

2020 CINT Publications

- Addamane, S. J., A. Rashidi, A. Mansoori, N. M. Dawson, D. M. Shima, T. J. Rotter, G. T. Wang, and G. Balakrishnan. "Comparison of Carrier Localization Effects between Inas Quantum Dashes and Quantum Dots in a Dwell (Dashes- or Dots-in-a-Well) Configuration." *Physica E-Low-Dimensional Systems & Nanostructures* 124 (Oct 2020): 114376. <https://doi.org/10.1016/j.physe.2020.114376>. <Go to ISI>://WOS:000571146700016.
- Addamane, S. J., D. M. Shima, A. Mansoori, and G. Balakrishnan. "A Transmission Electron Microscopy Study of Dislocation Propagation and Filtering in Highly Mismatched Gasb/Gaas Heteroepitaxy." *Journal of Applied Physics* 128, no. 22 (Dec 2020): 225301. <https://doi.org/10.1063/5.0027044>. <Go to ISI>://WOS:000598505300001.
- Agarwal, S., M. O. Liedke, A. C. L. Jones, E. Reed, A. A. Kohnert, B. P. Uberuaga, Y. Q. Wang, *et al.* "A New Mechanism for Void-Cascade Interaction from Nondestructive Depth-Resolved Atomic-Scale Measurements of Ion Irradiation-Induced Defects in Fe." *Science Advances* 6, no. 31 (Jul 2020): eaba8437. <https://doi.org/10.1126/sciadv.aba8437>. <Go to ISI>://WOS:000556543100023.
- Aguiar, J. A., S. Kwon, B. D. Coryell, E. Eyeran, A. A. Bokov, R. H. R. Castro, D. Burns, H. T. Hartmann, and E. P. Luther. "Densification of Graphite under High Pressure and Moderate Temperature." *Materials Today Communications* 22 (Mar 2020): 100821. <https://doi.org/10.1016/j.mtcomm.2019.100821>. <Go to ISI>://WOS:000539242500010.
- Alberdi, R., R. Dingreville, J. Robbins, T. Walsh, B. C. White, B. Jared, and B. L. Boyce. "Multi-Morphology Lattices Lead to Improved Plastic Energy Absorption." *Materials & Design* 194 (Sep 2020): 108883. <https://doi.org/10.1016/j.matdes.2020.108883>. <Go to ISI>://WOS:000569881300009.
- Alfonso-Hernandez, L., S. Athanasopoulos, S. Tretiak, B. Miguel, A. Bastida, and S. Fernandez-Alberti. "Vibrational Energy Redistribution During Donor-Acceptor Electronic Energy Transfer: Criteria to Identify Subsets of Active Normal Modes." *Physical Chemistry Chemical Physics* 22, no. 33 (Sep 2020): 18454-66. <https://doi.org/10.1039/d0cp03102j>. <Go to ISI>://WOS:000565157900017.
- Ali, A., H. G. Kim, K. Hattar, S. Briggs, D. J. Park, J. H. Park, and Y. Lee. "Ion Irradiation E Ffects on Cr-Coated Zircaloy-4 Surface Wettability and Pool Boiling Critical Heat Flux." *Nuclear Engineering and Design* 362 (Jun 2020): 110581. <https://doi.org/10.1016/j.nucengdes.2020.110581>. <Go to ISI>://WOS:000540251900004.
- Alinezhad, A., T. M. Benedetti, L. Gloag, S. Cheong, J. Watt, H. S. Chen, J. J. Gooding, and R. D. Tilley. "Controlling Pt Crystal Defects on the Surface of Ni-Pt Core-Shell Nanoparticles for Active and Stable Electrocatalysts for Oxygen Reduction." *Acs Applied Nano Materials* 3, no. 6 (Jun 2020): 5995-6000. <https://doi.org/10.1021/acsnm.0c01159>. <Go to ISI>://WOS:000545689000107.
- Anderson, E. M., D. M. Campbell, L. N. Maurer, A. D. Baczewski, M. T. Marshall, T. M. Lu, P. Lu, *et al.* "Low Thermal Budget High-K/Metal Surface Gate for Buried Donor-Based Devices." *Journal of Physics-Materials* 3, no. 3 (Jul 2020): 035002. <https://doi.org/10.1088/2515-7639/ab953b>. <Go to ISI>://WOS:000556808500001.
- Andrade, G. A., I. A. Popov, C. R. Federico, P. Yang, E. R. Batista, R. Mukundan, and B. L. Davis. "Expanding the Potential of Redox Carriers for Flow Battery Applications." *Journal of Materials Chemistry A* 8, no. 34 (Sep 2020): 17808-16. <https://doi.org/10.1039/d0ta04511j>. <Go to ISI>://WOS:000566092600044.
- Andrews, H., K. Nichols, D. Kim, E. I. Simakov, S. Antipov, G. X. H. Chen, M. Conde, *et al.* "Shaped Beams from Diamond Field-Emitter Array Cathodes." *Ieee Transactions on Plasma Science* 48, no. 7 (Jul 2020): 2671-75. <https://doi.org/10.1109/tps.2020.2984156>. <Go to ISI>://WOS:000546900000043.

- Armijo, L. M., S. J. Wawrzyniec, M. Kopciuch, Y. I. Brandt, A. C. Rivera, N. J. Withers, N. C. Cook, *et al.* "Antibacterial Activity of Iron Oxide, Iron Nitride, and Tobramycin Conjugated Nanoparticles against *Pseudomonas Aeruginosa* Biofilms." *Journal of Nanobiotechnology* 18, no. 1 (Feb 2020): 35. <https://doi.org/10.1186/s12951-020-0588-6>. <Go to ISI>://WOS:000517279000004.
- Arribi, P. V., J. X. Zhu, T. Schumann, S. Stemmer, A. A. Burkov, and O. Heinonen. "Topological Surface States in Strained Dirac Semimetal Thin Films." *Physical Review B* 102, no. 15 (Oct 2020): 155141. <https://doi.org/10.1103/PhysRevB.102.155141>. <Go to ISI>://WOS:000582414100003.
- Avdeev, I. D., M. O. Nestoklon, and S. V. Goupalov. "Exciton Fine Structure in Lead Chalcogenide Quantum Dots: Valley Mixing and Crucial Role of Intervalley Electron-Hole Exchange." *Nano Letters* 20, no. 12 (Dec 2020): 8897-902. <https://doi.org/10.1021/acs.nanolett.0c03937>. <Go to ISI>://WOS:000599507100069.
- Bahena, J. A., N. M. Heckman, C. M. Barr, K. Hattar, B. L. Boyce, and A. M. Hodge. "Development of a Heterogeneous Nanostructure through Abnormal Recrystallization of a Nanotwinned Ni Superalloy." *Acta Materialia* 195 (Aug 2020): 132-40. <https://doi.org/10.1016/j.actamat.2020.05.057>. <Go to ISI>://WOS:000552116400013.
- Bai, F., K. F. Bian, B. S. Li, C. Karler, A. Bowman, and H. Y. Fan. "Self-Assembly of Functional Nanoscale Materials." *Mrs Bulletin* 45, no. 2 (Feb 2020): 135-41. <https://doi.org/10.1557/mrs.2020.21>. <Go to ISI>://WOS:000578280100013.
- Baldissarelli, J., A. Manica, M. M. Pillat, M. D. Bagatini, D. B. R. Leal, F. H. Abdalla, V. M. Morsch, *et al.* "Increased Cytokines Production and Oxidative Stress Are Related with Purinergic Signaling and Cell Survival in Post-Thyroidectomy Hypothyroidism." *Molecular and Cellular Endocrinology* 499 (Jan 2020): 110594. <https://doi.org/10.1016/j.mce.2019.110594>. <Go to ISI>://WOS:000498010000012.
- Ballester, M., L. Ravotto, J. M. E. Quirke, R. L. de la Vega, J. A. Shelnut, A. V. Cheprakov, S. A. Vinogradov, and C. J. Medforth. "Protonation of Planar and Nonplanar Porphyrins: A Calorimetric and Computational Study." *Journal of Physical Chemistry A* 124, no. 43 (Oct 2020): 8994-9003. <https://doi.org/10.1021/acs.jpca.0c07610>. <Go to ISI>://WOS:000587720000011.
- Banerjee, S., N. L. Abhishikth, S. Karmakar, D. Kumar, S. Rane, S. Goel, A. Azad, and D. R. Chowdhury. "Modulating Extraordinary Terahertz Transmissions in Multilayer Plasmonic Metasurfaces." *Journal of Optics* 22, no. 12 (Dec 2020): 125101. <https://doi.org/10.1088/2040-8986/abc1c6>. <Go to ISI>://WOS:000586324000001.
- Basdogan, Y., M. C. Groenenboom, E. Henderson, S. De, S. B. Rempe, and J. A. Keith. "Machine Learning-Guided Approach for Studying Solvation Environments." *Journal of Chemical Theory and Computation* 16, no. 1 (Jan 2020): 633-42. <https://doi.org/10.1021/acs.jctc.9b00605>. <Go to ISI>://WOS:000508474800049.
- Bennet, R. K., A. Hojem, and B. L. Zink. "Temperature Dependence of the Anomalous Nernst Coefficient for Ni₈₀Fe₂₀ Determined with Metallic Nonlocal Spin Valves." *Aip Advances* 10, no. 6 (Jun 2020). <https://doi.org/10.1063/5.0006599>. <Go to ISI>://WOS:000544097800001.
- Bischoff, F., and P. P. Rodrigues. "Tsm: An R Package for Time Series with Matrix Profile." *R Journal* 12, no. 1 (Jun 2020): 76-86. <Go to ISI>://WOS:000579493900006.
- Blagg, K., P. Allen, T. M. Lu, M. P. Lilly, and M. Singh. "Focused Ion Beam Deposited Carbon-Platinum Nanowires for Cryogenic Resistive Thermometry." *Carbon* 169 (Nov 2020): 482-87. <https://doi.org/10.1016/j.carbon.2020.06.087>. <Go to ISI>://WOS:000579434800050.
- Bollinger, J. A., Z. I. Imam, M. J. Stevens, and G. D. Bachand. "Tubulin Islands Containing Slowly Hydrolyzable Gtp Analogs Regulate the Mechanism and Kinetics of Microtubule Depolymerization." *Scientific Reports* 10, no. 1 (Aug 2020): 13661. <https://doi.org/10.1038/s41598-020-70602-0>. <Go to ISI>://WOS:000563536800011.

- Bollinger, J. A., M. J. Stevens, and A. L. Frischknecht. "Quantifying Single-Ion Transport in Percolated Ionic Aggregates of Polymer Melts." *Acs Macro Letters* 9, no. 4 (Apr 2020): 583-87. <https://doi.org/10.1021/acsmacrolett.0c00139>. <Go to ISI>://WOS:000527769900023.
- Borger, A., W. D. Wang, T. C. O'Connor, T. Ge, G. S. Grest, G. V. Jensen, J. Ahn, *et al.* "Threading-Unthreading Transition of Linear-Ring Polymer Blends in Extensional Flow." *Acs Macro Letters* 9, no. 10 (Oct 2020): 1452-57. <https://doi.org/10.1021/acsmacrolett.0c00607>. <Go to ISI>://WOS:000584425200009.
- Brambilla, S., and M. J. Brown. "Impact of the Adhesion-Force Lever-Arm "a" on the Rock 'N' Roll Resuspension Model and How to Compute It from Contact Mechanics." *Journal of Aerosol Science* 143 (May 2020): 105525. <https://doi.org/10.1016/j.jaerosci.2020.105525>. <Go to ISI>://WOS:000523595800001.
- Campione, S., J. F. Klem, S. Liu, I. Montano, M. B. Sinclair, and T. S. Luk. "Experimental Evidence of the Lorentz-Like Effective Medium Resonance in Semiconductor Hyperbolic Metamaterials Using Strong Coupling to Plasmonic Metasurfaces." *Ieee Transactions on Antennas and Propagation* 68, no. 3 (Mar 2020): 1748-54. <https://doi.org/10.1109/tap.2019.2930154>. <Go to ISI>://WOS:000526057300050.
- Cao, C., G. X. Zhi, and J. X. Zhu. "From Trivial Kondo Insulator Ce₃pt₃bi₄ to Topological Nodal-Line Semimetal Ce₃pd₃bi₄." *Physical Review Letters* 124, no. 16 (Apr 2020): 166403. <https://doi.org/10.1103/PhysRevLett.124.166403>. <Go to ISI>://WOS:000527527300010.
- Cao, M. P., H. C. Chen, W. Zhang, T. Ming, Y. Q. Wang, and L. Yan. "Effects of Irradiation Temperature on Ne Ion Irradiated Binary Nickel-Based Alloys." *Philosophical Magazine* 100, no. 24 (Dec 2020): 3061-69. <https://doi.org/10.1080/14786435.2020.1804636>. <Go to ISI>://WOS:000558471300001.
- Cardin, A. E., S. R. Silva, S. R. Vardeny, W. J. Padilla, A. Saxena, A. J. Taylor, W. J. M. Kort-Kamp, *et al.* "Surface-Wave-Assisted Nonreciprocity in Spatio-Temporally Modulated Metasurfaces." *Nature Communications* 11, no. 1 (Mar 2020): 1469. <https://doi.org/10.1038/s41467-020-15273-1>. <Go to ISI>://WOS:000522138100017.
- Casias, L. K., C. P. Morath, E. H. Steenbergen, G. A. Umana-Membreno, P. T. Webster, J. V. Logan, J. K. Kim, *et al.* "Vertical Carrier Transport in Strain-Balanced Inas/Inassb Type-II Superlattice Material." *Applied Physics Letters* 116, no. 18 (May 2020): 182109. <https://doi.org/10.1063/1.5144079>. <Go to ISI>://WOS:000533968600001.
- Catanach, T. A., H. D. Vo, and B. Munsky. "Bayesian Inference of Stochastic Reaction Networks Using Multifidelity Sequential Tempered Markov Chain Monte Carlo." *International Journal for Uncertainty Quantification* 10, no. 6 (2020): 515-42. <https://doi.org/10.1615/Int.J.UncertaintyQuantification.2020033241>. <Go to ISI>://WOS:000599583800003.
- Celetti, G., G. Paci, J. Caria, V. VanDelinder, G. Bachand, and E. A. Lemke. "The Liquid State of Fg-Nucleoporins Mimics Permeability Barrier Properties of Nuclear Pore Complexes." *Journal of Cell Biology* 219, no. 1 (Jan 2020): e201907157. <https://doi.org/10.1083/jcb.201907157>. <Go to ISI>://WOS:000525668800022.
- Cellini, F., F. Lavini, E. Chen, A. Bongiorno, F. Popovic, R. L. Hartman, R. Dingreville, and E. Riedo. "Pressure-Induced Formation and Mechanical Properties of 2d Diamond Boron Nitride." *Advanced Science* 8, no. 2 (Jan 2021): 2002541. <https://doi.org/10.1002/advs.202002541>. <Go to ISI>://WOS:000597416700001.
- Chatterjee, B., C. Dundar, T. E. Beechem, E. Heller, D. Kendig, H. Kim, N. Donmez, and S. Choi. "Nanoscale Electro-Thermal Interactions in Algan/Gan High Electron Mobility Transistors." *Journal of Applied Physics* 127, no. 4 (Jan 2020): 044502. <https://doi.org/10.1063/1.5123726>. <Go to ISI>://WOS:000515698500020.

