

## List of publications

1. **Shipra Bhatt** and Debjani Bagchi. Macroscopic mechanical properties and molecular scale thermal relaxation of a biodegradable polymer : a comparison to commonly used polyethylenes. (Accepted for publication in J.Phys.Cond.Mat., Aug 2024) **IF - 2.3**
2. **Shipra Bhatt**, Debjani Bagchi, Avik Das, Ashwani Kumar, and Debasis Sen (2023). Probing Microscale Structuring-Induced Phase Separation with Fluorescence Recovery Diffusion Dynamics in Poly (ethylene glycol) Solutions. ACS omega, 8(38), 35219-35231. **IF - 4.1**
3. **Shipra Bhatt** and Debjani Bagchi (2021). Molecular and micro-scale heterogeneities in Raman modes of a relaxing polymer glass. Journal of Physics: Condensed Matter, 33(32), 325101. **IF - 2.3**
4. **Shipra Bhatt** and Debjani Bagchi (2020, November). Effect of temperature on the molecular vibrations of linear and branched polyethylene. In AIP Conference Proceedings (Vol. 2265, No. 1, p. 030038). AIP Publishing LLC.
5. **Shipra Bhatt** and Debjani Bagchi. Dynamic heterogeneities and correlations after a thermal quench in a polymer glass. (Manuscript prepared for PRE) **IF – 2.2**
6. Tithi Joshi, Harmit Joshi, **Shipra Bhatt**, Manali Pancholi and Debjani Bagchi, Regulation of mechanical tunability by matrix structure design for biomedical application specificity in biopolymer composites, under review in Journal of Polymer Research. **IF – 2.6**
7. Tithi Joshi, **Shipra Bhatt**, Mansi Esther Jinugu, Prachi Thareja, Avik Das, Ashwani Kumar, Debasis Sen and Debjani Bagchi, Role of mechanical properties in diffusion- controlled drug release from 3D printable starch hydrogels, submitted to Biomacromolecules **IF – 6.092**

8. Tithi Joshi, **Shipra Bhatt** and Debjani Bagchi, Multi-scale mechanical studies of starch-based biodegradable films, manuscript in preparation for Journal of Polymers and the Environment. **IF – 4.7**