2010** (US Patent No. US 2010/0148154 A1).

3. MacGillivray, L.R. "Method for preparing ladderanes", **2009** (US Patent No. 7,524,966 B2).

2. MacGillivray, L.R.; Papaefstathiou, G.S. "Gas storage materials and devices", **2009** (US Patent No. US 7481,866 B2).

#### *Prior to University of Iowa*

1. MacGillivray, L.R.; Atwood, J.L. "Substantially spherical supramolecular assemblies", **2007** (US Pat. 7,169,957, abandoned).

## Editorials, Book Reviews, Popular Press (Non-refereed)

15. Editorial: Barbour, L.J.; MacGillivray, L.R.; Steed J.W.; Szumna, A. "Jerry Lee Atwood", *Supra. Chem.* **2018**, *30*, 351-352.
14. Editorial: MacGillivray, L.R. "Celebrating the International Year of Crystallography", *CrystEngComm.*, **2014**, *16*, 9581.
13. Interviewed in "Process Behind Jumping Crystals Unlocked", *Nature Middle East* (doi: 10.1038/nmiddleeast.2014.173) (2014).
12. Preface: Lukehart, C.; MacGillivray L.R. "Volume Preface: Metal-Organic Frameworks", *Metal-Organic Frameworks*, in *Encyclopedia of Inorganic and Bioinorganic Chemistry* (Eds. Lukehart, C.M.; MacGillivray, L.R.), 1 (Wiley-VCH, 2014) (invited).
11. Editorial: Rissanen, K.; Barbour, L.J.; MacGillivray, L.R. "Structural Macrocyclic Supramolecular Chemistry", *CrystEngComm.* **2014**, *16*, 3644.
10. Editorial: Shu-Hong, Y.; MacGillivray, L.R.; Christoph, J. "Nanocrystals", *CrystEngComm.* **2012**, *14*, 7531-7534.
9. Editorial: MacGillivray, L.R., Atwood, J.L. "Host-Guest Chemistry and Fumio Toda", *CrystEngComm.* **2011**, *13*, 3107.
8. Book Review: MacGillivray, L.R. "Crystal Structure Analysis. Principles and Practice. Second Edition", *Mol. Cryst. Liq. Cryst.* **2010**, *533*, 181-183 (invited).
7. Interviewed in "Making Edible Nanostructures", *Chem. Eng. News* **2010**, *88*, 6.
6. Book Review: MacGillivray, L.R. "Macromolecules Containing Metal and Metal-like Elements. Volume 9. Supramolecular and Self-Assembled Metal-Containing Materials", *J. Inorg. Organomet. Polym. Mater.* **2010**, *20*, 416-418 (invited).
5. Interviewed in *CrystEng Community*, *Interview with Len MacGillivray*, March 2010  
See:  
[http://www.rsc.org/Publishing/Community/ResearcherInterviews/Len\\_MacGillivray\\_interview.asp](http://www.rsc.org/Publishing/Community/ResearcherInterviews/Len_MacGillivray_interview.asp)
4. Interviewed in *Scientific American*, *Cagey Solution: Will Nano Traps Make Geothermal Power Earthquake-Safe?* (Energy RSS Feed), July 2009  
See: <http://www.scientificamerican.com/article.cfm?id=nano-traps-geothermal-power>
3. Interviewed in *Reactions, The Sceptical Chymist (Nature's Chemistry Blog)*, August 2007  
See: [http://blogs.nature.com/thescpticalchymist/2007/08/reactions\\_len\\_macgillivray.html](http://blogs.nature.com/thescpticalchymist/2007/08/reactions_len_macgillivray.html)

2. Special Issue Preface: MacGillivray, L.R.; Wei, A. "XIII<sup>th</sup> International Symposium on Supramolecular Chemistry, University of Notre Dame, South Bend, IN, July 25-30, 2004", *Supramol. Chem.* **2005**, *17*, 7-8 (invited).

(Special Issue: XIII<sup>th</sup> International Symposium on Supramolecular Chemistry)

1. Book Review: MacGillivray, L.R. "*Crystal Design: Structure and Function*", *Cryst. Growth Des.* **2004**, *4*, 403-404 (invited).

#### Grants: External

30. "CAS-Climate: Supramolecular Control of Reactivity in the Solid State: From Metal-Free Photoswitches and Click Reactivity to Manufacturing Diverse Molecules", National Science Foundation (DMR-2221086), \$500,000 (Jul. 2022-Jun. 2025) (PI).

29. "Ultrafast Aromatic Excimer Formation: Case of the Cyclophanes", US-Israel Binational Science Foundation (BSF-2020105), \$253,600 (Oct. 2021-Sept. 2025) (co-PI w/Ruhman, S., Hebrew University of Jerusalem, Israel).

28. "Development of Cocrystals for the Treatment of BPH/LUTS", NIH/University of Wisconsin-Madison George M. O'Brien U54 Urology Center Opportunity Pool Award (U54DK104310), \$100,000 (renewable) (Aug. 2021-Jul. 2022) (co-PI w/Ricke, W.A., Department of Urology, University of Wisconsin at Madison).

27. "AGEP Supplement: Supramolecular Approaches to Control Reactivity in the Organic Solid State", National Science Foundation (DMR-2133727), \$63,127 (Jul. 2021-Jun. 2022) (PI).

26. "COVID-19 Supplement: Supramolecular Approaches to Control Reactivity in the Organic Solid State", National Science Foundation (DMR-2135386), \$77,264 (Jul. 2021-Jun. 2022) (PI).

25. "MRI: Acquisition of a 400-MHz NMR Spectrometer with Nitrogen-Cooled Cryoprobe", National Science Foundation (CHE-2017828), \$431,230 (Aug. 2020-Jul. 2023) (co-PI w/Gloer, J.B.; Velupillai, S.V.; Bowden, N.B.; Daly, S.R.).

24. "AGEP Supplement: Supramolecular Approaches to Control Reactivity in the Organic Solid State", National Science Foundation (DMR-2028290), \$54,127 (Jul. 2020-Jun. 2021) (PI).

23. "Enhancing Chemical Sciences at Iowa: Modernizing Undergraduate Instruction and Graduate Student Training", Roy J. Carver Charitable Trust, \$175,510 (Jun. 2020-May 2023) (PI).

22. "MRI: Acquisition of a Variable-Temperature, Dual-Wavelength, Single-Crystal X-Ray Diffractometer", National Science Foundation (CHE-1828117), \$374,426 (Aug. 2018-Jul. 2021) (PI) (prepared by Messerle, L.).

21. "Supramolecular Approaches to Control Reactivity in the Organic Solid State", National Science Foundation (DMR-1708673), \$400,000 (Jul. 2017-Jun. 2021) (PI).
20. "Templated Solid-State Reactions: Fundamentals to Multiple Reactions", National Science Foundation (DMR-1408834), \$426,000 (Jul. 2014-Jun. 2017) (PI).
19. "Contract: Study Abbvie Drug Molecules in Co-crystals", Abbott Laboratories, \$72,459 (Jan. 2013-Jan. 2015) (PI).
18. "Versatility in Templated Solid-State Reactions", National Science Foundation (DMR-1104650), \$405,000 (Jul. 2011-Jun. 2014) (PI).
17. "Supplement to Organic Functionalities in Template-Controlled Solid-State Reactions", National Science Foundation (DMR-0925042), \$55,000 (Jun. 2009-May 2010) (PI).
16. "Symposium on Supramolecular Chemistry, 44<sup>th</sup> Midwest Regional Meeting of the ACS, Iowa City, IA, USA (Oct. 21-24, 2003)", Petroleum Research Fund (Type SE Grant), \$1,500 (PI).
15. "Organic Functionalities in Template-Controlled Solid-State Reactions", National Science Foundation, Division of Materials Research (DMR-0801329), \$275,000 (Jun. 2008-Jun. 2011) (PI).
14. "Natural Ladderane Lipids via Template-Controlled Solid-State Reactions", Petroleum Research Fund (Type AC Grant), \$100,000 + \$3,600 SUMR supplement (Mar. 2008-Mar. 2010) (PI).
13. "Arthur C. Cope Scholar Award (2007)", American Chemical Society, \$40,000 (Aug. 2007-Aug. 2008) (PI).
12. "Pharmaceutical Co-Crystals based on GRAS and EAFUS Compounds", Abbott Laboratories, \$150,000 (Oct. 2006-Sept. 2009) (PI).
11. "Gas Storage within Inverted Metal-Organic Frameworks, Phase II", Honda, \$22,000 (Nov. 2005-Mar. 2006) (PI).
10. "Symposium on Crystal Engineering, 2005 Annual Meeting of the American Crystallographic Association, Orlando, Florida, USA", Petroleum Research Fund (Type SE Grant), \$2,400 (co-PI, w/K. Travis Holman, Georgetown University).
9. "Gas Storage within Inverted Metal-Organic Frameworks", Honda, \$75,000 (Mar. 2004-Feb. 2005) (PI).
8. "Symposium on Supramolecular Chemistry, IUPAC/CSC, Ottawa, Canada (Aug. 14-15, 2003)", Petroleum Research Fund (Type SE Grant), \$1,200 (PI).

7. "Chemical Storage of Hydrogen within Crystalline Metal-Organic Solids", Honda, Honda Initiation Grant, \$50,000 (Jan. 2003-Dec. 2003) (PI).
6. "Attend and Participate in CrystEngComm Discussion 1: Innovation in Crystal Engineering, University of Bristol, UK", Speakers' Bursary, Conference Executive, Royal Society of Chemistry, \$738 (Jun. 29-Jul. 1, 2002) (PI).
5. "CAREER: Controlling Reactivity in the Solid State via Linear Templates", National Science Foundation Faculty Early Career Development (CAREER) Award, Division of Materials Research (DMR-0133138), \$506,000 (Mar. 2002-Jun. 2007) (PI).
4. "The Solid State as Medium for Conducting Molecular Synthesis by Design: Principles and Applications", Research Corporation, Research Innovation Award, \$35,000 (May 2002-May 2007) (PI).
3. "A General Approach to Nanoporous Solids Using Polyhedral Building Units Derived from the Solid State", ACS Petroleum Research Fund (Type G Starter Grant), \$25,000 (Sept. 2001-Sept. 2003) (PI).

*Contributing Investigator*

2. "SNS Single-Crystal X-ray Diffractometer (SCD)", Oak Ridge National Laboratory (PI: Robert Bau, Department of Chemistry, University of Southern California).

*Prior to University of Iowa*

1. "An Approach to Synthesis in the Solid State Using Linear Templates and Hydrogen Bonds", Natural Sciences and Engineering Research Council of Canada, \$20,000 (2000) (PI).

**Grants: Internal**

36. "Mechanoenzymatic Hydroxylation of Steroids with Cytochrome P450 CYP3A4", seed grant award, Center for Biocatalysis and Bioprocessing, University of Iowa, \$34,837 (July 2019) (PI).
35. "Give Two Invited Lectures and Chair Session at Three Conferences in Italy", Travel Grant, International Travel of the Office of the Provost, University of Iowa, \$1000 (June 2019) (PI).
34. "Give Two Invited Lectures at the 24<sup>th</sup> Congress and General Assembly of the International Union of Crystallography in Hyderabad, India", Travel Grant, International Travel of the Office of the Provost, University of Iowa, \$700 (August 2017) (PI).
33. "Give Two Invited Lectures at the Combined 21<sup>st</sup> International Symposium on Fluorine Chemistry/6<sup>th</sup> International Symposium on Fluorous Technologies Conference and the 2<sup>nd</sup> ICSU/IUPAC Workshop on Crystal Engineering in Como, Italy", Travel Grant, International Travel of the Office of the Provost, University of Iowa, \$700 (August 2015) (PI).



