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6. AUTHORS

5d. PROJECT NUMBER

5e. TASK NUMBER

5f. WORK UNIT NUMBER

7. PERFORMING ORGANIZATION NAMES AND ADDRESSES
Gordon Research Conferences, Inc.
512 Liberty Lane

West Kingston, RI 02892 -1502

8. PERFORMING ORGANIZATION REPORT NUMBER

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS (ES)
U.S. Army Research Office
P.O. Box 12211
Research Triangle Park, NC 27709-2211

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The views, opinions and/or findings contained in this report are those of the author(s) and should not contrued as an official Department of the Army position, policy or decision, unless so designated by other documentation.

14. ABSTRACT

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	15. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			Adam Matzger
UU	UU	UU	UU		19b. TELEPHONE NUMBER 734-615-6627

RPPR Final Report
as of 12-Jun-2018

Agency Code:

Proposal Number: 69099CHCF **Agreement Number: W911NF-16-1-0188**
INVESTIGATOR(S):

Name: Adam J Matzger matzger@um
Email: matzger@umich.edu
Phone Number: 7346156627
Principal: Y

Organization: **Gordon Research Conferences, Inc.**
Address: 512 Liberty Lane, West Kingston, RI 028921502
Country: USA
DUNS Number: 075712877 EIN: 050300482
Report Date: 31-Jan-2017 Date Received: 13-Nov-2017
Final Report for Period Beginning 01-May-2016 and Ending 31-Oct-2016
Title: 2016 Crystal Engineering Gordon Research Conference RESEARCH AREA 7: CHEMICAL SCIENCES
Begin Performance Period: 01-May-2016 **End Performance Period:** 31-Oct-2016
Report Term: 0-Other
Submitted By: Nancy Ryan Gray Email: nih@grc.org
Phone: (401) 360-1505

STEM Degrees: 0 **STEM Participants:** 0

Major Goals: The Gordon Research Conference on Crystal Engineering focused on advancing the design of crystals. The vital role that a variety of crystalline materials play in a broad range of technologies is far from new. However, more recently the ability to control crystallization using principles of crystal engineering is rapidly evolving to the point where properties might be realized through design rather than serendipity. Nonetheless the rational design of crystalline solids is the exception rather than the rule with progress hindered by a limited toolbox containing interactions of rather limited reliability. As the boundaries of application are expanding, the deficiencies in our own understanding appear more severe. Progress in this area will take place at the intersection of organic, inorganic, materials, and physical chemistry and requires a unique interface of experimental and theoretical tools provided by academia and industry alike. The purpose of the GRC and GRS was to bring together a wide range of experts with diverse backgrounds.

The focus of the Gordon Research Seminar on Crystal Engineering was on the design and applications of cocrystals in the context of crystal engineering. Major emphasis was placed on understanding the pivotal role of the palette of non-covalent interactions in tailoring these multi-component assemblies for applications in pharmaceutical, energetic, electronic, mechanical, and optical fields. Comprehending the diverse applications of cocrystals, and their principles of synthesis, was an enriching experience designed to influence future research interests and collaborations among researchers in these areas.

Accomplishments: The Gordon Research Conference on Crystal Engineering focused on advancing the design of crystals. The vital role that a variety of crystalline materials play in a broad range of technologies is far from new. However, more recently the ability to control crystallization using principles of crystal engineering is rapidly evolving to the point where properties might be realized through design rather than serendipity. Nonetheless the rational design of crystalline solids is the exception rather than the rule with progress hindered by a limited toolbox containing interactions of rather limited reliability. As the boundaries of application are expanding, the deficiencies in our own understanding appear more severe. Progress in this area will take place at the intersection of organic, inorganic, materials, and physical chemistry and requires a unique interface of experimental and theoretical tools provided by academia and industry alike. The purpose of the GRC and GRS was to bring together a wide range of experts with diverse backgrounds.

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cocrystals, and their principles of synthesis, was an enriching experience designed to influence future research interests and collaborations among researchers in these areas.

