

MONDAY, JULY 29, 2013

Session I, EPR for Spin Devices, John Morton Chairing	
8:00 a.m.	Welcoming Remarks. Gail Fanucci, EPR Symposium Chair
8:15 a.m.	TBA. <u>Patric Bertet</u> , CEA Saclay
8:50 a.m.	Design and Use of Superconducting Resonators for Pulsed ESR <u>David Cory</u> , University of Waterloo
9:25 a.m.	The Effect of ^{29}Si Spectral Diffusion on ^{31}P Neutral Donor Nuclear Spins. <u>Evan Petersen</u> , Princeton University
9:40 a.m.	Hole Injection in Fullerene Based Semiconductors. <u>Hiroki Morishita</u> , University of Utah
10:00 a.m.	<i>Break</i>
10:30 a.m.	Dramatic Increase of Electron Spin Decoherence Time for Bismuth Donors in Silicon at Clock Transition 7.0317 GHz. <u>Steve Lyon</u> , Princeton University
10:50 a.m.	Spin-Dependent Recombination in Organic Light-Emitting Diodes and the Effect of Phosphorescent Emitters. <u>T.L. Keevers</u> , University of Sydney
11:05 a.m.	Shuttling Electrons on and off as Donor Atoms in Silicon. <u>Alexei Tyryshkin</u> , Princeton University
11:25 a.m.	TBA. <u>Amir Yacoby</u> , Harvard University
12:00 p.m.	<i>Lunch</i>
Session II, Materials, Dane McCamey Chairing	
1:35 p.m.	ODMR and EDMR in Organic Semiconductors and Devices. <u>Joe Shinar</u> , Iowa State University
2:10 p.m.	Overcoming Decoherence of Spin-based Qubits in Solid-state Systems. <u>Susumu Takahashi</u> , University of Southern California
2:45 p.m.	Theoretical <i>ab-initio</i> Modelling of P_b-like States at Silicon Related Interfaces. <u>Uwe Gerstmann</u> , Universität Paderborn
3:00 p.m.	<i>Break</i>
3:20 p.m.	Time-Resolved ESR Spectroscopy Investigation of Photoconduction Mechanism in Covalent Organic Framework (COF) Materials. <u>Toshikazu Nakamura</u> , Institute for Molecular Science
3:40 p.m.	EPR and Electrochemical Investigations on the Oxidation of Highly Crowded Organophosphines and Arsines. <u>Rene Boere</u> , University of Lethbridge
4:00 p.m.	Mystery of non-equivalent centers in congruent and stoichiometric LiNbO_3 and LiTaO_3. <u>Galina Malovichko</u> , Montana State University
4:30 p.m.	New Opportunities for High-field MR Spectroscopy to Study Oxide Heterostructures and Materials for Photovoltaic Applications. <u>Matthias Fehr</u> , University of California, Santa Barbara
4:45 p.m.	Temperature Dependent Magnetic and EPR Studies of Bulk and Nanoparticles of $\text{Bi}_{0.1}\text{Ca}_{0.9}\text{MnO}_3$. <u>Geetangali Singh</u> , Indian Institute of Science
5:00 p.m.	Group Discussion.
5:30-7:00 p.m.	<i>Conference Reception</i>
Session III, Posters	
7:30-9:00 p.m.	Authors Present for Posters Labeled A

