

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/acsp Photonics.9b01578>

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Klug, C. A.; Miller, J. B. Automated detection of broad NMR spectra: ¹⁹F NMR of paramagnetic UF₄ and ¹⁹⁵Pt 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

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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>

6127 Advanced Materials

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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. Poly. Sci. A Poly. Chem.*, 2014, 52, 1662-1668; <https://doi.org/10.1002/pola.27161>

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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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First MR, Policastro SA, Strom MJ, Riley SC, Robbins-Wamsley SH, Drake LA (2014) 3D imaging provides a high-resolution, volumetric approach for analyzing biofouling. *Biofouling* 30:685-693; <https://doi.org/10.1080/08927014.2014.90429>

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); <https://doi.org/10.1007/s11666-021-01246-3>

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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/TiO₂ 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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Garsany, Y.; Atkinson, R.W. III; Gould, B.D.; Martin, R.; Dubau, L.; Chatenet, M. and Swider-Lyons, K.E.; Dual-layer Catalyst Layers for Increased Proton Exchange Membrane Fuel Cell Performance. *J. Power Sources* 2021, 514, 230574. ISSN 0378-7753. <https://doi.org/10.1016/j.jpowsour.2021.230574>

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6176 Molecular Interfaces & Tribology

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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

Boyd, Thomas J; Osburn, Christopher L; Johnson, Kevin J; Birgl, Keri B; Coffin, Richard B; Compound-specific isotope analysis coupled with multivariate statistics to source-apportion hydrocarbon mixtures *Environmental science & technology* 40(6):1916-1924 (2006) <https://doi.org/10.1021/es050975p>

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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**

Bazargan, G.; Fischer, S. A.; Gunlycke, D. Effect of Structure and Hydration Level on Water Diffusion in Chitosan Membranes. *Macromol. Theor. Simul.*2021, 30, 2000064; <https://doi.org/10.1002/mats.202000064>

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