Publications
John R. Berger

Archival Publications

1. Taghikhani, K., Weddle, P.J., Hoffman, R.M., Berger, J.R., and Kee, R.J., Electro-Chemo-Mechanical Finite Element Model of Single-Crystal and Polycrystalline NMC Cathode Particles Embedded in an Argyrodite Solid, *Electrochemica Acta*, **460**: 142585 (2023).

2. Taghikhani, K., Dubois, A., Berger, J.R., Ricote, S., Zhu, H., and Kee, R.J., Modeling Electro-Chemo-Mechanical Behaviors within the Dense $BaZr_{0.8}Y_{0.2}O_{3-\delta}$ Protonic Ceramic Membrane in a Long Tubular Electrochemical Cell, *Membranes*, **11**: 378 (2021).

3. Taghikhani, K., Weddle, P.J., Berger, J.R., and Kee, R.J., Modeling Coupled Chemo-Mechanical Behavior of Randomly Oriented NMC811 Polycrystalline Li-ion Battery Cathodes, *Journal of the Electrochemical Society*, **168**: 080511 (2021).

4. Taghikhani, K., Weddle, P.J., Berger, J.R., and Kee, R.J., Chemo-Mechanical Behavior of Highly Anisotropic and Isotropic Polycrystalline Graphite Particles During Lithium Intercalation, *Journal of the Electrochemical Society*, **167**: 110554 (2020).

5. Kelly, S., Ricote, S., Weddle, P., Dubois, A., Harris, W., Berger, J.R., and Kee, R.J., Nondestructive 3D Nanoscale X-ray Imaging of Solid Oxide Fuel Cells in the Laboratory, *Microscopy and Microanalysis*, **25**: 382-383 (2019).

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20. Elmabrouk, B., Berger, J. R., Phan, A.-V., and Gray, L. J., Apparent Stiffness Tensors for Porous Solids Using Symmetric Galerkin Boundary Elements, *Computational Mechanics* **49**: 411-419 (2012).

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Book Chapters

Berger, J. R., Geer, S. R., and Parnell, W. J., Homogenization Approaches for the Elastic Properties of Porous Materials, *Pore Scale Phenomena: Frontiers in Energy and Environmen*t, World Scientific Publishing, Hackensack, NJ (2015).

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