

60th Rocky Mountain Conference on Magnetic Resonance
42nd International EPR Symposium
Poster Presentations

Monday, July 22: 7:00-9:00 pm (Authors Present for Posters Labeled A)

Tuesday, July 23: 7:00-9:00 pm (Authors Present for Posters Labeled B)

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| A | Photochemical Electron Doping of Colloidal SrTiO₃ Nanocrystals: Effect of Hole Quencher and Carriers Densities. Muhammad Abdullah, University of Massachusetts Amherst |
| B | A Closer Look at Confined Water: Use of Overhauser Dynamic Nuclear Polarization to Study Nanoscale Water Dynamics in Aerosol-OT Reverse Micelle Model Systems. Alec A. Beaton, Syracuse University |
| A | A Multimodal Method for the Investigation of Complex Protein Systems with Site-Directed Spin-Labeling. Samantha M. Betts, Syracuse University |
| B | Decoherence of Molecular Spin Qubits in Solution. Elizabeth R. Canarie, University of Washington |
| A | Characterization of Expansible Argilominerals in Reservoir Rocks by Relaxometry. Gilson Da Silva Júnior, Federal University of Rio de Janeiro |
| B | Development of a New and Greener Calibration Reaction for Use with Rapid-Freeze-Quench Apparatus for EPR Spectroscopy. Peter E. Doan, Northwestern University |
| A | Hydration Environment Characterizations of the Folding of IA₃, an Intrinsically Disordered Protein. Katie M. Dunleavy, University of Florida |
| B | Redox Regulation by Extracellular Superoxide Dismutase (EC-SOD) Due to the R213G Variant in Bleomycin-induced Lung Injury. Hanan Elajaili, University of Colorado Anschutz Medical Campus |
| A | Allosteric Gating in Cyclic Nucleotide-gated Ion Channels: New Insights from DEER Spectroscopy. Eric G. B. Evans, University of Washington |
| B | Measuring, Processing and Analysing Non-Uniform Sampled HYSORE with Hyscorean. Luis Fábregas Ibáñez, ETH Zürich |
| A | Spin-probe EPR of Nanoheterogeneous Media: MOFs and ILs. Matvey V. Fedin, International Tomography Center SB RAS |
| B | Pulsed Dipolar EPR Distance Measurements using Orthogonal Labeling with Triplet Fullerene and Nitroxide or Triarylmethyl Radicals. Matvey V. Fedin, International Tomography Center SB RAS |
| A | Understanding Linewidth of ESR Spectrum Detected by a Single NV Center in Diamond. Benjamin Fortman, University of Southern California |
| B | Effect of Freezing Method on Polarizability of Finland Trityl. Benjamin R. Fowler, University of Alabama |
| A | Advancing Liquid-State Overhauser DNP Instrumentation and Applications. John M. Franck, Syracuse University |
| B | Determining Protein-DNA Interaction using Copper-based EPR Techniques Shreya Ghosh, University of Pittsburgh |