- Chaudhari, M. I., J. M. Vanegas, L. R. Pratt, A. Muralidharan, and S. B. Rempe. "Hydration Mimicry by Membrane Ion Channels." In *Annual Review of Physical Chemistry, Vol 71*, edited by M. A. Johnson and T. J. Martinez. Annual Review of Physical Chemistry, 461-84, 2020.
- Chen, A. P., W. R. Zhang, L. R. Dedon, D. Chen, F. Khatkhatay, J. L. MacManus-Driscoll, H. Y. Wang, *et al.* "Couplings of Polarization with Interfacial Deep Trap and Schottky Interface Controlled Ferroelectric Memristive Switching." *Advanced Functional Materials* 30, no. 43 (Oct 2020): 2000664. <https://doi.org/10.1002/adfm.202000664>. <Go to ISI>://WOS:000555887900001.
- Chen, E. Y., C. Deo, and R. Dingreville. "Reduced-Order Atomistic Cascade Method for Simulating Radiation Damage in Metals." *Journal of Physics-Condensed Matter* 32, no. 4 (Jan 2020): 045402. <https://doi.org/10.1088/1361-648X/ab4b7c>. <Go to ISI>://WOS:000493131100003.
- Chen, Y., N. Li, R. G. Hoagland, X. Y. Liu, J. K. Baldwin, I. J. Beyerlein, J. Y. Cheng, and N. A. Mara. "Effects of Three-Dimensional Cu/Nb Interfaces on Strengthening and Shear Banding in Nanoscale Metallic Multilayers." *Acta Materialia* 199 (Oct 2020): 593-601. <https://doi.org/10.1016/j.actamat.2020.08.019>. <Go to ISI>://WOS:000577994500044.
- Cheng, L., T. Sarkar, J. Lourembam, R. Tutchton, M. Motapathula, D. M. Zhao, J. X. Zhu, T. Venkatesan, and E. E. M. Chia. "Observation of Interacting Polaronic Gas Behavior in Ta-Doped TiO₂ Thin Films Via Terahertz Time-Domain Spectroscopy." *Applied Physics Letters* 117, no. 26 (Dec 2020): 261902. <https://doi.org/10.1063/5.0022775>. <Go to ISI>://WOS:000605587700001.
- Chiu, P. Y., D. Lidsky, Y. Chuang, Y. H. Su, J. Y. Li, C. T. Harris, and T. M. Lu. "Post-Growth Modulation Doping by Ion Implantation." *Applied Physics Letters* 117, no. 26 (Dec 2020): 263502. <https://doi.org/10.1063/5.0031992>. <Go to ISI>://WOS:000608049800002.
- Chiu, W. C., B. Singh, S. Mardanya, J. Nokelainen, A. Agarwal, H. Lin, C. Lane, *et al.* "Topological Dirac Semimetal Phase in Bismuth Based Anode Materials for Sodium-Ion Batteries." *Condensed Matter* 5, no. 2 (Jun 2020): 39. <https://doi.org/10.3390/condmat5020039>. <Go to ISI>://WOS:000551251300005.
- Chiu, W. T., R. M. Tutchton, G. Resta, T. H. Lee, E. D. Bauer, F. Ronning, R. T. Scalettar, and J. X. Zhu. "Hybridization Effect on the X-Ray Absorption Spectra for Actinide Materials: Application to Pu." *Physical Review B* 102, no. 8 (Aug 2020): 085150. <https://doi.org/10.1103/PhysRevB.102.085150>. <Go to ISI>://WOS:000562629600005.
- Choi, W., R. J. Chen, C. Levy, A. Tanaka, R. Liu, V. Balasubramanian, P. M. Asbeck, and S. A. Dayeh. "Intrinsically Linear Transistor for Millimeter-Wave Low Noise Amplifiers." *Nano Letters* 20, no. 4 (Apr 2020): 2812-20. <https://doi.org/10.1021/acs.nanolett.0c00522>. <Go to ISI>://WOS:000526413400078.
- Chow, W. W., Z. Y. Zhang, J. C. Norman, S. T. Liu, and J. E. Bowers. "On Quantum-Dot Lasing at Gain Peak with Linewidth Enhancement Factor $\alpha(H) = 0$." *Appl Photonics* 5, no. 2 (Feb 2020): 026101. <https://doi.org/10.1063/1.5133075>. <Go to ISI>://WOS:000518603100001.
- Chowdhury, A., J. A. Bollinger, B. J. Dear, J. K. Cheung, K. P. Johnston, and T. M. Truskett. "Coarse-Grained Molecular Dynamics Simulations for Understanding the Impact of Short-Range Anisotropic Attractions on Structure and Viscosity of Concentrated Monoclonal Antibody Solutions." *Molecular Pharmaceutics* 17, no. 5 (May 2020): 1748-56. <https://doi.org/10.1021/acs.molpharmaceut.9b00960>. <Go to ISI>://WOS:000530663800029.
- Cihan, E., K. Jungjohann, N. Argibay, M. Chandross, and M. Dienwiebel. "Effect of Environment on Microstructure Evolution and Friction of Au-Ni Multilayers." *Tribology Letters* 68, no. 1 (Jan 2020): 30. <https://doi.org/10.1007/s11249-019-1245-9>. <Go to ISI>://WOS:000521229500001.
- Claire, F. J., M. A. Solomos, J. Kim, G. Q. Wang, M. A. Siegler, M. F. Crommie, and T. J. Kempa. "Structural and Electronic Switching of a Single Crystal 2d Metal-Organic Framework Prepared by Chemical Vapor Deposition." *Nature Communications* 11, no. 1 (Nov 2020): 5524. <https://doi.org/10.1038/s41467-020-19220-y>. <Go to ISI>://WOS:000617729200001.

- Collins, L., E. S. Muckley, H. Tsai, D. Ghosh, A. J. Neukirch, S. Tretiak, S. V. Kalinin, W. Y. Nie, and I. N. Ivanov. "Correlation of Spatiotemporal Dynamics of Polarization and Charge Transport in Blended Hybrid Organic-Inorganic Perovskites on Macro- and Nanoscales." *Acs Applied Materials & Interfaces* 12, no. 13 (Apr 2020): 15380-88. <https://doi.org/10.1021/acsmami.0c00561>. <Go to ISI>://WOS:000526566900075.
- Cooper, M. A., M. S. Oliver, D. C. Bufford, B. C. White, and J. B. Lechman. "Compression Behavior of Microcrystalline Cellulose Spheres: Single Particle Compression and Confined Bulk Compression across Regimes." *Powder Technology* 374 (Sep 2020): 10-21. <https://doi.org/10.1016/j.powtec.2020.06.089>. <Go to ISI>://WOS:000577423700002.
- Copp, S. M., S. M. Swasey, A. Gorovits, P. Bogdanov, and E. G. Gwinn. "General Approach for Machine Learning-Aided Design of DNA-Stabilized Silver Clusters." *Chemistry of Materials* 32, no. 1 (Jan 2020): 430-37. <https://doi.org/10.1021/acs.chemmater.9b04040>. <Go to ISI>://WOS:000507721600043.
- Cordova, D. L. M., S. S. Fender, M. S. Hooshmand, M. R. Buchanan, J. Davis, T. M. Kam, R. N. Gannon, et al. "The Instability of Monolayer-Thick Pbse on Vse2." *Chemistry of Materials* 32, no. 18 (Sep 2020): 7992-8003. <https://doi.org/10.1021/acs.chemmater.0c02922>. <Go to ISI>://WOS:000575419000042.
- Cordova, D. L. M., T. M. Kam, R. N. Gannon, P. Lu, and D. C. Johnson. "Controlling the Self-Assembly of New Metastable Tin Vanadium Selenides Using Composition and Nanoarchitecture of Precursors." *Journal of the American Chemical Society* 142, no. 30 (Jul 2020): 13145-54. <https://doi.org/10.1021/jacs.0c05505>. <Go to ISI>://WOS:000557854400029.
- Cox, N., J. X. Wei, H. Pattanaik, T. Tabbakh, S. P. Gorza, D. Hagan, and E. W. Van Stryland. "Nondegenerate Two-Photon Absorption in Gaas/Algaas Multiple Quantum Well Waveguides." *Physical Review Research* 2, no. 1 (Mar 2020): 013376. <https://doi.org/10.1103/PhysRevResearch.2.013376>. <Go to ISI>://WOS:000602704700005.
- Craven, G. T., N. Lubbers, K. Barros, and S. Tretiak. "Ex Machina Determination of Structural Correlation Functions." *Journal of Physical Chemistry Letters* 11, no. 11 (Jun 2020): 4372-78. <https://doi.org/10.1021/acs.jpcllett.0c00627>. <Go to ISI>://WOS:000538759600020.
- — —. "Machine Learning Approaches for Structural and Thermodynamic Properties of a Lennard-Jones Fluid." *Journal of Chemical Physics* 153, no. 10 (Sep 2020): 104502. <https://doi.org/10.1063/5.0017894>. <Go to ISI>://WOS:000570952000002.
- Curwen, C. A., J. L. Reno, and B. S. Williams. "Broadband Metasurface Design for Terahertz Quantum-Cascade Vecsel." *Electronics Letters* 56, no. 23 (Nov 2020): 1264-66. <https://doi.org/10.1049/el.2020.1963>. <Go to ISI>://WOS:000588389600017.
- — —. "Terahertz Quantum-Cascade Patch-Antenna Vecsel with Low Power Dissipation." *Applied Physics Letters* 116, no. 24 (Jun 2020). <https://doi.org/10.1063/5.0008867>. <Go to ISI>://WOS:000542954100001.
- Cusentino, M. A., M. A. Wood, and R. Dingreville. "Compositional and Structural Origins of Radiation Damage Mitigation in High-Entropy Alloys." *Journal of Applied Physics* 128, no. 12 (Sep 2020): 125904. <https://doi.org/10.1063/5.0024014>. <Go to ISI>://WOS:000577123900001.
- De Sio, A., E. Sommer, X. T. Nguyen, L. Gross, D. Popovic, B. T. Nebgen, S. Fernandez-Alberti, et al. "Intermolecular Conical Intersections in Molecular Aggregates." *Nature Nanotechnology* 16, no. 1 (Jan 2021). <https://doi.org/10.1038/s41565-020-00791-2>. <Go to ISI>://WOS:000590037500003.
- Deichmann, E., L. Torres-Castro, J. Lamb, M. Karulkar, S. Ivanov, C. Grosso, L. Gray, J. Langendorf, and F. Garzon. "Investigating the Effects of Lithium Deposition on the Abuse Response of Lithium-Ion Batteries." *Journal of the Electrochemical Society* 167, no. 9 (Jan 2020): 090552. <https://doi.org/10.1149/1945-7111/ab9941>. <Go to ISI>://WOS:000548372800001.

- DelRio, F. W., B. L. Boyce, J. T. Benzing, L. H. Friedman, and R. F. Cook. "Shoulder Fillet Effects in Strength Distributions of Microelectromechanical System Components." *Journal of Micromechanics and Microengineering* 30, no. 12 (Dec 2020): 125013. <https://doi.org/10.1088/1361-6439/abbf89>. <Go to ISI>://WOS:000587064700001.
- Deneff, J. I., K. S. Butler, L. E. S. Rohwer, C. J. Pearce, N. R. Valdez, M. A. Rodriguez, T. S. Luk, and D. S. F. Gallis. "Encoding Multilayer Complexity in Anti-Counterfeiting Heterometallic Mof-Based Optical Tags." *Angewandte Chemie-International Edition* 60, no. 3 (Jan 2021): 1203-11. <https://doi.org/10.1002/anie.202013012>. <Go to ISI>://WOS:000598316300001.
- Derby, B., J. Cooper, T. Lach, E. Martinez, H. Kim, J. K. Baldwin, D. Kaoumi, *et al.* "A Pathway to Synthesizing Single-Crystal Fe and FeCr Films." *Surface & Coatings Technology* 403 (Dec 2020): 126346. <https://doi.org/10.1016/j.surfcoat.2020.126346>. <Go to ISI>://WOS:000590180600008.
- Derby, B. K., J. K. Baldwin, Y. Q. Wang, M. J. Demkowicz, A. Misra, and N. Li. "Influence of Metal Nanocomposite Morphology on Helium Implantation Response." *Scripta Materialia* 177 (Mar 2020): 229-33. <https://doi.org/10.1016/j.scriptamat.2019.10.041>. <Go to ISI>://WOS:000500388900045.
- Devereux, C., J. S. Smith, K. K. Davis, K. Barros, R. Zubatyuk, O. Isayev, and A. E. Roitberg. "Extending the Applicability of the Ani Deep Learning Molecular Potential to Sulfur and Halogens." *Journal of Chemical Theory and Computation* 16, no. 7 (Jul 2020): 4192-202. <https://doi.org/10.1021/acs.jctc.0c00121>. <Go to ISI>://WOS:000607532300018.
- Diler, B., S. J. Whiteley, C. P. Anderson, G. Wolfowicz, M. E. Wesson, E. S. Bielejec, F. J. Heremans, and D. D. Awschalom. "Coherent Control and High-Fidelity Readout of Chromium Ions in Commercial Silicon Carbide." *Npj Quantum Information* 6, no. 1 (Jan 2020): 11. <https://doi.org/10.1038/s41534-020-0247-7>. <Go to ISI>://WOS:000511038800001.
- Diouf, S. I. Y., D. J. Williams, A. Londono-Calderon, M. T. Pettes, S. Seifert, and M. A. Firestone. "Synergistic Single Process Additive Manufacturing of Hydro-Responsive Ag Nanoparticle Composites by Digital Visible Light Processing 3d Printing." *Materials Advances* 1, no. 7 (Oct 2020): 2219-24. <https://doi.org/10.1039/d0ma00549e>. <Go to ISI>://WOS:000613923500005.
- Dong, S. J., T. J. Chen, S. X. Huang, N. Li, and C. Z. Zhou. "Thickness-Dependent Shear Localization in Cu/Nb Metallic Nanolayered Composites." *Scripta Materialia* 187 (Oct 2020): 323-28. <https://doi.org/10.1016/j.scriptamat.2020.06.049>. <Go to ISI>://WOS:000551272900057.
- Duan, C. R., K. Sasmal, M. B. Maple, A. Podlesnyak, J. X. Zhu, Q. M. Si, and P. C. Dai. "Incommensurate Spin Fluctuations in the Spin-Triplet Superconductor Candidate Ute2." *Physical Review Letters* 125, no. 23 (Dec 2020): 237003. <https://doi.org/10.1103/PhysRevLett.125.237003>. <Go to ISI>://WOS:000595043900017.
- Dunlap, M. K., D. P. Ryan, P. M. Goodwin, J. H. Werner, S. Majumder, J. A. Hollingsworth, M. P. Gelfand, and A. Van Orden. "Super-Resolution Photoluminescence Lifetime and Intensity Mapping of Interacting Cdse/Cds Quantum Dots." *Applied Physics Letters* 116, no. 2 (Jan 2020): 021103. <https://doi.org/10.1063/1.5132563>. <Go to ISI>://WOS:000518029000021.
- Easterling, C. P., G. Coste, J. E. Sanchez, G. E. Fanucci, and B. S. Sumerlin. "Post-Polymerization Modification of Polymethacrylates Enabled by Keto-Enol Tautomerization." *Polymer Chemistry* 11, no. 17 (May 2020): 2955-58. <https://doi.org/10.1039/d0py00383b>. <Go to ISI>://WOS:000533420400002.
- Eftink, B. P., J. S. Weaver, J. A. Valdez, V. Livescu, D. Chen, Y. Wang, C. Knapp, *et al.* "Proton Irradiation and Characterization of Additively Manufactured 304L Stainless Steels." *Journal of Nuclear Materials* 531 (Apr 2020): Unsp 152007. <https://doi.org/10.1016/j.jnucmat.2020.152007>. <Go to ISI>://WOS:000518889500027.
- Elshafiey, A. T., K. M. DaVico, A. K. Rishinaramangalam, A. Rashidi, A. Aragon, D. Feezell, B. P. Gunning, C. Sheehan, and V. Matias. "Gan/Ingan Blue Light-Emitting Diodes on Polycrystalline Molybdenum

- Metal Foils by Ion Beam-Assisted Deposition." *Physica Status Solidi a-Applications and Materials Science* 217, no. 7 (Apr 2020): 1900800. <https://doi.org/10.1002/pssa.201900800>. <Go to ISI>://WOS:000510299200001.
- Enriquez, E., Q. Li, P. Bownan, P. Lu, B. Zhang, L. G. Li, H. Y. Wang, *et al.* "Induced Ferroelectric Phases in SrTiO₃ by a Nanocomposite Approach." *Nanoscale* 12, no. 35 (Sep 2020): 18193-99. <https://doi.org/10.1039/d0nr03460f>. <Go to ISI>://WOS:000571342700019.
- Enriquez, E., G. X. Wang, Y. Sharma, I. Sarpkaya, Q. Wang, D. Chen, N. Winner, *et al.* "Structural and Optical Properties of Phase-Pure UO₂, Alpha-U₃O₈, and Alpha-UO₃ Epitaxial Thin Films Grown by Pulsed Laser Deposition." *Acs Applied Materials & Interfaces* 12, no. 31 (Aug 2020): 35232-41. <https://doi.org/10.1021/acsmi.0c08635>. <Go to ISI>://WOS:000558792700074.
- Fan, X., R. J. Wen, Y. G. Xia, J. Z. Wang, X. H. Liu, H. H. Huang, Y. Li, *et al.* "Vacuum-Free, All-Solution, and All-Air Processed Organic Photovoltaics with over 11% Efficiency and Promoted Stability Using Layer-by-Layer Codoped Polymeric Electrodes." *Solar Rrl/4*, no. 6 (Jun 2020): 1900543. <https://doi.org/10.1002/solr.201900543>. <Go to ISI>://WOS:000530147700001.
- Farrell, K. M., J. S. Ostrander, A. C. Jones, B. R. Yakami, S. S. Dicke, C. T. Middleton, P. Hamm, and M. T. Zanni. "Shot-to-Shot 2d Ir Spectroscopy at 100 Khz Using a Yb Laser and Custom-Designed Electronics." *Optics Express* 28, no. 22 (Oct 2020): 33584-602. <https://doi.org/10.1364/oe.409360>. <Go to ISI>://WOS:000582499400104.
- Fauseweh, B., and J. X. Zhu. "Laser Pulse Driven Control of Charge and Spin Order in the Two-Dimensional Kondo Lattice." *Physical Review B* 102, no. 16 (Oct 2020): 165128. <https://doi.org/10.1103/PhysRevB.102.165128>. <Go to ISI>://WOS:000577073300005.
- Fink, D. R., S. Lee, S. H. Kodati, V. Rogers, T. J. Ronningen, M. Winslow, C. H. Grein, *et al.* "Determination of Background Doping Polarity of Unintentionally Doped Semiconductor Layers." *Applied Physics Letters* 116, no. 7 (Feb 2020): 072103. <https://doi.org/10.1063/1.5142377>. <Go to ISI>://WOS:000519601800003.
- Freixas, V. M., T. Nelson, D. Ondarse-Alvarez, P. Nijjar, A. Mikhailovsky, C. Zhou, S. Fernandez-Alberti, G. C. Bazan, and S. Tretiak. "Experimental and Theoretical Study of Energy Transfer in a Chromophore Triad: What Makes Modeling Dynamics Successful?" *Journal of Chemical Physics* 153, no. 24 (Dec 2020): 244114. <https://doi.org/10.1063/5.0028126>. <Go to ISI>://WOS:000604214300003.
- Freixas, V. M., N. Oldani, R. Franklin-Mergarejo, S. Tretiak, and S. Fernandez-Alberti. "Electronic Energy Relaxation in a Photoexcited Fully Fused Edge-Sharing Carbon Nanobelt." *Journal of Physical Chemistry Letters* 11, no. 12 (Jun 2020): 4711-19. <https://doi.org/10.1021/acs.jpcllett.0c01351>. <Go to ISI>://WOS:000548027700026.
- Freixas, V. M., S. Tretiak, D. V. Makhov, D. V. Shalashilin, and S. Fernandez-Alberti. "Vibronic Quantum Beating between Electronic Excited States in a Heterodimer." *Journal of Physical Chemistry B* 124, no. 19 (May 2020): 3992-4001. <https://doi.org/10.1021/acs.jpccb.0c01685>. <Go to ISI>://WOS:000535282200015.
- Fu, J. H., A. Y. Lu, N. J. Madden, C. C. Wu, Y. C. Chen, M. H. Chiu, K. Hattar, *et al.* "Additive Manufacturing Assisted Van Der Waals Integration of 3d/3d Hierarchically Functional Nanostructures." *Communications Materials* 1, no. 1 (Jul 2020): 42. <https://doi.org/10.1038/s43246-020-0041-2>. <Go to ISI>://WOS:000610566800001.
- Gao, L., J. L. Reno, and S. Kumar. "Short Barriers for Lowering Current-Density in Terahertz Quantum Cascade Lasers." *Photonics* 7, no. 1 (Mar 2020): 7. <https://doi.org/10.3390/photonics7010007>. <Go to ISI>://WOS:000523488200003.
- Garland, A. P., K. M. Adstedt, Z. J. Casias, B. C. White, W. M. Mook, B. Kaehr, B. H. Jared, *et al.* "Coulombic Friction in Metamaterials to Dissipate Mechanical Energy." *Extreme Mechanics Letters* 40 (Oct 2020): 100847. <https://doi.org/10.1016/j.eml.2020.100847>. <Go to

ISI>://WOS:000577470700003.