Training Opportunities: Nothing to Report

Results Dissemination: Conference Program

Honors and Awards: Nothing to Report

Protocol Activity Status:

Technology Transfer: Nothing to Report

GORDON RESEARCH CONFERENCES

FINAL PROGRESS REPORT
Army Research Office
Crystal Engineering GRC/GRS

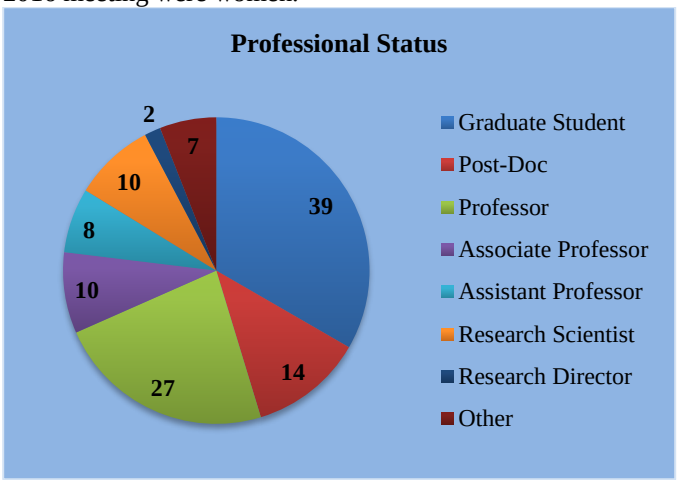
Grant Number W911NF-16-1-0188
June 25-July 1, 2016

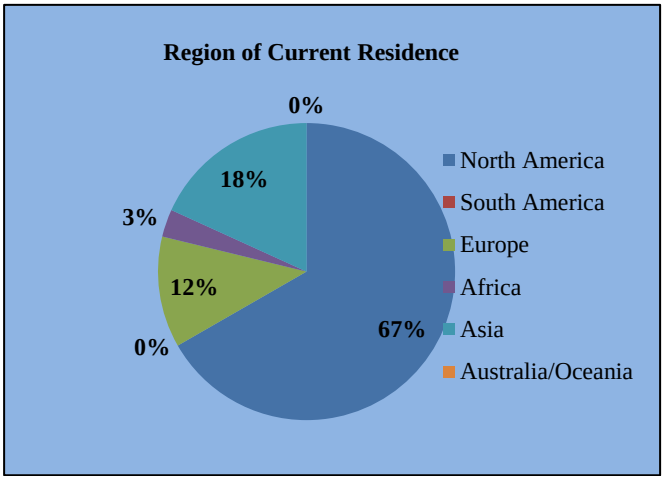
Operational Summary

The Gordon Research Conference (GRC) and Gordon Research Seminar (GRS) on Crystal Engineering were held at the Stoweflake Conference Center in Stowe, Vermont from June 25-July 1, 2016. The meeting covered a variety of scientific topics and the content presented was highly rated by participants.

Conference Participants

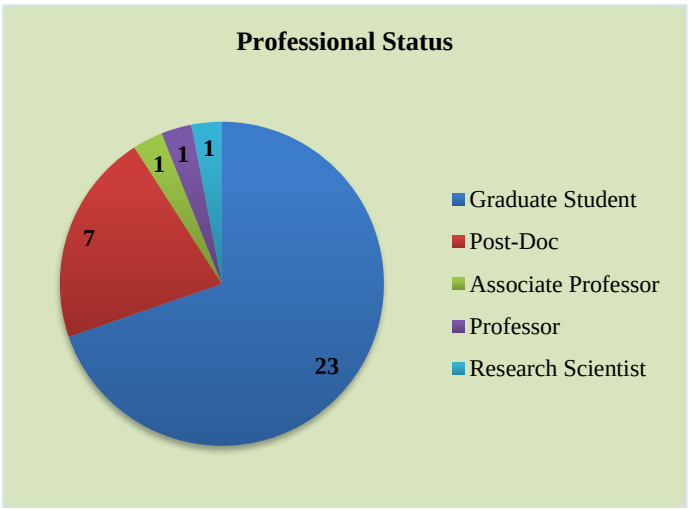
The Conference had 117 participants. Scientists from academia represented 91% of the participants while attendees from government accounted for 2% and those from industry totaled 7%. The meeting also attracted a strong mix of young investigators and senior scientists. Students and post-docs accounted for 45% of all attendees. Approximately 30% of the participants at the 2016 meeting were women.

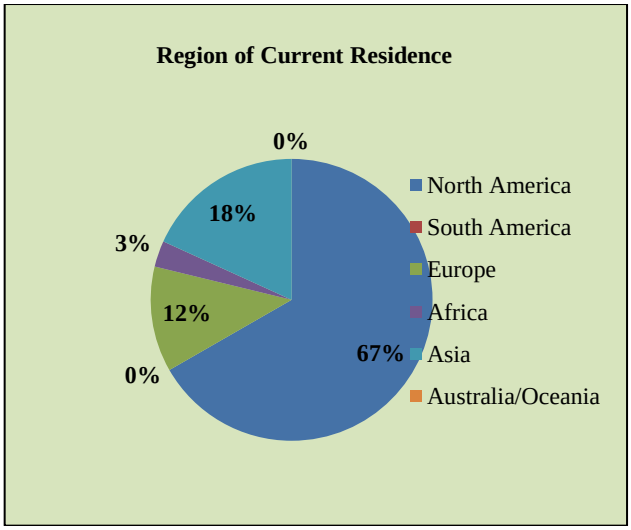




Seminar Participants

The Seminar was well-attended with 33 participants. Scientists from academia represented 97% of the participants while attendees from government accounted for 3%. Students and post docs combined accounted for 91% of all attendees. Approximately 36% of the participants at the 2016 seminar were women.





