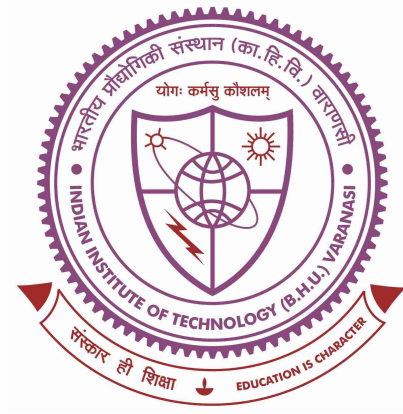


Self-assembly of Polymer Fluids Under External Stimuli



*Thesis submitted in fulfilment
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Publications

1. Photo-induced bond breaking during phase separation kinetics of block copolymer melts- A dissipative particle dynamics study; Ashish Kumar Singh, Avinash Chauhan, Sanjay Puri, Awaneesh Singh; *Soft Matter*, 17 (7), 1802-1813 (2021).
2. Phase separation kinetics of block copolymer melts confined under moving parallel walls: A DPD study; Ashish Kumar Singh, Awaneesh Singh, *Computational Materials Science*, 226, 112224 (2023).
3. Growth kinetics and morphology characterization of binary polymeric fluid under random photo illumination; Ashish Kumar Singh, Avinash Chauhan, Awaneesh Singh; *Journal of Chemical Physics*, 160, 024907 (2024).
4. Photomodulated phase-separation kinetics of block copolymer melts: A DPD Simulation Study; Avinash Chauhan, Ashish Kumar Singh, Awaneesh Singh; *Molecular Simulation*, 50(5), 394-403 (2024).
5. DPD simulation study of segregation kinetics of binary polymer fluids: effect of external shear; Ashish Kumar Singh, Samiksha Shrivastav, Awaneesh Singh (*manuscript in preperation*).
6. Effect of random photo illumination on phase-separating dimers: A DPD simulation study; Ashish Kumar Singh, Awaneesh Singh (*work in progress*).
7. Insights into phase separation kinetics of fluids within polymer gel; Ashish Kumar Singh, Awaneesh Singh (*work in progress*).

8. Mixing and demixing of dimer melt system under the effect of alternate light cycles and shear: Ashish Kumar Singh, Vanshika Saini, Awaneesh Singh (*work in progress*).

9. Phase separation kinetics of miktoarm star polymers in a solvent: Effect of size and number of arms; Devendra Kumar Verma, Ashish Kumar Singh, Avinash Chauhan, Awaneesh Singh (*work in progress*).