- Ge, T., M. Rubinstein, and G. S. Grest. "Effects of Tethered Polymers on Dynamics of Nanoparticles in Unentangled Polymer Melts." *Macromolecules* 53, no. 16 (Aug 2020): 6898-906. <https://doi.org/10.1021/acs.macromol.9b01921>. <Go to ISI>://WOS:000566339100014.
- Ghosh, A., F. Ronning, S. M. Nakhmanson, and J. X. Zhu. "Machine Learning Study of Magnetism in Uranium-Based Compounds." *Physical Review Materials* 4, no. 6 (Jun 2020): 064414. <https://doi.org/10.1103/PhysRevMaterials.4.064414>. <Go to ISI>://WOS:000541422000004.
- Ghosh, D., D. Acharya, L. Pedesseau, C. Katan, J. Even, S. Tretiak, and A. J. Neukirch. "Charge Carrier Dynamics in Two-Dimensional Hybrid Perovskites: Dion-Jacobson Vs. Ruddlesden-Popper Phases." *Journal of Materials Chemistry A* 8, no. 42 (Nov 2020): 22009-22. <https://doi.org/10.1039/d0ta07205b>. <Go to ISI>://WOS:000585127100050.
- Ghosh, D., A. J. Neukirch, and S. Tretiak. "Optoelectronic Properties of Two-Dimensional Bromide Perovskites: Influences of Spacer Cations." *Journal of Physical Chemistry Letters* 11, no. 8 (Apr 2020): 2955-64. <https://doi.org/10.1021/acs.jpcclett.0c00594>. <Go to ISI>://WOS:000526353000025.
- Ghosh, D., E. Welch, A. J. Neukirch, A. Zakhidov, and S. Tretiak. "Polarons in Halide Perovskites: A Perspective." *Journal of Physical Chemistry Letters* 11, no. 9 (May 2020): 3271-86. <https://doi.org/10.1021/acs.jpcclett.0c00018>. <Go to ISI>://WOS:000535177500015.
- Gifford, B. J., S. Kilina, H. Htoon, S. K. Doorn, and S. Tretiak. "Controlling Defect-State Photophysics in Covalently Functionalized Single-Walled Carbon Nanotubes." *Accounts of Chemical Research* 53, no. 9 (Sep 2020): 1791-801. <https://doi.org/10.1021/acs.accounts.0c00210>. <Go to ISI>://WOS:000572833000009.
- Gigax, J. G., O. El-Atwani, Q. McCulloch, B. Aytuna, M. Efe, S. Fensin, S. A. Maloy, and N. Li. "Micro- and Mesoscale Mechanical Properties of an Ultra-Fine Grained Crfemni High Entropy Alloy Produced by Large Strain Machining." *Scripta Materialia* 178 (Mar 2020): 508-12. <https://doi.org/10.1016/j.scriptamat.2019.11.042>. <Go to ISI>://WOS:000510947200102.
- Gigax, J. G., A. J. Torrez, Q. McCulloch, H. Kim, S. A. Maloy, and N. Li. "Sizing up Mechanical Testing: Comparison of Microscale and Mesoscale Mechanical Testing Techniques on a FeCrAl Welded Tube." *Journal of Materials Research* 35, no. 20 (Oct 2020): 2817-30. <https://doi.org/10.1557/jmr.2020.195>. <Go to ISI>://WOS:000595594900018.
- Gill, S. K., M. Topsakal, E. Jossou, X. J. Huang, K. Hattar, J. Mausz, M. Elbakhshwan, *et al.* "Impact of Krypton Irradiation on a Single Crystal Tungsten: Multi-Modal X-Ray Imaging Study." *Scripta Materialia* 188 (Nov 2020): 296-301. <https://doi.org/10.1016/j.scriptamat.2020.07.024>. <Go to ISI>://WOS:000558747100057.
- Giri, A., S. S. Chou, D. E. Drury, K. Q. Tomko, D. Olson, J. T. Gaskins, B. Kaehr, and P. E. Hopkins. "Molecular Tail Chemistry Controls Thermal Transport in Fullerene Films." *Physical Review Materials* 4, no. 6 (Jun 2020): 065404. <https://doi.org/10.1103/PhysRevMaterials.4.065404>. <Go to ISI>://WOS:000540917500002.
- Goldflam, M. D., I. Ruiz, S. W. Howell, A. Tauke-Pedretti, E. M. Anderson, J. R. Wendt, P. Finnegan, *et al.* "Monolithically Fabricated Tunable Long-Wave Infrared Detectors Based on Dynamic Graphene Metasurfaces." *Applied Physics Letters* 116, no. 19 (May 2020): 191102. <https://doi.org/10.1063/5.0007780>. <Go to ISI>://WOS:000533500700001.
- Grillot, F., J. C. Norman, J. N. Duan, Z. Y. Zhang, B. Z. Dong, H. M. Huang, W. W. Chow, and J. E. Bowers. "Physics and Applications of Quantum Dot Lasers for Silicon Photonics." *Nanophotonics* 9, no. 6 (Jun 2020): 1271-86. <https://doi.org/10.1515/nanoph-2019-0570>. <Go to ISI>://WOS:000543258600002.
- Grosso, R. L., E. N. S. Muccillo, D. N. F. Mucche, G. S. Jawaharram, C. M. Barr, A. M. Monterrosa, R. H. R. Castro, K. Hattar, and S. J. Dillon. "In Situ Transmission Electron Microscopy for Ultrahigh

- Temperature Mechanical Testing of ZrO₂." *Nano Letters* 20, no. 2 (Feb 2020): 1041-46. <https://doi.org/10.1021/acs.nanolett.9b04205>. <Go to ISI>://WOS:000514255400029.
- Grosso, R. L., K. S. N. Vikrant, L. Feng, E. N. S. Muccillo, D. N. F. Muche, G. S. Jawaharram, C. M. Barr, *et al.* "Ultra-high Temperature in Situ Transmission Electron Microscopy Based Bicrystal Coble Creep in Zirconia: Interfacial Thermodynamics and Transport Mechanisms." *Acta Materialia* 200 (Nov 2020): 1008-21. <https://doi.org/10.1016/j.actamat.2020.08.070>. <Go to ISI>://WOS:000580631600084.
- Guo, Q. Y., Y. C. Gu, C. M. Barr, T. Koenig, K. Hattar, L. Li, and G. B. Thompson. "In Situ Indentation and High Cycle Tapping Deformation Responses in a Nanolaminate Crystalline/Amorphous Metal Composite." *Materials Science and Engineering a-Structural Materials Properties Microstructure and Processing* 798 (Nov 2020): 140074. <https://doi.org/10.1016/j.msea.2020.140074>. <Go to ISI>://WOS:000587607100003.
- Gupta, S., S. Stangebye, K. Jungjohann, B. Boyce, T. Zhu, J. Kacher, and O. N. Pierron. "In Situ TEM Measurement of Activation Volume in Ultrafine Grained Gold." *Nanoscale* 12, no. 13 (Apr 2020): 7146-58. <https://doi.org/10.1039/d0nr01874k>. <Go to ISI>://WOS:000524947900022.
- Hale, L. L., P. P. Vabischevich, T. Siday, C. T. Harris, T. S. Luk, S. J. Addamane, J. L. Reno, I. Brener, and O. Mitrofanov. "Perfect Absorption in GaAs Metasurfaces near the Bandgap Edge." *Optics Express* 28, no. 23 (Nov 2020): 35284-96. <https://doi.org/10.1364/oe.404249>. <Go to ISI>://WOS:000589869600119.
- Halli, K., K. Brugemann, M. Bohlouli, and S. Konig. "Time-Lagged and Acute Impact of Heat Stress on Production and Fertility Traits in the Local Dual-Purpose Cattle Breed "Rotes Höhenvieh" under Pasture-Based Conditions." *Translational Animal Science* 4, no. 3 (Jul 2020). <https://doi.org/10.1093/tas/txaa148>. <Go to ISI>://WOS:000621663100006.
- Haq, S., T. E. Tesema, B. Patra, E. Gomez, and T. G. Habteyes. "Tuning Plasmonic Coupling from Capacitive to Conductive Regimes Via Atomic Control of Dielectric Spacing." *Acs Photonics* 7, no. 3 (Mar 2020): 622-29. <https://doi.org/10.1021/acsphotonics.0c00225>. <Go to ISI>://WOS:000526350900012.
- Harms, N. C., H. S. Kim, A. J. Clune, K. A. Smith, K. R. O'Neal, A. V. Haglund, D. G. Mandrus, *et al.* "Piezochromism in the Magnetic Chalcogenide MnPS₃." *Npj Quantum Materials* 5, no. 1 (Aug 2020): 56. <https://doi.org/10.1038/s41535-020-00259-5>. <Go to ISI>://WOS:000560168100001.
- Heckman, N. M., T. A. Ivanoff, A. M. Roach, B. H. Jared, D. J. Tung, H. J. Brown-Shaklee, T. Huber, *et al.* "Automated High-Throughput Tensile Testing Reveals Stochastic Process Parameter Sensitivity." *Materials Science and Engineering a-Structural Materials Properties Microstructure and Processing* 772 (Jan 2020): 138632. <https://doi.org/10.1016/j.msea.2019.138632>. <Go to ISI>://WOS:000509621500131.
- Heckman, N. M., H. A. Padilla, J. R. Michael, C. M. Barr, B. G. Clark, K. Hattar, and B. L. Boyce. "Rethinking Scaling Laws in the High-Cycle Fatigue Response of Nanostructured and Coarse-Grained Metals." *International Journal of Fatigue* 134 (May 2020): 105472. <https://doi.org/10.1016/j.ijfatigue.2020.105472>. <Go to ISI>://WOS:000518708500026.
- Henkelis, S. E., D. L. Huber, D. J. Vogel, J. M. Rimsza, and T. M. Nenoff. "Magnetic Tunability in Re-Doped MOFs Via NO_x Acid Gas Adsorption." *Acs Applied Materials & Interfaces* 12, no. 17 (Apr 2020): 19504-10. <https://doi.org/10.1021/acsami.0c01813>. <Go to ISI>://WOS:000529924800028.
- Herman, E., J. A. Stewart, and R. Dingreville. "A Data-Driven Surrogate Model to Rapidly Predict Microstructure Morphology During Physical Vapor Deposition." *Applied Mathematical Modelling* 88 (Dec 2020): 589-603. <https://doi.org/10.1016/j.apm.2020.06.046>. <Go to ISI>://WOS:000568770800010.
- Hikita, K., S. Saigusa, Y. Takeuchi, H. Matsuyama, R. Nagai, K. Kato, T. Murata, *et al.* "Induction of Enantio-Selective Apoptosis in Human Leukemia HL-60 Cells by (S)-Erypogin K, an Isoflavone

- Isolated from *Erythrina Poeppigiana*." *Bioorganic & Medicinal Chemistry* 28, no. 11 (Jun 2020): 115490. <https://doi.org/10.1016/j.bmc.2020.115490>. <Go to ISI>://WOS:000535808700012.
- Hosen, M. M., G. Dhakal, K. Dimitri, H. Choi, F. Kabir, C. Sims, O. Pavlosiuk, *et al.* "Observation of Dirac State in Half-Heusler Material Yptbi." *Scientific Reports* 10, no. 1 (Jul 2020): 12343. <https://doi.org/10.1038/s41598-020-69284-5>. <Go to ISI>://WOS:000556690900050.
- Huang, J. J., H. Wang, D. F. Li, Z. M. Qi, D. Zhang, P. Lu, H. T. Chen, *et al.* "Room-Temperature Ferroelectric Linb6ba5ti4o30 Spinel Phase in a Nanocomposite Thin Film Form for Nonlinear Photonics." *Acs Applied Materials & Interfaces* 12, no. 20 (May 2020): 23076-83. <https://doi.org/10.1021/acsami.0c03487>. <Go to ISI>://WOS:000537394100068.
- Huang, J. J., X. J. Wang, D. F. Li, T. N. Jin, P. Lu, D. Zhang, P. T. Lin, *et al.* "3d Hybrid Plasmonic Framework with Au Nanopillars Embedded in Nitride Multilayers Integrated on Si." *Advanced Materials Interfaces* 7, no. 17 (Sep 2020): 2000493. <https://doi.org/10.1002/admi.202000493>. <Go to ISI>://WOS:000542141200001.
- Huang, Z., C. Lane, C. Cao, G. X. Zhi, Y. Liu, C. E. Matt, B. Kuthanazhi, *et al.* "Prediction of Spin Polarized Fermi Arcs in Quasiparticle Interference in Cebi." *Physical Review B* 102, no. 23 (Dec 2020): 235167. <https://doi.org/10.1103/PhysRevB.102.235167>. <Go to ISI>://WOS:000604241500002.
- Ibru, T., S. Violante, E. Vennat, C. Arson, and A. Antoniou. "Structure and Mechanical Behavior of Dentin-Inspired Nanoporous Copper." *Scripta Materialia* 176 (Feb 2020): 99-103. <https://doi.org/10.1016/j.scriptamat.2019.09.034>. <Go to ISI>://WOS:000496838000020.
- Ihlefeld, J. F., T. S. Luk, S. W. Smith, S. S. Fields, S. T. Jaszewski, D. M. Hirt, W. T. Riffe, *et al.* "Compositional Dependence of Linear and Nonlinear Optical Response in Crystalline Hafnium Zirconium Oxide Thin Films." *Journal of Applied Physics* 128, no. 3 (Jul 2020): 034101. <https://doi.org/10.1063/5.0012175>. <Go to ISI>://WOS:000553072800001.
- Jabed, M. A., N. Dandu, S. Tretiak, and S. Kilina. "Passivating Nucleobases Bring Charge Transfer Character to Optically Active Transitions in Small Silver Nanoclusters." *Journal of Physical Chemistry A* 124, no. 43 (Oct 2020): 8931-42. <https://doi.org/10.1021/acs.jpca.0c06974>. <Go to ISI>://WOS:000587720000006.
- Jain, A., A. R. James, J. Nogan, T. S. Luk, G. Subramania, S. Liu, I. Brener, *et al.* "Dark-State-Based Low-Loss Metasurfaces with Simultaneous Electric and Magnetic Resonant Response." *Acs Photonics* 7, no. 1 (Jan 2020): 241-48. <https://doi.org/10.1021/acsp Photonics.9b01480>. <Go to ISI>://WOS:000508475800028.
- Jarzembki, A., M. Goldflam, A. Siddiqui, I. Ruiz, and T. E. Beechem. "Enhancing Graphene Plasmonic Device Performance Via Its Dielectric Environment." *Physical Review Applied* 14, no. 3 (Sep 2020): 034044. <https://doi.org/10.1103/PhysRevApplied.14.034044>. <Go to ISI>://WOS:000573307800002.
- Jawaharram, G. S., C. M. Barr, A. M. Monterrosa, K. Hattar, R. S. Averback, and S. J. Dillon. "Irradiation Induced Creep in Nanocrystalline High Entropy Alloys." *Acta Materialia* 182 (Jan 2020): 68-76. <https://doi.org/10.1016/j.actamat.2019.10.022>. <Go to ISI>://WOS:000501655200008.
- Jensen, K. L., A. Shabaev, S. G. Lambrakos, D. Finkenstadt, N. A. Moody, A. J. Neukirch, S. Tretiak, D. A. Shiffler, and J. J. Petillo. "Analytic Model of Electron Transport through and over Non-Linear Barriers." *Journal of Applied Physics* 127, no. 23 (Jun 2020). <https://doi.org/10.1063/5.0009759>. <Go to ISI>://WOS:000542985200001.
- Jensen, K. L., A. Shabaev, S. G. Lambrakos, D. Finkenstadt, J. J. Petillo, A. M. Alexander, J. Smedley, *et al.* "An Extended Moments Model of Quantum Efficiency for Metals and Semiconductors." *Journal of Applied Physics* 128, no. 1 (Jul 2020): 015301. <https://doi.org/10.1063/5.0011145>. <Go to ISI>://WOS:000551880400003.
- Jeong, J., D. K. Jin, J. Cha, B. K. Kang, Q. X. Wang, J. Choi, S. W. Lee, *et al.* "Selective-Area Remote Epitaxy of ZnO Microrods Using Multilayer-Monolayer-Patterned Graphene for Transferable and Flexible