Conference Program

The Gordon Research Conference on Crystal Engineering focused on advancing the design of crystals. The vital role that a variety of crystalline materials play in a broad range of technologies is far from new. However, more recently the ability to control crystallization using principles of crystal engineering is rapidly evolving to the point where properties might be realized through design rather than serendipity. Nonetheless the rational design of crystalline solids is the exception rather than the rule with progress hindered by a limited toolbox containing interactions of rather limited reliability. As the boundaries of application are expanding, the deficiencies in our own understanding appear more severe. Progress in this area will take place at the intersection of organic, inorganic, materials, and physical chemistry and requires a unique interface of experimental and theoretical tools provided by academia and industry alike. The purpose of the GRC and GRS was to bring together a wide range of experts with diverse backgrounds.

The focus of the Gordon Research Seminar on Crystal Engineering was on the design and applications of cocrystals in the context of crystal engineering. Major emphasis was placed on understanding the pivotal role of the palette of non-covalent interactions in tailoring these multi-component assemblies for applications in pharmaceutical, energetic, electronic, mechanical, and optical fields. Comprehending the diverse applications of cocrystals, and their principles of synthesis, was an enriching experience designed to influence future research interests and collaborations among researchers in these areas.

Conference Budget

Funding provided by the Army Research Office supported partial registrations ($500 each) for 30 attendees at the GRC. This included 4 postdocs, 1 graduate student, 15 professors, 4 associate professors, 5 assistant professors and 1 research scientist.

Conference Feedback

Participants had an opportunity to provide feedback at the end of the Conference. The feedback collected from the meeting was extremely positive. Evaluations included numerous positive remarks regarding discussions at the poster sessions, range of crystal energy topics and the informal interactions/networking opportunities. Evaluations from the GRS included positive comments regarding the quality of the science sessions, open discussions among the group and the ability to network with other students in the various fields.

GRC would like to thank the Army Research Office for its continued support of the meetings. The contributions received from the Army Research Office have been critical to the success of the conferences and are having a measurable impact in advancing the frontiers of science worldwide.

Dr. Adam Matzger, GRC Chair
University of Michigan

Dr. Rajesh Goud Nagula, GRS Chair
University of Michigan

Dr. Nancy Ryan Gray
President and Chief Executive Officer
Gordon Research Conferences

Crystal Engineering
Gordon Research Conference

Advancing the Design of Crystals

June 26 - July 1, 2016

Stoweflake Conference Center
Stowe, VT

Chair: **Adam Matzger**
Vice Chair: **Len R. Macgillivray**

Contributors

Meeting Program

Sunday	
2:00 pm - 9:00 pm	Arrival and Check-in
6:00 pm	Dinner
7:30 pm - 7:40 pm	Welcome / Introductory Comments by GRC Site Staff
7:40 pm - 9:30 pm	**Crystal Growth**
	Discussion Leader: **Delia Haynes** (Stellenbosch University, South Africa)
7:40 pm - 8:20 pm	**Bart Kahr** (New York University, USA) "Engineering Helicoidal Dichroism"

8:20 pm - 8:35 pm	Discussion
8:35 pm - 9:15 pm	**Lara Estroff** (Cornell University, USA) "Bio-Inspired Single-Crystal Composites: Growth Mechanisms and Properties"
9:15 pm - 9:30 pm	Discussion
Monday	
7:30 am - 8:30 am	Breakfast
8:30 am	Group Photo
9:00 am - 12:30 pm	**Coordination Polymer Function**
	Discussion Leader: **Nathaniel Rosi** (University of Pittsburgh, USA)
9:00 am - 9:40 am	**Mircea Dinca** (Massachusetts Institute of Technology, USA) "Small Molecule Reactivity and Catalysis Enabled by Cation Exchanges in MOFs"
9:40 am - 10:00 am	Discussion
10:00 am - 10:30 am	Coffee Break
10:30 am - 11:10 am	**Pingyun Feng** (University of California, Riverside, USA) "Metal-Organic Framework Materials for Exceptional CO_2 Adsorption"
11:10 am - 11:30 am	Discussion
11:30 am - 12:10 pm	**Bart Bueken** (Centre for Surface Chemistry and Catalysis, KU Leuven, Belgium) "Flexibility and Catalytic Activity in Ti and Zr MOFs"
12:10 pm - 12:30 pm	Discussion
12:30 pm	Lunch
1:30 pm - 4:00 pm	Free Time
4:00 pm - 6:00 pm	Poster Session
6:00 pm	Dinner
7:30 pm - 9:30 pm	**Crystal Engineering of Magnetic Interactions**
	Discussion Leader: **Jeremy Feldblyum** (Stanford University, USA)

