Craig Burkhart

List of Publications by Citations

25 papers	483 citations	12 h-index	21 g-index
26 ext. papers	607 ext. citations	3.9 avg, IF	3.66 L-index

#	Paper	IF	Citations
25	Descriptor-based methodology for statistical characterization and 3D reconstruction of microstructural materials. *Computational Materials Science*, **2014**, 85, 206-216	3.2	101
24	A predictive multiscale computational framework for viscoelastic properties of linear polymers. *Polymer*, **2012**, 53, 5935-5952	3.9	91
23	A Transfer Learning Approach for Microstructure Reconstruction and Structure-property Predictions. *Scientific Reports*, **2018**, 8, 13461	4.9	54
22	Multiscale modeling of polyisoprene on graphite. *Journal of Chemical Physics*, **2014**, 140, 054908	3.9	53
21	Utilizing real and statistically reconstructed microstructures for the viscoelastic modeling of polymer nanocomposites. *Composites Science and Technology*, **2012**, 72, 1725-1732	8.6	32
20	Stochastic Reassembly Strategy for Managing Information Complexity in Heterogeneous Materials Analysis and Design. *Journal of Mechanical Design, Transactions of the ASME*, **2013**, 135,	3	22
19	Measuring interphase stiffening effects in styrene-based polymeric thin films. *Polymer*, **2015**, 75, 161-167	3.9	19
18	Backmapping coarse-grained macromolecules: An efficient and versatile machine learning approach. *Journal of Chemical Physics*, **2020**, 153, 041101	3.9	19
17	Computational analysis of particle reinforced viscoelastic polymer nanocomposites □ statistical study of representative volume element. *Journal of the Mechanics and Physics of Solids*, **2018**, 114, 55-74	5	18
16	Conformations and Dynamics of Polymer Chains in Cis and Trans Polybutadiene/Silica Nanocomposites through Atomistic Simulations: From the Unentangled to the Entangled Regime. *Macromolecules*, **2020**, 53, 6173-6189	5.5	17
15	Validation of quartz crystal rheometry in the megahertz frequency regime. *Journal of Polymer Science, Part B: Polymer Physics*, **2019**, 57, 1246-1254	2.6	12
14	Dynamics and Rheology of Polymer Melts via Hierarchical Atomistic, Coarse-Grained, and Slip-Spring Simulations. *Macromolecules*, **2021**, 54, 2740-2762	5.5	12
13	A Hybrid Approach to 3D Porous Microstructure Reconstruction via Gaussian Random Field **2012**,		6
12	X-ray structure analysis of poly[di-(3,4-dimethylphenoxy)phosphazene]. *Journal of Polymer Science, Polymer Physics Edition*, **1983**, 21, 2349-2363		6
11	Josephson tunnel junctions with monomolecular barriers. *IEEE Transactions on Magnetics*, **1983**, 19, 980-982		5
10	Tailoring Interfacial Properties in Polymer□Silica Nanocomposites via Surface Modification: An Atomistic Simulation Study. *ACS Applied Polymer Materials*, **2021**, 3, 2576-2587	4.3	4
9	Continuous water purification system for Langmuir film studies. *Colloids and Surfaces*, **1988**, 29, 233-237		2

List of Publications

8	Coupling between Polymer Conformations and Dynamics Near Amorphous Silica Surfaces: A Direct Insight from Atomistic Simulations. *Nanomaterials*, **2021**, 11,	5.4	2
7	Dynamics of Long Entangled Polyisoprene Melts via Multiscale Modeling. *Macromolecules*, **2021**, 54, 8693-8713	5.5	2
6	Determination of the viscoelastic interfacial properties between silica and SNR-based materials via a semi-empirical approach. *Mechanics of Materials*, **2015**, 80, 1-12	3.3	1
5	Interfacial Properties of Carbon Rubber Interfaces Investigated via Indentation Pull-Out Tests and the JKR Theory. *Tribology Letters*, **2013**, 52, 155-161	2.8	1
4	Structurally Realistic Modeling of Elastomers. *Rubber Chemistry and Technology*, **1998**, 71, 342-406	1.7	1
3	Data-Driven Multiscale Science for Tire Compounding: Methods and Future Directions. *Springer Series in Materials Science*, **2021**, 281-312	0.9	1
2	Polybutadiene Copolymers via Atomistic and Systematic Coarse-Grained Simulations. *Macromolecules*, **2022**, 55, 224-240	5.5	1
1	Application of In-situ TEM Nanoscale Quantitative Mechanical Testing to Elastomers. *Microscopy and Microanalysis*, **2019**, 25, 1524-1525	0.5	