

61st Rocky Mountain Conference on Magnetic Resonance
43rd International EPR Symposium
Poster Presentations

Tuesday, July 26: 7:00-9:00 pm (Authors Present for Posters Labeled A)

Wednesday, July 27: 7:00-9:00 pm (Authors Present for Posters Labeled B)

B	Utilising Thiol Chemistry for Site-Directed Spin-Labeling of the Prion Protein Using Spin Label Rx and conducting Electron Paramagnetic Resonance Distance Measurements. T.E. Assafa, University of California Santa Cruz
A	Non-Bloch-Siegert Type Drive-Field Induced Resonance Shift of Two-Photon Spin-Resonant Transitions. Sabastian I. Atwood, University of Utah
B	Pentacene Bi-radical Nitroxides Studied via Transient EPR and Transient Absorption Spectroscopy. Claudia E. Avalos, New York University
A	Revealing Redox Processes and Probing Phase Transformations in Sodium-ion Battery Cathodes using EPR and NMR Spectroscopy. E.N. Bassey, University of Cambridge
B	Development of an Injectable EPR Imaging Agent for Clinical Use. Joshua R. Biller, TDA Research Inc.
A	Development of a Small Scale, Interferometric Microwave Conductivity Tool to Probe Dynamics of Photogenerated Charge Carriers. Jasleen K. Bindra, National Institute of Standards and Technology and University of Maryland
B	Newly-Developed dHis-Cu²⁺ Force Fields Establish Cost-Efficient Protocol for DEER Measurements at Q-band. Xiaowei Bogetti, University of Pittsburgh
A	Hetero-Spin DNP Using Radical Mixtures. Santiago Bussandri, University of California Santa Barbara
B	From Method Development to Application: Combining Deuteration with Cu(II) Labels to Establish Structural Links in a Metalloregulator's Transcription Cycle. Joshua Casto, University of Pittsburgh
A	Measurement of Concentrations of Spin Probes in Mouse Lungs by L-band EPR Imaging. Samuel W. deGraw, University of Denver
B	Electron Spin Relaxation Rates of Sm³⁺ Coordinated to Lanmodulin or HOPO. Gareth R. Eaton, University of Denver
A	A Comparison of Measurement Architectures for a Broadband On-Chip EPR Spectrometer. Selina Eckel, Karlsruhe Institute of Technology
B	Developing EPR Tools for Preclinical Interrogation of Redox Regulation Mechanisms Contributing to Acute Lung Injury. Hanan Elajaili, University of Colorado Anschutz Medical Campus
A	Design of a Dual EPR and NMR Spectrometer for Hyperpolarized NMR Spectroscopy. Kaitlyn Engler, University of California Berkeley
B	Using EPR to Calculate the Optimal Threshold to Locate Hypoxia in ¹⁸F-Fluoromisonidazole (FMISO) PET in Three Preclinical Tumor Types. Boris Epel, University of Chicago
A	Dipolar Order in Electron Spins: An EPR Signature of Thermal Mixing DNP. Asif Eqbal, University of California Santa Barbara
B	Ultra-fast Bio-orthogonal Spin-labeling and DEER Spectroscopy for Measuring Protein Conformational Distributions in Mammalian Cells. Eric G. B. Evans, University of Washington
A	DeerLab - a Python Package for Analyzing DEER and Similar Data. Luis Fábregas-Ibáñez, ETH Zürich

