REPORT DOCUMENTATION PAGE

Form Approved OMB NO. 0704-0188

1. REPORT DATE (DD-MM-YYYY)	2. REPORT TYPE	3. DATES COVERED (From - To)
23-02-2016	Final Report	15-Dec-2015 - 14-Jun-2016

4. TITLE AND SUBTITLE
Final Report: 2016 Electrochemistry Gordon Research Conference & Gordon Research Seminar

5a. CONTRACT NUMBER
W911NF-16-1-0026

5b. GRANT NUMBER

5c. PROGRAM ELEMENT NUMBER
611102

6. AUTHORS
Philip Bartlett, Robert Johnson

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

10. SPONSOR/MONITOR'S ACRONYM(S)
ARO

11. SPONSOR/MONITOR'S REPORT NUMBER(S)
68145-CH-CF.1

12. DISTRIBUTION AVAILIBILITY STATEMENT
Approved for Public Release; Distribution Unlimited

13. SUPPLEMENTARY NOTES
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
Operational Summary
The Gordon Research Conference (GRC) and Gordon Research Seminar (GRS) on Electrochemistry were held at the Ventura Beach Marriott in Ventura, California from January 9-15, 2016. The meeting covered a variety of scientific topics and the content presented was highly rated by participants.

Conference Participants

15. SUBJECT TERMS
Final Report

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	15. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			Shelley Minteer
UU	UU	UU	UU		19b. TELEPHONE NUMBER 801-587-8325

Report Title

Final Report: 2016 Electrochemistry Gordon Research Conference & Gordon Research Seminar

ABSTRACT

Operational Summary
The Gordon Research Conference (GRC) and Gordon Research Seminar (GRS) on Electrochemistry were held at the Ventura Beach Marriott in Ventura, California from January 9-15, 2016. The meeting covered a variety of scientific topics and the content presented was highly rated by participants.

Conference Participants
The Conference was well-attended with 135 participants, a 7% increase in attendance over the 2014 meeting. Scientists from academia represented 88% of the participants while attendees from government accounted for 7% and those from industry totaled 5%. The meeting also attracted a strong mix of young investigators and senior scientists. Students and post-docs accounted for 50% of all attendees.

Of the 135 attendees, 81 voluntarily responded to a general inquiry regarding ethnicity on the GRC registration form. Of the 81 respondents 6% were minorities, 6% Hispanic and 0% African American. Approximately 28% of the participants at the 2016 meeting were women.

Seminar Participants
The Seminar was well-attended with 48 participants. Scientists from academia represented 98% of the participants while attendees from government accounted for 2%. Students and post docs combined accounted for 100% of all attendees.

Of the 48 attendees, 28 voluntarily responded to a general inquiry regarding ethnicity which appears on the GRC registration form. Of the 28 respondents 7% were minorities, 7% Hispanic and 0% African American. Approximately 25% of the participants at the 2016 seminar were women.

Conference Program
The 2016 Gordon Research Conference (GRC) on Electrochemistry focused on the latest advances in the applications, theory, and techniques of electrochemistry. The Conference covered a broad range of topics including energy conversion and storage, electrocatalysis, electrodeposition, bioelectrochemistry, nanoscale phenomena, in situ techniques, and modelling. The Conference brought together investigators at the forefront of the subject from around the world, and provided opportunities for early career scientists and graduate students to present their work at a preceding Gordon Research Seminar (GRS) and during the GRC poster sessions. The GRC included an Open Session of brief, 10-minute, talks devoted to highlighting the activities of young investigators and "late-breaking topics". The relaxed and collegial atmosphere of both the GRS and GRC, with programmed discussion sessions as well as time for ad hoc informal gatherings in the afternoons and evenings, provided an opportunity for vibrant scientific exchange and discussion of the different areas represented.

The 2016 Gordon Research Seminar (GRS) on Electrochemistry focused on the latest advances in electrochemistry in the broadest sense. Topics included energy conversion and storage, bioelectrochemistry and sensors, as well as fundamental studies. The electrochemistry GRS gave young-researchers (graduate students and post-docs) at the forefront of electrochemistry research the opportunity to present their latest results either as an oral presentation or during the poster session. The availability of free-time provided ample opportunities for young-researchers to network and exchange ideas with others at a similar career stage.

Conference Budget
Funding provided by the Army Research Office supported partial or full registration for 12 graduate students, post-docs, professors, assistant professors and associate professors at the GRC. The funds supported 16 students and post-docs at the GRS.

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 the networking opportunities, the variety of topics and the diversity of attendees. The evaluations also included comments about the ability to network at the poster sessions and the cutting edge science presented.