TUESDAY, JULY 30, 2013

Session IV, Methods, Christoph Boehme Chairing	
8:05 a.m.	Electrically Detected Magnetic Resonance – Basic Concepts and Applications. <u>Carlos Graeff</u> , DF-FC-UNESP
8:40 a.m.	Recent Progress in Pulsed EDMR. <u>Martin Brandt</u> , Technical University of Munich
9:15 a.m.	Spin Lattice Relaxation at High Fields and Low Temperatures. <u>Hans Van Tol</u> , National High Magnetic Field Laboratory
9:35 a.m.	Multi-Extreme THz ESR: Its Development and Application. <u>Hitoshi Ohta</u> , Kobe University
9:55 a.m.	Continuing Development of a Free Electron Laser-based EPR Spectrometer. <u>Devin T. Edwards</u> , University of California, Santa Barbara
10:10 a.m.	<i>Break</i>
10:30 a.m.	Readout and Control of a Single Nuclear Spin With a Meta-stable Electron Spin Ancilla in Diamond. <u>Sang-Yun Lee</u> , Universität Stuttgart
11:05 a.m.	EPR Probeheads for Very Small Samples: Developments and Prospects. <u>Edward Reijerse</u> , Max Planck Institute for Chemical Energy Conversion
11:30 a.m.	A Highly Sensitive and Tunable RF Sensor for Electron Paramagnetic Resonance Spectroscopy Applications. <u>Pingshan Wang</u> , Clemson University
11:45 a.m.	Signal Detection During Detector Dead Time with Arbitrary Waveform Generation in Pulsed EPR. <u>Ryan Barnes</u> , University of California, Santa Barbara
12:00 p.m.	<i>Lunch</i>
Session V, Biological Macromolecules, Kurt Warncke Chairing	
1:30 p.m.	EPR, ENDOR and ESEEM Spectroscopies in Metallobiochemistry. <u>Brian Hoffman</u> , Northwestern University
2:05 p.m.	EPR Studies of [Fe-Fe] Hydrogenase H-cluster Assembly. <u>David Britt</u> , University of California, Davis
2:40 p.m.	New EPR insights on the catalytic model for H₂ activation by the [FeFe]-hydrogenase H-cluster in HydA1 from <i>Chlamydomonas reinhardtii</i> <u>David Mulder</u> , National Renewable Energy Laboratory
2:55 p.m.	Analysis of Metal-RNA Interactions by EPR Methods. <u>Vicki DeRose</u> , University of Oregon
3:30 p.m.	<i>Break</i>
3:50 p.m.	Locating NO in the {FeNO}⁷ Complex Using HYSORE: A Structural Context for Locating Substrates in Non-heme Fe(II) Dependent Dioxygenases Using ESEEM. <u>Thomas Casey</u> , Michigan State University
4:05 p.m.	Solving an enzyme mechanism by EPR. <u>Betty Gaffney</u> , Florida State University
4:30 p.m.	Membrane Insertion and Interactions of Individual Cesa Transmembrane Helices by Site-directed Spin-labeling EPR. <u>Alex Smirnov</u> , North Carolina State University
4:50 p.m.	The Central Cavity of ABCB1 Undergoes Alternating Access During Drug Translocation. <u>Frasier MacMillan</u> , University of East Anglia
5:15 p.m.	Development of Redox Molecular Imaging of Free Radicals in Living Animal. <u>Hideo Utsumi</u> , Kyushu University
Piette Award, Introduction by Sandra Eaton	
6:05 p.m.	Uncovering secrets in membrane electrostatics, cell-signaling and transport using EPR spectroscopy. Lawrence H. Piette Memorial Lecture, <u>David S. Cafiso</u> , University of Virginia

