

## CHEMISTRY DIVISION: SELECTED REFERENCES

### 6121 Spectroscopy and Dynamics

Dunkelberger, A. D.; Ratchford, D. C.; Grafton, A. B.; Breslin, V. M.; Ryland, E. S.; Katzer, D. S.; Fears, K. P.; Weiblen, R. J.; Vurgaftman, I.; Giles, A. J. et al. Ultrafast active tuning of the Berreman mode. *ACS Photonics* 2020, 7 (1), 279; <https://doi.org/10.1021/acsphotonics.9b01578>

Dunkelberger, A. D.; Ellis, C. T.; Ratchford, D. C.; Giles, A. J.; Kim, M.; Kim, C. S.; Spann, B. T.; Vurgaftman, I.; Tischler, J. G.; Long, J. P. et al. Active tuning of surface phonon polariton resonances via carrier photoinjection. *Nature Photonics* 2018, 12 (1), 50; <https://doi.org/10.1038/s41566-017-0069-0>

Grafton, A. B.; Dunkelberger, A. D.; Simpkins, B. S.; Triana, J. F.; Hernández, F. J.; Herrera, F.; Owrutsky, J. C. Excited-state vibration-polariton transitions and dynamics in nitroprusside. *Nature Communications* 2021, 12 (1), 214.; <https://doi.org/10.1038/s41467-020-20535-z>

Klug, C. A.; Miller, J. B. Automated detection of broad NMR spectra: <sup>19</sup>F NMR of paramagnetic UF<sub>4</sub> and <sup>195</sup>Pt NMR of supported Pt catalysts. *Solid State Nuclear Magnetic Resonance* 2018, 92, 14-18; <https://doi.org/10.1016/j.ssnmr.2018.03.006>

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### 6123 Materials Synthesis & Processing

Chaloux, B.L.; Yonke, B.L.; Purdy, A.P.; Yesinowski, J.P.; Glaser, E.R.; Epshteyn, A.; P(CN)<sub>3</sub> Precursor for Carbon Phosphonitride Extended Solids Chemistry of Materials, 2015, 27 (13), 4507–4510; <https://doi.org/10.1021/acs.chemmater.5b01561>

Epshteyn, A.; Garsany, Y.; More, K.L.; Jain, V.; Meyer III, H.M.; Purdy, A.P.; Swider-Lyons, K.E.; Effective Strategy for Improving Electrocatalyst Durability by Adhesive Immobilization of Catalyst Nanoparticles on Graphitic Carbon Supports, *ACS Catalysis* 2015, 5 (6), 3662–3674; <https://doi.org/10.1021/cs501791z>

Maza, W.A., Breslin, V.M., Owrutsky, J.C., Pate, B.B., Epshteyn, A, Nanosecond Transient Absorption of Hydrated Electrons and Reduction of Lineal Perfluoroalkyl Acids and Sulfonates, *Environ. Sci. Technol. Lett.*, 2021, 8, 7, 525-530; <https://doi.org/10.1021/acs.estlett.1c00383>

M.T. Finn, B.L. Chaloux, and A. Epshteyn, Exploring the Effects of Reaction Conditions on Morphology and Stability of Sonochemically Generated Ti–Al–B Fuel Powders, *Energy and Fuels*, 2020, 34, 11373– 11380; <https://doi.org/10.1021/acs.energyfuels.0c01050>

M.D. Ward, B.L. Chaloux, M.D. Johannes, and A. Epshteyn, Facile Proton Transport in Ammonium Borosulfate—An Unhumidified Solid Acid Polyelectrolyte for Intermediate Temperatures, *Advanced Materials*, 2020, 2003667; <https://doi.org/10.1002/adma.202003667>

### 6124 Applied Concepts in Materials

Thum, M.D.; Casalini, R.; Ratchford, D.; Kołacz, J.; Lundin, J.G., Photochromic Phase Behavior of Liquid Crystal Core Nanofibers through Surface Induced Disorder. *J. Mat. Chem. C*, 2021, 9, 12859-12867; <https://doi.org/10.1039/D1TC02392F>

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Lundin, J.G.; McGann, C.L.; Weise, N.K.; Streifel, B.C.; Balow, R.B.; Estrella, L.; Wynne, J.H. Iodine Binding and Release from Antimicrobial Hemostatic Polymer Foams, *Reactive and Functional Polymers*, 2019, 135, 44-51; <https://doi.org/10.1016/j.reactfunctpolym.2018.12.009>

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### 6127 **Advanced Materials**