- 32.** “Attend and Give Keynote Lecture at the 23<sup>rd</sup> Congress and General Assembly of the International Union of Crystallography (IUCr 2014) in Montreal, Canada”, Travel Grant, International Travel of the Office of the Provost, University of Iowa, \$550 (August 2014) (PI).
- 31.** “Attend and Give Keynote Lecture at the International Conference on the Chemistry of the Organic Solid State in Oxford, United Kingdom”, Travel Grant, International Travel of the Office of the Provost, University of Iowa, \$500 (August 2013) (PI).
- 30.** “Attend and Give Invited Lecture at conference on Chemistry: Synthesis, Structure and Dynamics in Bangalore, India”, Travel Grant, International Travel of the Office of the Provost, University of Iowa, \$400 (December 2012) (PI).
- 29.** “Nano-Cocrystal Contrast Agents”, Institute for Clinical and Translational Science Pilot Grant, \$50,000 (Aug. 2010-Jun. 2011) (PI w/Clinical Assistant Professor Ryan T. Flynn, Department of Radiation Oncology, University of Iowa).
- 28.** “Single-Crystal Photoswitches”, Iowa Center for Research by Undergraduates (ICRU) program, \$2,500 (Aug. 2010-Jun. 2011) (PI).
- 27.** “Attend and Give Invited Lecture at the 2nd Symposium on Mechanochemistry and Solvent-free Synthesis in Belfast, Northern Ireland”, Travel Grant, International Travel of the Office of the Provost, University of Iowa, \$400 (August 2011) (PI).
- 26.** “Single-Crystal Lithography of Semiconducting Cocrystals”, Iowa Center for Research by Undergraduates (ICRU) program, \$2,500 (Aug. 2009-Jun. 2010) (PI).
- 25.** “Semiconductor Cocrystals with Alkyl Functionality”, Iowa Center for Research by Undergraduates (ICRU) program, \$2,500 (Jun. 2009-Aug. 2009) (PI).
- 24.** “Attend and Give Invited Lecture at the 24th European Crystallographic Meeting, Marrakech, Morocco”, Travel Grant, International Travel of the Office of the Provost, University of Iowa, \$500 (August 2007) (PI).
- 23.** “Covalent Chemistry on Molecules Obtained Noncovalently from Solids”, Iowa Research Experience for Undergraduates (IREU) program, \$3,000 (Jan. 2007-Dec. 2007) (PI).
- 22.** “Attend and Give Invited Lecture at the 89<sup>th</sup> Canadian Chemistry Conference and Exhibition in Halifax, Nova Scotia, Canada”, Travel Grant, International Travel of the Office of the Provost, University of Iowa, \$350 (May 2006) (PI).
- 21.** “Attend, Give Invited Lecture, and Host Symposium at the XX Congress of the International Union of Crystallography in Florence, Italy”, Travel Grant, International Travel of the Office of the Provost, University of Iowa, \$650 (Sept. 2005) (PI).

- 20.** Dean's Scholar Award, College of Liberal Arts and Sciences, University of Iowa, \$10,000 (Jun. 2005-May 2007) (PI).
- 19.** "Attend and Give Plenary Lecture at 14<sup>th</sup> Croatian-Slovenian Crystallographic Meeting in Vrsar, Croatia", Travel Grant, International Travel of the Office of the Provost, University of Iowa, \$490 (Mar. 2005) (PI).
- 18.** "Si-Tagged Templates for Directing Reactivity in the Solid State", Iowa Research Experience for Undergraduates (IREU) program, \$3,000 (Jan. 2005-Dec. 2005) (PI).
- 17.** "Attend and Participate in the 39th Congreso Mexicano de Quimica of the Mexican Chemical Society, Merida, Yucatan, MX", Travel Grant, International Travel of the Office of the Provost, University of Iowa, \$400 (Oct. 2004) (PI).
- 16.** "Naturally-Occurring Ladderanes Derived from Linear Templates and the Solid State", Carver Scientific Research Initiative Grant, Roy J. Carver Charitable Trust, University of Iowa, \$14,127 (Jan. 2004-Dec. 2004) (PI).
- 15.** "Attend and Participate in the International Conference on Materials for Advanced Technologies, Singapore", Travel Grant, International Travel of the Office of the Provost, University of Iowa, \$400 (Dec. 6-12, 2003) (PI).
- 14.** "Support for Professional Travel", Travel Grant, Office of the Dean of Liberal Arts and Sciences, University of Iowa, \$1500 (PI).
- 13.** "Center for Biocatalysis and Bioprocessing (CBB) Predoctoral Fellowship (Tomislav Friscic)", awarded by the CBB Executive Committee, \$13,332 (Jul. 2003-Jun. 2005) (advisor/PI).
- 12.** "Support for Professional Travel", Travel Grant, Office of the Dean of Liberal Arts and Sciences, University of Iowa, \$400 (PI).
- 11.** "Attend and Participate in EURESCO Conference on 'Molecular Crystal Engineering', Acquafredda di Maratea, Italy", Travel Grant, International Travel of the Office of the Provost, University of Iowa, \$300 (May 31-Jun. 5, 2003) (PI).
- 10.** "Support for Scholarly Travel", Travel Grant, Office of the Dean of Liberal Arts and Sciences, University of Iowa, \$1,000 (PI).
- 9.** "Forced Stacking of Pentacene within Molecular Co-Crystals", Mathematical and Physical Sciences Funding Program, University of Iowa, \$25,840 (Jan. 2003-Dec. 2003) (PI).
- 8.** "new Technology in The Learning Environment (nTITLE)", program funds, \$2,000 (Jul. 2002-Apr. 2003) (PI).

7. "Center for Biocatalysis and Bioprocessing (CBB) Predoctoral Fellowship (Dushyant B. Varshney)", awarded by the CBB Executive Committee, \$13,332 (Jul. 2002-Jun. 2005) (advisor/PI).
6. "Attend and Participate in CrystEngComm Discussion 1: Innovation in Crystal Engineering, University of Bristol, UK", Travel Grant, International Travel of the Office of the Provost, University of Iowa, \$400 (Jun. 29-Jul. 1, 2002) (PI).
5. "Biosciences Initiative Postdoctoral Fellowship (Giannis S. Papaefstathiou)", awarded by the Biosciences Initiative Advisory Committee, University of Iowa, \$33,500 (Jun. 2002-Jun. 2003) (advisor/PI).
4. "Attend and Participate in Singapore International Chemical Conference: Frontiers in Chemical Design and Synthesis, Singapore", Travel Grant, International Travel of the Office of the Provost, University of Iowa, \$650 (Dec. 18-21, 2001) (PI).
3. "Attend and Participate in 32nd Course of the International School of Crystallography, Strength from Weakness: Structural Consequences of Weak Interactions in Molecules, Supermolecules and Crystals, Erice, Italy", Travel Grant, International Travel of the Office of the Provost, University of Iowa, \$400 (May 22-Jun. 3, 2001) (PI).
2. "The Solid State as a Medium for Conducting Molecular Synthesis by Design: A Green Alternative to Macrocycles", Carver Scientific Research Initiative Grant, Roy J. Carver Charitable Trust, University of Iowa, \$13,296 (Jun. 2001-Jun. 2002) (PI)
1. "The 5th Annual Green Chemistry and Engineering Conference", Curriculum Development Travel Grant, College of Liberal Arts and Sciences, University of Iowa, \$400 (Jun. 2001) (PI).

#### **Lectures and Conference Presentations: International**

109. "Advancing Organic Synthesis and Materials Science with Reactions in Crystals", plenary lecture given at the Mexican Symposium on Supramolecular Chemistry, in webinar (August 2022) (invited).
108. "Building Molecules in Crystals", keynote lecture given at the 25<sup>th</sup> International Conference on the Chemistry of the Organic Solid State, Ohrid, Macedonia (June 2022) (invited).
107. "Crystal Engineering the Covalent Bond: Organic Synthesis to Materials Science", oral presentation given as the weekly colloquium in the Department of Chemistry, University of Ottawa, Ottawa, Ontario, Canada (March 2022) (invited).
106. "Crystal Engineering the Covalent Bond: Organic Synthesis to Materials Science", keynote lecture given at the 6th International Conference on Recent Advances in Material Chemistry, Chennai, India (February 2022) (invited) (virtual).

- 105.** “Rouge One: Crystal Engineering and Organic Synthesis”, oral presentation given at Pacificchem 2021, Honolulu, Hawaii, USA (December 2021) (invited) (virtual).
- 104.** “Crystal Engineering the Covalent Bond: Organic Synthesis to Materials Science”, oral presentation given at the 3rd International Symposium on Soft Crystals, Kona, Hawaii, USA (December 2021) (invited) (virtual).
- 103.** “Crystal Engineering the Covalent Bond: Opportunities in Organic Synthesis and Materials Science”, oral presentation delivered to the Chemical Science (ChemS) Program, King Abdullah University of Science and Technology (KAUST), Saudi Arabia (September 2021) (invited) (virtual).
- 102.** “Crystal Engineering: Reactivity to Pharmaceuticals”, keynote lecture given at the Athens Conference on Advances in Chemistry, Athens, Greece (March 2021) (invited) (virtual).
- 101.** “Pharmaceutical Cocrystals: Synthons and Reactivity”, oral presentation given at 10<sup>th</sup> Crystal Forms@BO, Bologna, Italy (June 2019) (invited).
- 100.** “Supramolecular Construction of Molecules in Crystals”, oral presentation given at *CrystEngComm*/IUPAC Symposium in Celebration of the 20<sup>th</sup> Anniversary of *CrystEngComm*, Lecce, Italy (June 2019) (invited).
- 99.** “Crystal Engineering the Covalent Bond: Opportunities in Organic Synthesis and Materials Science”, oral presentation given in the Department of Chemistry, Dalhousie University, Halifax, Nova Scotia, Canada (March 2019) (invited).
- 98.** “Crystal Engineering the Covalent Bond: Opportunities in Organic Synthesis and Materials Science”, oral presentation given in the Department of Chemistry and Biochemistry, University of Windsor, Windsor, Ontario, Canada (January 2019) (invited).
- 97.** “Crystal Engineering the Covalent Bond: When Organic Synthesis Meets the Solid State”, oral presentation given in the in the Department of Chemistry, Western University, London, Ontario, Canada (November 2018) (invited).
- 96.** “Reactivity in the Organic Solid State: Assemble and Construct”, oral presentation given at the 2<sup>nd</sup> Middle Eastern Materials Science Conference, Abu Dhabi, United Arab Emirates (November 2018) (invited).
- 95.** “Directed Reactivity in Halogen-Bonded Cocrystals”, oral presentation given at the 24<sup>th</sup> Congress and General Assembly of the International Union of Crystallography, Hyderabad, India (August 2017) (invited).
- 94.** “Polymorphs, Pseudopolymorphs, and the Crystal Engineer: Friends and Foes”, oral presentation given at the 24<sup>th</sup> Congress and General Assembly of the International Union of Crystallography, Hyderabad, India (August 2017) (invited).

- 93.** “Crystal Engineering Molecules”, oral presentation given at the 100<sup>th</sup> Canadian Chemistry Conference and Exhibition, Toronto Ontario, Canada (May 2017) (invited).
- 92.** “Crystalline Materials to Molecules”, plenary lecture given at the 23<sup>rd</sup> International Conference on the Chemistry of the Organic Solid State, Stellenbosch, South Africa (April 2017) (invited).
- 91.** “Covalent Syntheses via Solid-state Supramolecular Chemistry: Halogen Bonds”, oral presentation given at the 99<sup>th</sup> Canadian Chemistry Conference and Exhibition, Halifax, Nova Scotia, Canada (June 2016) (invited).
- 90.** “Pharmaceutical Cocrystals: Supramolecular Synthons to Nanocrystals”, oral presentation given at the M3 Molecules, Materials, Medicines: An International Conference on the Role of Materials Science and Engineering in Drug Development, Solomons Island, Maryland, USA (May 2016).
- 89.** “Organic Nanocrystals via Sonochemistry: Host-Guest chemistry, Solid-State Reactions, and Pharmaceutics “, oral presentation given at Pacificchem 2015 in Honolulu, Hawaii, USA (December 2015) (invited).
- 88.** “Mechanochemistry and Supramolecular Catalysis in Templated Solid-State Reactions”, oral presentation given at Pacificchem 2015 in Honolulu, Hawaii, USA (December 2015) (invited).
- 87.** “Crystal Engineering: Solid-State Reactivity via Principles of Supramolecular Chemistry”, oral presentation given at Pacificchem 2015 in Honolulu, Hawaii, USA (December 2015) (invited).
- 86.** “Crystal Engineering, Supramolecular Chemistry, and Organic Synthesis”, oral presentation given at the 2<sup>nd</sup> ICSU/IUPAC Workshop on Crystal Engineering, Como, Italy (August 2015).
- 85.** “Integration of Fluorine Atoms into Templated Solid-State Reactions”, oral presentation given at the 21<sup>st</sup> International Symposium on Fluorine Chemistry & 6<sup>th</sup> International Symposium on Fluorous Technologies, Como, Italy (August 2015).
- 84.** “Crystal Engineering Chemical Reactivity”, oral presentation given in the Department of Chemistry, Savitribai Phule Pune University, Pune, India (December 2014).
- 83.** “Crystal Engineering the Covalent Bond via Self-Assembly”, oral presentation given at the International Conference on Structural and Inorganic Chemistry, Pune, India (December 2014) (invited).
- 82.** “Crystal Engineering the Formation of Covalent Bonds via Self-Assembly”, oral presentation given at the International Conference on Structural Chemistry of Molecules and Materials, Kolkata, India (December 2014) (invited)