7:30 pm - 8:10 pm	**Kathryn Preuss** (University of Guelph, Canada) "Supramolecular Architectures Using Paramagnetic Thiazyl Ligands"
8:10 pm - 8:30 pm	Discussion
8:30 pm - 8:50 pm	**Douglas Genna** (Youngstown State University, USA) "Metal Organic Frameworks: Retrosynthesis, Intermolecular Interactions, and the Return of the Anion"
8:50 pm - 9:00 pm	Discussion
9:00 pm - 9:20 pm	**Mario Wriedt** (Clarkson University, USA) "Metal-Organic Frameworks as Platforms for the Controlled Nanostructuring of Molecular Magnets"
9:20 pm - 9:30 pm	Discussion
Tuesday	
7:30 am - 8:30 am	Breakfast
9:00 am - 12:30 pm	**Structure Prediction** Discussion Leader: **Leslie Vogt** (New York University, USA)
9:00 am - 9:40 am	**Sally Price** (University College London, United Kingdom) "Is the Crystallisation of Pharmaceutical Molecules Controlled by Thermodynamics or Kinetics?"
9:40 am - 10:00 am	Discussion
10:00 am - 10:30 am	Coffee Break
10:30 am - 11:10 am	**Mark Tuckerman** (New York University, USA) "Free Energy Based Enhanced Sampling and Surface Navigation Approaches for the Prediction of Crystal Structures and Polymorphs"
11:10 am - 11:30 am	Discussion
11:30 am - 12:10 pm	**Gregory Beran** (University of California, Riverside, USA) "Predicting Molecular Crystal Properties: From Finite-Temperature Thermochemistry to NMR Crystallography"
12:10 pm - 12:30 pm	Discussion
12:30 pm	Lunch

1:30 pm - 4:00 pm	Free Time
4:00 pm - 6:00 pm	Poster Session
6:00 pm	Dinner
7:30 pm - 9:30 pm	**Cocrystal Engineering**
	Discussion Leader: **Vilmali Lopez-Mejias** (University of Puerto Rico, Río Piedras Campus, Puerto Rico)
7:30 pm - 8:10 pm	**William Jones** (University of Cambridge, United Kingdom) "Cocrystals – Inside and Out"
8:10 pm - 8:30 pm	Discussion
8:30 pm - 9:10 pm	**Christer Aakeroy** (Kansas State University, USA) "From Supramolecular Synthons to Practical Applications of Crystal Engineering"
9:10 pm - 9:30 pm	Discussion
Wednesday	
7:30 am - 8:30 am	Breakfast
9:00 am - 12:30 pm	**Applied Crystallization**
	Discussion Leader: **Dejan-Kresimir Bucar** (University College London, United Kingdom)
9:00 am - 9:40 am	**Susan Reutzel-Edens** (Lilly Research Laboratories, Eli Lilly and Company, USA) "Navigating the Waters of Unconventional Crystalline Hydrates"
9:40 am - 10:00 am	Discussion
10:00 am - 10:30 am	Coffee Break
10:30 am - 11:10 am	**Reginald Tan** (National University of Singapore, Singapore) "Co-Crystal Technologies – From Molecular to Process and Product Design"
11:10 am - 11:30 am	Discussion
11:30 am - 12:10 pm	**Narayan Variankaval** (Merck Research Laboratories, USA) "Serendipity in Crystallization: Implications in Drug Development"
12:10 pm - 12:30 pm	Discussion