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. Philip Bartlett, GRC Chair
University of Southampton

Dr. Robert Johnson, GRS Chair
University of Utah

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

Enter List of papers submitted or published that acknowledge ARO support from the start of the project to the date of this printing. List the papers, including journal references, in the following categories:

(a) Papers published in peer-reviewed journals (N/A for none)

Received Paper

TOTAL:

Number of Papers published in peer-reviewed journals:

(b) Papers published in non-peer-reviewed journals (N/A for none)

Received Paper

TOTAL:

Number of Papers published in non peer-reviewed journals:

(c) Presentations

Number of Presentations: 0.00

Non Peer-Reviewed Conference Proceeding publications (other than abstracts):

Received Paper

TOTAL:

Number of Non Peer-Reviewed Conference Proceeding publications (other than abstracts):

Peer-Reviewed Conference Proceeding publications (other than abstracts):

Received Paper

TOTAL:

Number of Peer-Reviewed Conference Proceeding publications (other than abstracts):

(d) Manuscripts

Received Paper

TOTAL:

Number of Manuscripts:

Books

Received Book

TOTAL:

Received	Book Chapter

TOTAL:

Patents Submitted

Patents Awarded

Awards

Graduate Students

NAME	PERCENT_SUPPORTED

FTE Equivalent:
Total Number:

Names of Post Doctorates

NAME	PERCENT_SUPPORTED

FTE Equivalent:
Total Number:

Names of Faculty Supported

NAME	PERCENT_SUPPORTED

FTE Equivalent:
Total Number:

Names of Under Graduate students supported

NAME	PERCENT_SUPPORTED

FTE Equivalent:
Total Number:

Student Metrics

This section only applies to graduating undergraduates supported by this agreement in this reporting period

The number of undergraduates funded by this agreement who graduated during this period: 0.00

The number of undergraduates funded by this agreement who graduated during this period with a degree in science, mathematics, engineering, or technology fields:..... 0.00

The number of undergraduates funded by your agreement who graduated during this period and will continue to pursue a graduate or Ph.D. degree in science, mathematics, engineering, or technology fields:..... 0.00

Number of graduating undergraduates who achieved a 3.5 GPA to 4.0 (4.0 max scale):..... 0.00

Number of graduating undergraduates funded by a DoD funded Center of Excellence grant for Education, Research and Engineering:..... 0.00

The number of undergraduates funded by your agreement who graduated during this period and intend to work for the Department of Defense 0.00

The number of undergraduates funded by your agreement who graduated during this period and will receive scholarships or fellowships for further studies in science, mathematics, engineering or technology fields: 0.00

Names of Personnel receiving masters degrees

NAME

Total Number:

Names of personnel receiving PHDs

NAME

Total Number:

Names of other research staff

NAME	PERCENT_SUPPORTED

FTE Equivalent:

Total Number:

Sub Contractors (DD882)

Inventions (DD882)

Scientific Progress

Technology Transfer

GORDON RESEARCH CONFERENCES
FINAL PROGRESS REPORT
Army Research Office
Grant Number W911NF-16-1-0026

Electrochemistry GRC/GRS
January 9-16, 2016

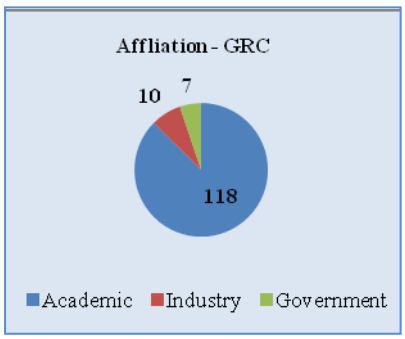
Operational Summary

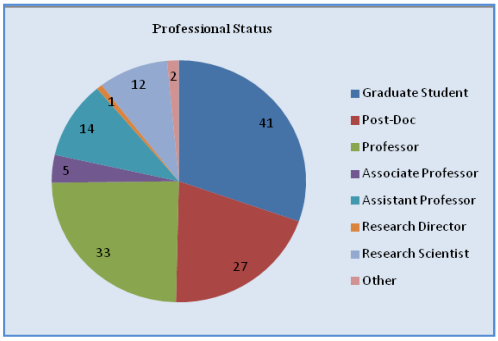
The Gordon Research Conference (GRC) and Gordon Research Seminar (GRS) on Electrochemistry were held at the Ventura Beach Marriott in Ventura, California from January 9-15, 2016. The meeting covered a variety of scientific topics and the content presented was highly rated by participants.

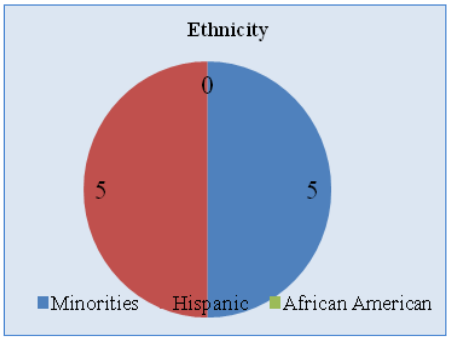
Conference Participants

The Conference was well-attended with 135 participants, a 7% increase in attendance over the 2014 meeting. Scientists from academia represented 88% of the participants while attendees from government accounted for 7% and those from industry totaled 5%. The meeting also attracted a strong mix of young investigators and senior scientists. Students and post-docs accounted for 50% of all attendees.

Of the 135 attendees, 81 voluntarily responded to a general inquiry regarding ethnicity on the GRC registration form. Of the 81 respondents 6% were minorities, 6% Hispanic and 0% African American. Approximately 28% of the participants at the 2016 meeting were women.