- 81.** “Crystal Engineering the Covalent Bond: When Self-Assembly is Required”, oral presentation given in the Department of Chemistry, Center for Research and Advanced Studies of the National Polytechnic Institute (Cinvestav), Mexico City, Mexico (October 2014) (invited by students).
- 80.** “Crystal Engineering the Covalent Bond: When Self-Assembly is Required”, oral presentation given in the Department of Chemistry, Universidad Nacional Autonoma de Mexico (UNAM), Mexico City, Mexico (October 2014) (invited).
- 79.** “Hydrogen Bonds and Self-Assembly to Direct Reactivity in the Solid State”, oral presentation given at the XXIII Congress of the International Union of Crystallography, Montreal, Canada (August 2014) (invited).
- 78.** “A Modular Strategy to Organic Synthesis in the Solid State Using Principles of Crystal Engineering”, oral presentation given at the 3<sup>rd</sup> Gordon Research Conference on Crystal Engineering, Waterville, New Hampshire (June 2014) (invited).
- 77.** “Liquid-Assisted Vortex Grinding: Single-Step Construction of a [2.2]Paracyclophane”, oral presentation given at Faraday Discussion 170: Mechanochemistry: From Functional Solids to Single Molecules in Montreal, Quebec, Canada (May 2014) (invited).
- 76.** “Crystal Engineering the Organic Solid State: Reactivity, Nanocrystals, and Semiconductors”, plenary presentation given at the 1<sup>st</sup> Crystal Engineering and Emerging Materials Workshop of Ontario and Quebec (CEMWOQ) in Montreal, Quebec, Canada (May 2014) (invited).
- 75.** “Crystal Engineering Covalent Bonds: From Self-assembly to Molecules by Design”, keynote presentation given at the 21<sup>st</sup> International Conference on the Chemistry of the Organic Solid State in Oxford, United Kingdom (August 2013) (invited).
- 74.** “Supramolecular Synthesis and Control of Reactivity in Organic Solids”, oral presentation given at the 8<sup>th</sup> International Symposium on Macrocyclic and Supramolecular Chemistry in Arlington, Virginia (July 2013) (invited).
- 73.** “Sonochemical Synthesis of Nano-cocrystals”, oral presentation given at the 21<sup>st</sup> International Congress on Acoustics in Montreal, Canada (June 2013) (invited).
- 72.** “Supramolecular Control of Reactivity in the Solid State”, oral presentation given at Chemistry: Synthesis, Structure, and Dynamics in Bangalore, India (December 2012) (invited).
- 71.** “Crystal Engineering the Covalent Bond: When Noncovalent Bonds and Geometry Unite”, Distinguished Lecturer, Department of Biology and Chemistry, City University of Hong Kong (October 2012) (invited).
- 70.** “Crystal Engineering the Covalent Bond: Self-Assembly Required”, keynote presentation given at the Centre for Self-Assembled Chemical Structures (CSACS) in Montreal, Canada (May 2012) (invited).

69. "Towards Ladderane Lipids: Supramolecular Construction of Molecular Ladderanes in the Solid State", oral presentation given at BIT's Annual International Conference of MedChem in Beijing, China (August 2011) (invited).
68. "Solvent-Free Supramolecular Catalysis", keynote lecture given at BIT's 2nd Annual World Congress of Catalytic Asymmetric Synthesis in Beijing, China (August 2011) (invited).
67. "Supramolecular Catalysis in the Organic Solid State via Dry Grinding", lecture given at The 2nd Symposium on Mechanochemistry and Solvent-free Synthesis in Belfast, Northern Ireland (August 2011) (invited).
66. "Green Synthesis of Organic Ligands: Applications in Coordination-Driven Self-assembly", oral presentation given at Pacifichem 2010 in Honolulu, Hawaii, USA (December 2010) (invited).
65. "Supramolecular Catalysis in the Organic Solid State via Dry Grinding", oral presentation given at Pacifichem 2010 in Honolulu, Hawaii, USA (December 2010) (invited).
64. "Designed Chemical Reactivity in the Solid State *via* Templates and Self-Assembly", oral presentation given at the 19th International Conference on the Chemistry of the Organic Solid State at Sestri Levante, Genoa, Italy (July 2009) (invited).
63. "Molecular Co-Crystals: Reactivity, Polymorphism, and Nanoparticles", oral presentation given at the Indo-US Bilateral Workshop on Pharmaceutical Cocrystals and Polymorphs" in Mysore, India (February 2009) (invited).
62. "Reactive Crystalline Molecular Assemblies", oral presentation given in the symposium on Photochemistry and Solid-State Transformations in Molecular Solids at the XXI Congress of the International Union of Crystallography, Osaka, Japan (August 2008) (invited).
61. "Nano-cocrystals via Sonochemistry", oral presentation given in the symposium on Organic Micro- and Nano-Crystals, a satellite meeting of the XXI Congress of the International Union of Crystallography at Tohoku University, Sendai, Japan (August 2008) (invited).
60. "Functional Molecular Co-Crystals", oral presentation given at the 24th European Crystallographic Meeting, Marrakech, Morocco (August 2007) (invited).
59. "Template-Controlled Solid-State Synthesis: Principles and Applications via Coordination-Driven Self-Assembly", oral presentation given at the Japan-USA Joint Symposium on the Chemistry of Coordination Space, Northwestern University, Evanston, Illinois, USA (June 2007) (invited).
58. "Template-Controlled Solid-State Synthesis: Principles and Applications via Coordination-Driven Self-Assembly", special seminar of the Faculte de Chimie, Universite de Louis Pasteur, Strasbourg, France (June 2007) (invited).

57. "Template-Controlled Solid-State Synthesis: A Marriage of the Noncovalent and Covalent Bond", special seminar of the Faculte de Chimie, Universite de Louis Pasteur, Strasbourg, France (June 2007) (invited).
56. "Supramolecular Control of Chemical Reactivity - Liquids to Crystals", oral presentation given at the The XVth Conference on Physical Methods in Coordination and Supramolecular Chemistry, Chisinau, Moldova (Sept. 2006) (invited).
55. "Chemical Reactions within Co-Crystals", oral presentation given at the International Quality and Productivity Centre conference on Pharmaceutical Co-crystals, Amsterdam, Holland (September 2006) (invited).
54. "Crystal Engineering the Covalent Bond", oral presentation given in the Department of Chemistry, University of Cambridge, Cambridge, United Kingdom (September 2006) (invited)
53. "Crystal Engineering the Covalent Bond via Principles of Supramolecular Chemistry", oral presentation given at the 89th Canadian Chemistry Conference and Exhibition in Halifax, Nova Scotia, Canada (May 2006) (invited).
52. "Supramolecular Control of the [2+2] Photodimerization in the Solid State", oral presentation given at Pacificchem 2005 in Honolulu, Hawaii, USA (December 2005) (invited).
51. "Coordination-Driven Self-Assembly as a Means to Direct Reactivity in the Solid State", oral presentation given at Pacificchem 2005 in Honolulu, Hawaii, USA (December 2005) (invited).
50. "Directed Assembly and Covalent Capture of Supramolecular Architecture in the Solid State", oral presentation given in the symposium on Packing of Molecular Organic Compounds at the XX Congress of the International Union of Crystallography in Florence, Italy (August 2005) (invited).
49. "Supramolecular Control of the [2+2] Photodimerization in the Solid State", oral presentation given at the Gordon Research Conference on Photochemistry in Providence, Rhode Island, USA (July 2005) (invited).
48. "Molecular Crystals as Media for Constructing Molecules", oral presentation given at the 17th International Conference on the Chemistry of the Organic Solid State at the University of California-Los Angeles, Los Angeles, California, USA (July 2005) (invited).
47. "Molecular Crystals as Media for Constructing Molecules", plenary lecture given at the 14th Croatian-Slovenian Crystallographic Meeting in Vrsar, Croatia (June 2005) (invited).
46. "Molecular Crystals as Media for Directing the Formation of Covalent Bonds", lecture given at the Rudjer Boskovic Institute, University of Zagreb, Zagreb, Croatia (June 2005) (invited).



- 45.** “Crystal Engineering Chemical Reactivity in the Solid State using Linear Templates”, keynote lecture given at the 39th Congreso Mexicano de Quimica of the Mexican Chemical Society, Merida, Yucatan, MX (October 2004) (invited).
- 44.** “Covalent Capture of Supramolecular Architecture in the Solid State”, plenary lecture given at the 13th International Symposium on Supramolecular Chemistry, University of Notre Dame, South Bend, Indiana, USA (July 2004) (invited).
- 43.** “Supramolecular Control of Reactivity”, oral presentation given as a special seminar in the Faculte de Chimie, Universite de Louis Pasteur, Strasbourg, France (April 2004) (invited).
- 42.** “Template-Controlled Synthesis in the Solid State”, oral presentation given at the Chairmen of the European Research Councils’ Chemistry Committees (CERC3) Young Chemists’ Workshop on ‘Neoteric Solvents as Reaction Media: Reality and Future’ in St. Malo, France (April 2004) (invited).
- 41.** “Control of Reactivity in the Solid State using Ditopic Assemblers”, oral presentation at the International Conference on Materials for Advanced Technologies in Singapore (December 2003) (invited).
- 40.** “Supramolecular Control of Reactivity using Linear Templates”, oral presentation given at the 39th IUPAC Congress and the 86th Conference of The Canadian Society for Chemistry Conference in Ottawa, Ontario, Canada (August 2003) (invited).
- 39.** “Template-Directed Solid-State Organic Synthesis”, oral presentation given at the ‘Molecular Crystal Engineering EuroConference (EURESCO) on Design and Preparation of Molecular Materials’, in Acquafredda di Maratea, Italy (June 2003) (invited).
- 38.** “Discrete and Infinite Coordination Arrays Derived from a Template-Directed Solid-State Organic Synthesis”, oral presentation given at the CrystEngComm Discussion 1: ‘Innovation in Crystal Engineering’, in Bristol, England, UK (July 2002) (invited).
- 37.** “Supramolecular Control of Reactivity using Linear Templates”, oral presentation given at Kings College London, London, England, UK (June 2002) (invited).
- 36.** “Template-Directed Solid-State Organic Synthesis”, oral presentation given at the Singapore International Chemical Conference - 2: ‘Frontiers in Chemical Design and Synthesis’, in Singapore (December 2001) (invited).
- 35.** “Controlling Reactivity in the Solid State: Considerations for Design”, oral presentation given at the ‘Ettore Majorana’ Centre for Scientific Culture 32nd Crystallographic Course, ‘Strength from Weakness: Structural Consequences of Weak Interactions in Molecules, Supermolecules, and Crystals’, in Erice, Italy (May 2001) (invited).

**34.** “From Green Chemistry to Materials Synthesis by Design: Controlling Chemical Reactivity Supramolecularly”, recruiting presentation given at Saint Mary’s University, Halifax, Nova Scotia, Canada (January 2001).

**33.** “From Green Chemistry to Materials Synthesis by Design: Controlling Chemical Reactivity Supramolecularly”, recruiting presentation given at Mount Allison University, Sackville, New Brunswick, Canada (January 2001).

**32.** “From Green Chemistry to Materials Synthesis by Design: Controlling Chemical Reactivity Supramolecularly”, recruiting presentation given at St. Francis Xavier University, Antigonish, Nova Scotia, Canada (January 2001).

**31.** “From Green Chemistry to Materials Synthesis by Design: Controlling Chemical Reactivity Supramolecularly”, recruiting presentation given at Acadia University, Wolfville, Nova Scotia, Canada (January 2001).

**30.** “Toward a Green Organic Chemistry in the Solid State Using Linear Templates”, oral presentation given at the 2000 International Chemical Congress of Pacific Basin Societies Conference in Honolulu, Hawaii, USA (December 2000) (invited).

***Prior to University of Iowa***

**29.** “Controlling Reactivity in the Solid State”, oral presentation given at the Steacie Institute for Molecular Sciences, National Research Council of Canada, Ottawa, Ontario, Canada (July 2000).

**28.** “Molecular Synthesis by Design in the Solid State”, oral presentation given at Saint Mary’s University, Halifax, Nova Scotia, Canada (June 2000) (invited).

**27.** “Structural Classification and General Principles for the Design of Spherical Molecular Hosts”, oral presentation given at the 82nd Annual Canadian Society for Chemistry Conference and Exhibition in Toronto, Ontario, Canada (June 1999).

**26.** “Supramolecular Assistance to Covalent Synthesis: Template-Directed Photochemistry in the Solid State”, poster presented at the 82nd Annual Canadian Society for Chemistry Conference and Exhibition in Toronto, Ontario, Canada (June 1999).

**25.** “Towards Nanoscale Compartmentalization by Design”, oral presentation given at the ‘Ettore Majorana’ Centre for Scientific Culture 28th Crystallographic Course, ‘Crystal Engineering: From Molecules and Crystals to Materials’, in Erice, Italy (May 1999).

**24.** “Towards Nanoscale Compartmentalization by Design”, oral presentation given at Carleton University in Ottawa, Ontario, Canada (April 1999).

