



Yanfei Xu
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Current Position

Assistant Professor, Mechanical & Industrial Engineering Department, Adjunct Assistant Professor, Chemical Engineering Department, University of Massachusetts Amherst. (2019-present)

Education & Employment History

- Ph.D., Organic Chemistry, Nankai University (2010)
- Marie Curie Fellow, Max Planck Institute for Polymer Research & BASF Joint Lab, Germany (2011-2012)
- Researcher, BASF SE, Ludwigshafen, Germany (2012-2013)
- Postdoc researcher, Massachusetts Institute of Technology, Massachusetts (2013-2018)

Honors & Activities

- Mutual Mentoring Award. UMass Amherst (2023)
- Emerging Investigator. Polymer Chemistry. Royal Society of Chemistry (2022)
- Teaching for Inclusiveness, Diversity and Equity Ambassadors. UMass Amherst (2021)
- ADVANCE Faculty Fellow. UMass Amherst ADVANCE program (2020)
- Top 10 Reviewers. JMCC, Royal Society of Chemistry (2016)
- Marie Curie Fellowship. European Commission (2011)
- Top 100 Most Influential Scientific Researchers (among all fields). P. R. China (2009)

Interests

- Deepening the fundamental understanding of heat and charge transport in polymers
- Uncovering structural-transport correlations using state-of-the-art techniques, including temperature-dependent frequency domain thermoreflectance, synchrotron X-ray, and neutron diffraction.
- Controlling thermal and electrical transport properties in polymers, benefiting microelectronic cooling, renewable thermal energy storage and conversion, and contributing to biomedical temperature imaging.

Ideas for Advocacy for the User Community

- Education and Awareness: Launch initiatives to inform users about the benefits and best practices of X-ray technology through workshops, webinars, seminars, and tailored materials.
- User Feedback: Establish channels for feedback, surveys, and forums to address user concerns promptly.
- Research and Development: Support advancements in X-ray technology to meet user needs.
- Community Engagement: Foster user community connections through events, forums, and support groups for knowledge sharing and problem-solving.
- Accessibility Advocacy: Advocate for equitable X-ray technology access, addressing barriers in underserved communities.