12:30 pm	Lunch
1:30 pm - 4:00 pm	Free Time
4:00 pm - 6:00 pm	Poster Session
6:00 pm	Dinner
7:00 pm - 7:30 pm	Business Meeting
	Nominations for the Next Vice Chair; Fill in Conference Evaluation Forms; Discuss Future Site and Scheduling Preferences; Election of the Next Vice Chair
7:30 pm - 9:30 pm	**Engineering Guest Interactions in Coordination Polymers**
	Discussion Leader: **Xianhui Bu** (California State University, Long Beach, USA)
7:30 pm - 8:10 pm	**Makoto Fujita** (University of Tokyo, Japan) "Crystalline Sponge Method for Crystal-Free Crystallography: Applications to Synthetic and Pharmaceutical Studies"
8:10 pm - 8:30 pm	Discussion
8:30 pm - 9:10 pm	**Myoung Soo Lah** (Ulsan National Institute of Science and Technology, South Korea) "Topology Analysis of Metal-Organic Frameworks Based on Metal-Organic Polyhedra"
9:10 pm - 9:30 pm	Discussion
Thursday	
7:30 am - 8:30 am	Breakfast
9:00 am - 12:30 pm	**Assembly**
	Discussion Leader: **Radu Custelcean** (Oak Ridge National Laboratory, USA)
9:00 am - 9:40 am	**Tomislav Friscic** (McGill University, Canada) "A Renaissance of Solid-State Chemistry in Chemical Synthesis"
9:40 am - 10:00 am	Discussion
10:00 am - 10:30 am	Coffee Break
10:30 am - 11:10 am	**Linda Shimizu** (University of South Carolina, USA) "Functional Crystalline Containers from Self-Assembled Bis-Urea Macrocycles"

11:10 am - 11:30 am	Discussion
11:30 am - 12:10 pm	**Elias Vlieg** (Radboud University Nijmegen, The Netherlands) "2D Templates for Protein Crystallization"
12:10 pm - 12:30 pm	Discussion
12:30 pm	Lunch
1:30 pm - 4:00 pm	Free Time
4:00 pm - 6:00 pm	Poster Session
6:00 pm	Dinner
7:30 pm - 9:30 pm	**Ionic Liquids as Crystallization Media** Discussion Leader: **Jing Li** (Rutgers University, USA)
7:30 pm - 8:10 pm	**Robin Rogers** (McGill University, Canada) "Are Ionic Liquids Unique Crystallization Media, or Just Another Pretty Liquid Solvent?"
8:10 pm - 8:30 pm	Discussion
8:30 pm - 9:10 pm	**Anja Mudring** (Ames Laboratory / Iowa State University, USA) "Ionic Liquids for Crystal Engineering"
9:10 pm - 9:30 pm	Discussion
Friday	
7:30 am - 8:30 am	Breakfast
9:00 am	Departure

Crystal Engineering (GRS)
Gordon Research Seminar

Functional Cocrystals

June 25-26, 2016

Stoweflake Conference Center
Stowe, VT

Chairs: Rajesh Goud Nagula & Jonathan C. Bennion

Contributors

Meeting Program

Saturday	
2:00 pm - 5:00 pm	Arrival and Check-in
3:30 pm - 3:45 pm	Introductory Comments by GRC Site Staff / Welcome by the GRS Conference Chair
3:45 pm - 4:30 pm	**Keynote Session: Functional Cocrystals**
	Discussion Leader: **Laura Pfund** (Merck and Co., USA)
3:45 pm - 4:15 pm	**William Jones** (University of Cambridge, United Kingdom) "Cocrystals and Other Multicomponent Systems – Retrospect and Prospect"
4:15 pm - 4:30 pm	Discussion
4:30 pm - 6:00 pm	Poster Session
6:00 pm	Dinner
7:30 pm - 9:30 pm	**Design, Synthesis and Application of Cocrystals**
	Discussion Leader: **Andrew Duncan** (University of Iowa, USA)
7:30 pm - 7:50 pm	**Janaka Gamekkanda Gamaethige** (Kansas State University, USA) "Stabilization of Energetic Materials Through Cocrystallization"
7:50 pm - 8:00 pm	Discussion
8:00 pm - 8:20 pm	**Michael Sinnwell** (University of Iowa, USA) "Halogen-Bond Templated [2+2] Photodimerizations in the Solid State"
8:20 pm - 8:30 pm	Discussion
8:30 pm - 8:50 pm	**Matthew Cooper** (Georgia Institute of Technology, USA)