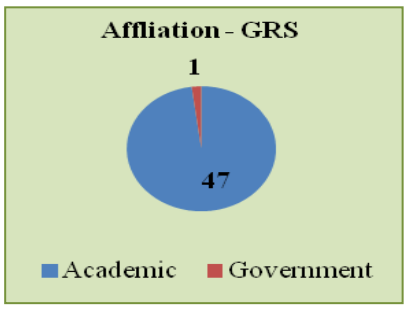


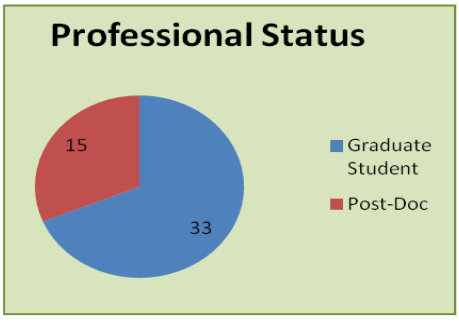


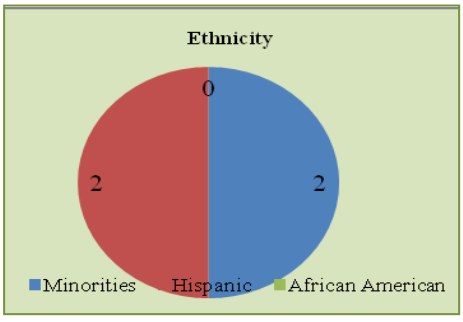
Seminar Participants

The Seminar was well-attended with 48 participants. Scientists from academia represented 98% of the participants while attendees from government accounted for 2%. Students and post docs combined accounted for 100% of all attendees.

Of the 48 attendees, 28 voluntarily responded to a general inquiry regarding ethnicity which appears on the GRC registration form. Of the 28 respondents 7% were minorities, 7% Hispanic and 0% African American. Approximately 25% of the participants at the 2016 seminar were women.







Conference Program

The 2016 Gordon Research Conference (GRC) on Electrochemistry focused on the latest advances in the applications, theory, and techniques of electrochemistry. The Conference covered a broad range of topics including energy conversion and storage, electrocatalysis, electrodeposition, bioelectrochemistry, nanoscale phenomena, *in situ* techniques, and modelling. The Conference brought together investigators at the forefront of the subject from around the world, and provided opportunities for early career scientists and graduate students to present their work at a preceding Gordon Research Seminar (GRS) and during the GRC poster sessions. The GRC included an Open Session of brief, 10-minute, talks devoted to highlighting the activities of young investigators and "late-breaking topics". The relaxed and collegial atmosphere of both the GRS and GRC, with programmed discussion sessions as well as time for *ad hoc* informal gatherings in the afternoons and evenings, provided an opportunity for vibrant scientific exchange and discussion of the different areas represented.

The 2016 Gordon Research Seminar (GRS) on Electrochemistry focused on the latest advances in electrochemistry in the broadest sense. Topics included energy conversion and storage, bioelectrochemistry and sensors, as well as fundamental studies. The electrochemistry GRS gave young-researchers (graduate students and post-docs) at the forefront of electrochemistry research the opportunity to present their latest results either as an oral presentation or during the poster session. The availability of free-time provided ample opportunities for young-researchers to network and exchange ideas with others at a similar career stage.

Conference Budget

Funding provided by the Army Research Office supported partial or full registration for 12 graduate students, post-docs, professors, assistant professors and associate professors at the GRC. The funds supported 16 students and post-docs at the GRS.

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 the networking opportunities, the variety of topics and the diversity of attendees. The evaluations also included comments about the ability to network at the poster sessions and the cutting edge science presented.

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. Philip Bartlett, GRC Chair
University of Southampton

Dr. Robert Johnson, GRS Chair
University of Utah

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

Electrochemistry
Gordon Research Conference

New Directions in Electrochemistry, New Approaches to Electrochemical Problems
January 10-15, 2016
Four Points Sheraton / Holiday Inn Express
Ventura, CA
Chair: **Philip N. Bartlett**
Vice Chair: **Shelley Minteer**

Contributors

Gordon Research Conferences
Carl Storm Underrepresented Minority Fellowship
Carl Storm International Diversity Fellowship
Predominantly Undergraduate Institution Fund (PUI)
PINE RESEARCH INSTRUMENTATION
ELSEVIER
PalmSens Compact Electrochemical Interfaces
BioLogic Science Instruments
LANGMUIR
CellPress

Final Meeting Program

Sunday

4:00 pm - 8:00 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	**Spectroelectrochemistry**
	Discussion Leader: **Carol Korzeniewski** (Texas Tech University, USA)
7:40 pm - 8:20 pm	**Jacek Lipkowski** (University of Guelph, Canada) "Electrochemical, STM and PM IRRAS Studies of Antibiotic Peptides Reconstituted into a Biomimetic Membrane Supported on Gold Electrodes"
8:20 pm - 8:35 pm	Discussion
8:35 pm - 9:15 pm	**Andrea Russell** (University of Southampton, United Kingdom) "New Adventures in Spectroscopic Studies of Electrode Surfaces"