- Device Fabrications." *Acs Applied Nano Materials* 3, no. 9 (Sep 2020): 8920-30. <https://doi.org/10.1021/acsanm.0c01656>. <Go to ISI>://WOS:000575846000040.
- Jeong, J., Q. X. Wang, J. Cha, D. K. Jin, D. H. Shin, S. Kwon, B. K. Kang, *et al.* "Remote Heteroepitaxy of Gan Microrod Heterostructures for Deformable Light-Emitting Diodes and Wafer Recycle." *Science Advances* 6, no. 23 (Jun 2020): eaaz5180. <https://doi.org/10.1126/sciadv.aaz5180>. <Go to ISI>://WOS:000540787200017.
- Jeong, P. A., M. D. Goldflam, S. Campione, J. L. Briscoe, P. P. Vabishchevich, J. Nogan, M. B. Sinclair, T. S. Luk, and I. Brener. "High Quality Factor Toroidal Resonances in Dielectric Metasurfaces." *Acs Photonics* 7, no. 7 (Jul 2020): 1699-707. <https://doi.org/10.1021/acsp Photonics.0c00179>. <Go to ISI>://WOS:000551497000016.
- Jiang, Y., J. Wang, T. Zhao, Z. L. Dun, Q. Huang, X. S. Wu, M. Mourigal, *et al.* "Unraveling the Topological Phase of ZrTe5 Via Magnetoinfrared Spectroscopy." *Physical Review Letters* 125, no. 4 (Jul 2020): 046403. <https://doi.org/10.1103/PhysRevLett.125.046403>. <Go to ISI>://WOS:000552227400012.
- Jin, Y., J. L. Reno, and S. Kumar. "Phase-Locked Terahertz Plasmonic Laser Array with 2 W Output Power in a Single Spectral Mode." *Optica* 7, no. 6 (Jun 2020): 708-15. <https://doi.org/10.1364/optica.390852>. <Go to ISI>://WOS:000550698300021.
- Jin, Y., Q. Y. Zhu, J. L. Reno, and S. Kumar. "High Power Edge-Cum-Surface Emitting Terahertz Laser Arrays Phased Locked by Vacuum Guided Plasmon Waves." *Applied Physics Letters* 116, no. 13 (Mar 2020): 131103. <https://doi.org/10.1063/1.5142860>. <Go to ISI>://WOS:000523731300001.
- Jones, T., W. K. Peters, A. Efimov, R. L. Sandberg, D. Yarotski, R. Trebino, and P. Bowlan. "Encoding the Complete Electric Field of an Ultraviolet Ultrashort Laser Pulse in a near-Infrared Nonlinear-Optical Signal." *Optics Express* 28, no. 18 (Aug 2020): 26850-60. <https://doi.org/10.1364/oe.402025>. <Go to ISI>://WOS:000565713200099.
- Kang, K. T., B. Zhang, Y. Sharma, B. Paudel, H. Y. Wang, P. Dowden, and A. P. Chen. "Substrate Oxygen Sponge Effect: A Parameter for Epitaxial Manganite Thin Film Growth." *Applied Physics Letters* 117, no. 15 (Oct 2020): 151601. <https://doi.org/10.1063/5.0020426>. <Go to ISI>://WOS:000583334300001.
- Karl, N., P. P. Vabishchevich, M. R. Shcherbakov, S. Liu, M. B. Sinclair, G. Shvets, and I. Brener. "Frequency Conversion in a Time-Variant Dielectric Metasurface." *Nano Letters* 20, no. 10 (Oct 2020): 7052-58. <https://doi.org/10.1021/acs.nanolett.0c02113>. <Go to ISI>://WOS:000598727300016.
- Katzenmeyer, A. M., T. S. Luk, E. Bussmann, S. Young, E. M. Anderson, M. T. Marshall, J. A. Ohlhausen, *et al.* "Assessing Atomically Thin Delta-Doping of Silicon Using Mid-Infrared Ellipsometry." *Journal of Materials Research* 35, no. 16 (Aug 2020): 2098-105. <https://doi.org/10.1557/jmr.2020.155>. Pii s0884291420001557. <https://doi.org/10.1557/jmr.2020.155>. <Go to ISI>://WOS:000563483700003.
- Kazeruni, N. M. B., J. B. Rodriguez, G. Saper, and H. Hess. "Microtubule Detachment in Gliding Motility Assays Limits the Performance of Kinesin-Driven Molecular Shuttles." *Langmuir* 36, no. 27 (Jul 2020): 7901-07. <https://doi.org/10.1021/acs.langmuir.0c01002>. <Go to ISI>://WOS:000576704700018.
- Kehayias, P., E. Bussmann, T. M. Lu, and A. M. Mounce. "A Physically Unclonable Function Using Nv Diamond Magnetometry and Micromagnet Arrays." *Journal of Applied Physics* 127, no. 20 (May 2020): 203904. <https://doi.org/10.1063/5.0005335>. <Go to ISI>://WOS:000537892100001.
- Khanbolouki, P., N. van de Werken, T. G. Holesinger, S. K. Doorn, T. J. Haugan, and M. Tehrani. "Toward Scalable Manufacturing of Carbon Nanotube Coated Conductors." *Acs Applied Electronic Materials* 2, no. 2 (Feb 2020): 483-90. <https://doi.org/10.1021/acsaelm.9b00722>. <Go to ISI>://WOS:000550584300020.
- Khashab, B., S. R. Gulliver, and R. M. Ayoubi. "A Framework for Customer Relationship Management

- Strategy Orientation Support in Higher Education Institutions." *Journal of Strategic Marketing* 28, no. 3 (Apr 2020): 246-65. <https://doi.org/10.1080/0965254x.2018.1522363>. <Go to ISI>://WOS:000523748300003.
- Kiani, M. T., C. M. Barr, S. C. Xu, D. Doan, Z. X. Wang, A. Parakh, K. Hattar, and X. W. Gu. "Ductile Metallic Glass Nanoparticles Via Colloidal Synthesis." *Nano Letters* 20, no. 9 (Sep 2020): 6481-87. <https://doi.org/10.1021/acs.nanolett.0c02177>. <Go to ISI>://WOS:000571442000033.
- Kiani, M. T., K. Hattar, and X. W. Gu. "In Situ Tem Study of Radiation Resistance of Metallic Glass-Metal Core-Shell Nanocubes." *Acs Applied Materials & Interfaces* 12, no. 36 (Sep 2020): 40910-16. <https://doi.org/10.1021/acsami.0c10664>. <Go to ISI>://WOS:000571433500099.
- Kim, D., H. L. Andrews, B. K. Choi, R. L. Fleming, C. K. Huang, T. J. T. Kwan, J. W. Lewellen, *et al.* "Divergence Study and Emittance Measurements for the Electron Beam Emitted from a Diamond Pyramid." *Nuclear Instruments & Methods in Physics Research Section a-Accelerators Spectrometers Detectors and Associated Equipment* 953 (Feb 2020): 163055. <https://doi.org/10.1016/j.nima.2019.163055>. <Go to ISI>://WOS:000506419900037.
- Kim, D., S. H. R. Shin, Y. Kim, K. Crossley, H. Han, and J. Yoo. "Hierarchical Assembly of ZnO Nanowire Trunks Decorated with ZnO Nanosheets for Lithium Ion Battery Anodes." *Rsc Advances* 10, no. 23 (Apr 2020): 13655-61. <https://doi.org/10.1039/d0ra00372g>. <Go to ISI>://WOS:000530352000036.
- Kim, E., P. F. Weck, J. A. Greathouse, M. E. Gordon, and C. R. Bryan. "Radionuclide Incorporation in Negative Thermal Expansion Alpha-Zr(Wo4)(2): A Density Functional Theory Study." *Chemical Physics Letters* 744 (Apr 2020): 137172. <https://doi.org/10.1016/j.cplett.2020.137172>. <Go to ISI>://WOS:000518845400014.
- Kim, Y., S. V. Goupalov, B. M. Weight, B. J. Gifford, X. W. He, A. Saha, M. Kim, *et al.* "Hidden Fine Structure of Quantum Defects Revealed by Single Carbon Nanotube Magneto-Photoluminescence." *Acs Nano* 14, no. 3 (Mar 2020): 3451-60. <https://doi.org/10.1021/acsnano.9b09548>. <Go to ISI>://WOS:000526301400078.
- Kim, Y., T. Kim, J. Lee, Y. S. Choi, J. Moon, S. Y. Park, T. H. Lee, *et al.* "Tailored Graphene Micropatterns by Wafer-Scale Direct Transfer for Flexible Chemical Sensor Platform." *Advanced Materials* 33, no. 2 (Jan 2021): 2004827. <https://doi.org/10.1002/adma.202004827>. <Go to ISI>://WOS:000590578500001.
- Kinigstein, E. D., H. Tsai, W. Y. Nie, J. C. Blancon, K. G. Yager, K. Appavoo, J. Even, *et al.* "Edge States Drive Exciton Dissociation in Ruddlesden-Popper Lead Halide Perovskite Thin Films." *Acs Materials Letters* 2, no. 10 (Oct 2020): 1360-67. <https://doi.org/10.1021/acsmaterialslett.0c00333>. <Go to ISI>://WOS:000580377900010.
- Koehler, K. E., M. W. Rabin, M. H. Carpenter, M. A. Famiano, C. J. Fontes, D. R. Schmidt, C. M. Smith, *et al.* "Experimental Validation of Calorimetric Electron Capture Spectral Theory with Pt-193." *Journal of Low Temperature Physics* 200, no. 5-6 (Sep 2020): 407-17. <https://doi.org/10.1007/s10909-020-02465-8>. <Go to ISI>://WOS:000531461100001.
- Koh, C., G. S. Grest, and S. K. Kumar. "Assembly of Polymer-Grafted Nanoparticles in Polymer Matrices." *Acs Nano* 14, no. 10 (Oct 2020): 13491-99. <https://doi.org/10.1021/acsnano.0c05495>. <Go to ISI>://WOS:000586793400097.
- Kookhaee, H., T. E. Tesema, and T. G. Habteyes. "Switching a Plasmon-Driven Reaction Mechanism from Charge Transfer to Adsorbate Electronic Excitation Using Surface Ligands." *Journal of Physical Chemistry C* 124, no. 41 (Oct 2020): 22711-20. <https://doi.org/10.1021/acs.jpcc.0c07479>. <Go to ISI>://WOS:000582576200043.
- Kubicek-Sutherland, J. Z., N. S. Makarov, Z. R. Stromberg, K. D. Lenz, C. Castaneda, A. N. Mercer, H. Mukundan, H. McDaniel, and K. Ramasamy. "Exploring the Biocompatibility of near-Ir Cuinsexs2-X/Zns Quantum Dots for Deep-Tissue Bioimaging." *Acs Applied Bio Materials* 3, no. 12

- (Dec 2020): 8567-74. <https://doi.org/10.1021/acsabm.0c00939>. <Go to ISI>://WOS:000602578800036.
- Kumar, D., R. Jain, Shahjahan, S. Banerjee, S. S. Prabhu, R. Kumar, A. Azad, and D. R. Chowdhury. "Bandwidth Enhancement of Planar Terahertz Metasurfaces Via Overlapping of Dipolar Modes." *Plasmonics* 15, no. 6 (Dec 2020): 1925-34. <https://doi.org/10.1007/s11468-020-01222-7>. <Go to ISI>://WOS:000544139200003.
- Kwon, J., C. J. Delker, C. T. Harris, S. R. Das, and D. B. Janes. "Experimental and Modeling Study of 1/F Noise in Multilayer Mos2 and Mose2 Field-Effect Transistors." *Journal of Applied Physics* 128, no. 9 (Sep 2020): 094501. <https://doi.org/10.1063/5.0014759>. <Go to ISI>://WOS:000567598500001.
- Kwon, J., C. J. Delker, D. B. Janes, C. T. Harris, and S. R. Das. "Molybdenum Contacts to Mos2 Field-Effect Transistors: Schottky Barrier Extraction, Electrical Transport, and Low-Frequency Noise." *Physica Status Solidi a-Applications and Materials Science* 217, no. 17 (Sep 2020): 1900880. <https://doi.org/10.1002/pssa.201900880>. <Go to ISI>://WOS:000540498400001.
- Labayen, I., M. Medrano, L. Arenaza, E. Maiz, M. Oses, V. Martinez-Vizcaino, J. R. Ruiz, and F. B. Ortega. "Effects of Exercise in Addition to a Family-Based Lifestyle Intervention Program on Hepatic Fat in Children with Overweight." *Diabetes Care* 43, no. 2 (Feb 2020): 306-13. <https://doi.org/10.2337/dc19-0351>. <Go to ISI>://WOS:000508199900017.
- Lane, C. "Interlayer Coupling Induced Quasiparticles." *Physical Review B* 101, no. 23 (Jun 2020): 235138. <https://doi.org/10.1103/PhysRevB.101.235138>. <Go to ISI>://WOS:000540164200002.
- Lane, C., and J. X. Zhu. "Landscape of Coexisting Excitonic States in the Insulating Single-Layer Cuprates and Nickelates." *Physical Review B* 101, no. 15 (Apr 2020): 155135. <https://doi.org/10.1103/PhysRevB.101.155135>. <Go to ISI>://WOS:000528780500003.
- . "Thickness Dependence of Electronic Structure and Optical Properties of a Correlated Van Der Waals Antiferromagnetic Nips3 Thin Film." *Physical Review B* 102, no. 7 (Aug 2020): 075124. <https://doi.org/10.1103/PhysRevB.102.075124>. <Go to ISI>://WOS:000559925200004.
- Lee, C. W., J. A. Stewart, R. Dingreville, S. M. Foiles, and A. Schleife. "Multiscale Simulations of Electron and Ion Dynamics in Self-Irradiated Silicon." *Physical Review B* 102, no. 2 (Jul 2020): 024107. <https://doi.org/10.1103/PhysRevB.102.024107>. <Go to ISI>://WOS:000550578400002.
- Li, J., M. Goryca, N. P. Wilson, A. V. Stier, X. Xu, and S. A. Crooker. "Spontaneous Valley Polarization of Interacting Carriers in a Monolayer Semiconductor." *Physical Review Letters* 125, no. 14 (Oct 2020): 147602. <https://doi.org/10.1103/PhysRevLett.125.147602>. <Go to ISI>://WOS:000574781200010.
- Li, P., S. Maddali, A. Pateras, I. Calvo-Almazan, S. O. Hruszkewycz, W. Cha, V. Chamard, and M. Allain. "General Approaches for Shear-Correcting Coordinate Transformations in Bragg Coherent Diffraction Imaging. Part Ii." *Journal of Applied Crystallography* 53 (Apr 2020): 404-18. <https://doi.org/10.1107/s1600576720001375>. <Go to ISI>://WOS:000524119500011.
- Li, Q., D. Y. Xie, Z. X. Shang, X. Sun, J. H. Cho, Y. F. Zhang, S. C. Xue, *et al.* "Coupled Solute Effects Enable Anomalous High-Temperature Strength and Stability in Nanotwinned Al Alloys." *Acta Materialia* 200 (Nov 2020): 378-88. <https://doi.org/10.1016/j.actamat.2020.08.059>. <Go to ISI>://WOS:000580631600033.
- Li, Q., S. C. Xue, P. Price, X. Sun, J. Ding, Z. X. Shang, Z. Fan, *et al.* "Hierarchical Nanotwins in Single-Crystal-Like Nickel with High Strength and Corrosion Resistance Produced Via a Hybrid Technique." *Nanoscale* 12, no. 3 (Jan 2020): 1356-65. <https://doi.org/10.1039/c9nr07472d>. <Go to ISI>://WOS:000509545700010.
- Li, Q., S. C. Xue, Y. F. Zhang, X. Sun, H. Y. Wang, and X. H. Zhang. "Plastic Anisotropy and Tension-Compression Asymmetry in Nanotwinned Al-Fe Alloys: An in-Situ Micromechanical Investigation." *International Journal of Plasticity* 132 (Sep 2020): 102760.