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| A | Beyond Pairwise Distance Determination: Resolving Dynamic Conformational Change in CDF Regulatory Domains. Jenny Hall, University of East Anglia |
| B | Hyperpolarization and Bath Spectroscopy of Individual ^{13}C Nuclei in Diamond via ODMR. Konstantin Herb, ETH Zürich |
| A | Development of Enzyme Responsive Spin Probes for Non-Invasive Imaging of Enzyme Activity by EPR. Justin Huffman, West Virginia University |
| B | Protein and Solvent Dynamical Contributions to the Radical Rearrangement Catalysis of 2-Aminopropanol in the B_{12}-Dependent Ethanolamine Ammonia-Lyase. Alina Ionescu, Emory University |
| A | Nuclear-Spin-Pattern Control of Electron-Spin Dynamics in a Series of V(IV) Complexes. Cassidy E. Jackson, Colorado State University |
| B | Simulating Electronic Decoherence in Glassy Samples via Cluster Expansion Methodologies. Samuel M. Jahn, University of Washington |
| A | Tailored Nuclear Spin Dynamics in a Coordination-Complex Vessel. Spencer Johnson, Colorado State University |
| B | Adjustable Frequency and Variable Coupling EPR Probe with Loop-Gap Resonators for Spectroscopy up to X-Band. Gajadhar Joshi, Amherst College |
| A | Experimental Validation of the ALLNOX Program for Studying Protein–Nucleic Acid Complexes. Venkatesan Kathiresan, University of Southern California |
| B | Progress Towards Time-Resolved Measurements of Light-Induced Conformational Changes in Gd^{3+} Spin-Labeled Proteins by cw-EPR at 240 GHz. Marzieh Kavand, University of California Santa Barbara |
| A | X-band EPR Studies on Ion Beam Irradiated YIG Thin Films; Reconfiguration of Structural and Magnetic Properties. Bijoy Kumar Kuanr, Jawaharlal Nehru University |
| B | Modulation of Radical Reaction-Protein-Solvent Coupling in the B_{12}-Dependent Ethanolamine Ammonia-Lyase Enzyme by using Sucrose in the Low-Temperature Mesodomain System. Wei Li, Emory University |
| A | Studying Drug-Drug Interactions in Cytochrome P450 3A4 with EPR. Molly Lockart, University of Alabama |
| B | New Spin Labels and Spin Labeling Methods. Janet E. Lovett, University of St Andrews |
| A | EPR Spectroscopy Across the Spectrum – From Coordination Complexes to Whole Cells. Heather R. Lucas, Virginia Commonwealth University |
| B | Electrically Detected Electron Nuclear Double Resonance in a Fully Processed Bipolar Junction Transistor. Brian R. Manning, Pennsylvania State University |
| A | An Improved Adaptive Signal Averaging Approach for Optimizing Signal to Noise in Continuous Wave Magnetic Resonance Measurements. Brian R. Manning, Pennsylvania State University |
| B | Evaluation of Aromatic Rings Hydrogenation in Hydrocarbon Resins by NMR Spectroscopy. Antonio Marchi Netto, Braskem |

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| A | Structural Dynamics of Biomolecules through Atomistic Simulations Guided by DEER Measurements. <u>Fabrizio Marinelli</u> , National Institutes of Health |
| B | Fast Full-spectrum Kinetics Experiments by Rapid Scan EPR at X-band. <u>Joseph E. McPeak</u> , University of Denver |
| A | Calculation of Polycrystalline Pulsed EPR Signals with Relaxation by Phonon Modulation of Hyperfine and g Tensors Rigorously in Liouville Space using Stochastic Liouville Equation. <u>Sushil K. Misra</u> , Concordia University |
| B | Lineshape Analysis of NV-detected Nanoscale EPR Spectroscopy. <u>Laura Mugica</u> , University of Southern California |
| A | Protein Cofactor Control of H₂ Catalysis by [FeFe]-hydrogenase as Studied by Correlated Spectroscopy. <u>David W. Mulder</u> , National Renewable Energy Laboratory |
| B | The Quintet State Generation Process via Inter- and Intra-molecular Singlet Fission. <u>Hiroki Nagashima</u> , Kobe University |
| A | Multi Frequency ESR Measurements of Organic Low-dimensional Antiferromagnets. <u>Toshikazu Nakamura</u> , Institute for Molecular Science |
| B | Synthesis and Electron Spin Relaxation of Bis-Spirooxetane Nitroxide. <u>Thacien Negendahimana</u> , University of Denver |
| A | Positron Emission Tomography - Electron Paramagnetic Resonance Coimaging System: First Development Steps. <u>Ryan C. O'Connell</u> , West Virginia University |
| B | Application of Pulse Shaping in Double Electron-Electron Resonance Spectroscopy at 115/230 GHz. <u>Zaili Peng</u> , University of Southern California |
| A | Combination of DFT Calculation and Solid State ¹³C NMR in the Evaluation of Efavirenz Polymorphs. <u>Taiana Lucia Emmanuel Pereira</u> , Universidade Federal do Rio de Janeiro |
| B | Electrostatics of Silica Nanoparticle - Water Interface by EPR of pH-Sensitive Spin Probes. <u>Vladislav Perelygin</u> , North Carolina State University |
| A | Frequency-Chirped Millimeter-Wave Control of ¹³C-DNP in Diamond. <u>Chandrasekhar Ramanathan</u> , Dartmouth College |
| B | Radical Clouds: Determining How Light Generates Free Radicals in Cloud Droplets in the Atmosphere. <u>Victoria L. Rubio</u> , University of Denver |
| A | A THz ESR Study under High-Pressure using Hexaaqua Complex Salt Containing High-Spin Metal Ion. <u>Yu Saito</u> , Kobe University |
| B | Rapid Scan EPR Imaging of a Multi-sample Phantom. <u>Yilin Shi</u> , University of Denver |
| A | Absorption and Dispersion Component Selection in a Non-Resonant Interferometric ESR Spectrometer. <u>Pragya R. Shrestha</u> , National Institute of Standards and Technology |
| B | Magnetic Interactions and Coherence Transfer in Magnetic Graphene Nanoribbons. <u>Michael Slota</u> , Oxford University |
| A | Ultra High Vacuum Transfer Chamber for High Field – Electron Paramagnetic Resonance. <u>Antonin Sojka</u> , Central European Institute of Technology |
| B | Dipolar Linewidth and Decay of a Homogenous Distribution of Polarized Spins. <u>Sarah R. Sweger</u> , University of Washington |