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	**Molecular Catalysis and Energy**
	Discussion Leader: **Mark Spitler** (Office of Basic Energy Sciences, U.S. Department of Energy, USA)
9:00 am - 9:40 am	**Jillian Dempsey** (University of North Carolina at Chapel Hill, USA) "Investigations of Proton-Coupled Electron Transfer Pathways for the Electrochemical Production of Hydrogen"
9:40 am - 10:00 am	Discussion
10:00 am - 10:30 am	Coffee Break
10:30 am - 11:10 am	**Sharon Hammes-Schiffer** (University of Illinois at Urbana-Champaign, USA) "Theoretical Design of Hydrogen-Evolving Molecular Electrocatalysts"
11:10 am - 11:30 am	Discussion
11:30 am - 12:10 pm	**John Keith** (University of Pittsburgh, USA) "Computational Determination of Molecular Co-Catalysts for Energetically Efficient Electrochemical Processes"
12:10 pm - 12:30 pm	Discussion
12:30 pm	Lunch
1:30 pm - 4:00 pm	Free Time
3:00 pm - 4:00 pm	Power Hour
	The GRC Power Hour is an optional informal gathering open to all meeting participants. It is designed to help address the challenges women face in science and support the professional growth of women in our communities by providing an open forum for discussion and mentoring.
	Organizers: **Carol Korzeniewski** (Texas Tech University, USA) and **Andrea Russell** (University of Southampton, United Kingdom)
4:00 pm - 6:00 pm	Poster Session
6:00 pm	Dinner
7:30 pm - 9:30 pm	**Electrodeposition**
	Discussion Leader: **John Stickney** (University of Georgia, USA)
7:30 pm - 8:10 pm	**Jan Fransaer** (KU Leuven, Belgium) "Electrodeposition from Liquid Metal Salts"
8:10 pm - 8:30 pm	Discussion
8:30 pm - 9:10 pm	**Stephen Maldonado** (University of Michigan, USA)

	"Liquid Metal-Mediated Crystal Growth in Semiconductor Electrodeposition of Large Area Thin Films and Individual Nanowires"
9:10 pm - 9:30 pm	Discussion

Tuesday

7:30 am - 8:30 am	Breakfast
9:00 am - 12:30 pm	**Bioelectrochemistry**
	Discussion Leader: **Yann Astier** (Roche Molecular Systems, USA)
9:00 am - 9:40 am	**Christophe Leger** (CNRS, France) "Electrochemistry of Enzymes"
9:40 am - 10:00 am	Discussion
10:00 am - 10:30 am	Coffee Break
10:30 am - 11:10 am	**Janine Mauzeroll** (McGill University, Canada) "Redox Triggered Drug Delivery Liposomes Applied to Cancer Studies"
11:10 am - 11:30 am	Discussion
11:30 am - 12:10 pm	**David Waldeck** (University of Pittsburgh, USA) "Electron Transfer and Molecular Conductance Studies of Peptide Nucleic Acids"
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	**Organized and Cooperative Behavior**
	Discussion Leader: **Richard Crooks** (The University of Texas at Austin, USA)
7:30 pm - 8:10 pm	**Viola Birss** (University of Calgary, Canada) "Electrochemical Formation of Ordered Nanoscale Templates and Scaffolds for Energy Applications"
8:10 pm - 8:30 pm	Discussion
8:30 pm - 9:10 pm	**Katharina Krischer** (Technische Universitat Munchen, Germany) "Cooperative Behavior During Electrocatalytic Reactions on Micro-Electrodes"
9:10 pm - 9:30 pm	Discussion

Wednesday

7:30 am - 8:30 am	Breakfast
9:00 am - 12:30 pm	**Nanoscale Electrochemistry**
	Discussion Leader: **Nongjian Tao** (Arizona State University, USA)
9:00 am - 9:40 am	**Joaquin Rodriguez-Lopez** (University of Illinois at Urbana-Champaign, USA)

	"Electrochemical Interrogation of Redox Active Polymer Particles for Energy Storage"
9:40 am - 10:00 am	Discussion
10:00 am - 10:30 am	Coffee Break
10:30 am - 11:10 am	**Richard Nichols** (University of Liverpool, United Kingdom) "Single Molecule Electronics and Electrochemical Switching"
11:10 am - 11:30 am	Discussion
11:30 am - 12:10 pm	**Andrew Hillier** (Iowa State University, USA) "Three Dimensional Atom Probe Tomography of Electrochemical Interfaces"
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	***In Situ* Studies**
	Discussion Leader: **Daniel Scherson** (Case Western Reserve University, USA)
7:30 pm - 8:10 pm	**Hector Abruna** (Cornell University, USA) "*Operando* Methods for the Study of Energy Materials"
8:10 pm - 8:30 pm	Discussion
8:30 pm - 9:10 pm	**Keith Stevenson** (Skolkovo Institute of Science and Technology, Russia) "Investigations of Electrochemical Interfaces and Interphases with Spatially-Resolved Analytical Tools"
9:10 pm - 9:30 pm	Discussion

