

## Arijit Majumdar

Ph.D. Student in Mechanical Engineering, admitted Autumn 2020

### Publications

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#### PUBLICATIONS

- **Two-component dynamics in supercritical [Formula: see text] from inelastic X-ray scattering.** *Scientific reports*  
Majumdar, A., Sun, P., Singleton, M., Paolasini, L., Bosak, A., Baron, A. Q., Hastings, J., Ihme, M.  
2026
- **A self-consistent analysis of cluster morphology in supercritical carbon dioxide from Small Angle X-ray Scattering** *CHEMICAL PHYSICS LETTERS*  
Muhunthan, P., Majumdar, A., Younes, K., Vignat, G., Li, H., Rajkovic, I., Weiss, T., Sokaras, D., Ihme, M.  
2025; 876
- **Supercritical Ethanol-CO<sub>2</sub> Mixtures Exhibit Microscopic Immiscibility: A Combined Study Using X-ray Scattering and Molecular Dynamics Simulations.** *The journal of physical chemistry letters*  
Fan, J., Yoon, T., Vignat, G., Li, H., Younes, K., Majumdar, A., Muhunthan, P., Sokaras, D., Weiss, T., Rajkovic, I., Ihme, M.  
2025: 7090-7099
- **Direct observation of ultrafast cluster dynamics in supercritical carbon dioxide using X-ray Photon Correlation Spectroscopy.** *Nature communications*  
Majumdar, A., Li, H., Muhunthan, P., Späh, A., Song, S., Sun, Y., Chollet, M., Sokaras, D., Zhu, D., Ihme, M.  
2024; 15 (1): 10540
- **Reaction nanoscopy of ion emission from sub-wavelength propanediol droplets.** *Nanophotonics (Berlin, Germany)*  
Rosenberger, P., Dagar, R., Zhang, W., Majumdar, A., Neuhaus, M., Ihme, M., Bergues, B., Kling, M. F.  
2023; 12 (10): 1823-1831
- **Reaction nanoscopy of ion emission from sub-wavelength propanediol droplets** *NANOPHOTONICS*  
Rosenberger, P., Dagar, R., Zhang, W., Majumdar, A., Neuhaus, M., Ihme, M., Bergues, B., Kling, M. F.  
2023
- **Regimes of evaporation and mixing behaviors of nanodroplets at transcritical conditions** *FUEL*  
Ly, N., Majumdar, A., Ihme, M.  
2023; 331