	"Strategies for Engineering Acentrism for Organic Funtional Materials"
8:50 pm - 9:00 pm	Discussion
9:00 pm - 9:20 pm	**Subhankar Saha** (Indian Institute of Science, India) "Using Structural Modularity in Cocrystals to Engineer Properties: Elasticity"
9:20 pm - 9:30 pm	Discussion
Sunday	
7:30 am - 8:30 am	Breakfast
9:00 am - 11:00 am	**Hydrogen Bonds and Halogen Bonds in Crystal Engineering**
	Discussion Leader: **Marina Solomos** (Georgetown University, USA)
9:00 am - 9:20 am	**Leslie Vogt** (New York University, USA) "Calculating Relative Stabilities for Polymorphs and Cocrystals of Energetic Materials"
9:20 am - 9:30 am	Discussion
9:30 am - 9:50 am	**Bhupinder Sandhu** (Kansas State University, USA) "Designing Ternary Co-Crystals Using Hydrogen and Halogen Bonding"
9:50 am - 10:00 am	Discussion
10:00 am - 10:20 am	**Bozumeh Som** (University of South Carolina, USA) "Structural Investigation of Halogen Bonded Co-Crystals of Pyridyl Bis-Urea Macrocycle with Diiodotetrafluorobenzenes"
10:20 am - 10:30 am	Discussion
10:30 am - 10:50 am	**Marc Little** (University of Liverpool, United Kingdom) "Trapping Virtual Pores by Crystal Retro-Engineering"
10:50 am - 11:00 am	Discussion
11:00 am - 12:30 pm	Poster Session
	Coffee will be served in the poster area from 11:00 am - 11:30 am
12:30 pm	Lunch
1:30 pm - 2:30 pm	**Pharmaceutical Applications of Cocrystals**
	Discussion Leader: **Durga Prasad Karothu** (New York University Abu Dhabi, United Arab Emirates)
1:30 pm - 1:50 pm	**Kortney Kersten** (The University of Michigan, USA) "Utilizing Multicomponent Crystals to Improve the Bioavailability of Active Pharmaceutical Ingredients"
1:50 pm - 2:00 pm	Discussion
2:00 pm - 2:20 pm	**Igor Huskic** (McGill University, Canada)

	"A Simple Setup for *In Situ* Monitoring of Vapour-Induced Reactions of Pharmaceutical Organic Solids Using a Benchtop Powder X-Ray Diffractometer"
2:20 pm - 2:30 pm	Discussion
2:30 pm - 3:00 pm	Evaluation Period
	Fill in GRS Evaluation Forms
3:00 pm	Seminar Concludes

Crystal Engineering GRC – Registration List

Name	Organization	Participation	Status
Aakeroy , Christer	Kansas State University	Speaker	Registered
Ayoub, Ghada G	McGill University	Poster Presenter	Registered
Benedict, Jason B	University at Buffalo	Attendee	Registered
Bennion, Jonathan C	University of Michigan	Poster Presenter	Registered
Beran, Gregory	University of California, Riverside	Speaker	Registered
Bialonska, Agata	University of Wroclaw	Poster Presenter	Registered
Biradha, Kumar	Indian Institute of Technology, Kharagpur	Attendee	Registered
Birch, Shantonio W	University of Michigan	Attendee	Registered
Boissonnault, Jake A	University of Michigan	Poster Presenter	Registered
Brekalo, Ivana	Georgetown University	Poster Presenter	Registered
Bu, Xianhui	California State University, Long Beach	Discussion Leader	Registered
Bucar, Dejan-Kresimir	University College London	Discussion Leader	Registered
Bueken, Bart	KU Leuven	Speaker	Registered
Chen, Xitong	UCRiverside	Poster Presenter	Registered
Cooper, Matthew W	Georgia Institute of Technology	Poster Presenter	Registered
Corpinot, Merina	University College London	Poster Presenter	Registered
Custelcean, Radu	Oak Ridge National Laboratory	Discussion Leader	Registered
Desta, Israel T	New York University Abu Dhabi	Poster Presenter	Registered
Dinca, Mircea	Massachusetts Institute of Technology	Speaker	Registered
Duncan, Andrew J	University of Iowa	Poster Presenter	Registered
Eddaoudi, Mohamed	King Abdullah University of Science & Technology	Attendee	Registered
El-Ayle, Gracia	Georgetown University	Poster Presenter	Registered
Elkin, Tatyana	University of Utah	Poster Presenter	Registered
Estroff, Lara A	Cornell University	Speaker	Registered
Evans, John S	New York University	Poster Presenter	Registered
Fatila, Elisabeth M	Indiana University Bloomington Campus	Poster Presenter	Registered
Feldblyum, Jeremy I	Stanford University	Discussion Leader	Registered
Feng, Pingyun	University of California, Riverside	Speaker	Registered
Friedman, Yoel	Tel Aviv University	Poster Presenter	Registered
Friscic, Tomislav	McGill University	Speaker	Registered
Fujita, Makoto	University of Tokyo	Speaker	Registered
Gamekkanda Gamaethige, J	Kansas State University	Poster Presenter	Registered
Ganduri, Ramesh	Indian Institute of Science	Poster Presenter	Registered
Genna, Douglas T	Youngstown State University	Speaker	Registered
Giri, Lopamudra	IIT Bhubaneswar	Poster Presenter	Registered
Goud Nagula, Rajesh	University of Michigan	Poster Presenter	Registered
Groeneman, Ryan H	Webster University	Poster Presenter	Registered
Gunawardana, Chamara A	Kansas State University	Poster Presenter	Registered
Hanna, Tamara E	American Chemical Society	Attendee	Registered