Thursday

7:30 am - 8:30 am	Breakfast
9:00 am - 12:30 pm	**Electrocatalysis**
	Discussion Leader: **Andrea Russell** (University of Southampton, United Kingdom)
9:00 am - 9:40 am	**Yan Xia Chen** (University of Science and Technology of China, China) "On the Origin of High Overpotential for ORR at Pt Based Electrocatalysts"
9:40 am - 10:00 am	Discussion
10:00 am - 10:30 am	Coffee Break
10:30 am - 11:10 am	**Timo Jacob** (Ulm University, Germany) "Measuring an Electrocatalyst's Vital Signs: The Need for *In Operando* Studies"

11:10 am - 11:30 am	Discussion
11:30 am - 12:10 pm	**Michael Janik** (Pennsylvania State University, USA) "Density Functional Theory Studies of Electrocatalysis: Capabilities and Limitations"
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	**Late-Breaking Topics**
	Discussion Leader: **Shelley Minteer** (University of Utah, USA)
7:30 pm - 7:40 pm	**Burton Simpson** (University of Illinois at Urbana-Champaign, USA) "Enhanced Interrogation: Redox"
7:40 pm - 7:45 pm	Discussion
7:45 pm - 7:55 pm	**Matt Bird** (Brookhaven National Laboratory, USA) "Measuring Redox Potentials Without an Electrolyte"
7:55 pm - 8:00 pm	Discussion
8:00 pm - 8:10 pm	**Smaranda Marinescu** (University of Southern California, USA) "Cobalt Dithiolene Metal-Organic Surfaces for Solar Energy Conversion"
8:10 pm - 8:15 pm	Discussion
8:15 pm - 8:25 pm	**Sadagopan Krishnan** (Oklahoma State University, USA) "Microsomal Bioelectrode: Enabling Technology for *In Vitro* Pharmacology"
8:25 pm - 8:30 pm	Discussion
8:30 pm - 8:40 pm	**Zhuangqun Huang** (AFM Business Unit, Bruker Nano Surfaces, USA) "Nano Electrical and Nano Electrochemical Microscopy"
8:40 pm - 8:45 pm	Discussion
8:45 pm - 8:55 pm	**Mario Alpuche-Aviles** (University of Nevada, Reno, USA) "Semiconducting Colloidal TiO_2 Nanoparticles During Photoxidation: Electrochemistry of Single Particles and Other Entities"
8:55 pm - 9:00 pm	Discussion
9:00 pm - 9:10 pm	**Yogesh Surendranath** (Massachusetts Institute of Technology, USA) "Graphite-Conjugated Electrolytes"
9:10 pm - 9:15 pm	Discussion
9:15 pm - 9:25 pm	**Frederique Deiss** (Indiana University - Purdue University Indianapolis, USA) "Should You Eat That? Electrochemistry Will Help You Decide"
9:25 pm - 9:30 pm	Discussion

Friday

7:30 am - 8:30 am	Breakfast
9:00 am	Departure

Electrochemistry (GRS)

Gordon Research Seminar

New Directions in Electrochemistry, New Approaches to Electrochemical Problems

January 9-10, 2016

Four Points Sheraton / Holiday Inn Express

Ventura, CA

Chairs: **Robert P. Johnson** & **David Hickey**

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	**Electrochemistry at the Nanoscale**
	Discussion Leader: **Martin Edwards** (University of Utah, USA)
3:45 pm - 4:15 pm	**Alma Castaneda** (University of Texas at Austin, USA) "Recovery of Electrocatalytic Activity for DNA-Modified Nanoparticle Collisions via Restriction Enzyme Digestion"
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	**Electrodeposition and Electrocatalysis**
	Discussion Leader: **Jack Branch** (University of Southampton, United Kingdom)
7:30 pm - 7:50 pm	**Burton Simpson** (University of Illinois at Urbana-Champaign, USA) "Imaging Reactive Heterogeneity of Photogenerated Surface Species Due to Substrate-Adsorbate Interaction Using Surface Interrogation Scanning Electrochemical Microscopy"
7:50 pm - 8:00 pm	Discussion
8:00 pm - 8:20 pm	**Erin Gawron** (Georgia Institute of Technology, USA) "Electrochemically Prepared Atomic Metals"

8:20 pm - 8:30 pm	Discussion
8:30 pm - 8:50 pm	**Srinivasan Ramakrishnan** (Stanford University, USA) "Navigating PCET Pathways in the Electrochemical Generation of Transition Metal Hydride Complexes"
8:50 pm - 9:00 pm	Discussion
9:00 pm - 9:20 pm	**Azhar Carim** (California Institute of Technology, USA) "Morphological Encoding of Illumination Parameters via Light-Mediated Electrodeposition of Semiconducting Films"
9:20 pm - 9:30 pm	Discussion