- <https://doi.org/10.1016/j.ijplas.2020.102760>. <Go to ISI>://WOS:000553471300011.
- Li, W. W., B. N. Zhu, R. X. Zhu, Q. Wang, P. Lu, Y. W. Sun, C. Cafolla, *et al.* "Atomic-Scale Control of Electronic Structure and Ferromagnetic Insulating State in Perovskite Oxide Superlattices by Long-Range Tuning of Bo(6)Octahedra." *Advanced Functional Materials* 30, no. 40 (Oct 2020): 2001984. <https://doi.org/10.1002/adfm.202001984>. <Go to ISI>://WOS:000554485200001.
- Lin, E. Y., A. L. Frischknecht, and R. A. Riggelman. "Origin of Mechanical Enhancement in Polymer Nanoparticle (Np) Composites with Ultrahigh Np Loading." *Macromolecules* 53, no. 8 (Apr 2020): 2976-82. <https://doi.org/10.1021/acs.macromol.9b02733>. <Go to ISI>://WOS:000529885700023.
- Lin, S. Y., M. L. Hsieh, S. John, B. Frey, J. A. Bur, T. S. Luk, X. J. Wang, and S. Narayanan. "An in-Situ and Direct Confirmation of Super-Planckian Thermal Radiation Emitted from a Metallic Photonic-Crystal at Optical Wavelengths." *Scientific Reports* 10, no. 1 (Mar 2020): 5209. <https://doi.org/10.1038/s41598-020-62063-2>. <Go to ISI>://WOS:000563390400022.
- Liu, B., A. J. A. Aquino, D. Nachtigallova, and H. Lischka. "Doping Capabilities of Fluorine on the Uv Absorption and Emission Spectra of Pyrene-Based Graphene Quantum Dots." *Journal of Physical Chemistry A* 124, no. 52 (Dec 2020): 10954-66. <https://doi.org/10.1021/acs.jpca.0c08694>. <Go to ISI>://WOS:000608856500004.
- Liu, C. M., H. H. Tsai, W. Y. Nie, D. J. Gosztola, and X. Y. Zhang. "Direct Spectroscopic Observation of the Hole Polaron in Lead Halide Perovskites." *Journal of Physical Chemistry Letters* 11, no. 15 (Aug 2020): 6256-61. <https://doi.org/10.1021/acs.jpcllett.0c01708>. <Go to ISI>://WOS:000562064500064.
- Liu, F., D. E. Hooks, N. Li, J. F. Rubinson, J. N. Wacker, and J. A. Swift. "Molecular Crystal Mechanical Properties Altered Via Dopant Inclusion." *Chemistry of Materials* 32, no. 9 (May 2020): 3952-59. <https://doi.org/10.1021/acs.chemmater.0c00433>. <Go to ISI>://WOS:000535241800030.
- Liu, F. Z., M. Yoho, H. H. Tsai, K. Fernando, J. Tisdale, S. Shrestha, J. K. Baldwin, *et al.* "The Working Principle of Hybrid Perovskite Gamma-Ray Photon Counter." *Materials Today* 37 (Jul-Aug 2020): 27-34. <https://doi.org/10.1016/j.mattod.2020.02.022>. <Go to ISI>://WOS:000562130000014.
- Liu, J., Y. Y. Li, Y. X. Xuan, L. J. Zhou, D. Wang, Z. W. Li, H. F. Lin, *et al.* "Multifunctional Cellulose Nanocrystals as a High-Efficient Polysulfide Stopper for Practical Li-S Batteries." *Acs Applied Materials & Interfaces* 12, no. 15 (Apr 2020): 17592-601. <https://doi.org/10.1021/acsami.0c00537>. <Go to ISI>://WOS:000526330900044.
- Liu, J., A. Mohan, R. K. Kalia, A. Nakano, K. Nomura, P. Vashishta, and K. T. Yao. "Boltzmann Machine Modeling of Layered Mos2 Synthesis on a Quantum Annealer." *Computational Materials Science* 173 (Feb 2020): 109429. <https://doi.org/10.1016/j.commatsci.2019.109429>. <Go to ISI>://WOS:000506172700009.
- Liu, J. Y., L. Cheng, D. M. Zhao, X. X. Chen, H. D. Sun, J. X. Zhu, Z. L. Li, X. B. Wang, and E. E. M. Chia. "Quenching of the Relaxation Pathway in the Weyl Semimetal Taas." *Physical Review B* 102, no. 6 (Aug 2020): 064307. <https://doi.org/10.1103/PhysRevB.102.064307>. <Go to ISI>://WOS:000562001500006.
- Liu, P. C., Y. X. Wang, H. C. Hao, S. Basu, X. Y. Feng, Y. X. Xu, J. A. Boscoboinik, *et al.* "Stable Potassium Metal Anodes with an All-Aluminum Current Collector through Improved Electrolyte Wetting." *Advanced Materials* 32, no. 49 (Dec 2020): 2002908. <https://doi.org/10.1002/adma.202002908>. <Go to ISI>://WOS:000583242700001.
- Liu, X. X., T. M. Lu, C. T. Harris, F. L. Lu, C. Y. Liu, J. Y. Li, C. W. Liu, and R. R. Du. "Thermoelectric Transport of the Half-Filled Lowest Landau Level in a P-Type Ge/Sige Heterostructure." *Physical Review B* 101, no. 7 (Feb 2020): 075304. <https://doi.org/10.1103/PhysRevB.101.075304>. <Go to ISI>://WOS:000513211600005.
- Londono-Calderon, A., D. J. Williams, C. Ophus, and M. T. Pettes. "1d to 2d Transition in Tellurium

- Observed by 4d Electron Microscopy." *Small* 16, no. 49 (Dec 2020): 2005447.
<https://doi.org/10.1002/smll.202005447>. <Go to ISI>://WOS:000589953000001.
- Lucero, J. M., Z. Romero, A. Moreno, D. L. Huber, and C. Simocko. "Admet Polymerization in Affordable, Commercially Available, High Boiling Solvents." *Sn Applied Sciences* 2, no. 4 (Apr 2020): 647.
<https://doi.org/10.1007/s42452-020-2385-0>. <Go to ISI>://WOS:000532826500135.
- Ma, C. X., Z. C. Xiao, A. A. Poretzky, H. Wang, A. Mohsin, J. S. Huang, L. B. Liang, *et al.* "Engineering Edge States of Graphene Nanoribbons for Narrow-Band Photoluminescence." *Acs Nano* 14, no. 4 (Apr 2020): 5090-98. <https://doi.org/10.1021/acsnano.0c01737>. <Go to ISI>://WOS:000529895500124.
- Ma, S. M., N. Li, C. Zhang, and X. M. Wang. "Evolution of Intermetallic Phases in an Al -Si -Ti Alloy During Solution Treatment." *Journal of Alloys and Compounds* 831 (Aug 2020). <Go to ISI>://WOS:000531727200009.
- Maddali, S., P. Li, A. Pateras, D. Timbie, N. Deegan, A. L. Crook, H. Lee, *et al.* "General Approaches for Shear-Correcting Coordinate Transformations in Bragg Coherent Diffraction Imaging. Part I." *Journal of Applied Crystallography* 53 (Apr 2020): 393-403.
<https://doi.org/10.1107/s1600576720001363>. <Go to ISI>://WOS:000524119500010.
- Maldonado, A. M., Y. Basdogan, J. T. Berryman, S. B. Rempe, and J. A. Keith. "First-Principles Modeling of Chemistry in Mixed Solvents: Where to Go from Here?" *Journal of Chemical Physics* 152, no. 13 (Apr 2020): 130902. <https://doi.org/10.1063/1.5143207>. <Go to ISI>://WOS:000523651000001.
- Malone, W., B. Nebgen, A. White, Y. Zhang, H. J. Song, J. A. Bjorgaard, A. E. Sifain, *et al.* "Nexmd Software Package for Nonadiabatic Excited State Molecular Dynamics Simulations." *Journal of Chemical Theory and Computation* 16, no. 9 (Sep 2020): 5771-83.
<https://doi.org/10.1021/acs.jctc.0c00248>. <Go to ISI>://WOS:000570012000027.
- Mansoori, A., S. J. Addamane, E. J. Renteria, D. M. Shima, and G. Balakrishnan. "Ingasb Defect Filter Layer to Improve Performance of Gasb Solar Cells Grown on Gaas Substrates." *Journal of Electronic Materials* 49, no. 12 (Dec 2020): 7153-58.
<https://doi.org/10.1007/s11664-020-08490-3>. <Go to ISI>://WOS:000575722300001.
- Martinez, H., N. J. D. Martinez, J. M. Guo, V. R. Lujan, E. Depoy, M. T. Brumbach, C. J. Brinker, and G. D. Bachand. "Effects of Surface Chemistry and Topology on the Kinesin-Driven Motility of Microtubule Shuttles." *Acs Applied Bio Materials* 3, no. 11 (Nov 2020): 7908-18.
<https://doi.org/10.1021/acsabm.0c01035>. <Go to ISI>://WOS:000604607600065.
- Mason, S. J., A. Hojem, D. J. Wesenberg, A. D. Avery, and B. L. Zink. "Determining Absolute Seebeck Coefficients from Relative Thermopower Measurements of Thin Films and Nanostructures." *Journal of Applied Physics* 127, no. 8 (Feb 2020): 085101. <https://doi.org/10.1063/1.5143447>. <Go to ISI>://WOS:000519624000001.
- Mason, S. J., D. J. Wesenberg, A. Hojem, M. Manno, C. Leighton, and B. L. Zink. "Violation of the Wiedemann-Franz Law through Reduction of Thermal Conductivity in Gold Thin Films." *Physical Review Materials* 4, no. 6 (Jun 2020): 065003.
<https://doi.org/10.1103/PhysRevMaterials.4.065003>. <Go to ISI>://WOS:000548351000002.
- Matanovic, I., K. Leung, S. J. Percival, J. E. Park, P. Lu, P. Atanassov, and S. S. Chou. "Towards Defect Engineering in Hexagonal Mos2 Nanosheets for Tuning Hydrogen Evolution and Nitrogen Reduction Reactions." *Applied Materials Today* 21 (Dec 2020): 100812.
<https://doi.org/10.1016/j.apmt.2020.100812>. <Go to ISI>://WOS:000599825200011.
- McBride, J. R., N. Mishra, S. M. Click, N. J. Orfield, F. Wang, K. Acharya, M. F. Chisholm, *et al.* "Role of Shell Composition and Morphology in Achieving Single-Emitter Photostability for Green-Emitting "Giant" Quantum Dots." *Journal of Chemical Physics* 152, no. 12 (Mar 2020): 124713.
<https://doi.org/10.1063/5.0002772>. <Go to ISI>://WOS:000522394900001.
- McCue, I., S. S. Xiang, K. Xie, and M. J. Demkowicz. "The Effect of Microstructure Morphology on

- Indentation Response of Ta/Ti Nanocomposite Thin Films." *Metallurgical and Materials Transactions a-Physical Metallurgy and Materials Science* 51, no. 11 (Nov 2020): 5677-90. <https://doi.org/10.1007/s11661-020-05969-w>. <Go to ISI>://WOS:000565839300001.
- McCulloch, Q., J. G. Gigax, and P. Hosemann. "Femtosecond Laser Ablation for Mesoscale Specimen Evaluation." *Jom* 72, no. 4 (Apr 2020): 1694-702. <https://doi.org/10.1007/s11837-020-04045-3>. <Go to ISI>://WOS:000513048600004.
- McGrath, A. J., and K. Ramasamy. "Nanoparticles and Nanocomposites for New Permanent Magnets." In *Nanoscience, Vol 6*, edited by N. Revaprasadu. Nanoscience-Specialist Periodical Reports, 60-90, 2020.
- Meng, L. Y., H. Y. Fan, J. M. Lane, L. Baca, J. Tafoya, T. Ao, B. Stoltzfus, *et al.* "X-Ray Diffraction and Electron Microscopy Studies of the Size Effects on Pressure-Induced Phase Transitions in Cds Nanocrystals." *Mrs Advances* 5, no. 48-49 (Sep 2020): 2447-55. <https://doi.org/10.1557/adv.2020.191>. <Go to ISI>://WOS:000609022200001.
- Meng, L. Y., H. Y. Fan, J. M. D. Lane, and Y. Qin. "Bottom-up Approaches for Precisely Nanostructuring Hybrid Organic/Inorganic Multi-Component Composites for Organic Photovoltaics." *Mrs Advances* 5, no. 40-41 (2020): 2055-65 Pii s2059852120001966. <https://doi.org/10.1557/adv.2020.196>. <Go to ISI>://WOS:000578648600001.
- Meng, L. Y., J. M. D. Lane, L. Baca, J. Tafoya, T. Ao, B. Stoltzfus, M. Knudson, *et al.* "Shape Dependence of Pressure-Induced Phase Transition in Cds Semiconductor Nanocrystals." *Journal of the American Chemical Society* 142, no. 14 (Apr 2020): 6505-10. <https://doi.org/10.1021/jacs.0c01906>. <Go to ISI>://WOS:000526394200011.
- Ming, K. S., C. Gu, Q. Su, D. Y. Xie, Y. Q. Wu, Y. Q. Wang, L. Shao, M. Nastasi, and J. Wang. "Strength and Plasticity of Amorphous Ceramics with Self-Patterned Nano-Heterogeneities." *International Journal of Plasticity* 134 (Nov 2020): 102837. <https://doi.org/10.1016/j.ijplas.2020.102837>. <Go to ISI>://WOS:000582334300019.
- Misra, S., D. Zhang, Z. M. Qi, D. F. Li, J. J. Lu, H. T. Chen, and H. Y. Wang. "Morphology Control of Self-Assembled Three-Phase Au-Batio3-Zno Hybrid Metamaterial for Tunable Optical Properties." *Crystal Growth & Design* 20, no. 9 (Sep 2020): 6101-08. <https://doi.org/10.1021/acs.cgd.0c00801>. <Go to ISI>://WOS:000569269800050.
- Mitrofanov, O., L. L. Hale, P. P. Vabishchevich, T. S. Luk, S. J. Addamane, J. L. Reno, and I. Brener. "Perfectly Absorbing Dielectric Metasurfaces for Photodetection." *Appl Photonics* 5, no. 10 (Oct 2020): 101304. <https://doi.org/10.1063/5.0019883>. <Go to ISI>://WOS:000585203100001.
- Mix, L. T., D. Ghosh, J. Tisdale, M. C. Lee, K. R. O'Neal, N. Sirica, A. J. Neukirch, *et al.* "Hot Carrier Cooling and Recombination Dynamics of Chlorine-Doped Hybrid Perovskite Single Crystals." *Journal of Physical Chemistry Letters* 11, no. 19 (Oct 2020): 8430-36. <https://doi.org/10.1021/acs.jpcllett.0c02243>. <Go to ISI>://WOS:000577152900073.
- Mogensen, S. B., M. K. Taylor, and J. W. Lee. "Homocoupling Reactions of Azoles and Their Applications in Coordination Chemistry." *Molecules* 25, no. 24 (Dec 2020): 5950. <https://doi.org/10.3390/molecules25245950>. <Go to ISI>://WOS:000603265700001.
- Mudinoor, A. R., P. M. Goodwin, R. U. Rao, N. Karuna, A. Hitomi, J. Nill, and T. Jeoh. "Interfacial Molecular Interactions of Cellobiohydrolase Cel7a and Its Variants on Cellulose." *Biotechnology for Biofuels* 13, no. 1 (Jan 2020): 10. <https://doi.org/10.1186/s13068-020-1649-7>. <Go to ISI>://WOS:000513588200002.
- Mukazhanova, A., W. Malone, H. Negrin-Yuvero, S. Fernandez-Alberti, S. Tretiak, and S. Sharifzadeh. "Photoexcitation Dynamics in Perylene Diimide Dimers." *Journal of Chemical Physics* 153, no. 24 (Dec 2020): 244117. <https://doi.org/10.1063/5.0031485>. <Go to ISI>://WOS:000604214300006.
- Nandi, A., X. D. Jiang, D. Pak, D. Perry, K. Han, E. S. Bielejec, Y. Xuan, and M. Hosseini. "Controlling Light Emission by Engineering Atomic Is Geometries in Silicon Photonics." *Optics Letters* 45, no. 7 (Apr

2020): 1631-34. <https://doi.org/10.1364/ol.385865>. <Go to ISI>://WOS:000522794100010.

Negrin-Yuvero, H., V. M. Freixas, B. Rodriguez-Hernandez, G. Rojas-Lorenzo, S. Tretiak, A. Bastida, and S. Fernandez-Alberti. "Photoinduced Dynamics with Constrained Vibrational Motion: Frozenm Algorithm." *Journal of Chemical Theory and Computation* 16, no. 12 (Dec 2020): 7289-98. <https://doi.org/10.1021/acs.jctc.0c00930>. <Go to ISI>://WOS:000598208600007.

Nelson, T. R., A. J. White, J. A. Bjorgaard, A. E. Sifain, Y. Zhang, B. Nebgen, S. Fernandez-Alberti, *et al.* "Non-Adiabatic Excited-State Molecular Dynamics: Theory and Applications for Modeling Photophysics in Extended Molecular Materials." *Chemical Reviews* 120, no. 4 (Feb 2020): 2215-87. <https://doi.org/10.1021/acs.chemrev.9b00447>. <Go to ISI>://WOS:000517360300005.

Nenoff, T., D. X. Rademacher, M. A. Rodriguez, W. L. Yu, and W. Pan. "Single-Crystal Synthesis and Characterization of Copper-Intercalated ZrTe₅." *Crystal Growth & Design* 20, no. 2 (Feb 2020): 699-705. <https://doi.org/10.1021/acs.cgd.9b01125>. <Go to ISI>://WOS:000512216600022.

Nichols, K. E., H. L. Andrews, D. Kim, E. I. Simakov, M. Conde, D. S. Doran, G. Ha, *et al.* "Demonstration of Transport of a Patterned Electron Beam Produced by Diamond Pyramid Cathode in an Rf Gun." *Applied Physics Letters* 116, no. 2 (Jan 2020): 023502. <https://doi.org/10.1063/1.5128109>. <Go to ISI>://WOS:000518029000022.

Nikitin, F., O. Isayev, and V. Strijov. "Dracon: Disconnected Graph Neural Network for Atom Mapping in Chemical Reactions." *Physical Chemistry Chemical Physics* 22, no. 45 (Dec 2020): 26478-86. <https://doi.org/10.1039/d0cp04748a>. <Go to ISI>://WOS:000592983900038.

Niu, T., J. Li, Y. Zhang, J. Cho, J. Ding, R. Su, S. Xue, *et al.* "In-Situ Studies on the Mechanical Properties of He Ion Irradiated Nanotwinned Ag." *Journal of Nuclear Materials* 540 (Nov 2020): 152392. <https://doi.org/10.1016/j.jnucmat.2020.152392>. <Go to ISI>://WOS:000575163100011.

Noell, P. J., J. M. Rodelas, Z. N. Ghanbari, and C. M. Laursen. "Microstructural Modification of Additively Manufactured Metals by Electropulsing." *Additive Manufacturing* 33 (May 2020): 101128. <https://doi.org/10.1016/j.addma.2020.101128>. <Go to ISI>://WOS:000539272900005.

Noell, P. J., J. E. C. Sabisch, D. L. Medlin, and B. L. Boyce. "Nanoscale Conditions for Ductile Void Nucleation in Copper: Vacancy Condensation and the Growth-Limited Microstructural State." *Acta Materialia* 184 (Feb 2020): 211-24. <https://doi.org/10.1016/j.actamat.2019.11.022>. <Go to ISI>://WOS:000510988200020.

Nokelainen, J., C. Lane, R. S. Markiewicz, B. Barbiellini, A. Pulkkinen, B. Singh, J. W. Sun, K. Pussi, and A. Bansil. "Ab Initio Description of the Bi₂Sr₂CaCu₂O₈+ Δ Electronic Structure." *Physical Review B* 101, no. 21 (Jun 2020): 214523. <https://doi.org/10.1103/PhysRevB.101.214523>. <Go to ISI>://WOS:000543643100004.

Nolen, J. R., E. L. Runnerstrom, K. P. Kelley, T. S. Luk, T. G. Folland, A. Cleri, J. P. Maria, and J. D. Caldwell. "Ultraviolet to Far-Infrared Dielectric Function of N-Doped Cadmium Oxide Thin Films." *Physical Review Materials* 4, no. 2 (Feb 2020): 025202. <https://doi.org/10.1103/PhysRevMaterials.4.025202>. <Go to ISI>://WOS:000517314500007.