B	Paving New Paths for Dipolar EPR Spectroscopy. Luis Fábregas-Ibáñez, ETH Zürich
A	Antioxidant Properties of Common Edible Mushrooms. Rachel A. Faust, Steppingstone MAgnetic Resonance Training Center
B	A Practicable New Approach to Overmodulation Reconstruction. John M Franck, Syracuse University
A	Prolonging Room Temperature Spin-coherence in Silicon: Magic-angle Spin-pairs in α-Si:H. U. Gerstmann, Universität Paderborn
B	Hydrophilic TAM-based Spin Label for In-Cell Distance Measurements and Orthogonal Labeling Schemes at High Temperature. Zikri Hasanbasri, University of Pittsburgh
A	Advances in Liquid-helium-free Cooling Solutions for Laboratory Cryostats. Arthur H Heiss, Heiss & Associates, LLC
B	Synthesis of Biocompatible Ox063 and Ox071 Triarylmethyl Radicals. Megan Holloway, West Virginia University
A	Probing the Influence of Spin-orbit Coupling on Charge Carrier Spin States in π-conjugated Polymers, Caused by Heavy Elements of Hole Injectors Based on MoO_3. Sanaz Hosseinzadeh, University of Utah
B	EPR Characterization and Electron Spin Relaxation of Manganate Ion in Glassy Alkaline LiCl Solution and Doped into Cs_2SO_4. Tanden A. Hovey, Regis University
A	Tunable Clock Transitions in Lanthanide Complexes for Quantum Information Technologies. J. Hrubý, National High Magnetic Field Laboratory
B	Multi-Frequency and Variable Temperature EPR Reveal Charge Carrier Position in Graphite Anodes for Li-ion Batteries. T. Insinna, University of Cambridge
A	Broadband ODMR Reveals Optically Sensitive Transitions of Biexcitons in a Singlet Fission Material. G. Joshi, National Renewable Energy Laboratory
B	Open-Source Loop-Gap Resonator for X-Band EPR Spectroscopy. Timothy J. Keller, Bridge12 Technologies, Inc.
A	Determining the Helical Tilt Angle and Dynamic Properties of the Transmembrane Domains of Pinholin S^{2168} using Mechanical Alignment EPR Spectroscopy. Rasal H. Khan, Miami University
B	Simulations of a High-Filling Factor ODNP Probe, Using an Eigenmode-Based Strategy. Warren F. Kincaid, Syracuse University
A	Pulsed EPR Study of Vanadyl-Porphyrin Functionalized Graphene Nanoribbons. Fanmiao Kong, University of Oxford
B	<i>In Vitro</i> and <i>In Vivo</i> Oxygen Imaging Assessment of Beta Cell Replacement Devices. Mrignayani Kotecha, O2M Technologies
A	Probing Proteolytic Catalysis of Trypsin using Metal-Organic Frameworks (MOFs) and Site-directed Spin Labeling (SDSL) Electron Paramagnetic Resonance (EPR). Qiaobin Li, North Dakota State University
B	Solvent Accessibility of Cysteine as a Probe of Reaction-Coupled Protein Dynamics. Wei Li, Emory University
A	Magnetically Detected Protein Binding using Spin-labeled SOMAMers. Shutian Lu, University of Washington
B	Spin Dynamics in Singlet Fission. Thomas S. C. MacDonald, UNSW Sydney
A	Dangling Bond Recombination in Amorphous Silicon Studied by Multifrequency Electrically Detected Magnetic Resonance. Hans Malissa, University of Utah
B	Continuous-Wave EPR Detects Changes in Dynamics upon Metal Binding to Bacterial Copper Transcription Factor. Alysia Mandato, University of Pittsburgh
A	Practical Applications of an EPR on a Chip Device. Joseph E. McPeak, Helmholtz-Zentrum Berlin

B	Investigating the Relationship Between Electronic Structure and Catalytic Activity in Uniquely Synthesized Carbon Nitride Materials by Electron Paramagnetic Resonance Spectroscopy. Joseph E. McPeak, Helmholtz-Zentrum Berlin
A	Pulsed EPR DEER (double electron-electron resonance) Estimation of Distribution of Dipolar Interactions Between Gd³⁺ Ions with Significant Zero-field Splitting in Biradicals in a Polycrystalline Sample. Sushil K. Misra, Concordia University
B	Enzyme-Substrate Complex in Oxalate Decarboxylase Revealed by ¹³C-ENDOR. Alvaro Montoya, University of Florida
A	A Direct Monitoring Method of Titania Photocatalytic Activity by an in situ Photoreactor-EPR Setup. Mohamed A. Morsy, King Fahd University of Petroleum and Minerals
B	Singlet Fission and Spin Dynamics in Novel Bipentacene Complexes: Time-Resolved EPR Study. Jens Niklas, Argonne National Laboratory
A	Automated Digital Tuning, Coupling and Data Acquisition for Rapid Scan EPR. Ryan C. O'Connell, West Virginia University
B	Multi-Extreme THz ESR: Developments on New Detection Methods and under High-Pressure Condition. Hitoshi Ohta, Kobe University
A	Exciton Dynamics on Triplet-Triplet Annihilation Upconversion in Organic Semiconductors Revealed by Time-Resolved EPR. Tsubasa Okamoto, Kobe University
B	Quantum Sensing of Light-Induced Electron Transfer in Natural Photosynthesis: A Time-Resolved 130 GHz EPR and ENDOR Study. Oleg Poluektov, Argonne National Laboratory
A	Synthesis and Characterization of a ¹³C Labeled Isotopologue of OX071 Highly Sensitive to Molecular Tumbling for In Vivo EPR Viscometry. Martin Poncelet, West Virginia University
B	Triggered Functional Dynamics of AsLOV2 by Time-resolved Electron Paramagnetic Resonance at High Magnetic Fields. Brad D. Price, UC Santa Barbara
A	Multiple Paramagnetic Recombination Centers Observed in 4H-SiC pin Diodes via Electrically Detected Magnetic Resonance. Ashton D. Purcell, Pennsylvania State University
B	Spectral Diffusion of Phosphorus Donors in Silicon at High Magnetic Field. Chandrasekhar Ramanathan, Dartmouth College
A	Large Room Temperature Bulk DNP of ¹³C via P1 Centers in Diamond. Chandrasekhar Ramanathan, Dartmouth College
B	Electron Paramagnetic Resonance of Transition Metal Phthalocyanines: A Study. Ganesh R. Rana, University of Alabama
A	Imaging the Néel Relaxation of Superparamagnetic Nanoparticles using Nitrogen-Vacancy Centers. Bryan Richards, University of New Mexico
B	Modelling Conformational Flexibility in a Spectrally Addressable Multi-Spin Molecular Qubit Model System. Ciarán J. Rogers, University of Manchester
A	Structural And Topological Study Of gp28 Peptide Incorporated Into Lipid Bilayers. Nancy C. Rotich, Miami University
B	EPR to Go. Michele Segantini, Helmholtz-Zentrum Berlin
A	Non-Markovian Spin-Bath Dynamics of a Single Nitrogen-Vacancy Center in Diamond. Cooper Selco, University of Southern California
B	Development of Frequency-Modulated and Amplitude-Modulated Sub-THz Pulses for High Frequency EPR/ODMR. Cooper Selco, University of Southern California
A	Electrically Detected Magnetic Resonance Using Rapid-Scan on 4H:SiC Transistors. F. V. Sharov, Pennsylvania State University
B	Triarylmethyl Radicals for the In Vivo Detection of Hydrogen Peroxide. Misa A. Shaw, West Virginia University

