

SUNDAY, AUGUST 4, 2024

Pre-Conference Activities	
<i>Session Chair: Songi Han</i>	
8:00 AM – 12:30 PM	Bruker Solid-State NMR Workshop
1:00:00 PM - 3:30 PM	EPR Educational: Hyperfine Spectroscopy and Optically Detected Magnetic Resonance
3:30 PM	ACERT Outreach: Your Worldwide In-house Resource
4:30 - 6:00 PM	Poster Mixer
7:00 PM - 10:00 PM	Bruker EPR Users Meeting

MONDAY, AUGUST 5, 2024

<i>Photoexcited EPR - Chair: Petr Neugebauer</i>	
8:00 AM	In Memoriam: Josef Michl
8:30 AM	Photogeneration of a Spin-Polarized Qudit in a Vanadyl(II) – Free Base Porphyrin Dimer . Alberto Privitera , Northwestern University and University of Florence
8:50 AM	Light-Induced Spin-Correlated Radical Pairs in Quantum Dot-Organic Molecule Systems . Jens Niklas , Argonne National Laboratory
9:10 AM	Spin and Optical Response of Pentacene-radical Dyads in the Strong and Weak Coupling Regime . Claudia E. Avalos , New York University
9:30 AM	<i>Break</i>
<i>EPR Imaging - Chair: Mrignayani Kotecha</i>	
10:00 AM	EPR Oxygen Imaging in Preclinical Tumors . Martyna Elas , Jagiellonian University in Kraków
10:30 AM	Tumor Oxygenation Dynamics in Murine Orthotopic Pancreatic Cancer: Insights from in vivo Multimodal Therapy . Martyna Krzykawska-Serda , Jagiellonian University and University of Chicago
10:50 AM	Determining Red Blood Cell Health and Quality by Measuring Superoxide , Eric A. Legenzov , University of Maryland School of Medicine
11:10 AM	Synthesis and Characterization of Triarylmethyl Radical Spin Probes and Labels for Biomedical EPR Applications . Benoit Driesschaert , West Virginia University
11:30 AM	<i>Lunch (included with registration)</i>
<i>Quantum Information (I) - Chair: Claudia Avalos</i>	
1:00 PM	ESR with Smaller Samples and Bigger Signals, Using Micro-resonators and Cold Amplifiers , John Morton , University College London
1:30 PM	Identifying Sources of Entanglement Loss in Photo-driven Molecular Electron Spin Teleportation . Yuheng Huang , Northwestern University
1:50 PM	Coherences of Photo-Induced Electron Spin Qubit Pair States in Photosynthetic Proteins . Jasleen K Bindra , Argonne National Laboratory
2:10 PM	Using a Qubit Controller and Reader for More Efficient EPR Spectroscopy . Jean-Baptiste Verstraete , University College London
2:30 PM	Ultra High-Field EPR Imaging . Oleksii Laguta , Brno University of Technology, Central European Institute of Technology
3:00 PM	<i>Break</i>
<i>Metals in Biology - Chair: Alexey Silakov</i>	
3:30 PM	Bioinorganic Strategies to Study Multiple Facets in Alzheimer's Disease . Mi Hee Lim , Korea Advanced Institute of Science and Technology (KAIST)
4:00 PM	Elucidating the Ternary Complex among Amyloid-beta, the Prion Protein, and Copper via Magnetic Resonance Techniques . Amanda L. Smart , University of California, Santa Cruz
4:20 PM	New Cu(II) Complex to Increase Sensitivity in Pulsed Dipolar EPR Experiments . Shramana Palit , University of Pittsburgh
4:40 PM	Investigating Contrast Agent Interactions with Human Serum Albumin . Molly M. Lockart , Samford University
5:00 PM	Investigating Protein Structure and Function Through Paramagnetic Substitution of Native Metal Ions . Bela E. Bode , University of St Andrews
5:30-7:00 PM	<i>Conference Reception (included with registration)</i>
Posters	
7:00-9:30 PM	Authors Present for Posters Labeled A