Hansell, Claire	Nature	Attendee	Registered
Haynes, Delia A	Stellenbosch University	Discussion Leader	Registered
Holman, Kevin Travis	Georgetown University	Poster Presenter	Registered
Huskic, Igor	McGill University	Poster Presenter	Registered
Iuzzolino, Luca	University College London	Poster Presenter	Registered
Jiang, Qi	Boehringer-Ingelheim Pharmaceutics Inc.	Attendee	Registered
Jones, William	University of Cambridge	Speaker	Registered
Kahr , Bart	New York University	Speaker	Registered
Karothu, Durga Prasad	New York University Abu Dhabi	Poster Presenter	Registered
Kersten, Kortney M	The University of Michigan	Poster Presenter	Registered
Kumar, Vineet V	Indian institute of technology Delhi	Poster Presenter	Registered
Lah, Myoung Soo	Ulsan National Institute of Science and Technology	Speaker	Registered
Li, Jing	Rutgers University	Discussion Leader	Registered
Little, Marc A	University of Liverpool	Poster Presenter	Registered
Liu, Fan	Georgetown University	Poster Presenter	Registered
Lopez-Mejias, Vilmali	University of Puerto Rico, Río Piedras Campus	Discussion Leader	Registered
Luo, Tian-Yi	University of Pittsburgh, Chemistry Department	Poster Presenter	Registered
Ma, Jialiu	University of Michigan	Poster Presenter	Registered
Ma, Derek	Celgene	Poster Presenter	Registered
Macgillivray, Len R.	University of Iowa	Vice Chair	Registered
Matzger, Adam	University of Michigan	Chair	Registered
McDonald, Kyle A	University of Michigan	Poster Presenter	Registered
Mirica, Katherine A	Dartmouth College	Poster Presenter	Registered
Mudring, Anja V	Ames Laboratory / Iowa State University	Speaker	Registered
Muldoon, Patrick F	University of Pittsburgh	Poster Presenter	Registered
Naumov, Pance	New York University Abu Dhabi	Attendee	Registered
Nazarenko, Alexander Y	SUNY College at Buffalo	Poster Presenter	Registered
Ojala, William H	University of St. Thomas	Poster Presenter	Registered
Panda, Manas	New York University Abu Dhabi	Poster Presenter	Registered
Park, Hyunsoo	Bristol-Myers Squibb	Attendee	Registered
Parker, James K	U.S. Army Research Office	Attendee	Registered
Perera, Manomi K	Kansas State University	Poster Presenter	Registered
Pfund, Laura Y	Merck and Co.	Poster Presenter	Registered
Pons Siepermann, Carlos A	MIT, Allan Myerson Reasearch Group	Poster Presenter	Registered
Preuss, Kathryn	University of Guelph	Speaker	Registered
Price, Sally L	University College London	Speaker	Registered
Ranganathan, Sathishkumar	Indian Institute of Science	Poster Presenter	Registered
Rathnayake, Asanka S	University of Missouri-Columbia	Poster Presenter	Registered
Resnati, Giuseppe	Politecnico di Milano	Poster Presenter	Registered
Reutzel-Edens, Susan M	Lilly Research Laboratories, Eli Lilly and Company	Speaker	Registered
Rogers, Robin	McGill University	Speaker	Registered