23. "General Principles for the Design of Large Container Assemblies", poster presented at the 1st NRC-Wide Research and Technology Development Forum in Magog, Quebec, Canada (March 1999).
22. "Self-Assembly for the Design of Discrete and Infinite Host-Guest Architecture", oral presentation given at the National Research Council of Canada, Ottawa, Ontario, Canada (August 1998).
21. "Molecular Recognition and Crystal Engineering: Multi-Component Calix[4]arenes", oral presentation given at the 10th International Symposium on Molecular Recognition and Inclusion in Warsaw, Poland (June 1998).
20. "Designing Spherical Molecular Hosts", oral presentation given at the 81st Annual Canadian Society for Chemistry Conference and Exhibition in Whistler, British Columbia, Canada (June 1998).
19. "A Nanosized Spherical Host Held Together by 60 Hydrogen Bonds", oral presentation given at the International Chemical Congress in Cancun, Quintana Roo, Mexico (November 1997) (invited).
18. "A Spherical Molecular Assembly that Possesses a Vast Cavity", poster presented at the NATO ARW: *Current Challenges on Large Supramolecular Assemblies* in Athens, Greece (November 1997).
17. "A Nanoscale Molecular Container via Self-Assembly", oral presentation given at Cambridge University, Cambridge, England, UK (November 1997).
16. "A Nanoscale Molecular Container via Self-Assembly", oral presentation given at Kings College London, London, England, UK (November 1997).
15. "A Nanoscale Molecular Container via Self-Assembly", oral presentation given at Saint Mary's University, Halifax, Nova Scotia, Canada (November 1997).
14. "A Nanoscale Molecular Container via Self-Assembly", oral presentation given at the National Research Council of Canada, Ottawa, Ontario, Canada (November 1997).
13. "Multi-Component Calixarenes", oral presentation given at the 80th Annual Canadian Society for Chemistry Conference and Exhibition in Windsor, Ontario, Canada (June 1997).
12. "Understanding the Influences of Noncovalent Interactions Upon the Topology of a Series of 2D Grids: Polymeric  $[MX_2(\text{pyrazine})]_n$  complexes (M = Co, Zn, Mn, Cu, Cd, Fe; X = Cl, Br)", poster presentation at the NATO ASI Summer School, Digby, Nova Scotia, Canada (September 1996).

11. "Molecular Recognition and the Doubly Protonated [2.2.2]Cryptand: Understanding the Influences of Noncovalent Interactions upon the Topology of a Macrobicyclic Dication", oral presentation given at the National Research Council of Canada, Ottawa, Ontario, Canada (September 1996).
10. "Solid-State Strict Self-Assembly of Molecules and Ions Isolated from Liquid Clathrate Media: Structure Behavior of Cryptand [2.2.2]", oral presentation given at the 78th Annual Canadian Society for Chemistry Conference and Exhibition in Guelph, Ontario, Canada (June 1995).
9. "Self-Assembly of Aromatic Ions as a Crystal Engineering Tool", poster presented at the International Symposium on Recognition Processes in Birmingham, England, UK (July 1994).
8. " $\pi$ - $\pi$  Stacking as a Design Tool for Building Solids", poster presented at the 77th Annual National CIC Conference in Winnipeg, Manitoba, Canada (June 1994).
7. " $\pi$ - $\pi$  Stacking as a Design Tool for Building Solids", oral presentation given at the 19th Annual CIC Atlantic Student Conference at Mount Saint Vincent University in Halifax, Nova Scotia, Canada (May 1994).
6. " $\pi$ - $\pi$  Stacking as a Design Tool for Building Ordered Solids", poster presented at the 76th Annual National CIC Conference in Sherbrooke, Quebec, Canada (June 1993).
5. " $\pi$ - $\pi$  Stacking as a Design Tool for Building Ordered Solids", oral presentation given at the 18th Annual CIC Atlantic Student Conference at Acadia University in Wolfville, Nova Scotia, Canada (May 1993).
4. "Manifestations of Interionic Interactions in Organic Cation Dicarboxylate Salts", poster presented at the 75th Annual National CIC Conference in Edmonton, Alberta, Canada (June 1992).
3. "Can Aromatic Substituent Effects Be Measured Crystallographically?  $C_6H_4XY Cr(CO)_3$  Complexes", poster presented at the 17th Annual CIC Atlantic Student Conference at Sir Wilfred Grenfell College in Corner Brook, Newfoundland (May 1992).
2. "Can Aromatic Substituent Effects Be Measured Crystallographically?  $C_6H_4XY Cr(CO)_3$  Complexes", poster presented at the Atlantic CIC Conference at Saint Mary's University in Halifax, Nova Scotia, Canada (July 1991).
1. "Heteroatom  $\pi$ -Donation in Di- and Trisubstituted Benzenes Complexed to the  $Cr(CO)_3$  Moiety", poster presented at the 74th Annual National CIC Conference in Hamilton, Ontario, Canada (June 1991).

#### **Lectures and Conference Presentations: National and Regional**

- 138.** “Advancing Organic Synthesis and Materials Science with Reactions in Crystals”, oral presentation given at the 264th ACS National Meeting and Exposition in Chicago, Illinois, USA (August 2022) (invited).
- 137.** “Building Molecules in Crystals”, oral presentation given at Telluride Science Research Center Workshop on Breaking and Making Bonds with Light, Telluride, Colorado, USA (July 2022) (invited).
- 136.** “Crystal Engineering the Covalent Bond: Organic Synthesis to Materials Science”, oral presentation given as the weekly seminar, Department of Chemistry, Truman State University, Kirksville, Missouri (April 2022) (invited).
- 135.** “Crystal Engineering the Covalent Bond: Organic Synthesis to Materials Science”, oral presentation given as the weekly seminar, Department of Chemistry, St. Catherine University, Minneapolis, Minnesota (February 2022) (invited) (virtual).
- 134.** “Crystal Engineering the Covalent Bond: Organic Synthesis to Materials Science”, oral presentation given as the awardee address of the 2021 Midwest Award recipient, 55th Midwest Regional Meeting of the American Chemical Society, Springfield, Missouri, USA (October 2021) (invited).
- 133.** “Crystal Engineering the Covalent Bond: Organic Synthesis to Materials Science”, oral presentation given as the weekly materials seminar, Department of Chemistry and Biochemistry, Florida State University, Florida, USA (October 2021) (invited).
- 132.** “Crystal Engineering: Reactivity to Pharmaceuticals”, oral presentation given as the departmental weekly colloquium, Department of Chemistry, University of Nebraska-Omaha, Omaha, Nebraska, USA (February 2021) (invited) (virtual).
- 131.** “Rogue One: Organic Synthesis Meets the Solid State”, oral presentation given as the departmental weekly colloquium, Department of Chemistry, Georgetown University, Washington, D.C., USA (October 2018) (invited).
- 130.** “Crystal Engineering the Covalent Bond”, oral presentation given in the Department of Materials Science and Engineering, Iowa State University, Ames, Iowa, USA (January 2018) (invited).
- 129.** “Crystal Engineering: Covalent Bonds, Metal-Organic Materials, and Pharmaceuticals”, oral presentation given as part of the Materials Synthesis and Simulations Across Scales (MS<sup>3</sup>) series at the Pacific Northwest National Laboratory, Richland, Washington, USA (August 2017) (invited).
- 128.** “Crystal Engineering Molecules to Materials”, oral presentation given in the Department of Chemistry, University at Buffalo - The State University of New York, Buffalo, New York, USA (September 2016) (invited).

- 127.** “How Solid is the Organic Solid State?: Insights from Solid-State Reactions”, oral presentation given at Telluride Science Research Center Workshop on Energy and Movement in Coherent Chemical Systems, Telluride, Colorado, USA (July 2016) (invited).
- 126.** “Crystal Engineering the Covalent Bond via Principles of Supramolecular Chemistry”, oral presentation given in the Department of Chemistry, New York University, New York, New York, USA (June 2016) (invited).
- 125.** “Crystal Engineering the Covalent Bond”, oral presentation given in the Department of Chemistry, University of South Dakota, Vermillion, South Dakota, USA (March 2016) (invited).
- 124.** “Semiconductor Co-Crystals”, oral presentation given at the 2015 Annual Meeting of the American Crystallographic Association, Philadelphia, Pennsylvania, USA (July 2015) (invited).
- 123.** “Organic Synthesis in the Solid State using Principles of Crystal Engineering”, oral presentation given at the 2015 Annual Meeting of the American Crystallographic Association, Philadelphia, Pennsylvania, USA (July 2015) (invited).
- 122.** “Science and a Movie”, oral presentation given in the Secondary Student Training Program (SSTP) Seminar Series, University of Iowa, Iowa City, Iowa (July 2015) (invited).
- 121.** “Crystal Engineering the Covalent Bond”, oral presentation given in the Department of Chemistry and Biochemistry, Ohio University, Athens, Ohio (April 2015) (invited).
- 120.** “Crystal Engineering the Covalent Bond”, oral presentation given at the 49th Midwest Regional Meeting of the American Chemical Society, Columbia, Missouri, USA (November 2014) (invited).
- 119.** “Crystal Engineering the Covalent Bond using the [2+2] Photodimerization”, oral presentation given at the 23<sup>rd</sup> Inter-American Photochemical Society Meeting in Sarasota, Florida, USA (January 2014) (invited).
- 118.** “Supramolecular Control of Reactivity in the Organic Solid State: From Co-Crystals to Ladderanes to MOFs”, keynote presentation given at the 23<sup>rd</sup> Midwest Organic Solid-State Chemistry Symposium in Lexington, Kentucky, USA (June 2013) (invited).
- 117.** “Supramolecular Control of Reactivity in the Organic Solid State”, keynote presentation given at the 2013 Mardi Gras Symposium in New Orleans, Louisiana, USA (February 2013) (invited).
- 116.** “Applications of Metal-Organic Materials to Direct Reactivity in the Solid State”, keynote presentation given at the 47th Midwest Regional Meeting of the American Chemical Society, Omaha, Nebraska, USA (October 2012) (invited).

- 115.** “Supramolecular Control of Solid-State Reactivity: Covalent Bonds by Design with Light”, oral presentation given at the Telluride Science Research Center Workshop on Breaking and Making Bonds with Light , Telluride, Colorado, USA (July 2012).
- 114.** “Supramolecular Construction of Functional Materials”, oral presentation given in the Department of Chemistry, University of California - San Diego, San Diego, California (November 2011) (invited).
- 113.** “Crystal Engineering Co-Crystals: Application in the Structure Determination of a Chiral Ladderane”, oral presentation given at the joint 46th Midwest/39th Great Lakes Regional Meeting of the American Chemical Society, St. Louis, Missouri, USA (October 2011) (invited).
- 112.** “Crystal Engineering Cocrystals: Reactivity, Pharmaceuticals, and Catalysis”, oral presentation given in the Department of Chemistry, Creighton University, Omaha, Nebraska, USA (September 2011) (invited).
- 111.** “Controlling Properties of Organic Solids Using Principles of Supramolecular Chemistry”, oral presentation given in the Department of Chemistry, University of Miami, Miami, Florida, USA (October 2010) (invited).
- 110.** “Co-crystals: Reactivity, Pharmaceuticals, and Nanotechnology”, oral presentation given in the Division of Pharmaceutics, University of Iowa (August 2010).
- 109.** “Co-crystals: Reactivity, Polymorphism, and Nanoparticles”, oral presentation given at the joint 65th Northwest/22nd Rocky Mountain Regional Meeting of the American Chemical Society, Pullman, Washington, USA (June 2010) (invited).
- 108.** “Crystal Engineering of Sulfoxides: A Multiple Synthons Approach in the Formation of Sulfa Drug-Based Pharmaceutical Co-Crystals”, poster presented at the 1st Gordon Research Conference on Crystal Engineering, Waterville, New Hampshire (June 2010).
- 107.** “Semi-Conductor Co-Crystals”, poster presented at the 1st Gordon Research Conference on Crystal Engineering, Waterville, New Hampshire (June 2010).
- 106.** “Crystal Engineering Covalent Bonds”, oral presentation given as the departmental colloquium of the Department of Chemistry and Molecular Biology, North Dakota State University, Fargo, North Dakota, USA (March 2010).
- 105.** “Molecular Capsules Based on Ligands Synthesized in the Solid State”, oral presentation given at the 239th ACS National Meeting and Exposition in San Francisco, California, USA (March 2010) (invited).
- 104.** “Crystal Engineering the Covalent Bond”, oral presentation given as the weekly colloquium of the Department of Chemistry, Iowa State University, Ames, Iowa, USA (November 2009).

- 103.** “Crystal Engineering the Covalent Bond”, oral presentation given as the weekly colloquium of the Department of Chemistry, University of Eastern Illinois, Charleston, Illinois, USA (November 2009).
- 102.** “Molecular Co-Crystals: Organic Solids with Changeable Parts”, oral presentation given as the weekly colloquium of the Department of Chemistry, University of California – Riverside, California, USA (June 2009).
- 101.** “Co-crystals: Reactivity, Polymorphism, and Nanoparticles”, 1<sup>st</sup> Garth Spencer Memorial Lecture, Department of Chemistry, Clemson University, Clemson, South Carolina, USA (March 2009).
- 100.** “Organic Solids with Changeable Parts”, oral presentation given as the weekly colloquium of the Department of Chemistry, University of Missouri-St. Louis, Missouri, USA (February 2009).
- 99.** “New Materials via Molecular Co-Crystals”, oral presentation given at the 43rd Midwest Regional Meeting of the American Chemical Society, Kearney, Nebraska, USA (October 2008) (invited).
- 98.** “Molecules Made to Order: Supramolecular Chemistry, Photochemistry, and the Organic Solid State”, oral presentation given at the 43rd Midwest Regional Meeting of the American Chemical Society, Kearney, Nebraska, USA (October 2008) (invited).
- 97.** “Supramolecular Construction of Functional Materials”, keynote presentation given at the 8th annual Science Research Symposium, University of Illinois-Springfield, Springfield, Illinois, USA (April 2008) (invited).
- 96.** “Crystal Engineering Molecules”, oral presentation given at the 235th ACS National Meeting and Exposition in New Orleans, Louisiana, USA (April 2008) (invited).
- 95.** “Chemical Reactivity and Metal-Organic Frameworks”, oral presentation given at the 235th ACS National Meeting and Exposition in New Orleans, Louisiana, USA (April 2008) (invited).
- 94.** “Supramolecular Control of Covalent Bonds in the Solid State”, oral presentation given as the departmental colloquium of the Department of Chemistry and Biochemistry, University of South Carolina, Columbia, South Carolina, USA (November 2007).
- 93.** “Supramolecular Control of the Covalent Bond”, oral presentation given as the weekly colloquium of the inorganic chemistry division, Department of Chemistry, University of North Carolina-Chapel Hill, Chapel Hill, North Carolina, USA (November 2007).
- 92.** “Supramolecular Chemistry, Green Chemistry, and the Organic Solid State”, oral presentation given at the 20th ACS Rocky Mountain Regional Meeting in Denver, Colorado, USA (September 2007) (invited).



