

ALS Poster Session, ALS Exhibitor Tent, Tuesday October 2, 4:45 pm

Student Poster Competition

Topic	Location	Presenter	Authors	Title
Applied Science/ Techniques	1	Stephen Iota	Stephen Iota, Francesco Panerai, Mike MacNeil, Dula Parkinson, Harold Barnard	Detection and Tracking for Micro-CT Analysis of Entry Systems Parachute
	2	Maggie Xiao	Zhuyun Xiao, Reem Khojah, Mohanchandra K. Panduranga, Maite Goiriena, Rajesh V. Chopdekar, Roberto Lo Conte, Jeffrey Bokor, Gregory P. Carman, Dino Di Carlo, Rob N. Candler	Tunable single domain magnetoelastic Terfenol-D micromagnets for particle and single cell manipulation
Bioscience	3	Jenn Nill	Jennifer Nill, Hoi-Ying Holman, Hans Bechtel, Tina Jeoh	Using Synchrotron FTIR to evaluate the evolution of cellulose properties throughout enzymatic hydrolysis for biofuels and chemicals
	4	Charles Schurman	Chelsea M. Heveran, Charles Schurman, Claire Acevedo, Eric L. Livingston, Eric Schaible, Adam Rauff, Dana Carpenter, Moshe Levi, Ted Bateman, Tamara Alliston, Karen B. King, Virginia L. Ferguson	Osteocytes may be responsible for compounding bone quality defects in age and chronic kidney disease
Chemistry	5	Naomi Biggins	Naomi Biggins, Rebecca Siegelman, Miguel Gonzalez, Michael McGuirk, Phillip Millner, Simon Teat, Jeffrey Long	Characterization of Metal–Organic Frameworks by Single-Crystal X-Ray Diffraction
	5 ½	Qi Wang	Q. Wang, S. Yuan, X. Sun, H. Zhou	Sequential Phase Transformation of PCN-250 and its Impact on Methane Storage
	6	Hao Yan	Hao Yan, Jeremy E. P. Dahl, Giulia Galli, Peter R. Schriener, Zhi-Xun Shen, Nicholas A. Melosh	Diamond meets molecules: Scientific opportunities with diamondoids
Energy Science	7	Ane Etxebarria	A. Etxebarria, O. Bondarchuk, E.J. Crumlin, M.A. Muñoz-Márquez	Elucidating characteristic effects of atmospheric gases on Lithium surface
	8	Brooke Kuei	Brooke Kuei, Dan Ye, Enrique D. Gomez	Solution resonant soft X-ray scattering of block copolymer micelles for studies of charge photogeneration
	9	Kasra Nowrouzi	Kasra Nowrouzi, Richard Celestre, Young-Sang Yu, Bjoern Enders, Peter Denes, John Joseph, Andreas Schmid, Howard Padmore, David Shapiro	Nanosurveyor 2: The Next Generation Operando Ptychography Microscope at the Advanced Light Source
Geoscience/ Environment	10	Cara Vennari	Cara Vennari, Feng Lin, Lowell Miyagi, Martin Kunz, Quentin Williams	Slip and Strength in Pyrope Garnet (Mg ₃ Al ₂ (SiO ₄) ₃) at High Pressures
	11	Connor Yen	Connor Ethan Yen and Martin Kunz	Spatial Distribution of Thermal Pressure in a Laser-heated Diamond Anvil Cell: A Modeling and Synchrotron X-ray Diffraction Study
Materials/ Condensed Matter	12	I-Ting Chiu	I-Ting Chiu, Rajesh Chopdekar, Apurva Mehta, Alexander Kane, Alpha N'Diaye, Elke Arenholz, Yayoi Takamura	Phase transitions and magnetic domain coexistence of Nd _{0.5} Sr _{0.5} MnO ₃ thin films
	13	Riley Coulthard	Riley Coulthard, Tuan Anh Pham, Mirijam Zobel, Stephen Weitzner, Steven Buchsbaum, Desirée Plata, Brandon Wood, Francesco Fornasiero, Eric Meshot	Role of ion size and dipole moment in ionic liquids probed by high-energy X-ray scattering and ab initio molecules dynamics
	14	Tristan de Boer	T. de Boer, A. Zatsepin, A. Moewes	Electronic Properties of Carbyne
	15	Peter Dudenas	Peter Dudenas, Ahmet Kusoglu	Probing PFSA Ionomer Film Formation in-situ via Grazing Incidence X-Ray Scattering
	16	Miela Gros	Miela, Gross, Dilworth Y. Parkinson, Joseph I. Pacold, Tristan D. McDougall, A. Chandler Jones, John Bows, Ian Hamilton, Danil E. Smiles, Stefano De Santis, Alessandro Ratti, Danlël M. Pelt, Harold Barnard, Alastair MacDowell, David K. Shuh	Tomographic Imaging of Expanding Pore Structures in Starch Materials
	17	Jinwoong Hwang	Jinwoong Hwang, Kyoo Kim, Hyejin Ryu, Ji-Eun Lee, Suran Kim, Minhee Kang, Byeong-Gyu Park, Alessandra Lanzara, Jinwook Chung, Sung-Kwan Mo, Jonathan Denlinger, Byung Il Min, Choongyu Hwang	Emergence of Kondo resonance in graphene intercalated with cerium
	18	Abe Levitan	A. Levitan, J. Li, J. Pellicciari, C. Mazzoli, S. Catalano, M. Gibert, J.M. Triscone, S. Wilkins, R. Comin	Visualizing Inhomogeneity in Electronic Orders with Resonant Coherent X-Ray Diffraction
	19	Whitney Loo	Whitney S. Loo, Jacqueline A. Maslyn, Chenhui Zhu, Nitash P. Balsara	Phase Behavior of Block Copolymers and a Lithium Salt
	20	Jacqueline Maslyn	Jacqueline Maslyn, Whitney Loo, Kyle McEntush, Dilworth Parkinson, Nitash Balsara	Lithium Dendrite Growth through a Solid Polymer Electrolyte as a Function of Current Density
	21	Shambhavi Pratap	Shambhavi Pratap, Johannes Schlipf and Peter Müller-Buschbaum	On the chemical origins of crystalline preferred orientations in hybrid perovskite thin films
	22	Elyse Schriber	Elyse Schriber, et al.	TBD
23	Yeting Wen	Yeting Wen, Tianrang Yang, Dongkyu Lee, Ho Nyung Lee, Ethan J. Crumlin, Kevin Huang	Temporal and Thermal Evolutions of Surface Sr-Segregation in Pristine and Atomic Layer Deposition Modified La _{0.6} Sr _{0.4} CoO ₃ Epitaxial Films	