TUESDAY, AUGUST 6, 2024

Joint Session - EPR & SSNMR - EPR CoChair: Songi Han and SSNMR CoChair: Joanna Long	
8:00 AM	Plenary and IES Award: With Roots That Withstand Any Storm: A Chemist's Story of Trees, Light and Spin. Christiane Timmel , University of Oxford
8:50 AM	MAS NMR of Amorphous Calcium Carbonate Provides Proof for the Pre-nucleation Cluster Pathway. Guinevere Mathies , Leibniz Universität Hannover
9:20 AM	High Precision Quantum Sensing with EPR Relaxometry in Flowing Microdroplets. Ashok Ajoy , University of California Berkeley
9:40 AM	Optimal Control DNP Experiments. Niels C. Nielsen , Aarhus University
10:00 AM	Break
Joint Session - EPR & SSNMR - EPR CoChair: Songi Han and SSNMR CoChair: Joanna Long	
10:20 AM	EPR Spectroscopy at the Interface with NMR. Marina Bennatti , University of Goettingen
10:50 AM	Controlling Properties of High Surface Area Functional Materials. Daniel Lee , The University of Manchester and Université Grenoble Alpes
11:20 AM	High-Field Magic Angle Spinning EPR Spectroscopy. Iliia Kaminker , Tel-Aviv University
11:40 AM	Coherent Dynamic Nuclear Polarization at 94 GHz. Yifan Quan , Massachusetts Institute of Technology
11:300 PM	Lunch (included with registration)
In Situ EPR - Chair: Sunil Saxena	
1:30 PM	Using Film-electrochemical EPR Spectroscopy to Track Radical Intermediats: From Electrocatalysis to Redox Proteins. Maxie M. Roessler , Imperial College London
2:00 PM	Revealing Polymer Degradation Mechanisms by EPR and NMR in Tandem, Molly I Parry , Imperial College London
2:20 PM	ESR as Important Tool for Understanding the Transition Metal Effect Over Metal Organic Framework During Charge/Discharge Process in Batteries. Stephany Natasha Arellano-Ahumada , Instituto Politécnico Nacional
2:40 PM	Methane-to-Methanol Conversion over Fe-exchanged Zeolites: Site-Specific Reaction Dynamics from Modulated Excitation EPR Spectroscopy. Jörg W. A. Fischer , ETH Zurich
3:00 PM	Electron Paramagnetic Resonance of Actinide Coordination Compounds: From Fundamental Electronic Structure to Nuclear Forensics. Samuel M. Greer , Los Alamos National Laboratory
3:20 PM	Break
IES Award - Chair: Marina Bennati	
4:00 PM	IES AWARD: Low-Field EPR: Instrumentation Development for In Vivo Applications. Hiroshi Hirata , Hokkaido University
4:30 PM	International EPR Society Annual General Meeting
Posters	
7:00-9:30 PM	Authors Present for Posters Labeled B

WENESDAY, AUGUST 7, 2024

EPR Structural Biology - Chair: Sunil Saxena	
8:00 AM	Plenary: Perspectives on Spin Labeling EPR in the Age of AI. Hassane Mchourab , Vanderbilt University
8:40 AM	Energy Barriers for Global Conformational Transitions in an ATP-fueled Membrane Transporter Determined using Time-resolved Pulsed Dipolar ESR Spectroscopy. Benesh Joseph , Freie Universität Berlin
9:00 AM	Studies of Protein Functional Dynamics via Rapid-Scan EPR at High Field. Brad D. Price , University of California, Santa Barbara
9:20 AM	Resolving Specific Interactions in Flexibly-linked Multidomain Biologics through Integrated Analysis of Inter-electron Spin Distances, X-ray Scattering, and Molecular Simulations. Veronika A. Szalai , National Institute of Standards & Technology
9:40 PM	Break
Quantum Information (II) - Chair: Stefan Stoll	
10:00 AM	Unveiling a New Regime of Electron Spin Coherence for Molecular Quantum Information Science. Ryan Hadt , California Institute of Technology
10:30 AM	Reinforcement Learning for Hamiltonian Engineering of Dipolar Coupled Spin Systems. Chandrasekhar Ramanathan , Dartmouth College
10:50 AM	Luminescent Organic Diradicals as Optically Addressable Molecular Qubits. Sebastian M. Kopp , Northwestern University
11:10 AM	Spin-Lattice Relaxation of Cr(V) complexes – Experiments and Calculations. Sandra S. Eaton , University of Denver