Rogers, Mihaela	American Chemical Society	Attendee	Registered
Rosi, Nathaniel L	University of Pittsburgh	Discussion Leader	Registered
Rowe, Emmanuel	Fisk University	Poster Presenter	Registered
Roy, Rajdip	Indian Association for the Cultivation of Science	Poster Presenter	Registered
Saha, Subhankar	Indian Institute of Science	Poster Presenter	Registered
Saha, Binoy K	Pondicherry University	Poster Presenter	Registered
Sandhu, Bhupinder K	Kansas State University	Poster Presenter	Registered
Schaaf, Cyrus J	Western Washington University	Poster Presenter	Registered
Seth, Saona	University of Michigan	Poster Presenter	Registered
Shimizu, Linda S	University of South Carolina	Speaker	Registered
Shore, Andrew	CrystEngComm, Royal Society of Chemistry	Attendee	Registered
Sinha, Abhijeet S	Kansas State University	Poster Presenter	Registered
Sinnwell, Michael A	University of Iowa	Poster Presenter	Registered
Smith, Brian J	Cornell University	Poster Presenter	Registered
Solomos, Marina A	Georgetown University	Poster Presenter	Registered
Som, Bozumeh	University of South Carolina	Poster Presenter	Registered
Stojakovic, Jelena	MIT	Poster Presenter	Registered
Sumida, Kenji	University of Adelaide	Poster Presenter	Registered
Swift, Jennifer A	Georgetown University	Attendee	Registered
Tan, Davin	McGill University	Poster Presenter	Registered
Tan, Reginald	National University of Singapore	Speaker	Registered
Topic, Filip	University of Jyvaskyla	Poster Presenter	Registered
Tripuramallu, Bharat kumar BK	Tel Aviv University	Poster Presenter	Registered
Tuckerman, Mark	New York University	Speaker	Registered
Variankaval, Narayan	Merck Research Laboratories	Speaker	Registered
Vlieg, Elias	Radboud University Nijmegen	Speaker	Registered
Vogt, Leslie	New York University	Discussion Leader	Registered
Wang, Suelein	National Tsing Hua University	Poster Presenter	Registered
Wang, Gangli	Georgia State University	Poster Presenter	Registered
Wilson, Nathan	Purdue University	Poster Presenter	Registered
Wong-Foy, Antek	University of Michigan	Poster Presenter	Registered
Wriedt, Mario	Clarkson University	Speaker	Registered
Xu, Zhengtao	City University of Hong Kong	Poster Presenter	Registered
Yamagishi, Hiroshi	University of Tokyo	Poster Presenter	Registered
Zeng, Qingying	MIT Myerson Group	Attendee	Registered
Zhang, Jian	University of Nebraska-Lincoln	Poster Presenter	Registered
Zhang, Jie-Peng	Sun Yat-Sen University	Poster Presenter	Registered

Crystal Engineering GRS – Registration List

Name	Organization	Participation	Status
Ayoub, Ghada G	McGill University	Poster Presenter	Registered
Bennion, Jonathan C	University of Michigan	Chair	Registered
Brekalo, Ivana	Georgetown University	Poster Presenter	Registered
Cooper, Matthew W	Georgia Institute of Technology	Speaker	Registered
Corpinot, Merina	University College London	Poster Presenter	Registered
Duncan, Andrew J	University of Iowa	Discussion Leader	Registered
El-Ayle, Gracia	Georgetown University	Poster Presenter	Registered
Fatila, Elisabeth M	Indiana University Bloomington Campus	Poster Presenter	Registered
Gamekkanda Gamaethige, J	Kansas State University	Speaker	Registered
Ganduri, Ramesh	Indian Institute of Science	Poster Presenter	Registered
Giri, Lopamudra	IIT Bhubaneswar	Poster Presenter	Registered
Goud Nagula, Rajesh	University of Michigan	Chair	Registered
Gunawardana, Chamara A	Kansas State University	Poster Presenter	Registered
Huskic, Igor	McGill University	Speaker	Registered
Jones, William	University of Cambridge	Speaker	Registered
Karothu, Durga Prasad	New York University Abu Dhabi	Discussion Leader	Registered
Kersten, Kortney M	The University of Michigan	Speaker	Registered
Little, Marc A	University of Liverpool	Speaker	Registered
Liu, Fan	Georgetown University	Poster Presenter	Registered
Nazarenko, Alexander Y	SUNY College at Buffalo	Poster Presenter	Registered
Perera, Manomi K	Kansas State University	Poster Presenter	Registered
Pfund, Laura Y	Merck and Co.	Discussion Leader	Registered
Ranganathan, Sathishkumar	Indian Institute of Science	Poster Presenter	Registered
Rowe, Emmanuel	Fisk University	Poster Presenter	Registered
Saha, Subhankar	Indian Institute of Science	Speaker	Registered
Sandhu, Bhupinder K	Kansas State University	Speaker	Registered
Sinnwell, Michael A	University of Iowa	Speaker	Registered
Solomos, Marina A	Georgetown University	Discussion Leader	Registered
Som, Bozumeh	University of South Carolina	Speaker	Registered
Tan, Davin	McGill University	Poster Presenter	Registered
Topic, Filip	University of Jyvaskyla	Poster Presenter	Registered
Vogt, Leslie	New York University	Speaker	Registered
Yamagishi, Hiroshi	University of Tokyo	Poster Presenter	Registered