- 91.** “Molecular Synthesis via Principles of Solid-State and Supramolecular Chemistry”, Arthur C. Cope Scholar Award Lecture given at the 234th ACS National Meeting and Exposition in Boston, Massachusetts, USA (August 2007) (invited).
- 90.** “Crystal Engineering the Covalent Bond: (Some) Self-Assembly Required”, colloquium of the Department of Chemistry, University of Nebraska-Lincoln, Lincoln, Nebraska, USA (April 2007) (invited).
- 89.** “Crystal Engineering the Covalent Bond: (Some) Self-Assembly Required”, colloquium of the Department of Chemistry, University of Nebraska-Omaha, Omaha, Nebraska, USA (April 2007) (invited).
- 88.** “Template-Controlled Solid-State Synthesis: A Marriage of the Noncovalent and Covalent Bond”, colloquium of the Department of Chemistry, University of Missouri-Columbia, Columbia, Missouri, USA (February 2007) (invited).
- 87.** “Crystal Engineering Organic Semiconductors”, oral presentation given at the Defense Advanced Research Projects Agency conference on 3D Design of Organic Semiconductors, New Orleans, Louisiana, USA (January 2007) (invited).
- 86.** “Control of Chemical Reactivity in the Solid State: Self-Assembly Required”, colloquium of the Department of Chemistry, Cornell College, Mount Vernon, Iowa, USA (January 2007) (invited).
- 85.** “Supramolecular Control of Reactivity”, oral presentation given at the 232nd ACS National Meeting and Exposition in San Francisco, California, USA (September 2006) (invited).
- 84.** “Molecular Co-crystals: From Controlling Reactivity to Organizing Organic Semiconductors”, oral presentation given at the 37th ACS Great Lakes Regional Meeting in Milwaukee, Wisconsin, USA (May 2006) (invited).
- 83.** “Supramolecular Control of Reactivity in the Solid State Using Dimetal Complexes and Assemblies”, oral presentation given at the 231st ACS National Meeting and Exposition in Atlanta, Georgia, USA (March 2006) (invited).
- 82.** “Molecular Co-Crystals: Design and Applications”, oral presentation given at Abbott Laboratories in Chicago, Illinois, USA (March 2006) (invited).
- 81.** “Crystal Engineering the Covalent Bond”, colloquium of the Department of Chemistry, Saint Louis University, St. Louis, Missouri, USA (January 2006) (invited).
- 80.** “Template-Controlled Solid-State Synthesis: C-C Bond Formation Made Easy in the Solid State”, colloquium of the Department of Chemistry, Coe College, Cedar Rapids, Iowa, USA (October 2005) (invited).
- 79.** “Green Chemistry and the Solid State”, oral presentation given at the 2nd International

Conference on Green and Sustainable Chemistry and 9th Annual Green Chemistry and Engineering Conference, Washington, D.C., USA (June 2005) (invited).

**78.** “Molecules Obtained from the Organic Solid State as Building Units of Metal-Organic Frameworks”, oral presentation given at the 2005 Annual Meeting of the American Crystallographic Association, Orlando, Florida, USA (June 2005) (invited).

**77.** “Template-Controlled Solid-State Reactivity”, oral presentation given as the weekly colloquium of the Department of Chemistry, University of New Orleans, New Orleans, Louisiana, USA (March 2005).

**76.** “Covalent Capture in the Solid State”, oral presentation to be given as the weekly colloquium of the organic chemistry division of the Department of Chemistry and Biochemistry, University of Notre Dame, South Bend, Indiana, USA (January 2005).

**75.** “Crystal Engineering the Covalent Bond”, oral presentation given as the weekly colloquium of the organic chemistry division, Department of Chemistry, Purdue University, West Lafayette, Indiana, USA (January 2005).

**74.** “Crystal Engineering the Covalent Bond”, oral presentation given as the weekly colloquium of Organic/Inorganic division of the Department of Chemistry, University of Oregon, Eugene, Oregon, USA (January 2005).

**73.** “Crystal Engineering the Covalent Bond”, oral presentation given as the weekly colloquium of the Department of Chemistry, Bowling Green State University, Bowling Green, Ohio, USA (November 2004).

**72.** “Crystal Engineering the Covalent Bond”, oral presentation given as the weekly colloquium of the inorganic chemistry division, Department of Chemistry, University of Michigan, Ann Arbor, Michigan, USA (November 2004).

**71.** “Covalent Capture of Supramolecular Architecture in the Solid State”, oral presentation given as the weekly colloquium of the inorganic chemistry division, Department of Chemistry, Michigan State University, East Lansing, Michigan, USA (November 2004).

**70.** “Linear Templates: Tools for Assembling and Constructing Molecules in Crystalline Solids”, oral presentation given at the 39th Midwest Regional Meeting of the American Chemical Society, Manhattan, Kansas, USA (October 2004) (invited).

**69.** “Template-Controlled Reactivity in the Solid State”, oral presentation given at the 60th American Chemical Society Southwest Regional Meeting, Fort Worth, Texas, USA (October 2004) (invited).

- 68.** “Molecular Crystals as Media for Constructing Molecules”, oral presentation given as the weekly colloquium of the Department of Chemistry, Luther College, Decorah, Iowa, USA (September 2004) (invited).
- 67.** “Template-Controlled Synthesis in the Solid State”, oral presentation given as the weekly colloquium of the Department of Chemistry, Tulane University, New Orleans, Louisiana, USA (September 2004).
- 66.** “Supramolecular Control of Reactivity in the Solid State: Fundamentals and Applications”, oral presentation given as the weekly colloquium of the Department of Chemistry, University of Iowa, Iowa City, IA, USA (September 2004) (invited).
- 65.** “Covalent Capture of Supramolecular Architecture in the Solid State using Linear Templates”, oral presentation given at the 228th ACS National Meeting and Exposition in Philadelphia, Pennsylvania, USA (August 2004).
- 64.** “Metal-Organic Polygons, Polyhedra, and Extended Networks Derived from Molecules Constructed in the Solid State”, oral presentation given in the Transactions Symposium on ‘Crystals in Supramolecular Chemistry’ at the 2004 Annual Meeting of the American Crystallographic Association, Chicago, Illinois, USA (July 2004) (invited).
- 63.** “Linear Templates: Tools for Constructing Molecules in the Solid State”, oral presentation given as the 2004 Marget C. Etter Early Career Award lecture at the 2004 Annual Meeting of the American Crystallographic Association, Chicago, Illinois, USA (July 2004) (invited).
- 62.** “Design and Covalent Capture of Supramolecular Architecture in the Solid State”, oral presentation given at the ‘Norma Stoddart Memorial Symposium’, University of California-Los Angeles, Los Angeles, California, USA (June 2004) (invited).
- 61.** “Template-Controlled Solid-State Reactivity: A ‘Pick-and-Place’ Approach to Construct Molecules”, oral presentation given at the NSF Workshop on ‘Models of Thought Processes: Insights Toward Chemical Systems’, Washington, D.C., USA (June 2004) (invited).
- 60.** “Molecular Crystals as Media for the Construction of Molecules”, oral presentation given as the weekly colloquium of the Department of Chemistry, Brown University, Providence, Rhode Island, USA (May 2004) (invited).
- 59.** “Covalent Capture of Supramolecular Architecture in the Solid State”, oral presentation given as the weekly colloquium of the Department of Chemistry, Marquette University, Milwaukee, Wisconsin, USA (May 2004) (invited).
- 58.** “Template-Controlled Solid-State Reactivity Synthesis: Gaining Control Over the Organization of Matter for Applications in Chemical Synthesis and Materials Science”, oral presentation given as a special seminar in the Department of Chemistry, University of South Florida, Tampa Bay, Florida, USA (April 2004) (invited).

57. "Template-Controlled Solid-State Synthesis: Gaining Control Over the Organization of Matter for Applications in Chemical Synthesis and Materials Science", oral presentation given as the weekly colloquium of the inorganic chemistry division, Department of Chemistry, California Institute of Technology, Los Angeles, California, USA (April 2004) (invited).
56. "Supramolecular Control of Reactivity using Linear Templates", oral presentation given at the NSF Young Investigator Workshop on Supramolecular Chemistry, Sanibel Island, Florida, USA (January 2004) (invited).
55. "Linear Templates: Tools for Directing the [2+2] Photodimerization in the Solid State", oral presentation as the 2004 Young Investigator Award lecture at the 15th Winter Conference of the Inter-American Photochemical Society, Tempe, Arizona, USA (January 2004) (invited).
54. "Linear Templates: Tools for Directing Reactivity in the Solid State", oral presentation given at the 38th Midwest Regional Meeting of the American Chemical Society in Columbia, Missouri, USA (November 2003) (invited).
53. "Linear Templates: Tools for Directing Reactivity in the Solid State", oral presentation given as the departmental weekly colloquium at Augustana College, Rock Island, Illinois, USA (September 2003) (invited)
52. "Linear Templates: Tools for Directing Reactivity in the Solid State", oral presentation given as the weekly colloquium of the inorganic chemistry division, Department of Chemistry, Texas A&M University, College Station, Texas, USA (September 2003) (invited).
51. "Pick-and-Place Control of Molecules using Principles of Supramolecular Chemistry", oral presentation given at the Air Force Research Laboratory, United States Air Force, Tyndall Air Force Base, Panama City, Florida, USA (July 2003) (invited).
50. "Supramolecular Control of Reactivity in the Solid State using Linear Templates", oral presentation given as the departmental weekly colloquium, Department of Chemistry, Drake University, Des Moines, Iowa, USA (April 2003) (invited).
49. "Pick-and-Place Control of Molecules using Principles of Supramolecular Chemistry", oral presentation given as the weekly colloquium of the organic chemistry division, Department of Chemistry, University of Iowa, Iowa City, Iowa, USA (April 2003).
48. "Directing Reactivity in the Solid State using Linear Templates", oral presentation given as the departmental weekly colloquium, Department of Chemistry, Western Illinois University, Macomb, Illinois, USA (April 2003) (invited).
47. "Pick-and-Place Control of Molecules using Principles of Supramolecular Chemistry", oral presentation given as a departmental weekly colloquium, Department of Chemistry, Baylor University, Waco, Texas, USA (March 2003).

- 46.** “Pick-and-Place Control of Molecules using Principles of Supramolecular Chemistry”, oral presentation given as the weekly colloquium of the inorganic chemistry division, Department of Chemistry, University of Texas-Austin, Austin, Texas, USA (March 2003) (invited).
- 45.** “Pick-and-Place Control of Molecules using Principles of Supramolecular Chemistry”, oral presentation given as the weekly colloquium of the inorganic chemistry division, Department of Chemistry, University of Houston, Houston, Texas, USA (March 2003).
- 44.** “A Metal-Organic Square Constructed using a Linear Template”, oral presentation given at the 225th ACS National Meeting and Exposition in New Orleans, Louisiana, USA (March 2003).
- 43.** “Supramolecular Control of Reactivity in the Solid State using Linear Templates”, oral presentation given at the 225th ACS National Meeting and Exposition in New Orleans, Louisiana, USA (March 2003).
- 42.** “Positional Control of Reactivity using Ditopic Assemblers”, oral presentation given as the departmental weekly colloquium, Department of Chemistry, Georgetown University, Washington, D.C., USA (February 2003) (invited).
- 41.** “Pick-and-Place Control of Molecules using Ditopic Assemblers”, oral presentation given in the Department of Physics and Astronomy, University of Iowa, Iowa City, Iowa, USA (February 2003) (invited).
- 40.** “Supramolecular Control of Reactivity in the Solid State Using Linear Templates”, oral presentation given at the 54th Southeast Regional Meeting of the American Chemical Society in Charleston, South Carolina, USA (November 2002) (invited).
- 39.** “Template-Directed Solid-State Organic Synthesis”, oral presentation given at the 37th Midwest Regional Meeting of the American Chemical Society in Lawrence, Kansas, USA (October 2002).
- 38.** “Directing Reactivity in the Solid State using Linear Templates”, oral presentation given at Working Weekends II: X-ray Crystallography and Computational Chemistry” workshop, Department of Chemistry, University of Iowa, Iowa City, Iowa (October 2002) (invited).
- 37.** “Directing Reactivity using Linear Templates”, oral presentation given as the departmental weekly colloquium, Department of Chemistry, University at Buffalo - State University of New York, Buffalo, New York, USA (October 2002) (invited).
- 36.** “Application of a Solid-State Synthesis: A Polyhedral Host Constructed using a Linear Template”, poster presented at the Gordon Research Conference on Solid State Chemistry in New London, New Hampshire, USA (July 2002).