WEDNESDAY, JULY 31, 2013

Session VI, Radical Radicals, Frederick Villamena Chairing	
8:10 a.m.	Investigation of Spin-Trapping Artifacts Formed by the Forrester-Hepburn Mechanism. <u>Ronald Mason</u> , NIEHS/NIH
8:45 a.m.	Nitroxide and Trityl Radical Probes for Multifunctional in vivo EPR Spectroscopy and Imaging . <u>Valery Khramtsov</u> , Ohio State University
9:20 a.m.	Spin Dynamics of Concentrated "Finland" Trityl Radicals at Cryogenic Temperatures. <u>Mike Bowman</u> , University of Alabama
9:40 a.m.	250 MHz to 34 GHz Study of Nitroxide Relaxation Mechanisms. <u>Josh Biller</u> , University of Denver
10:00 a.m.	<i>Break</i>
10:30 a.m.	Diradicals and Polyradicals: Synthesis, Magnetism, and Spin-Spin Interactions. <u>Andrezi Rajca</u> , University of Nebraska
11:05 a.m.	The Amide Nitroxide: Coming to a EPR Spectrometer Near You. <u>Garland Marshall</u> , Washington University
11:30 a.m.	High-Field EPR Studies of Organic Radical Ferromagnets Under High Pressures. <u>Stephen Hill</u> , NHMFL
12:00 p.m.	<i>Lunch</i>
Session VII, Frontier in Spin Labeling, Fraser MacMillan Chairing	
1:35 p.m.	Excitation and Detection in Ultra-Wideband EPR. <u>Gunnar Jeschke</u> , ETH Zurich
2:10 p.m.	Five-pulse DEER: Improved Distance Range and Sensitivity. <u>Peter Borbat</u> , Cornell University
2:30 p.m.	Distances and Orientations With DEER/PELDOR at High EPR Frequencies. <u>Igor Tkach</u> , Max Planck Institute for Biophysical Chemistry
Trommer Award, Introduction by Larry Berliner	
2:55 p.m.	The Molten Globule State of Maltose Binding Protein: DEER Measurements at pH 3. <u>Wolfgang Trommer</u> , TU Kaiserslautern
3:20 p.m.	<i>Break</i>
4:10 p.m.	Distance Measurements in Biomolecules Using Gd³⁺ Spin Labels – Pros and Cons. <u>Daniella Goldfarb</u> , Weizmann Institute of Science
4:45 p.m.	Complex Docking Models – Elucidating Protein-protein Interactions With EPR. <u>Morgan Bye</u> , University of East Anglia
5:00 p.m.	A Single-stranded Junction Modulates Nanosecond Motional Ordering of the Substrate Recognition Helix of a Group I Ribozyme. <u>Phuong Nguyen</u> , University of Southern California
5:15 p.m.	Measurement of Gd-Gd Distances by cw-EPR at 240 GHz. <u>Jessica Clayton</u> , University of California, Santa Barbara
General Business Meeting	
5:35 p.m.	EPR Symposium Business Meeting
Session VIII, Posters	
8:00-9:30 p.m.	Authors Present for Posters Labeled B

THURSDAY, AUGUST 1, 2013

Session IX, In Vivo, Boris Epel & Howard J. Halpern Co-Chairing	
8:10 a.m.	In vivo Imaging and Spectroscopy. <u>Gareth Eaton</u> , University of Denver
8:45 a.m.	Probes and Methods for Clinical Oximetry. <u>Perianna Kuppusamy</u> , Dartmouth College
9:20 a.m.	Comparison of Pulse Sequences for Spin-lattice Relaxation Based in Vivo EPR Oxygen Imaging. <u>Boris Epel</u> , University of Chicago
9:35 a.m.	Skin Structure of <i>Psoriasis Vulgaris</i> Investigated by EPR Spin-Probe Method. <u>K. Nakagawa</u> , Hirotsaki University
9:55 a.m.	Water Soluble Complexes of Xanthophyll Antioxidants: Aggregation vs. Complexation. <u>Adam Magyar</u> , University of Alabama
10:10 a.m.	Characterization of the Electronic Structure of P450 Compound I: Implications for Reactivity. <u>Alexey Silakov</u> , Pennsylvania State University
10:25 a.m.	<i>Break</i>
Session X, Spin Labeling II, Boris Epel & Howard J. Halpern Co-Chairing	
11:00 a.m.	Conformation of p53 Response Elements Deduced Using Site-directed Spin Labeling. <u>Peter Qin</u> , University of Southern California
11:20 a.m.	Interaction Between Anti-HIV Antibody 10E8 and its Lipid-embedded Epitope Defined by EPR. <u>Likai Song</u> , National High Magnetic Field Laboratory
11:40 a.m.	Effects of Lipid Bilayer Phase and Nanoscale Curvature on Surface Electrostatic Potential as Measured by Spin-probe EPR. <u>Amir Koolivand</u> , North Carolina State University
11:55 a.m.	Magnetic Interaction of Transition Ion Salts With Spin Labeled Lipid Membranes: Hofmeister Anion-driven Adsorption of Ions, Membrane Fluidity and Flexibility of Nitroxide Tethers. <u>Boris Dzikovski</u> , Cornell University
12:10 p.m.	Closing Remarks. Gail Fanucci, EPR Symposium Chair