O'Connor, T. C., T. Ge, M. Rubinstein, and G. S. Grest. "Topological Linking Drives Anomalous Thickening of Ring Polymers in Weak Extensional Flows." *Physical Review Letters* 124, no. 2 (Jan 2020): 027801. <https://doi.org/10.1103/PhysRevLett.124.027801>. <Go to ISI>://WOS:000506852200013.

O'Connor, T. C., and M. O. Robbins. "Molecular Models for Creep in Oriented Polyethylene Fibers." *Journal of Chemical Physics* 153, no. 14 (Oct 2020): 144904. <https://doi.org/10.1063/5.0021286>. <Go to ISI>://WOS:000582113800004.

Orfield, N. J., S. Majumder, Z. J. Hu, F. Y. C. Koh, H. Htoon, and J. A. Hollingsworth. "Kinetics and Thermodynamics of Killing a Quantum Dot." *Acs Applied Materials & Interfaces* 12, no. 27 (Jul 2020): 30695-701. <https://doi.org/10.1021/acsami.0c05980>. <Go to ISI>://WOS:000550633400069.

- O'Sullivan, S. E., E. Montoya, S. K. Sun, J. George, C. Kirk, M. C. D. Wilkins, P. F. Weck, *et al.* "Crystal and Electronic Structures of $a(2)Naio(6)$ Periodate Double Perovskites ($a = Sr, Ca, Ba$): Candidate Wasteforms for I-129 Immobilization." *Inorganic Chemistry* 59, no. 24 (Dec 2020): 18407-19. <https://doi.org/10.1021/acs.inorgchem.0c03044>. <Go to ISI>://WOS:000602578600063.
- Padmanabhan, P., S. Boubanga-Tombet, H. Fukidome, T. Otsuji, and R. P. Prasankumar. "A Graphene-Based Magnetoplasmonic Metasurface for Actively Tunable Transmission and Polarization Rotation at Terahertz Frequencies." *Applied Physics Letters* 116, no. 22 (Jun 2020). <https://doi.org/10.1063/5.0006448>. <Go to ISI>://WOS:000540739800001.
- Pan, W., W. Kang, M. P. Lilly, J. L. Reno, K. W. Baldwin, K. W. West, L. N. Pfeiffer, and D. C. Tsui. "Particle-Hole Symmetry and the Fractional Quantum Hall Effect in the Lowest Landau Level." *Physical Review Letters* 124, no. 15 (Apr 2020): 156801. <https://doi.org/10.1103/PhysRevLett.124.156801>. <Go to ISI>://WOS:000525846500007.
- Pan, W., J. L. Reno, and A. P. Reyes. "Enhanced Stability of Quantum Hall Skyrmions under Radio-Frequency Radiations." *Scientific Reports* 10, no. 1 (May 2020): 7659. <https://doi.org/10.1038/s41598-020-64505-3>. <Go to ISI>://WOS:000534024000026.
- Paren, B. A., B. A. Thurston, W. J. Neary, A. Kendrick, J. G. Kennemur, M. J. Stevens, A. L. Frischknecht, and K. I. Winey. "Percolated Ionic Aggregate Morphologies and Decoupled Ion Transport in Precise Sulfonated Polymers Synthesized by Ring-Opening Metathesis Polymerization." *Macromolecules* 53, no. 20 (Oct 2020): 8960-73. <https://doi.org/10.1021/acs.macromol.0c01906>. <Go to ISI>://WOS:000586789500024.
- Parida, S., A. Mishra, J. Chen, J. Wang, A. Doble, C. B. Carter, and A. M. Dongare. "Vertically Stacked 2h-1t Dual-Phase $Mos(2)$ Microstructures During Lithium Intercalation: A First Principles Study." *Journal of the American Ceramic Society* 103, no. 11 (Nov 2020): 6603-14. <https://doi.org/10.1111/jace.17367>. <Go to ISI>://WOS:000554565900001.
- Pateras, A., R. Harder, W. Cha, J. G. Gigax, J. K. Baldwin, J. Tischler, R. Q. Xu, *et al.* "Combining Laue Diffraction with Bragg Coherent Diffraction Imaging at 34-Id-C." *Journal of Synchrotron Radiation* 27 (Sep 2020): 1430-37. <https://doi.org/10.1107/s1600577520009844>. <Go to ISI>://WOS:000562741000037.
- Patil, R. P., D. Doan, Z. H. Aitken, S. Chen, M. T. Kiani, C. M. Barr, K. Hattar, Y. W. Zhang, and X. W. Gu. "Hardening in Au-Ag Nanoboxes from Stacking Fault-Dislocation Interactions." *Nature Communications* 11, no. 1 (Jun 2020): 2923. <https://doi.org/10.1038/s41467-020-16760-1>. <Go to ISI>://WOS:000543972700002.
- Paudel, B., B. Zhang, Y. Sharma, K. T. Kang, H. Nakotte, H. Y. Wang, and A. P. Chen. "Anisotropic Domains and Antiferrodistortive-Transition Controlled Magnetization in Epitaxial Manganite Films on Vicinal $SrTiO_3$ Substrates." *Applied Physics Letters* 117, no. 8 (Aug 2020): 081903. <https://doi.org/10.1063/5.0016371>. <Go to ISI>://WOS:000567454700003.
- Peters, B. L., K. M. Salerno, T. Ge, D. Perahia, and G. S. Grest. "Viscoelastic Response of Dispersed Entangled Polymer Melts." *Macromolecules* 53, no. 19 (Oct 2020): 8400-05. <https://doi.org/10.1021/acs.macromol.0c01403>. <Go to ISI>://WOS:000597278800027.
- Petluru, P., P. C. Grant, A. J. Muhowski, I. M. Obermeier, M. S. Milosavljevic, S. R. Johnson, D. Wasserman, E. H. Steenbergen, and P. T. Webster. "Minority Carrier Lifetime and Photoluminescence of Mid-Wave Infrared InAsSb." *Applied Physics Letters* 117, no. 6 (Aug 2020): 061103. <https://doi.org/10.1063/5.0007275>. <Go to ISI>://WOS:000562791700001.
- Poerwoprajitno, A. R., L. Gloag, J. Watt, S. Cychy, S. Cheong, P. V. Kumar, T. M. Benedetti, *et al.* "Faceted Branched Nickel Nanoparticles with Tunable Branch Length for High-Activity Electrocatalytic Oxidation of Biomass." *Angewandte Chemie-International Edition* 59, no. 36 (Sep 2020): 15487-91. <https://doi.org/10.1002/anie.202005489>. <Go to ISI>://WOS:000563980300013.
- Pound, B. A., K. M. Mertes, A. V. Carr, M. H. Seaberg, M. S. Hunter, W. C. Ward, J. F. Hunter, *et al.*

- "Ptychography at the Linac Coherent Light Source in a Parasitic Geometry." *Journal of Applied Crystallography* 53 (Oct 2020): 1276-82. <https://doi.org/10.1107/s1600576720010778>. <Go to ISI>://WOS:000577178000013.
- Powers, M., B. Derby, S. N. Manjunath, and A. Misra. "Hierarchical Morphologies in Co-Sputter Deposited Thin Films." *Physical Review Materials* 4, no. 12 (Dec 2020): 123801. <https://doi.org/10.1103/PhysRevMaterials.4.123801>. <Go to ISI>://WOS:000600664800002.
- Qiu, J., D. D. Macdonald, N. Li, R. Schoell, D. Kaoumi, and P. Hosemann. "An Electrochemical Impedance Spectroscopic Study of Oxide Films in Liquid Metal." *Jom* 72, no. 5 (May 2020): 2082-88. <https://doi.org/10.1007/s11837-020-04120-9>. <Go to ISI>://WOS:000520795100001.
- Reilly, K. J., A. Kalapala, S. Yeom, S. J. Addamane, E. Renteria, W. Zhou, and G. Balakrishnan. "Epitaxial Regrowth and Hole Shape Engineering for Photonic Crystal Surface Emitting Lasers (Pcsels)." *Journal of Crystal Growth* 535 (Apr 2020): 125531. <https://doi.org/10.1016/j.jcrysgro.2020.125531>. <Go to ISI>://WOS:000518210400011.
- Roach, A. M., B. C. White, A. Garland, B. H. Jared, J. D. Carroll, and B. L. Boyce. "Size-Dependent Stochastic Tensile Properties in Additively Manufactured 316L Stainless Steel." *Additive Manufacturing* 32 (Mar 2020): 101090. <https://doi.org/10.1016/j.addma.2020.101090>. <Go to ISI>://WOS:000522928600086.
- Rodriguez-Hernandez, B., N. Oldani, A. Martinez-Mesa, L. Uranga-Pina, S. Tretiak, and S. Fernandez-Alberti. "Photoexcited Energy Relaxation and Vibronic Couplings in Pi-Conjugated Carbon Nanorings." *Physical Chemistry Chemical Physics* 22, no. 27 (Jul 2020): 15321-32. <https://doi.org/10.1039/d0cp01452d>. <Go to ISI>://WOS:000549894000015.
- Rosa, P., Y. F. Xu, M. Rahn, J. Souza, S. Kushwaha, L. Veiga, A. Bombardi, *et al.* "Colossal Magnetoresistance in a Nonsymmorphic Antiferromagnetic Insulator." *Npj Quantum Materials* 5, no. 1 (Jul 2020): 52. <https://doi.org/10.1038/s41535-020-00256-8>. <Go to ISI>://WOS:000555945900003.
- Ryan, D. P., Y. Chen, P. Nguyen, P. M. Goodwin, J. W. Carey, Q. J. Kang, J. H. Werner, and H. S. Viswanathan. "3d Particle Transport in Multichannel Microfluidic Networks with Rough Surfaces." *Scientific Reports* 10, no. 1 (Aug 2020): 13848. <https://doi.org/10.1038/s41598-020-70728-1>. <Go to ISI>://WOS:000573282900008.
- Ryan, D. P., M. K. Dunlap, S. Majumder, J. H. Werner, J. A. Hollingsworth, M. P. Gelfand, A. Van Orden, and P. M. Goodwin. "A Framework for Quantitative Analysis of Spectral Data in Two Channels." *Applied Physics Letters* 117, no. 2 (Jul 2020): 024101. <https://doi.org/10.1063/5.0013998>. <Go to ISI>://WOS:000553130000001.
- Rybin, N., D. Ghosh, J. Tisdale, S. Shrestha, M. Yoho, D. Vo, J. Even, *et al.* "Effects of Chlorine Mixing on Optoelectronics, Ion Migration, and Gamma-Ray Detection in Bromide Perovskites." *Chemistry of Materials* 32, no. 5 (Mar 2020): 1854-63. <https://doi.org/10.1021/acs.chemmater.9b04244>. <Go to ISI>://WOS:000519337600011.
- Saltonstall, C. B., Z. D. McClure, M. J. Abere, D. Guzman, S. T. Reeve, A. Strachan, P. G. Kotula, D. P. Adams, and T. E. Beechem. "Complexion Dictated Thermal Resistance with Interface Density in Reactive Metal Multilayers." *Physical Review B* 101, no. 24 (Jun 2020): 245422. <https://doi.org/10.1103/PhysRevB.101.245422>. <Go to ISI>://WOS:000540383200002.
- Santos, A. P., D. S. Bolintineanu, G. S. Grest, J. B. Lechman, S. J. Plimpton, I. Srivastava, and L. E. Silbert. "Granular Packings with Sliding, Rolling, and Twisting Friction." *Physical Review E* 102, no. 3 (Sep 2020): 032903. <https://doi.org/10.1103/PhysRevE.102.032903>. <Go to ISI>://WOS:000573463800005.
- Saper, G., and H. Hess. "Kinesin-Propelled Label-Free Microtubules Imaged with Interference Reflection Microscopy." *New Journal of Physics* 22, no. 9 (Sep 2020): 095002. <https://doi.org/10.1088/1367-2630/abb47b>. <Go to ISI>://WOS:000574557200001.

- Sarma, R., M. Goldflam, E. Donahue, A. Pribisova, S. Gennaro, J. Wright, I. Brener, and J. Briscoe. "Optimization and Prediction of Spectral Response of Metasurfaces Using Artificial Intelligence." *Crystals* 10, no. 12 (Dec 2020): 1114. <https://doi.org/10.3390/cryst10121114>. <Go to ISI>://WOS:000602725000001.
- Savage, D. J., I. J. Beyerlein, N. A. Mara, S. C. Vogel, R. J. McCabe, and M. Knezevic. "Microstructure and Texture Evolution in Mg/Nb Layered Materials Made by Accumulative Roll Bonding." *International Journal of Plasticity* 125 (Feb 2020): 1-26. <https://doi.org/10.1016/j.ijplas.2019.08.015>. <Go to ISI>://WOS:000510976700001.
- Schibli, E. M., J. C. Stewart, A. A. Wright, B. Y. Chen, S. Holdcroft, and B. J. Frisken. "The Nanostructure of Hmt-Pmbi, a Sterically Hindered Ionene." *Macromolecules* 53, no. 12 (Jun 2020): 4908-16. <https://doi.org/10.1021/acs.macromol.0c00978>. <Go to ISI>://WOS:000543743000032.
- Schuler, J. D., G. Copeland, K. Hattar, T. J. Rupert, and S. A. Briggs. "Solid-State Dewetting Instability in Thermally-Stable Nanocrystalline Binary Alloys." *Materialia* 9 (Mar 2020): 100618. <https://doi.org/10.1016/j.mtla.2020.100618>. <Go to ISI>://WOS:000537621200108.
- Schuler, J. D., C. M. Grigorian, C. M. Barr, B. L. Boyce, K. Hattar, and T. J. Rupert. "Amorphous Intergranular Films Mitigate Radiation Damage in Nanocrystalline Cu-Zr." *Acta Materialia* 186 (Mar 2020): 341-54. <https://doi.org/10.1016/j.actamat.2019.12.048>. <Go to ISI>://WOS:000518698300030.
- Scott, E. A., K. Hattar, J. L. Braun, C. M. Rost, J. T. Gaskins, T. Y. Bai, Y. K. Wang, *et al.* "Orders of Magnitude Reduction in the Thermal Conductivity of Polycrystalline Diamond through Carbon, Nitrogen, and Oxygen Ion Implantation." *Carbon* 157 (Feb 2020): 97-105. <https://doi.org/10.1016/j.carbon.2019.09.076>. <Go to ISI>://WOS:000502548500012.
- Scott, E. A., E. Ziade, C. B. Saltonstall, A. E. McDonald, M. A. Rodriguez, P. E. Hopkins, T. E. Beechem, and D. P. Adams. "Thermal Conductivity of (Ge₂Sb₂Te₅)_(1-X)C_X Phase Change Films." *Journal of Applied Physics* 128, no. 15 (Oct 2020): 155106. <https://doi.org/10.1063/5.0023476>. <Go to ISI>://WOS:000584682700001.
- Seo, S., X. Y. Wang, S. M. Thomas, M. C. Rahn, D. Carmo, F. Ronning, E. D. Bauer, *et al.* "Nematic State in CeAsb₂." *Physical Review X* 10, no. 1 (Feb 2020): 011035. <https://doi.org/10.1103/PhysRevX.10.011035>. <Go to ISI>://WOS:000513238900002.
- Shang, Z. X., J. Ding, C. C. Fan, D. Chen, J. Li, Y. F. Zhang, Y. Q. Wang, H. Y. Wang, and X. H. Zhang. "He Ion Irradiation Response of a Gradient T91 Steel." *Acta Materialia* 196 (Sep 2020): 175-90. <https://doi.org/10.1016/j.actamat.2020.06.019>. <Go to ISI>://WOS:000557651000017.
- Shao, X., A. J. A. Aquino, M. Otyepka, D. Nachtigalova, and H. Lischka. "Tuning the Uv Spectrum of Pahs by Means of Different N-Doping Types Taking Pyrene as Paradigmatic Example: Categorization via Valence Bond Theory and High-Level Computational Approaches." *Physical Chemistry Chemical Physics* 22, no. 38 (Oct 2020): 22003-15. <https://doi.org/10.1039/d0cp02688c>. <Go to ISI>://WOS:000576194400039.
- Sharma, Y., E. Skoropata, B. Paudel, K. T. Kang, D. Yarotski, T. Z. Ward, and A. P. Chen. "Epitaxial Stabilization of Single-Crystal Multiferroic YCrO₃ Thin Films." *Nanomaterials* 10, no. 10 (Oct 2020): 2085. <https://doi.org/10.3390/nano10102085>. <Go to ISI>://WOS:000585330700001.
- Shi, Z., M. Dao, E. Tsymbalov, A. Shapeev, J. Li, and S. Suresh. "Metallization of Diamond." *Proceedings of the National Academy of Sciences of the United States of America* 117, no. 40 (Oct 2020): 24634-39. <https://doi.org/10.1073/pnas.2013565117>. <Go to ISI>://WOS:000579059100011.
- Shock, C. J., M. J. Stevens, A. L. Frischknecht, and I. Nakamura. "Solvation Energy of Ions in a Stockmayer Fluid." *Journal of Physical Chemistry B* 124, no. 22 (Jun 2020): 4598-604. <https://doi.org/10.1021/acs.jpccb.0c00769>. <Go to ISI>://WOS:000538640100021.
- Shrestha, S., H. Tsai, M. Yoho, D. Ghosh, F. Z. Liu, Y. S. Lei, J. Tisdale, *et al.* "Role of the Metal-Semiconductor Interface in Halide Perovskite Devices for Radiation Photon Counting." *Acs*