A	Non-resonant Broadband ESR Sensor for Portable Retrospective Dosimetry. Pragma R. Shrestha, Theiss Research and National Institute of Standards and Technology
B	Spectroscopic Investigation of Oxygen Tolerant [FeFe] Hydrogenases. A. Silakov, Pennsylvania State University
A	Nuclear Quadrupole Resonance Spectroscopy Using a Femtotesla Diamond Magnetometer. Yaser Silani, University of New Mexico
B	Elucidation of Site-Specific Dynamics in Proteins from Cu(II) EPR Lineshape Analysis. Kevin Singewald, University of Pittsburgh
A	Magnetic Edges and Electron Coherence in Molecular Graphene Nanoribbons using Porphyrins as Spin Injectors. Michael Slota, University of Oxford
B	Local Water Concentration in Lipid Bilayers by Pulsed EPR Methods. Alex I. Smirnov, North Carolina State University
A	Protonation of Model Ionizable Sidechains in Transmembrane Protein Domains. Tatyana I. Smirnova, North Carolina State University
B	Picoliter NMR Spectroscopy with NV Centers in Diamond. Janis Smits, University of New Mexico
A	Sample Holders for Sub-THz Electron Spin Resonance Spectroscopy. Antonín Sojka, University of California Santa Barbara
B	Hyperfine Decoupling of Magnetic Resonance Spectra Using Wavelet Transform. Madhur Srivastava, Cornell University
A	Probabilistic Inference of Nonparametric Distance Distributions in DEER Spectroscopy. Sarah R. Sweger, University of Washington
B	Spin Relaxation Dynamics in Radical-Pair Processes at Low Magnetic Fields. Taniya H. Tannahewa, University of Utah
A	Comparative Evaluation of Spin Label Modeling Methods for Protein Structural Studies. Maxx Tessmer, University of Washington
B	Optimizations for Frequency-swept Excitation Pulses in EPR. Paul Trenkler, Goethe University Frankfurt
A	Harnessing Rapid Scan EPR Imaging for an Overlooked Problem in 3D Bioprinting: Detecting Light-induced Hypoxia in GelMA Constructs and Development of a Methodology to Overcome This Challenge. Mark Tseytlin, West Virginia University
B	Digitally Controlled Printed Circuit Board EPR Resonator. Oxana Tseytlin, West Virginia University
A	Pulsed EPR Above 300 GHz. Johan van Tol, National High Magnetic Field Laboratory
B	Design, Synthesis, and Coherence of Spectrally-Addressable Multiqubit Metal Complexes. Stephen von Kugelgen, Massachusetts Institute of Technology
A	Studying Functional Consequences of Electronic Structure Changes for Aerobic Substrate Oxidation by a Ni(II)-polyoximatoamine Catalyst Using EPR. Kumari Walpita, Miami University
B	High-Frequency EPR Investigation of Trinuclear Cobalt-Oxo Clusters. Xiaoling Wang, National High Magnetic Field Laboratory
A	General Features of Confinement Effects on Protein-Coupled Solvent Dynamics from the EPR Spin Probe Perspective. Kurt Warncke, Emory University
B	Anomalous Protein-Coupled Solvent Dynamics around Oligomeric and Fibrillar α-Synuclein. Katie L. Whitcomb, Emory University
A	Proton-detected, Scalar-driven ^{13}C Overhauser Dynamic Nuclear Polarization NMR at 14.1 T. S. Wi, National High Magnetic Field Laboratory
B	Measuring Power Spectra in Diamonds with P1 and NV Centers at 2.5 GHz. Ethan Q. Williams, Dartmouth College
A	A 1 GHz Preclinical Benchtop EPR Imaging Spectrometer. Lukas B. Woodcock, University of Denver

B	Proline Substitutions Impact Bridge Helix Integrity of SpyCas9 as Detected by Using Site-Directed Spin Labeling. Difei Wu, University of Southern California
A	Proteins Under Nanoscale Spatial Confinement: What can EPR Tell Us?. Zhongyu Yang, North Dakota State University