12:00 PM	Lunch (included with registration)
Defects and Spin Qubits - Chair: Sekhar Ramanathan	
1:00 PM	Coherent Spin-Valley Oscillations In Silicon. Xinxin Cai , University of Rochester
1:30 PM	Identification of an X-Band Clock Transition in Cp'3Pr– Enabled by a 4f25d1 Configuration. Jakub Hrubý , National High Magnetic Field Laboratory
1:50 PM	Conformational Analysis of Macromolecular Rotaxane Systems by Pulsed Dipolar Spectroscopy Methods to Determine Suitability for Use as Molecular Qubits. Lubomir Locj , University of Manchester
2:10 PM	Electrically Detected Magnetic Resonance Characterization of Interface Defects in Polysilicon Passivated Contact-based Silicon Solar Cells. Chirag Mule , National Renewable Energy Laboratory and Colorado Scholl of Mines
2:30 PM	Excitons and Trions in Amorphous Silicon. Klaus Lips , Freie Universität Berlin and University of Utah
3:00 PM	Break
EPR Structural Biology - Chair: Mark Tseytlin	
3:30 PM	Structural Dynamics of Sphingosine-1-phosphate Synthesis and Transport. Reza Dastvan , Saint Louis University School of Medicine
4:00 PM	19F ENDOR Using High-spin Gd(III) Labels: Pushing the Resolution Limits and Rationalizing Orientation Selection. A. Bogdanov , The Weizmann Institute of Science
4:20 PM	Structural Identification of Oligomers by Relaxation-filtered Distance Measurements. Tufa E Assafa , Cornell University
4:40 PM	Protein-Coupled Solvent Dynamics in α -Synuclein Monomer and Aggregate States under Controlled Confinement. Kurt Warncke , Emory University
5:00 PM	Proteins Under Confinement: From Fundamental Biophysics to Biomaterials Application. Zhongyu Yang , North Dakota State University
7:00 PM-9:00 PM	Conference Banquet & Awards Ceremony (Enjoy an evening of comradeship, fine food and recognition of peers. Pre-registration required.) - Speaker Thomas Prisner

THURSDAY, AUGUST 8, 2024

High Field EPR - Chair: Stephen Hill	
8:00 AM	FD-FT THz-EPR for Magneto-Structural Correlations of Transition Metal and Main Group Triplet States, Alexander Schnegg , Max Planck Institute for Chemical Energy Conversion
8:30 AM	Advancements in High-Power High-Field Pulsed ESR Spectroscopy: A Modular Approach to Pulse Control. Antonin Sojka , University of California Santa Barbara
8:50 AM	THz Spectroscopic Ellipsometry EPR. Viktor Rindert , Lund University
9:10 AM	Sixty-Fold Improvement in EPR Concentration Sensitivity at mm-Wave Frequencies by Large Volume, High-Q Resonators. Alex I. Smirnov , North Carolina State University
9:30 PM	Break
Methods - Chair: Sandra Eaton	
10:00 AM	Ensemble Structure Determination of Proteins Based on Distance Distributions. G. Jeschke , ETH Zurich
10:30 AM	Recipes for Efficient Dynamic Nuclear Polarization in Liquids at High Magnetic Field. Tomas Orlando , National High Magnetic Field Laboratory
10:50 AM	Biophysical EPR Using Superconducting Resonators. Troy W. Borneman , High Q Technologies
11:10 AM	Spin-orbit Driven Hyperfine Coupling of the Spin to the Static Electric Field in EPR-STM Spectroscopy. Katharina Lorena Franzke , Paderborn University