Sunday

7:30 am - 8:30 am	Breakfast
9:00 am - 11:00 am	**Batteries and Molecular Electronics**
	Discussion Leader: **Sonja Francis** (California Institute of Technology, USA)
9:00 am - 9:20 am	**Michael Palmer** (University of Southampton, United Kingdom) "*In-Situ* XRD of $LiCoPO_4$ as an Insertion Electrode"
9:20 am - 9:30 am	Discussion
9:30 am - 9:50 am	**Qianjin Chen** (University of Utah, USA) "Ion Transport Within High Electric Fields in Nanogap Electrochemical Cells"
9:50 am - 10:00 am	Discussion
10:00 am - 10:20 am	**Hadi Tavassol** (Northwestern University / California Institute of Technology, USA) "Interfacial Processes in Electrochemical Energy Storage and Conversion Devices"
10:20 am - 10:30 am	Discussion
10:30 am - 10:50 am	**Md Sazzad Hossain** (McGill University, Canada) "Connecting Quantum Transport to Electrochemistry: A Theoretical Study of Redox-Active Monolayers"
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	**Bioelectrochemical Sensors**
	Discussion Leader: **Ross Milton** (University of Utah, USA)
1:30 pm - 1:50 pm	**Florika Macazo** (University of Maryland, Baltimore County, USA) "Mapping Specific Molecular Flux Using an α-Hemolysin-Based Scanning Ion Conductance Microscopy (Bio-SICM) Approach"
1:50 pm - 2:00 pm	Discussion
2:00 pm - 2:20 pm	**Xiang Li** (University of Texas at Austin, USA) "Low-Voltage Paper Isotachophoresis Device for DNA Focusing"

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

REGISTRATION LIST

Electrochemistry - 2016

Name	Organization	Participation	Status
Abruna, Hector	Cornell University	Speaker	Registered
Alpuche-Aviles, Mario A	University of Nevada, Reno	Speaker	Registered
Anderson, Morgan J	University of Texas Austin	Poster Presenter	Registered
Ardo, Shane A	University of California Irvine	Poster Presenter	Registered
Astier, Yann	Roche Molecular Systems	Discussion Leader	Registered
Barannikova, Evgenia	University of Maryland Baltimore County	Poster Presenter	Registered
Bartlett, Philip N	University of Southampton	Chair	Registered
Barton, Zachary J	University of Illinois at Urbana-Champaign	Poster Presenter	Registered
Bird, Matt J	Brookhaven National Laboratory	Speaker	Registered
Birss, Viola I	University of Calgary	Speaker	Registered
Boika, Aliaksei	The University of Akron	Poster Presenter	Registered
Branch, Jack A	University of Southampton	Poster Presenter	Registered
Bui, Nhi	University of Georgia	Poster Presenter	Registered
Bushmaker, Adam W	The Aerospace Corporation	Poster Presenter	Registered
Buzzeo, Marisa C	Barnard College	Poster Presenter	Registered
Cabrera, Carlos R	University of Puerto Rico	Poster Presenter	Registered
Carim, Azhar I	California Institute of Technology	Poster Presenter	Registered
Castaneda, Alma D	University of Texas at Austin	Poster Presenter	Registered
Chen, Yan Xia	University of Science and Technology of China	Speaker	Registered
Chen, Qianjin	University of Utah	Poster Presenter	Registered
Chen, Tie	Hua Zhong University of Sciences and Technology	Attendee	Registered
Choi, Yong	Dankook University	Poster Presenter	Registered
Cliffel, David	Vanderbilt University	Poster Presenter	Registered
Co, Anne	The Ohio State University	Poster Presenter	Registered
Colombo, Rafael	University of Sao Paulo	Poster Presenter	Registered
Cook, David A	University of Southampton	Poster Presenter	Registered
Costentin, Cyrille	Université Paris Diderot	Poster Presenter	Registered
Creager, Stephen E	Clemson University	Attendee	Registered
Crooks, Richard M	The University of Texas at Austin	Discussion Leader	Registered
Deiss, Frederique	Indiana University - Purdue University Indianapolis	Speaker	Registered
Dempsey, Jillian L	University of North Carolina at Chapel Hill	Speaker	Registered
Edwards, Martin A	University of Utah	Poster Presenter	Registered
Fahrenkrug, Eli J	University of Michigan	Poster Presenter	Registered
Feldberg, Stephen W	Brookhaven National Laboratory	Attendee	Registered
Ferguson, Stephen	University of Michigan - Ann Arbor	Poster Presenter	Registered
Finke, Cody E	California Institute of Technology	Poster Presenter	Registered
Forman, Arnold J	Bio-Logic	Attendee	Registered
Francis, Sonja A	California Institute of Technology	Poster Presenter	Registered
Fransaer, Jan L	KU Leuven	Speaker	Registered
Gaieck, William	Ardo Lab, UC Irvine	Poster Presenter	Registered
Gawron, Erin L	Georgia Institute of Technology	Poster Presenter	Registered