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Kolel-Veetil, M.K.; Gamache, R.M.; Bernstein, N.; Goswami, R.; Qadri, S.B.; Fears, K.P.; Miller, J.B.; Glaser, E.R.; Keller, T.M. Substitution of silicon within the rhombohedral boron carbide (B<sub>4</sub>C) crystal lattice through high-energy ball-milling, *J. Mater. Chem. C*, 2015, 3, 11705-11716; <https://doi.org/10.1039/c5tc02956b>

Laskoski, M; Neal, A.; Keller, T. M.; Dominguez, D. D.; Klug C. A.; Saab A. P. Improved Synthesis of Oligomeric Phthalonitriles and Studies Designed for Low Temperature Cure *J. Polym. Sci. A Polym. Chem.*, 2014, 52, 1662-1668; <https://doi.org/10.1002/pola.27161>

Mott, P. H.; Giller, C. B.; Fragiadakis, D.; Rosenberg, D. A.; Roland, C. M. Deformation of Polyurea: Where Does the Energy Go? *Polymer* 2016, 105, 227-233; <https://doi.org/10.1016/j.polymer.2016.10.029>

### 6137 **Marine Bio-Engineering**

First MR, Riley SC, Islam KA, Hill V, Li J, Zimmerman RC, Drake LA (2021) Rapid quantification of biofouling with an inexpensive, underwater camera and image analysis (pp 599–617). *Management of Biological Invasions* 12:599-617; <https://doi.org/10.3391/mbi.2021.12.3.06>

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### 6138 **Marine Coatings Science & Technology**

Brown, R.F., Smith, G.M., Potter, J. et al. Parameter Development via In Situ Residual Stress Measurement and Post-deposition Analysis of Cold Spray CuNi Coatings. *J Therm Spray Tech* 29, 1876–1891 (2020);

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#### 6171 **Advanced Electrochemical Materials**

DeSario, P.A.; Gordon, W.O.; Balboa, A.; Pennington, A.M.; Pitman, C.L.; McEntee, M.; Pietron, J.J. Photo-Enhanced Degradation of Sarin at Cu/TiO<sub>2</sub> Composite Aerogels: Roles of Bandgap Excitation and Surface Plasmon Excitation. *ACS Applied Materials & Interfaces* 2021, 13, 12550–12561; <https://doi.org/10.1021/acsami.0c21988>

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Hopkins, B.J.; Sassin, M.B.; Chervin, C.N.; Long, J.W.; Rolison, D.R.; Parker, J.F. Low-Cost Green Synthesis of Zinc Sponge for Rechargeable, Sustainable Batteries. *Sustainable Energy & Fuels* 2020, 4, 3363–3369; <https://doi.org/10.1039/d0se00562b>

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#### 6173 **Alternative Energy**

Carter, R.; Kingston, T.A.; Atkinson, R.W.; Parmananda, M.; Dubarry, M.; Fear, C.; Mukherjee, P.P.; Love, C.T.; Directionality of Thermal Gradients in Li-ion Batteries Dictates Diverging Degradation Modes. *Cell Reports Physical Science* 2021, 2, 10035. ISSN 2666-3864. <https://doi.org/10.1016/j.xcrp.2021.100351>  
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#### 6176 **Molecular Interfaces & Tribology**

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<https://doi.org/10.1021/acsnano.8b09194>

Fears, K.P.; Kolel-Veetil, M.K.; Barlow, D.E.; Bernstein, N.; So, C.R.; Wahl, K.J.; Li, X.; Kulp III, J.L.; Latour, R.A.; Clark, T.D. High-performance nanomaterials formed by rigid yet extensible cyclic  $\beta$ -peptide polymers, Nat. Comm. 2018, 9, 4090/1-8; <https://doi.org/10.1038/s41467-018-06576-5>

#### 6177 Surface Nanoscience & Sensor Technology

Mulvaney, S.P., Kidwell, D.A., Lanese, J.N., Lopez, R.P., Sumera, M.E., and Wei, E. Catalytic Lateral Flow Immunoassays (cLFIA): Amplified Signal in a Self-Contained Assay Format. Sens. Bio-Sens. Res., 2020, 30, 100390; <https://doi.org/10.1016/j.sbsr.2020.100390>

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#### 6178 Nanomaterials Interfaces & Sensor Technology

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#### 6181 Chemical Sensing & Fuel Technology

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### **6185 Combustion & Reacting Transport**

Connell, Jr., T. L.; Yetter, R. A.; Risha, G. A.; Huba, Z. J.; Epshteyn, A.; Fisher, B. T. Enhancement of Solid Fuel Combustion in a Hybrid Rocket Motor Using Amorphous TiAlB Nanopowder Additives. J. Propuls. Power 2019, 35,662-665; <https://doi.org/10.2514/1.B37330>

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### **6189 Theoretical Chemistry**

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