- 35.** "Template-Directed Solid-State Organic Synthesis", oral presentation given in the 'New Directions in Chemistry' graduate symposium, University of Missouri-Columbia, in Columbia, Missouri, USA (July 2002) (invited).
- 34.** "Green Chemistry and the Solid State", oral presentation given at the NSF Research Experience for Undergraduate Summer Session, University of Iowa, in Iowa City, Iowa, USA (June 2002) (invited).
- 33.** "How Can Engineering Impact Synthetic Chemistry?", oral presentation given in the Department of Chemical Engineering, University of Iowa, Iowa City, Iowa, USA (May 2002) (invited).
- 32.** "Template-Directed Organic Synthesis: Using Molecules to Build Molecules by Design", oral presentation given at the 223rd ACS National Meeting and Exposition in Orlando, Florida, USA (April 2002).
- 31.** "Template-Directed Organic Synthesis and Single-Crystal Neutron Diffraction", presentation given at the "Single-Crystal Diffractometer Workshop for the Spallation Neutron Source", Argonne National Laboratory, Argonne, Illinois, USA (March 2002) (invited).
- 30.** "Supramolecular Control of Reactivity", oral presentation given as the departmental weekly colloquium, Department of Chemistry, Southwest Missouri State University, Springfield, Missouri, USA (March 2002) (invited).
- 29.** "Template-Directed Organic Synthesis: Using Molecules to Build Molecules by Design", oral presentation given as the weekly colloquium of the organic chemistry division, Department of Chemistry, University of California-Los Angeles, Los Angeles, California, USA (February 2002) (invited).
- 28.** "Template-Directed Organic Synthesis: Using Molecules to Build Molecules by Design", oral presentation given at the Skaggs Institute for Chemical Biology, Scripps Research Institute, San Diego, USA (February 2002) (invited).
- 27.** "Template-Directed Synthesis: Using Molecules to Make Molecules by Design", oral presentation given as the departmental weekly colloquium, Department of Chemistry, University of Texas-Arlington, Arlington, Texas, USA (November 2001) (invited).
- 26.** "Template-Directed Synthesis: Using Molecules to Make Molecules by Design", oral presentation given as the departmental weekly colloquium, Department of Chemistry, Kansas State University, Manhattan, Kansas, USA (November 2001) (invited).
- 25.** "Template-Directed Solid-State Synthesis: An Approach to Engineering Molecules in Solids", oral presentation given at the 36th Midwest Regional Meeting of the American Chemical Society in Lincoln, Nebraska, USA (October 2001).

24. "Green Chemistry", oral presentation given as an 'Environmental Science Seminar' at the University of Iowa, in Iowa City, Iowa, IA, USA (September 2001) (invited).
23. "Controlling the Formation of C-C Bonds in Molecular Solids by Design", oral presentation given at the 222nd ACS National Meeting and Exposition in Chicago, Illinois, USA (August 2001).
22. "Green Chemistry in the Solid State", oral presentation given at the NSF Research Experience for Undergraduate Summer Session, University of Iowa, in Iowa City, IA, USA (July 2001) (invited).
21. "Supramolecular Control of C-C Bond Formation in the Solid State", oral presentation given at the 5th Annual Green Chemistry and Engineering Conference", in Washington, D.C., USA (June 2001).
20. "Controlling Reactivity in the Solid State using Linear Templates", oral presentation given at the 12th Annual Mid-West Organic Solid State Conference at the University of Nebraska-Lincoln in Lincoln, Nebraska, USA (June 2001).
19. "Self-Assembly and the Solid State as Design Elements for the Synthesis of Organic Nanostructures", oral presentation given at the 2001 Materials Research Society Spring Meeting in San Francisco, California, USA (April 2001).
18. "Template-Directed Synthesis in the Solid State: Controlling Covalent Bond Formation at the Nanometer Level", oral presentation given at the 221st ACS National Meeting and Exposition in San Diego, California, USA (April 2001).
17. "Control of Reactivity in the Solid State using Linear Templates", oral presentation given at the 35th Midwest Regional Meeting of the American Chemical Society in St. Louis, Missouri, USA (October 2000) (invited).
16. "Control of Reactivity in the Solid State using Linear Templates", poster presented at the Gordon Research Conference on Organic Structures and Properties: Extended Systems in New London, Connecticut, USA (June 2000).

***Prior to University of Iowa***

15. "Towards a Green Organic Chemistry in the Solid State using Linear Molecular Templates", oral presentation given at the 11th Annual Mid-West Organic Solid State Conference at Purdue University in West LaFayette, Indiana, USA (June 2000).
14. "A Method for Conducting Designed Molecular Synthesis in the Solid State", colloquium seminar given at the University of South Florida, Tampa Bay, Florida, USA (April 2000) (invited).

13. "Multi-Component Resorcin[4]arenes: A New Approach to Designing Bowl-Shaped Receptors", oral presentation given at the 217th ACS National Meeting and Exposition in Anaheim, California, USA (March 1999).
12. "Inclusion of Up to 11 Guests within a Cavity of Nanoscale Dimensions", oral presentation given at the 217th ACS National Meeting and Exposition in Anaheim, California, USA (March 1999).
11. "Molecular Recognition and Crystal Engineering: Multi-Component Calix[4]arenes", oral presentation given at the American Crystallographic Association Conference in Arlington, Virginia, USA (July 1998) (invited).
10. "General Principles for the Design of Spherical Molecular Hosts", poster presented at the 11th Annual Organic Chemistry Day at the University of Missouri-Columbia, Columbia, MO, USA (May 1998).
9. "Cavity-Containing Rectangular Grids", oral presentation given at Inorganic Chemistry Day at The University of Missouri-Columbia, Columbia, Missouri, USA (May 1998).
8. "Metal-Ion Separations using Calixarenes", oral presentation given at the 214th ACS National Meeting and Exposition in Las Vegas, Nevada, USA (September 1997).
7. "Rational Design of *Multi*-Component Calixarenes and Control of Their Alignment in the Solid State", poster presented at the American Crystallographic Association Meeting in St. Louis, Missouri, USA (July 1997).
6. "Attacking a Covalent Problem with Noncovalent Forces: Multi-Component Calixarenes", oral presentation given at the DyNAMITE seminar series at the University of Missouri-Columbia, Columbia, MO, USA (May 1997).
5. "From Molecular Recognition to Cooperativity: Structure Behavior of the Doubly Protonated [2.2.2]Cryptand", oral presentation given at the DyNAMITE seminar series at the University of Missouri-Columbia, Columbia, Missouri, USA (October 1996).
4. "2D Layered Inorganic-Organic Hybrid Materials by Design", poster presentation at the 9th Annual Organic Chemistry Day at the University of Missouri-Columbia, Columbia, MO, USA (April 1996).
3. "Rational Design and Intercalation Properties of Topologically Equivalent Two-Dimensional Grids", oral presentation given at the 211th ACS National Meeting and Exposition in New Orleans, LA, USA (March 1996).
2. "Solid-State Strict Self-Assembly of Molecules and Ions Isolated from Liquid Clathrate Media: Structure Behavior of Cryptand [2.2.2]", oral presentation given at the DyNAMITE seminar series at the University of Missouri-Columbia, Missouri, USA (October 1995).



1. "The Influence of Noncovalent Interactions on the Physical Properties of Organic Salts", poster presented at the Gordon Research Conference on Molten Salts in Wolfeboro, New Hampshire, USA (August 1993).

### **Invited Workshops/Professional Development**

11. Dalhousie University Undergraduate Chemistry Society Careers Night, Dalhousie University, Halifax, Nova Scotia, Canada (March 2019) (invited).
10. Faculty Innovator Workshop, University of Iowa, Iowa, USA (January-March 2017).
9. 'DARPA Workshop on 3D Design of Organic Semiconductors', New Orleans, LA (January 2007) (invited).
8. 'Honda Technical Horizon Symposium', Chicago, IL (October 2005) (invited).
7. 'NSF Workshop on 'Models of Thought Processes: Insights Toward Chemical Systems', Washington, D.C. (June 2004) (invited).
6. 'Neoteric Solvents as Reaction Media: Reality and Future', Chairmen of the European Research Councils' Chemistry Committees (CERC3) Young Chemists' Workshop, St. Malo, France (April 2004) (invited).
5. NSF Young Investigator Workshop on Supramolecular Chemistry, Sanibel Island, Florida, USA (January 2004) (invited).
4. "nTITLE (New Technology in the Learning Environment) - 2002", Center for Teaching, University of Iowa, Iowa City, Iowa, USA (June 2002).
3. "Writing Winning Grants", University of Iowa, Iowa City, Iowa, USA (May 2002).
2. "Single-Crystal Diffractometer Workshop for the Spallation Neutron Source", Argonne National Laboratory, Argonne, Illinois, USA (March 2002) (invited).
1. "Teaching and Junior Faculty", Center for Teaching, University of Iowa, Iowa City, Iowa, USA (September 2001 - December 2001).

### **Pending Decisions Affecting Deliberations**

#### **Publications:**

2. Hutchins, K.M.; MacGillivray, L.R., "Supramolecular Synthesis: The Case of the Dicarboxylic Acid Dimer Homosynthon in the Presence of the COOH...N Heterosynthon", in preparation.

1. Naik, P.U.; Farrell, J.; Trider, C.L.; Bucar, D.-K.; MacGillivray, L.R.; Singer, R.D. "Synthesis of a Bicyclic Palladacycle with an Abnormal NHC - Palladium Bond from a Task Specific Ionic Liquid", in preparation.

## SERVICE

### Societies

2012- Chair, Chemistry Olympiad, ACS  
2012-2017 Chair, Iowa Local Section of the ACS  
2011 Chair Elect, Iowa Local Section of the ACS

### Editorial, Committee, and Panel Activities

2022- International Advisory Board, International Conference on Recent Advances in Material Chemistry (ICRAMC 2023), India  
2019- Editorial Board, *Molecules* (MDPI)  
2019 NSERC Industrial Research Chair Site Visit Panel  
2018 NSF MRSEC Site Visit Panel (Division of Materials Research)  
2018 NSF Proposal Review Panel (Solid State and Materials Chemistry Program)  
2017 Guest Editor, *Supramolecular Chemistry* (Taylor & Francis), Special Issue to Celebrate the 75<sup>th</sup> Birthday of Jerry L. Atwood  
2017- Member, Commission on Structural Chemistry, International Union of Crystallography  
2016- Co-Editor, *International Union of Crystallography Journal (IUCrJ)*, "Chemistry and Crystal Engineering" (duties: send for refereeing, handle publication decisions, 25 manuscripts/year)  
2016 Volume Editor, "Supramolecular Engineering: Design of Organic Solids", Comprehensive Supramolecular Chemistry II  
2015- International Advisory Board, 2<sup>nd</sup> ICSU/IUPAC Workshop on Crystal Engineering  
2015 International Organizing Committee, Collaborative Conference on Crystal Growth  
2014 NSF CAREER Award Review Panel (Solid State and Materials Chemistry)  
2014- Editorial Board, *Journal of Pharmacology and Toxicology* (ScienceScript)  
2014 International Organizing Committee, Collaborative Conference on Crystal Growth  
2013- Editorial Board, *International Journal of Photochemistry* (Hindawi Publishing)  
2013 NSF Proposal Review Panel (Materials Research Science and Engineering Center – MRSEC)  
2013 NSF Proposal Review Panel (Solid State and Materials Chemistry Program)  
2012- Editorial Board, *Journal of Crystallography* (Hindawi Publishing)  
2012-2014 Co-Editor, "Metal-Organic Materials", *Encyclopedia of Inorganic and Bioinorganic Chemistry* (Wiley)  
2012-2014 Advisory Board, *Encyclopedia of Inorganic and Bioinorganic Chemistry* (Wiley)  
2011-2018 Associate Editor, *Journal of Coordination Chemistry* (Taylor & Francis) (duties: send for refereeing, handle publication decisions, and edit 50-100