German, Sean	University of Utah	Poster Presenter	Registered
Gillette, Eleanor I	National Institute of Standards and Technology	Poster Presenter	Registered
Graf, Matthias	Technische Universität Hamburg-Harburg	Poster Presenter	Registered
Hall, Anthony Shoji	Massachusetts Institute of Technology	Poster Presenter	Registered
Hammes-Schiffer, Sharon	University of Illinois at Urbana-Champaign	Speaker	Registered
Hickey, David	Universityof Utah	Attendee	Registered
Hicks, Michael B	Merck & Co., Inc.	Poster Presenter	Registered
Hillier, Andrew C	Iowa State University	Speaker	Registered
Hossain, Md Sazzad	McGill University	Poster Presenter	Registered
Huang, Zhuangqun	AFM Business Unit, Bruker Nano Surfaces	Speaker	Registered
Jackson, Megan N	Massachusetts Institute of Technology	Poster Presenter	Registered
Jacob, Timo	Ulm University	Speaker	Registered
James, David D	University of Alberta	Poster Presenter	Registered
Janik, Michael J	Pennsylvania State University	Speaker	Registered
Johnson, Robert P	University of Utah	Poster Presenter	Registered
Jung, Christoph K	Helmholtz Institute Ulm	Poster Presenter	Registered
Keith , John	University of Pittsburgh	Speaker	Registered
Korzeniewski, Carol	Texas Tech University	Discussion Leader	Registered
Krischer, Katharina	Technische Universitat Munchen	Speaker	Registered
Krishnan, Sadagopan	Oklahoma State University	Speaker	Registered
Lattimer, Judith R	Harvard University	Poster Presenter	Registered
Lee, Jihye	Seoul National University	Poster Presenter	Registered
Leger, Christophe	CNRS	Speaker	Registered
Letchworth Weaver, Kendra	Argonne National Laboratory	Poster Presenter	Registered
Li, Xiang	University of Texas at Austin	Poster Presenter	Registered
Lipkowski, Jacek	University of Guelph	Speaker	Registered
Liu, Tianbiao	Utah State University	Poster Presenter	Registered
Lodge, Andrew W	University of Southampton	Poster Presenter	Registered
Luo, Long	University of Texas at Austin	Poster Presenter	Registered
Macazo, Florika C	University of Maryland, Baltimore County	Poster Presenter	Registered
Maldonado, Stephen	University of Michigan	Speaker	Registered
Marinescu, Smaranda C	University of Southern California	Speaker	Registered
Martinson, Alex B F	Argonne National Laboratory	Poster Presenter	Registered
Mauzeroll , Janine	McGill University	Speaker	Registered
McCreery, Richard L	University of Alberta	Attendee	Registered
McKelvey, Kim	University of Utah	Poster Presenter	Registered
McKone, James R	Cornell University	Poster Presenter	Registered
Mefford, John T	University of Texas at Austin	Poster Presenter	Registered
Miller, John R	Brookhaven National Laboratory	Poster Presenter	Registered
Milton, Ross D	University of Utah	Poster Presenter	Registered
Minteer, Shelley	University of Utah	Vice Chair	Registered
Mirkin, Michael V	Queens College-CUNY	Attendee	Registered
Molero Sanchez, Beatriz	University of Calgary	Poster Presenter	Registered
Mubeen, Syed	University of Iowa	Attendee	Registered

Mueller, Jonathan E	Helmholtz Institute Ulm	Poster Presenter	Registered
Nichols, Richard J	University of Liverpool	Speaker	Registered
Oh, Seokjoon	Massachusetts Institute of Technology	Poster Presenter	Registered
Palmer, Michael G	University of Southampton	Poster Presenter	Registered
Paschkewitz, Tim	Pine Research Instrumentation	Attendee	Registered
Ramakrishnan, Srinivasan	Stanford University	Poster Presenter	Registered
Rasmussen, Michelle	Lebanon Valley College	Poster Presenter	Registered
Redman, Daniel W	University of Texas at Austin	Poster Presenter	Registered
Ren, Hang	University of Michigan	Poster Presenter	Registered
Rheinhardt, Joseph	Arizona State University	Poster Presenter	Registered
Richardson, Peter W	University of Southampton	Poster Presenter	Registered
Ritzert, Nicole L	National Institute of Standards and Technology	Poster Presenter	Registered
Robinson, Donald A	University of Texas at Austin	Poster Presenter	Registered
Rodriguez-Lopez, Joaquin	University of Illinois at Urbana-Champaign	Speaker	Registered
Rountree, Eric S	University of North Carolina	Poster Presenter	Registered
Rubinson, Faye	Georgetown University	Attendee	Registered
Russell, Andrea E	University of Southampton	Speaker	Registered
Saadi, Fadl H	California Institute of Technology	Poster Presenter	Registered
Sakaushi, Ken	National Institute for Materials Science	Poster Presenter	Registered
Saldivar-Valdes, Abraham	Stanford University	Poster Presenter	Registered
Scherson, Daniel A	Case Western Reserve University	Discussion Leader	Registered
Schwarz, Kathleen A	National Institute of Standards and Technology	Poster Presenter	Registered
Seo, Minjee	Seoul National University	Poster Presenter	Registered
Shannon, Curtis	Auburn University	Poster Presenter	Registered
Shetzline, Jamie A	Clemson University	Poster Presenter	Registered
Simpson, Burton H	University of Illinois at Urbana-Champaign	Speaker	Registered
Smith, Diane K	San Diego State University	Poster Presenter	Registered
Smith, Scott R	University of Guelph	Poster Presenter	Registered
Spitler, Mark T	U.S. Department of Energy	Discussion Leader	Registered
Stevenson, Keith J	Skolkovo Institute of Science and Technology	Speaker	Registered
Stickney, John L	University of Georgia	Discussion Leader	Registered
Sun, Ke	Caltech	Attendee	Registered
Sun, Yujie	Utah State University	Poster Presenter	Registered
Surendranath, Yogesh	Massachusetts Institute of Technology	Speaker	Registered
Suroviec, Alice H	Berry College	Poster Presenter	Registered
Tan, Cherie	University of Utah	Attendee	Registered
Tao, Nongjian	Arizona State University	Discussion Leader	Registered
Tkacz, Kevin	University of California - Irvine	Poster Presenter	Registered
Torelli, Daniel	California Institute of Technology	Poster Presenter	Registered
Tylka, Magdalena	Argonne National Laboratory	Poster Presenter	Registered
Waldeck, David H	University of Pittsburgh	Speaker	Registered
Wang, Yiduo	Oxford University	Poster Presenter	Registered
Wang, Yixian	Arizona State University	Poster Presenter	Registered
Wuttig, Anna	Massachusetts Institute of Technology	Poster Presenter	Registered

