

Journal Papers:

1. L. Chen, R. Batra, R. Ranganathan, G. Sotzing, Y. Cao, R. Ramprasad, "Electronic structure of polymer dielectrics: the role of chemical and morphological complexity", *Chem. Mater.*, 30, 7699, 2018.
2. R. Ranganathan, Y. Shi, P. Keblinski, "Commonalities in frequency-dependent viscoelastic damping in glasses in the MHz to THz regime", *J. Appl. Phys.*, 122, 145103, 2017.
3. R. Ranganathan, R. Ozisik, and P. Keblinski, "Frequency-dependent mechanical damping in alloys", *Phys. Rev. B*, 95, 214112, 2017.
4. R. Ranganathan, S. Rokkam, T. Desai, P. Keblinski, P Cross, and R Burnes, "Generation of amorphous carbon models using liquid quench method: A reactive molecular dynamics study", *Carbon*, 113, 87, 2017.
5. J. Nie, R. Ranganathan, Z. Liang, P. Keblinski, "Structural vs. compositional disorder in thermal conductivity reduction of SiGe alloys", *J. Appl. Phys.*, 122, 045104, 2017.
6. W. Peng, R. Ranganathan, P. Keblinski, R. Ozisik, "Viscoelastic and dynamic properties of well-mixed and phase separated binary polymer blends: A molecular dynamics simulation study", *Macromolecules*, 50, 6293, 2017.
7. R. Ranganathan, R. Ozisik, P. Keblinski, "Viscoelastic damping in crystalline composites: A Molecular Dynamics study", *Composites Part B*, 93, 273, 2016.
8. R. Ranganathan, K. Sasikumar, P. Keblinski, "Realizing tunable molecular thermal devices based on photoisomerism - Is it possible?", *J. Appl. Phys.*, 117, 025305, 2015.
9. R. Ranganathan, S. Rokkam, T. Desai, P. Keblinski, P Cross, and R Burnes, "Modeling high-temperature diffusion of gases in micro and mesoporous amorphous carbon", *J. Chem. Phys.*, 143, 084701, 2015.
10. R. Raghavan, K.C.H. Kumar, B.S. Murty, "Analysis of phase formation in multi-component alloys", *J. Alloys Compd.*, 544, 152, 2012.
11. KVM Krishna, R. Raghavan, D. Srivastava, G.K. Dey, S.K. Sahoo, I. Samjadar, "Study of evolution of dislocation structure with the deformation in Zirconium alloys", *T. Indian. I. Metals*, 64, 309, 2011.

Conference talks and posters:

1. R. Ranganathan, V. Kumar, G. Rodriguez, A. Tsou, G.C. Rutledge, "Deformation of linear and short chain branched semicrystalline polyethylene", AICHE 2018, Pittsburgh.

2. S. Rokkam, K. Sasikumar, R. Ranganathan, P. Cross, R. Burnes, "A Framework for Chemical Kinetics Extraction Based on Reactive Molecular Dynamics", AIChE 2018, Pittsburgh.
3. S. Rokkam, K. Sasikumar, R. Ranganathan, P. Cross, R. Burnes, "Atomistically-informed chemistry models for thermo-chemical degradation of ablative composite materials", TMS 2018, Phoenix.
4. R. Ranganathan, S. Rokkam, P. Keblinski, "Anisotropy in structural and transport properties of amorphous carbon - a molecular dynamics study", MRS Fall Meet, 2017, Boston.
5. R. Ranganathan, S. Rokkam, P. Keblinski, "A computational approach to generate amorphous carbon models using reactive molecular dynamics", Materials Science & Technology (MS&T) 2017, Pittsburgh.
6. R. Ranganathan, R. Ozisik, P. Keblinski, "Commonalities in frequency-dependent viscoelastic damping in glasses", Materials Science & Technology (MS&T) 2017, Pittsburgh.
7. W. Peng, R. Ranganathan, R. Ozisik, P. Keblinski, "Molecular dynamics study of reversible thermal stiffening in polymer nanocomposites", MRS Fall meet, November 2016, Boston.
8. R. Ranganathan, R. Ozisik, P. Keblinski, "Viscoelastic damping in crystalline composites and alloys", APS March meet, 2016, Baltimore.
9. R. Ranganathan, P. Keblinski, "Heating in viscoelastic materials under oscillatory shear: A tool for characterizing viscous energy loss", MRS Spring meet, April 2015, San Francisco.
10. R. Ranganathan, K. Sasikumar, P. Keblinski, "Effect of chain length and conformation on thermal conductance in Si-azobenzene covalent junctions", MRS Spring meet, April 2013, San Francisco.
11. S. Varalakshmi, S. Praveen, R. Sriharitha, R. Ranganathan, R.S. Kottada and B.S. Murty, "Thermodynamics of phase formation, synthesis and mechanical properties of nanocrystalline high entropy alloys processed by mechanical alloying" IUMRS conference - September 2011, Taiwan.