- manuscripts/year)
- 2011-2018 Chair, Editorial Board, *CrystEngComm* (Royal Society of Chemistry)
- 2010- Editorial Board, *Global Journal of Inorganic Chemistry*, Crystallography Area (Simplex)
- 2008-2010 Book Editor, “Metal-Organic Frameworks: Design and Application” (Wiley)
- 2008 NSF CAREER Award Review Panel (Solid State and Materials Chemistry)
- 2008- Editorial Board, *CrystEngComm*. (Royal Society of Chemistry)
- 2007- Instrument Advisory Team, IMAGINE - Neutron Diffractometer, Oak Ridge National Laboratory’s High Flux Isotope Reactor
- 2007- Editorial Board, *Open Cell and Developmental Biology Journal* (Bentham Science Publishers)
- 2006 Review Panel (Corresponding Member), *Crystallography in RSC Journals*
- 2006- Editorial Board, *Current Chemical Biology* (Bentham Science Publishers)
- 2005 Review Panel (Corresponding Member), *New Journal of Chemistry*
- 2005- Editorial Board, *Main Group Chemistry* (Taylor & Francis)
- 2004- Reviews Editor, *Journal of Chemical Crystallography* (Springer)
- 2003 Guest Editor, *Supramolecular Chemistry* (Taylor & Francis), Special Issue for the 13th International Symposium on Supramolecular Chemistry (co-editor: A Alexander Wei, Purdue University)
- 2002-2011 Topics Editor, *Crystal Growth and Design* (American Chemical Society)
- 2002-2007 International Advisory Editorial Board, *CrystEngComm*. (Royal Society of Chemistry)

### Departmental Review

- University of South Dakota, Vermillion, South Dakota (2018)
- Wilfred Laurier University, Waterloo, Ontario, Canada (2011)

### Promotion Reviewer

- Kansas State University (2022)
- Georgetown University, USA (2021)
- Shenzhen Institute of Advanced Technology, China (2021)
- University at Buffalo, USA (2021)
- University of Missouri – St. Louis, USA (2021)
- Texas Tech University, USA (2019)
- King Fahd University of Petroleum and Minerals, Saudi Arabia (2019)
- McGill University, Canada (2018)
- University of South Florida, USA (2017)
- University at Buffalo - The State University of New York, USA (2016)
- Weizmann Institute, Israel (2015)
- New York University – Abu Dhabi, Saudi Arabia (2015)
- Georgetown University, USA (2015)
- University of South Carolina, USA (2014)
- City University of Hong Kong, China (2014)

University of South Florida, USA (2014)  
Lehman College, USA (2014)  
University of Nebraska-Omaha, USA (2013)  
Creighton University, USA (2012)  
King Saud bin Abdulaziz University for Health Sciences, Saudi Arabia (2012)  
University of California-Riverside, USA (2011)  
Kansas State University, USA (2011)  
Monash University, Australia (2011)  
George Washington University, USA (2011)  
City University of Hong Kong, China (2010)  
University of Nebraska-Lincoln, USA (2010)  
University of South Carolina, USA (2010)  
University of Witwatersrand, South Africa (2008)

### **Award Reviewer**

Foundation for Polish Science Award (2022)  
The World Academy of Sciences (2020)  
Graduate Fellows, University of Cincinnati (2017)  
Royal Irish Academy (2017)  
Fellow Royal Society of Chemistry (2017)  
Member Royal Society of Chemistry (2017)  
Fellow, Australian Academy of Science (2017)  
Trachtenberg Prize (2017)  
Foundation for Polish Science Award (2016)  
RSC Harrison-Meldola Prize (2010)

### **Conferences, Symposia, and Sessions Chaired and Organized**

**27.** Symposium Organizer, "Organic Solid-State Chemistry: Advances from Structures to Properties", Pacificchem 2021, Honolulu, Hawaii, USA (December 2021).

**26.** Conference Organizer (w/Gonzalo Campillo-Alvarado, Lewis Stevens, Alexei Tivanski), 28th Midwest Organic Solid-State Chemistry Symposium, University of Iowa, Iowa City, Iowa, USA (June 2021) (Virtual MOSSCS).

**25.** Symposium Organizer, "1<sup>st</sup> American-Mexican Symposium on Supramolecular Materials Design", University of Iowa, Iowa City, Iowa (November 2019).

**24.** Session Chair, Noncovalent Interactions, 14<sup>th</sup> International Symposium on Macrocyclic and Supramolecular Chemistry, Lecce, Italy (June 2019).

**23.** Chair, 2018 Gordon Research Conference on Crystal Engineering, Waterville Valley, New Hampshire (June 2018).

- 22.** Workshop Co-Chair (w/Jeffrey Rack, University of New Mexico), Energy and Movement in Coherent Chemical Systems, Telluride Science Research Center, Telluride, Colorado (July 2016).
- 21.** Vice-Chair, 2016 Gordon Research Conference on Crystal Engineering, Waterville Valley, New Hampshire (June 2016).
- 20.** Symposium Co-organizer (w/K. Travis Holman, Georgetown University), Designer Molecule-Derived Materials, 99<sup>th</sup> Canadian Society for Chemistry Exhibition, Halifax, Nova Scotia, Canada (June 2016).
- 19.** Symposium Co-organizer, Organic Solid-State Chemistry: Structure, Property & Reactivity, Pacifichem 2015, Honolulu, Hawaii, USA (December 2015).
- 18.** Conference Organizer (w/Lewis Stevens), 24<sup>th</sup> Midwest Organic Solid-State Chemistry Symposium, University of Iowa, Iowa City, Iowa, USA (June 2014).
- 17.** Session Chair, Faraday Discussion 170, Mechanochemistry: From Functional Solids to Single Molecules, Montreal, Quebec, Canada (May 2014).
- 16.** Symposium Organizer (w/K. Travis Holman, Georgetown University), Modern Aspects of Crystal Engineering, 2011 Annual Meeting of the American Crystallographic Association, New Orleans, Louisiana, USA (June 2011).
- 15.** Discussion Leader, Session on Organic Solid-State Reactivity, Gordon Research Conference on Crystal Engineering, Waterville, New Hampshire, USA (June 6-10, 2010).
- 14.** Symposium Organizer (w/Chris Pigge, University of Iowa), Supramolecular Chemistry, 44<sup>th</sup> Midwest Regional Meeting of the American Chemical Society, Iowa City, Iowa, USA (November 2009).
- 13.** Session Chair, Metal-Organic Frameworks. What are they Good for?, 235<sup>th</sup> ACS National Meeting and Exposition in New Orleans, Louisiana, USA (March 2008).
- 12.** Session Chair, Japan-USA Joint Symposium on the Chemistry of Coordination Space, Northwestern University, Evanston, Illinois, USA (June 2007).
- 11.** Conference Organizer, 16<sup>th</sup> Midwest Organic Solid-State Chemistry Symposium, University of Iowa, Iowa City, Iowa, USA (June 2006).
- 10.** Microsymposium Co-organizer (with F. Toda, Okayama University of Science, Japan), XX Congress of the International Union of Crystallography, Florence, Italy (August 2005).
- 9.** Symposium Organizer (w/K. Travis Holman, Georgetown University), Crystal Engineering, 2005 Annual Meeting of the American Crystallographic Association, Orlando, Florida, USA (June 2005).

8. Session Chair, 16th Midwest Organic Solid-State Chemistry Symposium, Purdue University, West Lafayette, Indiana, USA (June 2005).
7. Session Chair, 39th Midwest Regional Meeting of the American Chemical Society, Manhattan, Kansas, USA (October 2004).
6. Session Chair, 15th Midwest Organic Solid-State Chemistry Symposium, Southern Illinois University, Carbondale, Illinois, USA (June 2004).
5. Session Chair, 12th Biocatalysis and Bioprocessing Conference, University of Iowa, Iowa City, Iowa, USA (October 2003).
4. Symposium Co-Organizer (with G.R. Desiraju, University of Hyderabad, India), "Supramolecular Construction and Function", symposium at the International Union of Pure and Applied Chemistry (IUPAC) and Canadian Society for Chemistry (CSC) conference, Ottawa, Ontario, Canada (August 2003) (participants: 16) (invited).
3. Session Chair, 14th Midwest Organic Solid-State Chemistry Symposium, University of Minnesota, Minneapolis, Minnesota, USA (June 2003).
2. Conference Organizer, 13th Midwest Organic Solid-State Chemistry Symposium, University of Iowa, Iowa City, Iowa, USA (June 2002) (participants: 63).
1. Session Chair, Benign Synthesis and Processing III, 5th Annual Green Chemistry and Engineering Conference", in Washington, D.C., USA (June 2001).

### Committees

- |           |   |
|-----------|---|
| 2014-     | College of Reviewers, Canada Research Chairs Program  |
| 2014      | International Organizing Committee, Collaborative Conference on Crystal Growth  |
| 2009-2010 | Organizing Committee, Gordon Research Conference on Crystal Engineering, Waterville, New Hampshire, USA (June 6-10, 2010)         |
| 2005      | Sidhu Award Committee (Pittsburgh Diffraction Society)  |
| 2003-2004 | Local Organizing Committee, 13th International Symposium on Supramolecular Chemistry, South Bend, Indiana, USA (July 25-30, 2004) |

### Scientific Refereeing of Journals (quantity in parenthesis)

Accounts of Chemical Research (5), ACS Applied Materials & Interfaces (1), ACS Catalysis (1), ACS Nano (1), ACS Omega (1), Acta Crystallographica Section B (3), ACS Sustainability Chemical Engineering (1), Advanced Functional Materials (1), Advanced Materials (1), Advanced Photonic Materials (1), Angewandte Chemie (107), Australian Journal of Chemistry (4), Canadian Journal of Chemistry (4), Chem (1), Chemical Communications (249), Chemical Educator (1), Chemical Science (15), Chemical Physics Letters (1), Chemical Reviews (3), Chemical Society Reviews (6),

Chemistry - An Asian Journal (9), Chemistry - A European Journal (62), Chemistry of Materials (16), Chemistry Select (2), ChemPhotoChem (1), ChemPlusChem (1), Communications Chemistry (1), Coordination Chemistry Reviews (7), Crystal Engineering (1), Crystal Engineering Communications (75), Crystal Growth and Design (131), Crystallography Reviews (1), Crystals (2), Current Chemical Biology (1), Current Organic Chemistry (1), Dalton Transactions (63), Drug Development and Industrial Pharmacy (1), Electrochemica Acta (2), European Journal of Inorganic Chemistry (14), European Journal of Organic Chemistry (3), Expert Opinion on Drug Delivery (1), Industrial and Engineering Chemistry Research (3), Inorganic Chemistry (41), Inorganic Chemistry Frontiers (1), Inorganic Chemistry Communications (1), Israel Journal of Chemistry (1), Journal of Chemical Crystallography (15), Journal of Chemical Physics (1), Journal of Coordination Chemistry (18), Journal of Crystallography (1), Journal of Inclusion Phenomena (2), Journal of Materials Chemistry (9), Journal of Molecular Structure (5), Journal of Organic Chemistry (27), Journal of Pharmaceutical Sciences (1), Journal of Photochemistry and Photobiology A: Chemistry (2), Journal of Physical Chemistry (9), Journal of Physical Chemistry Letters (1), Journal of Polymer Science: Polymer Physics (1), Journal of Solid State Chemistry (3), Journal of Solid State Science and Technology (1), Journal of Structural Chemistry (1), Journal of Supramolecular Chemistry (3), Journal of the American Chemical Society (155), Journal of the Indian Institute of Science (1), Kemija u Industriji (1), Langmuir (5), Macromolecular Rapid Communications (1), Materials Research Bulletin (2), Mendeleev Communications (1), Molecular Crystals and Liquid Crystals (1), Molecular Pharmaceutics (5), Molecules (1), Nature (5), Nature Chemistry (8), Nature Communications (9), Nature Scientific Reports (2), New Journal of Chemistry (33), Organic and Biomolecular Chemistry (5), Organic Letters (29), Organic Preparations and Procedures International (1), Organometallics (5), Perkin Transactions II (8), Photochemical and Photobiological Sciences (5), Photochemistry and Photobiology (1), Physical Chemistry Chemical Physics (4), Proceedings of the National Academy of Sciences (7), Science (2), Science Bulletin (1), Small (1), Soft Matter (1), Structural Chemistry (2), Supramolecular Chemistry (5), Synlett (1), Tetrahedron (2), Tetrahedron Letters (2), Trends in Pharmacological Sciences (1)

### **Scientific Refereeing of Grants (quantity in parenthesis)**

National Science Foundation (USA) (43), Natural Sciences and Engineering Research Council of Canada (9), Department of Energy (USA) (3), ACS Petroleum Research Fund (Type UR) (1), ACS Petroleum Research Fund (Type G Grant) (1), ACS Petroleum Research Fund (Type AC Grant) (9), ACS Petroleum Research Fund (Type B Grant) (3), ACS Petroleum Research Fund (Type DNI) (2), ACS Petroleum Research Fund (Type ND Grant) (2), Research Corporation (Cottrell College Science Award Program) (14), Cooperative Grants Program of the U.S. Civilian Research and Development Foundation (1), EPSRC (2), European Research Council (1), Isaac Newton Trust (1), Israel Science Foundation (2), U.S. Army Research Office (1), Engineering and Physical Sciences Research Council (UK) (1), United State-Israel Binational Science Foundation (1), Research Grants Council of Hong Kong (2), Nebraska EPSCoR (1), Jeffress Research Grant (1), National Institutes of Health COBRE Grant (1), National Institutes of Health SBIR Grant (2), Research Grants Council of Hong Kong (1), Croatian Science Foundation (2), Canada Research Chairs (1), The Fund for Scientific Research, Belgium (1), US Army Corps of Engineers (ERDC) (1), Mitacs-Canada (1), Swiss National Science Foundation (1)

## Scientific Refereeing of Additional Materials

12. Book proposal (Royal Society of Chemistry) (June 2014).
11. Book proposal (Oxford University Press) (October 2013).
10. Reaxys PhD Prize (Elsevier) (April 2012).
9. Book (two chapters): Organic Chemistry: Loudon (January 2012).
8. Book proposal: Springer (November 2011).
7. Book proposal: Wiley-VCH (January 2011).
6. Book proposal: Wiley-VCH (March 2009).
5. Book proposal: Wiley-VCH (July 2007).
4. Poster Judge, 2004 Annual Meeting of the American Crystallographic Association, Chicago, Illinois (July 2004).
3. Poster Judge, 14th Midwest Organic Solid-State Chemistry Symposium, University of Minnesota, Minneapolis, Minnesota (June 2003).
2. Kirk-Othmer Encyclopedia of Chemical Technology (John Wiley & Sons, Inc.) *Organic Chemistry* (Bruice) (Prentice Hall).
1. Poster Judge, 11th Center for Biocatalysis and Bioprocessing Conference, University of Iowa Iowa City, Iowa (October 2002).