Xu, Shuai	University of Southern California	Poster Presenter	Registered
Young, Matthias J	National Institute of Standards and Technology	Poster Presenter	Registered
Yu, Yun	Queens College and the Graduate Center, CUNY	Poster Presenter	Registered
Zamborini, Francis P	University of Louisville	Poster Presenter	Registered
Zhang, Yimin	Nestle Purina Product Technology Center	Attendee	Registered
Zheng, Zheng	University of Michigan	Poster Presenter	Registered

135 Attendees

Electrochemistry (GRS) - 2016

Name	Organization	Participation	Status
Anderson, Morgan J	University of Texas Austin	Poster Presenter	Registered
Barannikova, Evgenia	University of Maryland Baltimore County	Poster Presenter	Registered
Barton, Zachary J	University of Illinois at Urbana-Champaign	Poster Presenter	Registered
Branch, Jack A	University of Southampton	Discussion Leader	Registered
Bui, Nhi	University of Georgia	Poster Presenter	Registered
Carim, Azhar I	California Institute of Technology	Speaker	Registered
Castaneda, Alma D	University of Texas at Austin	Speaker	Registered
Chen, Qianjin	University of Utah	Speaker	Registered
Edwards, Martin A	University of Utah	Discussion Leader	Registered
Fahrenkrug, Eli J	University of Michigan	Poster Presenter	Registered
Ferguson, Stephen	University of Michigan - Ann Arbor	Poster Presenter	Registered
Finke, Cody E	California Institute of Technology	Poster Presenter	Registered
Francis, Sonja A	California Institute of Technology	Discussion Leader	Registered
Gaieck, William	Ardo Lab, UC Irvine	Poster Presenter	Registered
Gawron, Erin L	Georgia Institute of Technology	Speaker	Registered
German, Sean	University of Utah	Poster Presenter	Registered
Graf, Matthias	Technische Universität Hamburg-Harburg	Poster Presenter	Registered
Hall, Anthony Shoji	Massachusetts Institute of Technology	Poster Presenter	Registered
Hickey, David	Universityof Utah	Chair	Registered
Hossain, Md Sazzad	McGill University	Speaker	Registered
Jackson, Megan N	Massachusetts Institute of Technology	Poster Presenter	Registered
Johnson, Robert P	University of Utah	Chair	Registered
Jung, Christoph K	Helmholtz Institute Ulm	Poster Presenter	Registered
Lee, Jihye	Seoul National University	Poster Presenter	Registered
Li, Xiang	University of Texas at Austin	Speaker	Registered
Lodge, Andrew W	University of Southampton	Poster Presenter	Registered
Luo, Long	University of Texas at Austin	Poster Presenter	Registered
Macazo, Florika C	University of Maryland, Baltimore County	Speaker	Registered
McKelvey, Kim	University of Utah	Poster Presenter	Registered
Mefford, John T	University of Texas at Austin	Poster Presenter	Registered
Milton, Ross D	University of Utah	Discussion Leader	Registered
Oh, Seokjoon	Massachusetts Institute of Technology	Poster Presenter	Registered
Palmer, Michael G	University of Southampton	Speaker	Registered
Ramakrishnan, S	Stanford University	Speaker	Registered

Redman, Daniel W	University of Texas at Austin	Poster Presenter	Registered
Ren, Hang	University of Michigan	Poster Presenter	Registered
Rheinhardt, Joseph	Arizona State University	Poster Presenter	Registered
Richardson, Peter W	University of Southampton	Poster Presenter	Registered
Robinson, Donald A	University of Texas at Austin	Poster Presenter	Registered
Rountree, Eric S	University of North Carolina	Poster Presenter	Registered
Seo, Minjee	Seoul National University	Poster Presenter	Registered
Shetzline, Jamie A	Clemson University	Poster Presenter	Registered
Simpson, Burton H	University of Illinois at Urbana-Champaign	Speaker	Registered
Tan, Cherie	University of Utah	Poster Presenter	Registered
Tavassol, Hadi	Northwestern University	Speaker	Registered
Tkacz, Kevin	University of California - Irvine	Poster Presenter	Registered
Tylka, Magdalena	Argonne National Laboratory	Poster Presenter	Registered
Zheng, Zheng	University of Michigan	Poster Presenter	Registered

48 Attendees