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Applied Science/Techniques	24	S. Liu*, H. Nishimura, C.N. Melton, A. Hexemer, S. Leemann	Machine Learning for Beam Size Prediction and Stabilization
	25	C.N. Melton*, S. Liu, D. Kumar, R. Pandolfi, G. Freychet, S. Venkatakrishnan, H. Tang, A. Hexemer, D. Ushizima	MLXS: Machine Learning for X-ray Scattering
	26	Q. Ackermann, H. Bechtel, L. Hellberg*, M. Martin	Tomographic Imaging using Infrared Light
	27	D. Kilcoyne*	Soft and Tender X-ray Instrumentation at the ALS
	28	S.C. Fakra*	Moving the X-ray Microprobe 10.3.2 towards Tender X-rays: Recent Projects and Upgrades
	29	S. Bear*, D. Parkinson, H. Barnard, K. Beattie, C. Tull, R. Pandolfi, A. MacDowell	Tomographic Reconstruction through Python Scripts for Data Mining Purposes
	30	I. Cordova*	Resonant Scattering Across New In-Situ Applications
Bioscience	31	T. Varga*, A. Ahkami, S. Fakra, S. Doty	Study of nutrient fixation in poplar by synchrotron fluorescence spectromicroscopy
	32	C.R. Smallwood*, J.-H. Chen, N. Kumar, W. Chrisler, S.O. Purvine, J.E. Kyle, C.D. Nicora, R. Boudreau, A. Ekman, K.K. Hixson, R.J. Moore, G. McDermott, W.R. Cannon, J.E. Evans	Integrated systems biology and imaging of the smallest free-living eukaryote <i>Ostreococcus tauri</i>
Chemistry	33	K.-J. Lee*, Y. Ye, H. Su, D.-J. Yun, M. Sun, B.S. Mun, E.J. Crumlin	CO2 conversion reaction on Ni(100) probed with ambient pressure XPS
	34	L.M. Moreau*, A. Herve, S. Alayoglu, A. Braun, Y. Liu, M.D. Straub, C.H. Booth, S.G. Minasian	X-Ray Absorption Studies of 5f Nanoparticle Formation in Covalent Organic Frameworks
	34 ½	A. Doran*, L. Schliker, C. Beavers, M. Kunz	In Situ and Operando High Temperature X-ray Powder Diffraction in Variable Gaseous Environments
	35	B.-H. Liu*; O. Karslioglu and H. Bluhm	Copper Corrosion Inhibition Investigated on the Molecular Scale Using APXPS
	36	H. Su*, Y. Ye, K.-J. Lee, E. Crumlin	Investigating the CO2 hydrogenation process on Pt using ambient pressure X-ray photoelectron spectroscopy
	37	M. Roders*, M. Kolaczowski, Y. Liu, A.L. Ayzner	Changing the Organic Semiconductor Core-central Moiety Modulates Bulk Heterojunction Morphology and Charge Transport
Energy Science	39	Y. Ye*	Dramatic differences in CO2 adsorption and initial steps of reduction between Ag and Cu
	40	C. Buechner, L. Carver, S. Gericke*, G. Su, H. Bluhm	Ambient-pressure XPS gives chemical insights into the polyamide-water interface
	41	G. Su*	Exploring Chemistry and Morphology of Polymer Materials with Energy-Tunable X-Rays
	42	M. Sun*, E. Crumlin, A. Etxebarria	Ambient Pressure X-ray Study on Reaction Kinetics of Garnet Electrolyte in CO ₂