## University of Iowa

### Committees & Panels

#### *University*

- |           |   |
|-----------|---|
| 2021-     | Member, X-ray Diffraction Hiring Committee, Office of the Vice President for Research |
| 2021-     | Member, Assistant/Associate Professor Hiring Committee, College of Pharmacy           |
| 2021-     | Member, NSF MRI Panel Session, Office of the Vice President for Research              |
| 2019-     | Departmental Executive Officer, Department of Chemistry, University of Iowa           |
| 2017-     | Faculty Senate, University of Iowa  |
| 2015-2016 | Department of Radiology Review Committee, Member                                      |



- 2014- CLAS Review Committee, Career Development Awards (CDAs), College of Liberal Arts and Sciences
- 2013 Review Panel, Internal Funding Initiatives (IFI) Program, Office of the Vice President for Research and Economic Development
- 2012 Department of Physics External Review Committee, Member and Convener
- 2011-2012 Educational Policy Committee, College of Liberal Arts and Sciences
- 2011 Hawkeye Student Organization Leadership and Service Awards Selection Committee, Office of Student Life
- 2011 'On Iowa' Steering Committee, Office of the Provost
- 2010 Poster Judge, Summer Undergraduate Research Conference, Iowa Biosciences Advantage Program
- 2010-2012 The IOWA Challenge: Years 2, 3, 4 Work Group
- 2009 Faculty Participant, Opening Ceremony Class 2013
- 2009-2011 College of Liberal Arts and Sciences Scholarship Committee
- 2009 AGEP Faculty Advisory Council, Graduate College
- 2009 Committee on Disseminating the Iowa Challenge, Office of the Provost
- 2009-2010 Judge, James F. Jakobsen Graduate Forum
- 2008 Ad hoc Committee to Develop Task Force on Faculty Engagement (SST), Office of the Provost
- 2008-2009 University of Iowa First Year Experience (FYE) of the SST, Office of the Provost
- 2007 Committee to Communicate the Importance of Student Success (SST), Office of the Provost
- 2007-2010 University of Iowa Student Success Team (SST), Office of the Provost
- 2007 Iowa Institute for Biomedical Discovery, Special Equipment Support Project Team
- 2006-2007 Subcommittee on Common Academic Experiences: The General Education Curriculum, Preparation for Reaccreditation by the Higher Learning Commission (HLC), Office of the Provost
- 2006-2010 Fullbright Faculty Review Committee
- 2006 Faculty Judge, Outstanding Graduate Students as Mentors Award
- 2004-2005 Center for Biocatalysis and Bioprocessing: Conference Planning Committee, 14th Annual Center for Biocatalysis and Bioprocessing Conference, University of Iowa, Iowa City, Iowa, Iowa (USA)
- 2004 Internal Funding Initiative Review Committee  
- reviewer: Carver Scientific Research Initiative Grants, Mathematical & Physical Sciences Funding Program Grants
- 2004 CIC Summer Research Opportunities Program: Panelist, *What You Need to Know About the Graduate Admissions Process (Biological & Life Sciences)*
- 2003- Poster Judge, Center for Bioprocessing and Bioprocessing Conference
- 2002-2003 Center for Biocatalysis and Bioprocessing: Conference Planning Committee, 12th Annual Center for Biocatalysis and Bioprocessing Conference, University of Iowa, Iowa City, Iowa, Iowa (USA)

### ***Department of Chemistry***

- 2019- Departmental Executive Officer, Department of Chemistry, University of Iowa

2019 Probationary Faculty Review Committee (Daly)  
 2018-2019 Chair, Assistant/Associate Professor Hiring Committee  
 2017 Hiring Plan Committee (Chair)  
 2016- Executive Committee  
 2016 Standard Five-Year Review Committee (Chair) (Wiemer)  
 2015-2016 Presentation on Organic Division, Open House (February)  
 2015 Probationary Faculty Review Committee (Forbes)  
 2014-2015 Witte Committee (Chair)  
 2014- Teaching Schedule Organizer, Organic Division  
 2014-2015 Hiring Plan Committee (Chair)  
 2014 Standard Five-Year Review Committee (Chair) (Gillan)  
 2013 Chair, Assistant Professor Hiring Committee (Inorganic Division)  
 2013-2014 Executive Committee  
 2013 Standard Five-Year Review Committee (Chair) (Messerle)  
 2012-2013 Graduate Studies and Curriculum  
 2012-2013 Probationary Faculty Review Committee (Tivanski)  
 2011-2012 Hiring Plan Committee  
 2011-2012 Probationary Faculty Review Committee (Nguyen)  
 2010 Poster Judge, 2010 Midwest NOBCCChE Conference  
 2010 Abstract Review Committee, 2010 Midwest NOBCCChE Conference  
 2010 Probationary Faculty Review Committee (Nguyen)  
 2010 Incoming Graduate Student Advisor  
 2008-2009 Chair, Promotion and Tenure Committee (Bowden)  
 2008-2009 Assistant Professor Hiring Committee (Organic/Inorganic Division)  
 2007- Space Committee  
 2007-2008 Assistant Professor Hiring Committee (Inorganic Division)  
 2006-2007 Chair, Assistant Professor Hiring Committee (Organic/Inorganic Division)  
 2005-2006 Chair, Recruiting and Admissions Committee  
 2004-2005 Assistant/Associate Professor Hiring Committee (Organic Division)  
 2004 D.C. Priestestersbach Dissertation Prize Nomination Committee (*ad hoc*)  
 2003- Student Travel Funds Committee (Chair)  
 2003 Visiting Assistant Professor Hiring Committee  
 2001-2006 Staff Performance Review Committee (Chair)  
 2001-2005 Recruiting and Admissions Committee  
 2000- X-ray Committee

Other Committee Contributions:

- successful proposal to Witte Fund for Digital Microscope for X-ray Diffraction facility (2011)

Recruiting/Outreach:

- volunteered in Cedar Rapids STEM Fair (Feb. 2015)
- volunteered in demonstration on 'Polymers' at the 'Iowa State Fair' (2008, 2009)
- 'Academic Matters' presentation for incoming graduate students (Aug. 2006)
- organizer: 'Working Weekends VII: X-ray Crystallography and Computational Chemistry' (participants: 50) (Oct. 2005)

- X-ray diffraction work-group leader for 'Working Weekends VI: Nanoscience and Nanotechnology' (Oct. 2004)
- provided transportation/campus tours for 'Working Weekends III: Microscopy' (Apr. 2003)
- prepared letters of support for Presidential Scholar nominees (Mar. 2003, 2002)
- organizer: 'Working Weekends II: X-ray Crystallography and Computational Chemistry' (participants: 50) (Oct. 2002)
- co-organizer: 'Working Weekends I: NMR and EPR Spectroscopy'; work-group leader (solid-state NMR); campus tours (participants: 33) (May 2002)
- developed recruiting letter for materials science related research (Oct. 2002)
- revamped general recruiting letter (Sept. 2002)
- co-organizer: 'Chemistry Graduate Open House' (May 2001)
- prepared text for the Department of Chemistry website (May 2001)
- developed electronic presentation for the Department of Chemistry for recruiting (Jan. 2001)

#### Recruiting trips/seminars:

- Truman State University, Kirksville, MO (Apr. 2022)
- St. Catherine University, Minneapolis, MN (Feb. 2022)
- University of Nebraska-Omaha, NE (Feb. 2021)
- Creighton University, Omaha, NE (Sept. 2011)
- Cornell College, Mount Vernon, IA (Jan. 2007)
- Saint Louis University, St. Louis, MO (Jan. 2006)
- Coe College, Cedar Rapid, IA (Oct. 2005)
- Augustana College, Rock Island, IL (Sept. 2003)
- Drake University, Des Moines, IA (Apr. 2003)
- Western Illinois University, Macomb, IL (Apr. 2003)
- University of Iowa Grad Fair, Iowa City, IA (Nov. 2002)
- University of Iowa Grad Fair, Iowa City, IA (Nov. 2001)
- Coe College/Cornell College/Mount Mercy College, Cedar Rapids, IA (Sept. 2001)
- Luther College, Decorah, IA (Sept. 2001)
- Wartburg College, Waverley, IA (Sept. 2001)
- Saint Mary's University, Halifax, Nova Scotia, Canada (Jan. 2001)
- Mount Allison University, Sackville, New Brunswick, Canada (Jan. 2001)
- St. Francis Xavier University, Antigonish, Nova Scotia, Canada (Jan. 2001)
- Acadia University, Wolfville, Nova Scotia, Canada (Jan. 2001)

#### **Host for Departmental and Divisional Scientific Colloquia**

35. Tom Runcevski, Southern Methodist University (Fall 2021).
34. Natalia B. Shustova, University of South Carolina (co-host: Alexei Tivanski) (Spring 2021).
33. Chenfeng Ke, Dartmouth College (Fall 2019).
32. Robert W. Schurko, University of Windsor (Spring 2019).
31. Anatoliy Sokolov, Dow Chemical Company (Fall 2017).
30. Tomislav Friscic, Department of Chemistry, McGill University (Spring 2017).
29. Jason Benedict, Department of Chemistry, University at Buffalo (Spring 2016).
28. Jeffrey Rack, Department of Chemistry and Biochemistry, Ohio University (Spring 2015).

27. Mircea Dinca, Department of Chemistry, Massachusetts Institute of Technology (co-host: Alexi Tivanski) (Fall 2014).
26. William R. Dichtel, Department of Chemistry and Chemical Biology, Cornell University (Fall 2013).
25. J. Fraser Stoddart, Department of Chemistry, Northwestern University (Spring 2013) (Wawzonek Lecture).
24. Christopher Bardeen, Department of Chemistry, University of California-Riverside (co-host: Alexei Tivanski) (September 2011).
23. Sundeep Rayat, Department of Chemistry, Kansas State University (March 2011).
22. Darren W. Johnson, Department of Chemistry, University of Oregon (January 2011).
21. Paul Benny, Department of Chemistry, Washington State University (October 2010).
20. Jayaraman Sivaguru, Department of Chemistry, Biochemistry, and Molecular Biology, University of North Dakota (Spring 2010).
19. Wenbin Lin, Department of Chemistry, University of North Carolina-Chapel Hill (Spring 2008).
18. Robert D. Singer, Department of Chemistry, Saint Mary's University (Fall 2007).
17. K. Travis Holman, Department of Chemistry, Georgetown University (Spring 2007).
16. Bruce C. Gibb, Department of Chemistry, University of New Orleans (Fall 2005).
15. Nenad Judas, Department of Chemistry, University of Zagreb, Croatia (Summer 2005).
14. Barrett Eichler, Department of Chemistry, Northwest Missouri State University (Spring 2005).
13. Pavel Anzenbacher, Jr., Department of Chemistry, Bowling Green State University (Spring 2005).
12. Steven C. Zimmerman, Department of Chemistry, University of Illinois at Urbana-Champaign (Fall 2004).
11. Rajendra Rathore, Department of Chemistry, Marquette University (Spring 2004)
10. Francois P. Gabbai, Department of Chemistry, Texas A&M University (Spring 2004)
9. Peter J. Stang, Department of Chemistry, University of Utah (Spring 2004) (Frontiers Lecturer)
8. Bruce M. Foxman, Department of Chemistry, Brandeis University (Fall 2003)
7. George W. Gokel, School of Medicine, Washington University (Spring 2003)
6. Gautam R. Desiraju, Department of Chemistry, University of Hyderabad (India) (Spring 2003)
5. Mark D. Hollingsworth, Department of Chemistry, Kansas State University (Fall 2002)
4. Michael J. Zaworotko, Department of Chemistry, University of South Florida (Spring 2002)
3. Alan R. Kay, Department of Biological Sciences, University of Iowa (Fall 2002)
2. K. Travis Holman, Department of Chemical Engineering and Materials Science, University of Minnesota (Spring 2001)
1. Michael A. Lewis, Department of Chemistry, University of Missouri-Columbia (Fall 2000)

### **Ottawa-Carleton Chemistry Institute**

#### **Committees**

1999-2000 SIMS, Staff Bonus Committee