14. MRSEC-SUPPORTED PUBLICATIONS AND PATENTS
MRSEC IV (PERIOD 6)

†Denotes Publications with International Co-Authors
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IRG-1 Publications resulting from PRIMARY MRSEC Support


IRG-1 Publications resulting from PARTIAL MRSEC Support


IRG-1 Publications resulting from the USE OF SHARED FACILITIES


19. †Xie, Z.; Baldea, I.; Frisbie, C.D. Energy Level Alignment in Molecular Tunnel Junctions by Transport and Spectroscopy: Self-Consistency for the Case of Alkyl Thiols and Dithiols on Ag, Au, and Pt Electrodes. J. Am. Chem. Soc., 2019, 141 (45), 18182-18192. DOI: 10.1021/jacs.9b08905. MRSEC PROGRAM


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IRG-2 Publications resulting from PRIMARY MRSEC Support

30. Dwyer, J.D.; Diaz, E.J.; Webber, T.E.; Katzenberg, A.; Modestino, M.A.; Aydil, E.S. Quantum confinement in few layer SnS nanosheets. Nanotechnology, 2019, 30 (24), 245705. DOI: 10.1088/1361-6528/ab0e3e DMR-1420013


IRG-2 Publications resulting from PARTIAL MRSEC Support


IRG-2 Publications resulting from the USE OF SHARED FACILITIES


IRG-3 Publications resulting from PRIMARY MRSEC Support


70. Morozova, S. Methylcellulose fibrils: a mini review. *Polymer International*, 2020, 69 (2), 125-130. DOI: [10.1002/pi.v69.2](http://dx.doi.org/10.1002/pi.v69.2) DMR-1420013


IRG-3 Publications resulting from PARTIAL MRSEC Support

73. Tan, Z.; Jiang, Y.; Ganewatta, M.S.; Kumar, R.; Keith, A.; Twaroski, K.; Pengo, T.; Tolar, J.; Lodge, T.P.; Reineke, T.M. Block Polymer Micelles Enable CRISPR/Cas9 Ribonucleoprotein
Delivery: Physicochemical Properties Affect Packaging Mechanisms and Gene Editing Efficiency. Macromolecules, 52, 21, 8197-8206, 2019, DOI: 10.1021/acs.macromol.9b01645
DMR-1420013

IRG-3 Publications resulting from the USE OF SHARED FACILITIES

74. Li, Z.; Van Zee, N.J.; Bates, F.S.; Lodge, T.P. Polymer Nanogels as Reservoirs to Inhibit Hydrophobic Drug Crystallization. ACS Nano, 2019, 13 (2), 1232-1243. DOI: 10.1021/acsnano.8b06393 DMR-1420013


86. Mueller, A.J.; Lindsay, A.P.; Jayaraman, A.; Lodge, T.P.; Mahanthappa, M.K.; Bates, F.S. Emergence of a C15 Laves Phase in Diblock Polymer/Homopolymer Blends. ACS Macro Letters,
Collaboration with SEED. DMR-1420013


Early, J.T.; Lodge, T.P. Fragmentation of 1,2-Polybutadiene- block-Poly(ethylene oxide) Micelles in Imidazolium-Based Ionic Liquids. Macromolecules, 2019, 52 (18), 7089-7101. DOI: 10.1021/acs.macromol.9b01530


Purchel, A.A.; Boyle, W.S.; Reineke, T.M. Aggregated Solution Morphology of Poly(acrylic acid)-Poly(styrene) Block Copolymers Improves Drug Supersaturation Maintenance and Caco-2 Cell Membrane Permeation. Mol. Pharmaceutics, 2019, 16 (11), 4423-4435. DOI: 10.1021/acs.molpharmaceut.9b00002 DMR-1420013

Clark, C.P.; Voigt, B.; Aydil, E.S.; Holmes, R.J. Carrier-gas assisted vapor deposition for highly tunable morphology of halide perovskite thin films. Sustainable Energy and Fuels, 2019, 3 (9), 2447-2455. DOI: 10.1039/C9SE00200F DMR-1420013

Dewing, B.L.; Bible, N.G.; Ellison, C.J.; Mahanthappa, M.K. Electrochemically Stable, High Transference Number Lithium Bis(malonato)borate Polymer Solution Electrolytes. Chem. Mater. 2020, 3794-3804. DOI: 10.1021/acs.chemmater.9b05219 DMR-1420013


Pham, H.Q.; Holmes, R.J.; Aydil, E.; Gagliardi, L. Lead-free double perovskites Cs2InCuCl6 and (CH3NH3)2InCuCl6: electronic, optical, and electrical properties. Nanoscale, 2019, 23, DOI: 10.1039/C9NR01645G DMR-1420013


Emulsion Solvent Diffusion. Molecular pharmaceutics, 2020, 17 (4), 1387-1396. DOI: 10.1021/acs.molpharmaceut.0c00086


114. Chen, S.; Drehmel, J.R.; Penn, R.L. Facile Synthesis of Monodispersed Ag NPs in Ethylene Glycol Using Mixed Capping Agents. ACS Omega, 2020, 5 (11), 6069-6073. DOI: 10.1021/acsomega.9b04492


117. He, S.; Liu, K.; Macosko, C.W.; Stein, A. Effect of primary particle size and aggregate size of modified graphene oxide on toughening of unsaturated polyester resin. Polymer Composites, 2019, 40 (10), 3886-3894. DOI: 10.1002/pc.25248


MRFN/other publications resulting from the USE OF SHARED FACILITIES


123. Izquierdo, N.; Myers, J.C.; Seaton, N.C.; Pandey, S.K.; Campbell, S.A. Thin-Film Deposition of Surface Passivated Black Phosphorus. ACS Nano, 2019, 13 (6), 7091-7099. DOI: 10.1021/acs.nano.9b02385


125. Hampu, N.; Hillmyer, M.A. Molecular Engineering of Nanostructures in Disordered Block Polymers. ACS Macro Lett., 2020, 9 (3), 382-388. DOI: 10.1021/acsmacrolett.0c00036


**MRSEC-supported Patents**

2019-2020

**Patent Applications**

None

**Patents Granted**

None

**Patents Licensed**

None