- Applied Materials & Interfaces* 12, no. 40 (Oct 2020): 45533-40.
<https://doi.org/10.1021/acсами.0c11805>. <Go to ISI>://WOS:000579956100115.
- Siday, T., L. L. Hale, R. I. Hermans, and O. Mitrofanov. "Resonance-Enhanced Terahertz Nanoscopy Probes." *Acs Photonics* 7, no. 3 (Mar 2020): 596-601.
<https://doi.org/10.1021/acsp Photonics.9b01766>. <Go to ISI>://WOS:000526350900008.
- Siddique, F., M. Langer, M. Paloncova, M. Medved, M. Otyepka, D. Nachtigallova, H. Lischka, and A. J. A. Aquino. "Conformational Behavior and Optical Properties of a Fluorophore Dimer as a Model of Luminescent Centers in Carbon Dots." *Journal of Physical Chemistry C* 124, no. 26 (Jul 2020): 14327-37. <https://doi.org/10.1021/acs.jpcc.0c02175>. <Go to ISI>://WOS:000547455300029.
- Sills, R. B., and B. L. Boyce. "Void Growth by Dislocation Adsorption." *Materials Research Letters* 8, no. 3 (Mar 2020): 103-09. <https://doi.org/10.1080/21663831.2019.1702114>. <Go to ISI>://WOS:000510676800003.
- Sim, S., A. Beierle, P. Mantos, S. McCrory, R. P. Prasankumar, and S. Chowdhury. "Ultrafast Relaxation Dynamics in Bimetallic Plasmonic Catalysts." *Nanoscale* 12, no. 18 (May 2020): 10284-91.
<https://doi.org/10.1039/d0nr00831a>. <Go to ISI>://WOS:000536643200037.
- Sim, S., D. Lee, J. Lee, M. Cha, S. Cha, W. Heo, S. Cho, *et al.* "Role of Weak Interlayer Coupling in Ultrafast Exciton-Exciton Annihilation in Two-Dimensional Rhenium Dichalcogenides." *Physical Review B* 101, no. 17 (May 2020): 174309. <https://doi.org/10.1103/PhysRevB.101.174309>. <Go to ISI>://WOS:000533792600001.
- Singh, M. K., C. Ghosh, B. Miller, P. G. Kotula, S. Tripathi, J. Watt, G. Bakan, H. Silva, and C. B. Carter. "In Situ Tem Study of Crystallization and Chemical Changes in an Oxidized Uncapped Ge₂Sb₂Te₅ Film." *Journal of Applied Physics* 128, no. 12 (Sep 2020): 124505.
<https://doi.org/10.1063/5.0023761>. <Go to ISI>://WOS:000577122500002.
- Sirica, N., P. Vilmercati, F. Bondino, I. Pis, S. Nappini, S. K. Mo, A. V. Fedorov, *et al.* "The Nature of Ferromagnetism in the Chiral Helimagnet Cr_{1/3}NbS₂." *Communications Physics* 3, no. 1 (Apr 2020): 65. <https://doi.org/10.1038/s42005-020-0333-3>. <Go to ISI>://WOS:000524531100001.
- Smith, J. S., R. Zubatyuk, B. Nebgen, N. Lubbers, K. Barros, A. E. Roitberg, O. Isayev, and S. Tretiak. "The Ani-1ccx and Ani-1x Data Sets, Coupled-Cluster and Density Functional Theory Properties for Molecules." *Scientific Data* 7, no. 1 (May 2020): 134.
<https://doi.org/10.1038/s41597-020-0473-z>. <Go to ISI>://WOS:000531308800001.
- Sone, J., Y. Matsumoto, Y. Yasuda, S. Hasegawa, and K. Yamada. "Development of Mems Tactile Sensation Device for Haptic Robot." *Journal of Robotics and Mechatronics* 32, no. 2 (Apr 2020): 315-22. <Go to ISI>://WOS:000527912900006.
- Song, H. J., S. A. Fischer, Y. Zhang, C. J. Cramer, S. Mukamel, N. Govind, and S. Tretiak. "First Principles Nonadiabatic Excited-State Molecular Dynamics in Nwchem." *Journal of Chemical Theory and Computation* 16, no. 10 (Oct 2020): 6418-27. <https://doi.org/10.1021/acs.jctc.0c00295>. <Go to ISI>://WOS:000580954000038.
- Sparrow, A. J., H. Watkins, M. J. Daniels, C. Redwood, and P. Robinson. "Mavacamten Rescues Increased Myofilament Calcium Sensitivity and Dysregulation of Ca²⁺ Flux Caused by Thin Filament Hypertrophic Cardiomyopathy Mutations." *American Journal of Physiology-Heart and Circulatory Physiology* 318, no. 3 (Mar 2020): H715-H22. <https://doi.org/10.1152/ajpheart.00023.2020>. <Go to ISI>://WOS:000520846600018.
- Spurgeon, S. R., C. Ophus, L. Jones, A. Petford-Long, S. V. Kalinin, M. J. Olszta, R. E. Dunin-Borkowski, *et al.* "Towards Data-Driven Next-Generation Transmission Electron Microscopy." *Nature Materials* 20, no. 3 (Mar 2021): 274-79. <https://doi.org/10.1038/s41563-020-00833-z>. <Go to ISI>://WOS:000584012400004.
- Srinivasan, S., C. Kale, B. C. Hornbuckle, K. A. Darling, M. R. Chancey, E. Hernandez-Rivera, Y. Chen, *et al.* "Radiation Tolerance and Microstructural Changes of Nanocrystalline Cu-Ta Alloy to High Dose

- Self-Ion Irradiation." *Acta Materialia* 195 (Aug 2020): 621-30.
<https://doi.org/10.1016/j.actamat.2020.05.061>. <Go to ISI>://WOS:000552116400056.
- Srivastava, I., D. S. Bolintineanu, J. B. Lechman, and S. A. Roberts. "Controlling Binder Adhesion to Impact Electrode Mesostructures and Transport." *Acs Applied Materials & Interfaces* 12, no. 31 (Aug 2020): 34919-30. <https://doi.org/10.1021/acsami.0c08251>. <Go to ISI>://WOS:000558792700042.
- Srivastava, I., J. B. Lechman, G. S. Grest, and L. E. Silbert. "Evolution of Internal Granular Structure at the Flow-Arrest Transition." *Granular Matter* 22, no. 2 (Mar 2020): 41.
<https://doi.org/10.1007/s10035-020-1003-6>. <Go to ISI>://WOS:000521994900002.
- Sterczewski, L. A., J. Westberg, Y. Yang, D. Burghoff, J. Reno, Q. Hu, and G. Wysocki. "Terahertz Spectroscopy of Gas Mixtures with Dual Quantum Cascade Laser Frequency Combs." *Acs Photonics* 7, no. 5 (May 2020): 1082-87. <https://doi.org/10.1021/acsp Photonics.9b01758>. <Go to ISI>://WOS:000537445400003.
- Stewart, J. A., and R. Dingreville. "Microstructure Morphology and Concentration Modulation of Nanocomposite Thin-Films During Simulated Physical Vapor Deposition." *Acta Materialia* 188 (Apr 2020): 181-91. <https://doi.org/10.1016/j.actamat.2020.02.011>. <Go to ISI>://WOS:000527826500017.
- Stewart, J. A., N. A. Modine, and R. Dingreville. "Re-Examining the Silicon Self-Interstitial Charge States and Defect Levels: A Density Functional Theory and Bounds Analysis Study." *Aip Advances* 10, no. 9 (Sep 2020): 095004. <https://doi.org/10.1063/5.0016134>. <Go to ISI>://WOS:000567590700003.
- Su, L. Y., H. H. Huang, Y. C. Lin, G. L. Chen, W. C. Chen, W. Chen, L. Wang, and C. C. Chueh. "Enhancing Long-Term Thermal Stability of Non-Fullerene Organic Solar Cells Using Self-Assembly Amphiphilic Dendritic Block Copolymer Interlayers." *Advanced Functional Materials* 31, no. 4 (Jan 2021): 2005753. <https://doi.org/10.1002/adfm.202005753>. <Go to ISI>://WOS:000579533600001.
- Su, R. Z., D. Neffati, Q. Li, S. C. Xue, J. Cho, J. Li, J. Ding, *et al.* "Ultra-High Strength and Plasticity Mediated by Partial Dislocations and Defect Networks: Part I: Texture Effect." *Acta Materialia* 185 (Feb 2020): 181-92. <https://doi.org/10.1016/j.actamat.2019.11.049>. <Go to ISI>://WOS:000514747400018.
- Subramanian, S., Q. T. Campbell, S. K. Moser, J. Kiemle, P. Zimmermann, P. Seifert, F. Sigger, *et al.* "Photophysics and Electronic Structure of Lateral Graphene/Mos2 and Metal/Mos2 Junctions." *Acs Nano* 14, no. 12 (Dec 2020): 16663-71. <https://doi.org/10.1021/acsnano.0c02527>. <Go to ISI>://WOS:000603308800030.
- Sun, C., Y. P. Gao, D. J. Sprouster, Y. F. Zhang, D. Chen, Y. Q. Wang, L. E. Ecker, and J. Gan. "Disordering of Helium Gas Bubble Superlattices in Molybdenum under Ion Irradiation and Thermal Annealing." *Journal of Nuclear Materials* 539 (Oct 2020): 152315.
<https://doi.org/10.1016/j.jnucmat.2020.152315>. <Go to ISI>://WOS:000564000400013.
- Sun, C., S. A. Maloy, K. Baldwin, Y. Q. Wang, and J. A. Valdez. "Phase Stability of Ni/Ni3Al Multilayers under Thermal Annealing and Irradiation." *Jom* 72, no. 11 (Nov 2020): 3995-4001.
<https://doi.org/10.1007/s11837-020-04377-0>. <Go to ISI>://WOS:000572587200001.
- Suresh, V., E. Pinsolle, C. Lupien, T. J. Martz-Oberlander, M. P. Lilly, J. L. Reno, G. Gervais, T. Szkopek, and B. Reulet. "Quantitative Measurement of Giant and Quantized Microwave Faraday Rotation." *Physical Review B* 102, no. 8 (Aug 2020): 085302.
<https://doi.org/10.1103/PhysRevB.102.085302>. <Go to ISI>://WOS:000555771800005.
- Suri, P. K., J. E. Nathaniel, N. Li, J. K. Baldwin, Y. Q. Wang, K. Hattar, and M. L. Taheri. "Ion Irradiation Induced Phase Transformation in Gold Nanocrystalline Films." *Scientific Reports* 10, no. 1 (Oct 2020): 17864. <https://doi.org/10.1038/s41598-020-74779-2>. <Go to

ISI>://WOS:000585239000038.

- Suzuki, K., Y. Saito, N. Okazaki, and T. Suzuki. "Graphite-Shell-Chains Selectively and Efficiently Produced from Biomass Rich in Cellulose and Chitin." *Scientific Reports* 10, no. 1 (Jul 2020): 12131. <https://doi.org/10.1038/s41598-020-69156-y>. <Go to ISI>://WOS:000556388700008.
- Tafoya, R. R., A. W. Cook, B. Kaehr, J. R. Downing, M. C. Hersam, and E. B. Secor. "Real-Time Optical Process Monitoring for Structure and Property Control of Aerosol Jet Printed Functional Materials." *Advanced Materials Technologies* 5, no. 12 (Dec 2020): 2000781. <https://doi.org/10.1002/admt.202000781>. <Go to ISI>://WOS:000587393700001.
- Talley, S. J., B. Branch, C. F. Welch, C. H. Park, J. Watt, L. Kuettner, B. Patterson, D. M. Dattelbaum, and K. S. Lee. "Impact of Filler Composition on Mechanical and Dynamic Response of 3-D Printed Silicone-Based Nanocomposite Elastomers." *Composites Science and Technology* 198 (Sep 2020): 108258. <https://doi.org/10.1016/j.compscitech.2020.108258>. <Go to ISI>://WOS:000568996000008.
- Tang, J., G. Wei, X. C. Cai, S. L. Hu, T. D. Shen, T. Cheng, R. Yin, *et al.* "Smart 3d Network Nanocomposites Collect Irradiation-Induced "Trash"." *Matter* 3, no. 5 (Nov 2020): 1631-45. <https://doi.org/10.1016/j.matt.2020.08.010>. <Go to ISI>://WOS:000588450600021.
- Taylor, C. A., J. D. Sugar, D. B. Robinson, N. C. Bartelt, R. B. Sills, and K. Hattar. "Using in Situ Tem Helium Implantation and Annealing to Study Cavity Nucleation and Growth." *Jom* 72, no. 5 (May 2020): 2032-41. <https://doi.org/10.1007/s11837-020-04117-4>. <Go to ISI>://WOS:000522925100005.
- Taylor, M. K., M. Juhl, G. B. Hadaf, D. Hwang, E. Velasquez, J. Oktawiec, J. B. Lefton, *et al.* "Palladium-Catalyzed Oxidative Homocoupling of Pyrazole Boronic Esters to Access Versatile Bipyrazoles and the Flexible Metal-Organic Framework Co(4,4'-Bipyrazolate)." *Chemical Communications* 56, no. 8 (Jan 2020): 1195-98. <https://doi.org/10.1039/c9cc08614e>. <Go to ISI>://WOS:000510662900003.
- Teplukhin, A., B. K. Kendrick, S. Tretiak, and P. A. Dub. "Electronic Structure with Direct Diagonalization on a D-Wave Quantum Annealer." *Scientific Reports* 10, no. 1 (Dec 2020): 20753. <https://doi.org/10.1038/s41598-020-77315-4>. <Go to ISI>://WOS:000596308000011.
- Tesema, T. E., H. Kookhaee, and T. G. Habteyes. "Extracting Electronic Transition Bands of Adsorbates from Molecule-Plasmon Excitation Coupling." *Journal of Physical Chemistry Letters* 11, no. 9 (May 2020): 3507-14. <https://doi.org/10.1021/acs.jpcclett.0c00734>. <Go to ISI>://WOS:000535177500049.
- Thapa, A., J. Guo, K. L. Jungjohann, X. W. Wang, and W. Z. Li. "Density Control of Vertically Aligned Carbon Nanotubes and Its Effect on Field Emission Properties." *Materials Today Communications* 22 (Mar 2020): 100761. <https://doi.org/10.1016/j.mtcomm.2019.100761>. <Go to ISI>://WOS:000539242500007.
- Thapa, S., L. Y. Meng, E. Hettiarachchi, Y. K. Bader, D. A. Dickie, G. Rubasinghege, S. A. Ivanov, E. C. Vreeland, and Y. Qin. "Charge-Separated and Lewis Paired Metal-Organic Framework for Anion Exchange and Co(2)Chemical Fixation." *Chemistry-a European Journal* 26, no. 61 (Nov 2020): 13788-91. <https://doi.org/10.1002/chem.202002823>. <Go to ISI>://WOS:000577453500001.
- Theis-Brohl, K., A. Saini, M. Wolff, J. A. Dura, B. B. Maranville, and J. A. Borchers. "Self-Assembly of Magnetic Nanoparticles in Ferrofluids on Different Templates Investigated by Neutron Reflectometry." *Nanomaterials* 10, no. 6 (Jun 2020): 1231. <https://doi.org/10.3390/nano10061231>. <Go to ISI>://WOS:000551000400001.
- Tisdale, J. T., M. Yoho, H. Tsai, S. Shrestha, K. Fernando, J. K. Baldwin, S. Tretiak, D. Vo, and W. Y. Nie. "Methylammonium Lead Tribromide Single Crystal Detectors Towards Robust Gamma-Ray Photon Sensing." *Advanced Optical Materials* 8, no. 10 (May 2020): 2000233. <https://doi.org/10.1002/adom.202000233>. <Go to ISI>://WOS:000522063100001.
- Traore, B., L. Pedesseau, J. C. Blancon, S. Tretiak, A. D. Mohite, J. Even, C. Katan, and M. Kepenekian.

