

## SHyNE Publications of Calendar Year 2021

### Internal User Papers (341)

1. Abbott, Tirzah, et al. "Exploring the Inner Space of Outer Space: Multi-Length Scale, Multimodal Characterization of Muonionalusta Iva Iron Meteorite." *Microscopy and Microanalysis* 27.S1 (2021): 2264-66. Print.
2. Abedini Dereshgi, Sina, et al. "Tuning of Optical Phonons in A-MoO<sub>3</sub>-VO<sub>2</sub> Multilayers." *ACS Applied Materials & Interfaces* 13.41 (2021): 48981-87. Print.
3. Afrin, Unjila, et al. "Proton Conductivity Via Trapped Water in Phosphonate-Based Metal–Organic Frameworks Synthesized in Aqueous Media." *Inorganic Chemistry* 60.2 (2021): 1086-91. Print.
4. Aftab, Sikandar, et al. "Platinum Disulfide (PtS<sub>2</sub>) and Silicon Pyramids: Efficient 2D/3D Heterojunctions Tunneling and Breakdown Diodes." *arXiv preprint arXiv:2110.04952* (2021). Print.
5. Ahles, Aaron A, Jonathan D Emery, and David C Dunand. "Mechanical Properties of Meteoritic Fe–Ni Alloys for in-Situ Extraterrestrial Structures." *Acta Astronautica* 189 (2021): 465-75. Print.
6. Ahuja, Manuj, et al. "Bach1 Derepression Is Neuroprotective in a Mouse Model of Parkinson's Disease." *Proceedings of the National Academy of Sciences* 118.45 (2021). Print.
7. Akono, Ange-Therese. "Fracture Toughness of One-and Two-Dimensional Nanoreinforced Cement Via Scratch Testing." *Philosophical Transactions of the Royal Society A* 379.2203 (2021): 20200288. Print.
8. Akono, Ange-Therese, et al. "Basic Creep and Fracture Response of Fine Recycled Aggregate Concrete." *Construction and Building Materials* 266 (2021): 121107. Print.
9. Akono, Ange-Therese, et al. "Advanced Geomechanical Model to Predict the Impact of CO<sub>2</sub>-Induced Microstructural Alterations on the Cohesive-Frictional Behavior of Mt. Simon Sandstone." *Minerals* 11.1 (2021): 38. Print.
10. Akono, Ange-Therese, et al. "Nanostructure of Calcium-Silicate-Hydrates in Fine Recycled Aggregate Concrete." *Cement and Concrete Composites* 115 (2021): 103827. Print.
11. Al Malki, Muath M, et al. "Creep Behavior and Post-Creep Thermoelectric Performance of the N-Type Skutterudite Alloy Yb<sub>0.3</sub>Co<sub>4</sub>Sb<sub>12</sub>." *Journal of Materiomics* 7.1 (2021): 89-97. Print.
12. Alexander, Grant CB, et al. "Controllable Nonclassical Conductance Switching in Nanoscale Phase-Separated (PbI<sub>2</sub>)<sub>1-x</sub>(BiI<sub>3</sub>)<sub>x</sub> Layered Crystals." *Advanced Materials* 33.51 (2021): 2103098. Print.
13. Alvarez, Z., et al. "Bioactive Scaffolds with Enhanced Supramolecular Motion Promote Recovery from Spinal Cord Injury." *Science* 374.6569 (2021): 848-+. Print.
14. Amsterdam, S. H., et al. "Tailoring the Optical Response of Pentacene Thin Films Via Templated Growth on Hexagonal Boron Nitride." *Journal of Physical Chemistry Letters* 12.1 (2021): 26-31. Print.
15. Arcudi, Francesca, et al. "Quantum Dot-Sensitized Photoreduction of CO<sub>2</sub> in Water with Turnover Number > 80,000." *Journal of the American Chemical Society* 143.43 (2021): 18131-38. Print.
16. Arinaga, Allison M, et al. "Supported Vanadium Catalysts for Selective Sulfur-Oxidative Dehydrogenation of Propane." *ChemCatChem* 13.21 (2021): 4514-19. Print.
17. Arinaga, A. M., S. F. Liu, and T. J. Marks. "Oxidative Dehydrogenation of Propane over Transition Metal Sulfides Using Sulfur as an Alternative Oxidant (Vol 10, Pg 6840, 2020)." *Catalysis Science*

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18. Arora, Srishti, Phalguni Shah, and Michelle M Driscoll. "Shear Jamming in Colloidal Drop Impact." *arXiv preprint arXiv:2111.10868* (2021). Print.
  19. Arpacı, Sevdenur, et al. "Observation of Current-Induced Switching in Non-Collinear Antiferromagnetic IrMn<sub>3</sub> by Differential Voltage Measurements." *Nature communications* 12.1 (2021): 1-10. Print.
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  23. Bae, Gunhyu, et al. "Immunoregulation of Macrophages by Controlling Winding and Unwinding of Nanohelical Ligands." *Advanced Functional Materials* 31.37 (2021): 2103409. Print.
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  31. Bennington, Peter, et al. "Role of Solvation Site Segmental Dynamics on Ion Transport in Ethylene-Oxide Based Side-Chain Polymer Electrolytes." *Journal of Materials Chemistry A* 9.15 (2021): 9937-51. Print.
  32. Bobbala, Sharan, Michael P Vincent, and Evan A Scott. "Just Add Water: Hydratable, Morphologically Diverse Nanocarrier Powders for Targeted Delivery." *Nanoscale* 13.26 (2021): 11349-59. Print.
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  39. Chakram, Srivatsan, et al. "Seamless High-Q Microwave Cavities for Multimode Circuit Quantum Electrodynamics." *Physical review letters* 127.10 (2021): 107701. Print.
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64. Chica, Daniel G, et al. "Sn<sub>4</sub>- Δb<sub>12</sub>se<sub>12</sub> [Q X], Q= Se, Te, a B<sub>12</sub> Cluster Tunnel Framework Hosting Neutral Chalcogen Chains." *Chemistry of Materials* 33.5 (2021): 1723-30. Print.
65. Choi, Jungil, et al. "Skin-Interfaced Microfluidic Systems That Combine Hard and Soft Materials for Demanding Applications in Sweat Capture and Analysis." *Advanced Healthcare Materials* 10.4 (2021): 2000722. Print.
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