Geoscience/Environment	43	S. Matzen*, S. Fakra, P. Nico, C. Pallud	Arsenic speciation in the rhizosphere of an arsenic-hyperaccumulating fern
	44	S. China*, G. Kulkarni, R. Hicks, D. Veghte, T. Harder, N. Tolic, R. Chu, L. Pasa-Tolic, T. Varga, T. Suntharampillai, M. Gilles, V. Bailey, S. Burrows	Ice nucleation activities of agricultural soil derived mineral and organic particles
	45	S. Carrero*; H. Bluhm; B. Gilbert; M. Whittaker	Generation and oxidation of pyrite surface defects observed by ambient pressure XPS
	46	M. Kunz*, J. Yan, A. Doran, C. Beavers, Q. Williams, E. Cornell, E. Domning, A. Treger, E. Yen, A. MacDowell	Implementation of Peak Scaling method on ALS BL 12.2.2 for temperature measurement in a laser heated diamond anvil cell
Materials/Condensed Matter	47	Y.-H. Lu*, C. Morales, V. Altoe, A. Schwartzberg, H. Bechtel, M. Martin, L. Soriano, P. Ashby, M. Salmeron	Ultra-thin film membranes for microscopy and spectroscopy
	48	A.S. McLeod*, W. Zheng, K.W. Post, M. Hepting, M. Bluschke, M. Minola, A.V. Boris, E. Benckiser, B. Keimer, and D.N. Basov	Spatial recognition of electronic phases: hyper-spectral PEEM of the insulator-metal transition in NdNiO ₃
	49	G. Duvjir, B.K. Choi, I. Jang, S. Ulstrup, T.T. Ly, S. Kim, Y.H. Choi, C. Joswick, A. Bostwick, E. Rotenberg, R. Sankar, K.-S. Kim, J. Kim, Y.J. Chang*	Metal-Insulator Transition and High Temperature Charge Density Waves in monolayer VSe ₂
	50	M. van Spronsen*, K. Duanmu, R.J. Madix, M.B. Salmeron, P. Sautet, and C.M. Friend	The dynamics under ambient conditions of AgPd alloys for selective catalysis
	51	M. Salamonczyk*, R. Mandel, P. Ashby, C. Wang, J. Goodby, J. Gleeson, S. Sprunt, A. Jakli, C. Zhu	Direct observation of the nanohelical pitch in the twist-bend nematic liquid crystal of a tetramer
	52	G. Freychet*, D. Kumar, R. Pandolfi, I. Cordova, P. Naulleau, A. Hexemer	Pursuing the critical dimension in etched patterns using grazing incidence small Angle X-ray scattering
	53	C. Stan*, N. Tamura	The Swiss Army Knife Approach: Microdiffraction and Microfluorescence at Beamline 12.3.2
	54	E. Schriber*, D. Popple, M. Yeung, J.N. Hohman	Let's talk about SAXS/WAXS: Characterizing Semi-soft Materials with Synchrotron X-ray Scattering
Physics	55	R.-Y. Liu*, K. Ozawa, N. Terashima, Y. Natsui, B. Feng, S. Ito, W.-C. Chen, C.-M. Cheng, S. Yamamoto, H. Kato, T.-C. Chiang, I. Matsuda	Controlling the surface photovoltage on WSe ₂ by surface chemical modification
	56	Z. Yao*, J. Zhang, X. Chen, S. Mills, X. Du, G.L. Carr, H.A. Bechtel, M.C. Martin, M. Liu et, al.	THz nano-imaging of graphene and broadband IR detection with synchrotron light source
	57	A. White*, C. Lee, L. Tamura	Lightsources.org Collaboration

*Indicates presenter

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