- "Importance of Vacancies and Doping in the Hole-Transporting Nickel Oxide Interface with Halide Perovskites." *Acs Applied Materials & Interfaces* 12, no. 5 (Feb 2020): 6633-40. <https://doi.org/10.1021/acsami.9b19457>. <Go to ISI>://WOS:000512216900151.
- Tripathi, S., P. Kotula, M. K. Singh, C. Ghosh, G. Bakan, H. Silva, and C. B. Carter. "Role of Oxygen on Chemical Segregation in Uncapped Ge(2)Sb(2)Te(5) Thin Films on Silicon Nitride." *Ecs Journal of Solid State Science and Technology* 9, no. 5 (Jun 2020): 054007. <https://doi.org/10.1149/2162-8777/ab9a19>. <Go to ISI>://WOS:000548792200001.
- Tsai, H., C. M. Liu, E. Kinigstein, M. X. Li, S. Tretiak, M. Cotlet, X. D. Ma, X. Y. Zhang, and W. Y. Nie. "Critical Role of Organic Spacers for Bright 2d Layered Perovskites Light-Emitting Diodes." *Advanced Science* 7, no. 7 (Apr 2020): 1903202. <https://doi.org/10.1002/advs.201903202>. <Go to ISI>://WOS:000514154900001.
- Tsai, H. H., F. Z. Liu, S. Shrestha, K. Fernando, S. Tretiak, B. Scott, D. T. Vo, J. Strzalka, and W. Y. Nie. "A Sensitive and Robust Thin-Film X-Ray Detector Using 2d Layered Perovskite Diodes." *Science Advances* 6, no. 15 (Apr 2020): eaay0815. <https://doi.org/10.1126/sciadv.aay0815>. <Go to ISI>://WOS:000525751400011.
- Tsitkov, S., Y. C. Song, J. B. Rodriguez, Y. F. Zhang, and H. Hess. "Kinesin-Recruiting Microtubules Exhibit Collective Gliding Motion While Forming Motor Trails." *Acs Nano* 14, no. 12 (Dec 2020): 16547-57. <https://doi.org/10.1021/acsnano.0c03263>. <Go to ISI>://WOS:000603308800019.
- Turner, E. M., K. R. Sapkota, C. Hatem, P. Lu, G. T. Wang, and K. S. Jones. "Wet-Chemical Etching of Fib Lift-out Tem Lamellae for Damage-Free Analysis of 3-D Nanostructures." *Ultramicroscopy* 216 (Sep 2020): 113049. <https://doi.org/10.1016/j.ultramic.2020.113049>. <Go to ISI>://WOS:000570058500007.
- Tutchton, R. M., W. T. Chiu, R. C. Albers, G. Kotliar, and J. X. Zhu. "Electronic Correlation Induced Expansion of Fermi Pockets in Delta-Plutonium." *Physical Review B* 101, no. 24 (Jun 2020): 245156. <https://doi.org/10.1103/PhysRevB.101.245156>. <Go to ISI>://WOS:000542054400002.
- Uddin, S. Z., H. Kim, M. Lorenzon, M. Yeh, D. H. Lien, E. S. Barnard, H. Htoon, A. Weber-Bargioni, and A. Javey. "Neutral Exciton Diffusion in Monolayer Mos2." *Acs Nano* 14, no. 10 (Oct 2020): 13433-40. <https://doi.org/10.1021/acsnano.0c05305>. <Go to ISI>://WOS:000586793400091.
- Underwood, K. J., A. F. Briggs, S. D. Sifferman, V. B. Verma, N. S. Sirica, R. P. Prasankumar, S. W. Nam, et al. "Strain Dependence of Auger Recombination in 3 Mu M Gainassb/Gasb Type-I Active Regions." *Applied Physics Letters* 116, no. 26 (Jun 2020). <https://doi.org/10.1063/5.0007512>. <Go to ISI>://WOS:000547001400003.
- Unocic, R. R., K. L. Jungjohann, B. L. Mehdi, N. D. Browning, and C. M. Wang. "In Situ Electrochemical Scanning/Transmission Electron Microscopy of Electrode-Electrolyte Interfaces." *Mrs Bulletin* 45, no. 9 (Sep 2020): 738-45. <https://doi.org/10.1557/mrs.2020.226>. <Go to ISI>://WOS:000567507400011.
- Van Winkle, M., H. O. W. Wallace, N. Smith, A. T. Pomerene, M. G. Wood, B. Kaehr, and J. J. Reczek. "Direct-Write Orientation of Charge-Transfer Liquid Crystals Enables Polarization-Based Coding and Encryption." *Scientific Reports* 10, no. 1 (Sep 2020): 15352. <https://doi.org/10.1038/s41598-020-72037-z>. <Go to ISI>://WOS:000573753400008.
- VanDelinder, V., I. Sickafoose, Z. I. Imam, R. Ko, and G. D. Bachand. "The Effects of Osmolytes on in Vitro Kinesin-Microtubule Motility Assays." *Rsc Advances* 10, no. 70 (Nov 2020): 42810-15. <https://doi.org/10.1039/d0ra08148e>. <Go to ISI>://WOS:000596717400019.
- Velizhanin, K. A., C. D. Alcorn, A. A. Migdisov, and R. P. Currier. "Rigorous Analysis of Non-Ideal Solubility of Sodium and Copper Chlorides in Water Vapor Using Pitzer-Pabalan Model." *Fluid Phase Equilibria* 522 (Nov 2020): 112731. <https://doi.org/10.1016/j.fluid.2020.112731>. <Go to ISI>://WOS:000566366800004.
- Vikrant, K. S. N., R. L. Grosso, L. Feng, E. N. S. Muccillo, D. N. F. Muche, G. S. Jawaharram, C. M. Barr, et

- al.* "Ultrahigh Temperature in Situ Transmission Electron Microscopy Based Bicrystal Coble Creep in Zirconia I: Nanowire Growth and Interfacial Diffusivity." *Acta Materialia* 199 (Oct 2020): 530-41. <https://doi.org/10.1016/j.actamat.2020.08.069>. <Go to ISI>://WOS:000577994500039.
- Wan, N. H., T. J. Lu, K. C. Chen, M. P. Walsh, M. E. Trusheim, L. De Santis, E. A. Bersin, *et al.* "Large-Scale Integration of Artificial Atoms in Hybrid Photonic Circuits." *Nature* 583, no. 7815 (Jul 2020): 226-+. <https://doi.org/10.1038/s41586-020-2441-3>. <Go to ISI>://WOS:000546767100013.
- Wang, B., S. S. Yang, Y. Wang, R. Ahsan, X. W. He, Y. Kim, H. Htoon, *et al.* "Auger Suppression of Incandescence in Individual Suspended Carbon Nanotube Pn-Junctions." *Acs Applied Materials & Interfaces* 12, no. 10 (Mar 2020): 11907-12. <https://doi.org/10.1021/acsami.9b17519>. <Go to ISI>://WOS:000526609100061.
- Wang, B., S. S. Yang, Y. Wang, Y. Kim, R. Ahsan, R. Kapadia, S. K. Doorn, H. Htoon, and S. B. Cronin. "Broadband Electroluminescence from Reverse Breakdown in Individual Suspended Carbon Nanotube Pn-Junctions." *Nano Research* 13, no. 10 (Oct 2020): 2857-61. <https://doi.org/10.1007/s12274-020-2941-3>. <Go to ISI>://WOS:000552166100002.
- Wang, B., S. S. Yang, Y. Wang, Y. Kim, H. Htoon, S. K. Doorn, B. J. Foran, *et al.* "Formation of Brightly Luminescent Mos2 Nanoislands from Multilayer Flakes Via Plasma Treatment and Laser Exposure." *Acs Omega* 5, no. 32 (Aug 2020): 20543-47. <https://doi.org/10.1021/acsomega.0c02753>. <Go to ISI>://WOS:000563015100062.
- Wang, C. F., B. Kafle, T. E. Tesema, H. Kookhaee, and T. G. Habteyes. "Molecular Sensitivity of near-Field Vibrational Infrared Imaging." *Journal of Physical Chemistry C* 124, no. 38 (Sep 2020): 21018-26. <https://doi.org/10.1021/acs.jpcc.0c07979>. <Go to ISI>://WOS:000575823600040.
- Wang, H. H., T. He, Y. Du, W. H. Wang, Y. B. Shen, S. P. Li, X. C. Zhou, and F. Yang. "Evolution of Single Nanobubbles through Multi-State Dynamics." *Chinese Chemical Letters* 31, no. 9 (Sep 2020): 2442-46. <https://doi.org/10.1016/j.ccllet.2020.03.049>. <Go to ISI>://WOS:000582384200046.
- Wang, L., H. Y. Fan, and F. Bai. "Porphyrin-Based Photocatalysts for Hydrogen Production." *Mrs Bulletin* 45, no. 1 (Jan 2020): 49-56. <https://doi.org/10.1557/mrs.2019.294>. <Go to ISI>://WOS:000509759900014.
- Wang, X., C. Hatzoglou, B. Sneed, Z. Fan, W. Guo, K. Jin, D. Chen, *et al.* "Interpreting Nanovoids in Atom Probe Tomography Data for Accurate Local Compositional Measurements." *Nature Communications* 11, no. 1 (Feb 2020): 1022. <https://doi.org/10.1038/s41467-020-14832-w>. <Go to ISI>://WOS:000526546300006.
- Wang, Y. Q., and K. Hattar. "Special Issue: Radiation Damage in Materials-Helium Effects." *Materials* 13, no. 9 (May 2020): 2143. <https://doi.org/10.3390/ma13092143>. <Go to ISI>://WOS:000535941100137.
- Weaver, J. S., V. Livescu, and N. A. Mara. "A Comparison of Adiabatic Shear Bands in Wrought and Additively Manufactured 316L Stainless Steel Using Nanoindentation and Electron Backscatter Diffraction." *Journal of Materials Science* 55, no. 4 (Feb 2020): 1738-52. <https://doi.org/10.1007/s10853-019-03994-8>. <Go to ISI>://WOS:000502332900032.
- Wei, X. C., H. L. Hui, C. Zhao, C. H. Deng, M. J. Han, Z. H. Yu, A. Sheng, *et al.* "Realization of Bazrs3 Chalcogenide Perovskite Thin Films for Optoelectronics." *Nano Energy* 68 (Feb 2020): 104317. <https://doi.org/10.1016/j.nanoen.2019.104317>. <Go to ISI>://WOS:000513811800060.
- Welch, E. W., Y. K. Jung, A. Walsh, L. Scolfaro, and A. Zakhidov. "A Density Functional Theory Study on the Interface Stability between Cspbb3 and Cui." *Aip Advances* 10, no. 8 (Aug 2020): 085023. <https://doi.org/10.1063/5.0018925>. <Go to ISI>://WOS:000563912000001.
- Welch, P. M., T. A. Dreier, H. D. Magurudeniya, M. G. Frith, J. Ilaysky, S. Seifert, A. K. Rahman, *et al.* "3d Volumetric Structural Hierarchy Induced by Colloidal Polymerization of a Quantum-Dot Ionic Liquid Monomer Conjugate." *Macromolecules* 53, no. 8 (Apr 2020): 2822-33. <https://doi.org/10.1021/acs.macromol.0c00011>. <Go to ISI>://WOS:000529885700007.

- Wesenberg, D. J., M. J. Roos, A. D. Avery, J. L. Blackburn, A. J. Ferguson, and B. L. Zink. "Size- and Temperature-Dependent Suppression of Phonon Thermal Conductivity in Carbon Nanotube Thermoelectric Films." *Advanced Electronic Materials* 6, no. 11 (Nov 2020): 2000746. <https://doi.org/10.1002/aelm.202000746>. <Go to ISI>://WOS:000578481500001.
- Winey, K. I., and A. L. Frischknecht. "A Curated Experimental Compilation Analyzed by Theory Is More Than a Review." *Macromolecules* 53, no. 15 (Aug 2020): 6099-101. <https://doi.org/10.1021/acs.macromol.0c01291>. <Go to ISI>://WOS:000562138100001.
- Xiang, S. S., I. McCue, D. Yadav, Y. Q. Wang, J. K. Baldwin, M. J. Demkowicz, and K. Y. Xie. "Comparative Study of Helium Bubbles in a Ti-Ta Alloy and a Ti/Ta Nanocomposite." *Philosophical Magazine Letters* 100, no. 7 (Jul 2020): 307-18. <https://doi.org/10.1080/09500839.2020.1762014>. <Go to ISI>://WOS:000533750700001.
- Yang, F. C., J. C. Zhao, W. J. Koshut, J. Watt, J. C. Riboh, K. Gall, and B. J. Wiley. "A Synthetic Hydrogel Composite with the Mechanical Behavior and Durability of Cartilage." *Advanced Functional Materials* 30, no. 36 (Sep 2020): 2003451. <https://doi.org/10.1002/adfm.202003451>. <Go to ISI>://WOS:000543102700001.
- Yao, Y. D., Y. Jiang, J. A. Klug, M. Wojcik, E. R. Maxey, N. S. Sirica, C. Roehrig, *et al.* "Multi-Beam X-Ray Ptychography for High-Throughput Coherent Diffraction Imaging." *Scientific Reports* 10, no. 1 (Nov 2020): 19550. <https://doi.org/10.1038/s41598-020-76412-8>. <Go to ISI>://WOS:000594820700007.
- Yazdani, S., R. Kashfi-Sadabad, M. D. Morales-Acosta, R. D. Montano, T. N. Vu, H. D. Tran, M. H. Zhou, *et al.* "Thermal Transport in Phase-Stabilized Lithium Zirconate Phosphates." *Applied Physics Letters* 117, no. 1 (Jul 2020): 011903. <https://doi.org/10.1063/5.0013716>. <Go to ISI>://WOS:000551887500003.
- Yu, W., R. Haenel, M. A. Rodriguez, S. R. Lee, F. Zhang, M. Franz, D. I. Pikulin, and W. Pan. "Zero-Bias Conductance Peak in Dirac Semimetal-Superconductor Devices." *Physical Review Research* 2, no. 3 (Jul 2020): 032002. <https://doi.org/10.1103/PhysRevResearch.2.032002>. <Go to ISI>://WOS:000604136900002.
- Yu, W. L., J. A. Elias, K. W. Chen, R. Baumbach, T. M. Nenoff, N. A. Modine, W. Pan, and E. A. Henriksen. "Electronic Transport Properties of a Lithium-Decorated ZrTe₅ Thin Film." *Scientific Reports* 10, no. 1 (Feb 2020): 3537. <https://doi.org/10.1038/s41598-020-60545-x>. <Go to ISI>://WOS:000563211300006.
- Yuan, R. H., P. Lu, H. Han, D. Z. Xue, A. P. Chen, Q. X. Jia, and T. Lookman. "Enhanced Magnetocaloric Performance in Manganite Bilayers." *Journal of Applied Physics* 127, no. 15 (Apr 2020). <https://doi.org/10.1063/1.5139946>. <Go to ISI>://WOS:000529956900001.
- Zapiain, D. M. D., M. Guziewski, S. P. Coleman, and R. Dingreville. "Characterizing the Tensile Strength of Metastable Grain Boundaries in Silicon Carbide Using Machine Learning." *Journal of Physical Chemistry C* 124, no. 45 (Nov 2020): 24809-21. <https://doi.org/10.1021/acs.jpcc.0c07590>. <Go to ISI>://WOS:000598992900027.
- Zhang, J., X. Z. Wei, I. D. Rukhlenko, H. T. Chen, and W. R. Zhu. "Electrically Tunable Metasurface with Independent Frequency and Amplitude Modulations." *Acs Photonics* 7, no. 1 (Jan 2020): 265-71. <https://doi.org/10.1021/acsp Photonics.9b01532>. <Go to ISI>://WOS:000508475800031.
- Zhang, X. H., C. B. Cockreham, E. Yilmaz, G. N. Li, N. Li, S. Ha, L. J. Fu, *et al.* "Energetic Cost for Being "Redox-Site-Rich" in Pseudocapacitive Energy Storage with Nickel-Aluminum Layered Double Hydroxide Materials." *Journal of Physical Chemistry Letters* 11, no. 9 (May 2020): 3745-53. <https://doi.org/10.1021/acs.jpcllett.0c00865>. <Go to ISI>://WOS:000535177500083.
- Zhang, Y., L. Q. Li, S. Tretiak, and T. Nelson. "Nonadiabatic Excited-State Molecular Dynamics for Open-Shell Systems." *Journal of Chemical Theory and Computation* 16, no. 4 (Apr 2020): 2053-64. <https://doi.org/10.1021/acs.jctc.9b00928>. <Go to ISI>://WOS:000526313000006.

- Zhang, Y. F., Q. Li, M. Gong, S. Xue, J. Ding, J. Li, J. Cho, *et al.* "Deformation Behavior and Phase Transformation of Nanotwinned Al/Ti Multilayers." *Applied Surface Science* 527 (Oct 2020): 146776. <https://doi.org/10.1016/j.apsusc.2020.146776>. <Go to ISI>://WOS:000564208300002.
- Zhang, Y. F., R. Su, T. J. Niu, N. A. Richter, S. Xue, Q. Li, J. Ding, *et al.* "Thermal Stability and Deformability of Annealed Nanotwinned Al/Ti Multilayers." *Scripta Materialia* 186 (Sep 2020): 219-24. <https://doi.org/10.1016/j.scriptamat.2020.04.015>. <Go to ISI>://WOS:000543035500043.
- Zhang, Y. F., R. Su, D. Y. Xie, T. J. Niu, S. Xue, Q. Li, Z. Shang, *et al.* "Design of Super-Strong and Thermally Stable Nanotwinned Al Alloys via Absolute Synergy." *Nanoscale* 12, no. 39 (Oct 2020): 20491-505. <https://doi.org/10.1039/d0nr05707j>. <Go to ISI>://WOS:000579877200038.
- Zhao, H., B. B. Wang, F. X. Liu, X. D. Yan, H. Z. Wang, W. S. Leong, M. J. Stevens, *et al.* "Fluidic Flow Assisted Deterministic Folding of Van Der Waals Materials." *Advanced Functional Materials* 30, no. 13 (Mar 2020): 1908691. <https://doi.org/10.1002/adfm.201908691>. <Go to ISI>://WOS:000513231300001.
- Zheng, S. J., J. Y. Pang, L. X. Yang, W. F. Yang, Y. T. Zhou, Y. Q. Wang, F. X. Yin, and X. L. Ma. "Void-Interface Wetting to Crossing Transition Owing to Bubble to Void Transformation." *Applied Physics Letters* 116, no. 9 (Mar 2020): 093703. <https://doi.org/10.1063/1.5140490>. <Go to ISI>://WOS:000519227500001.
- Zheng, Y., S. M. Bachilo, and R. B. Weisman. "Photoexcited Aromatic Reactants Give Multicolor Carbon Nanotube Fluorescence from Quantum Defects." *Acs Nano* 14, no. 1 (Jan 2020): 715-23. <https://doi.org/10.1021/acsnano.9b07606>. <Go to ISI>://WOS:000510531500062.
- Zhou, G. Q., B. Nebgen, N. Lubbers, W. Malone, A. M. N. Niklasson, and S. Tretiak. "Graphics Processing Unit-Accelerated Semiempirical Born Oppenheimer Molecular Dynamics Using Pytorch." *Journal of Chemical Theory and Computation* 16, no. 8 (Aug 2020): 4951-62. <https://doi.org/10.1021/acs.jctc.0c00243>. <Go to ISI>://WOS:000562139200016.
- Zhou, L. J., H. L. Dong, and S. Tretiak. "Recent Advances of Novel Ultrathin Two-Dimensional Silicon Carbides from a Theoretical Perspective." *Nanoscale* 12, no. 7 (Feb 2020): 4269-82. <https://doi.org/10.1039/c9nr08755a>. <Go to ISI>://WOS:000531408100003.
- Ziade, E. "Wide Bandwidth Frequency-Domain Thermoreflectance: Volumetric Heat Capacity, Anisotropic Thermal Conductivity, and Thickness Measurements." *Review of Scientific Instruments* 91, no. 12 (Dec 2020): 124901. <https://doi.org/10.1063/5.0021917>. <Go to ISI>://WOS:000596596300001.
- Zuraw, W., W. M. Linhart, J. Occena, T. Jen, J. W. Mitchell, R. S. Goldman, and R. Kudrawiec. "Temperature-Dependent Study of Ga_{1-x-y}N_xBi_y Alloys for Band-Gap Engineering: Photoreflectance and Modeling." *Applied Physics Express* 13, no. 9 (Sep 2020): 091005. <Go to ISI>://WOS:000568306800001.