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| A | Effects of Natural Polymorphisms of Subtypes F and H HIV-1 Protease on Protein Conformations: A DEER and MD Investigation. Trang T. Tran, University of Florida |
| B | A New Insight into Stereolithography: EPR Mapping of Oxygen in 3D Printed Objects. Oxana Tseytlin, West Virginia University |
| A | Comparative EPR and Structural Analysis of MgFe₂O₄-ZnO Nanocomposite and its Constituents. Garima Vaish, University of Allahabad |
| B | Control of Solvent Dynamics and Confinement Effects Around the B₁₂-Dependent Ethanolamine Ammonia-Lyase in Frozen Aqueous Solutions by using Dimethyl Sulfoxide Adjustment of Mesodomain Volume. Kurt Warncke, Emory University |
| A | Investigating the Oxidative Potential of Secondary Organic Aerosols on Polyunsaturated Fatty Acids and Lipid Membranes. Meghan White, University of Florida |
| B | A Cyclic Disulfide Bridged Dinitroxide Probe for Determining Tissue Redox Status. Lukas B. Woodcock, University of Denver |
| A | H/D Isotope Effects: Experimental Evidence for the Key Role of Intramolecular Vibrations in Spin Dynamics. Tongtong Xiao, Huazhong University of Science and Technology |
| B | Mapping Out the Degree of Freedom of Hosted Enzymes in Confined Spatial Environments using EPR Spectroscopy. Zhongyu Yang, North Dakota State University |
| A | ESR and Magnetization Studies on Cu₄(OH)₆Cl: An Antiferromagnet with Kagome Lattice. Lei Yin, Huazhong University of Science and Technology |
| B | Steady State and Time Resolved Electron Paramagnetic Resonance Investigations of Structured Fluids. Fengdan Zhao, Bowling Green State University |
| A | Site-directed Spin Labeling of Proteins using NcAA-mediated Conjugation Techniques and a Photocaged Nitroxide. Anandi Kugele, University of Konstanz |
| B | Quantum Sensing at High Pressures using Spin Defects in Diamond. Satcher Hsieh, University of California Berkeley |
| A | Determining the Relative Orientation of Rigidly-Bound Cu²⁺ Spin Labels in Biomolecules by Electron Paramagnetic Resonance. Austin Gamble Jarvi, University of Pittsburgh |
| B | From Structure to Function: Multifrequency Pulsed EPR Investigations of Assembly Intermediates in Mn/Fe R2lox. Effie K. Miller, The Ohio State University |