

NORTHWESTERN UNIVERSITY'S DEPARTMENT OF MATERIALS SCIENCE AND ENGINEERING
AND MATERIALS RESEARCH SCIENCE AND ENGINEERING CENTER PRESENT:

2022 MSE FUTURE LEADERS SEMINAR SERIES

Eve Mozur

Post-doctoral researcher, University of California Santa Barbara



Dr. Mozur obtained her PhD in inorganic chemistry from Colorado State University, advised by Professor James Neilson. She is currently a post-doctoral researcher in the Seshadri Group in the Materials Research Laboratory at University of California Santa Barbara. Dr. Mozur's research lives on the border of solid-state chemistry and materials science. She is interested in the tunability of structure-property relationships in complex materials and their evolution with time and external stimulus.

The impact of the organic amine on the structure-properties relationships in hybrid halide perovskites

Hybrid halide perovskites rival established materials for performance as the active semiconductor in photovoltaics. The role of the organic amine in the optoelectronic properties, material stability, and crystal structure of the bulk material has been highly debated. Formamidinium perovskites exhibit unusual temperature-dependent behavior that are hypothesized to relate to formamidinium reorientations. This talk will use X-ray and neutron scattering to examine this hypothesis and the relationship between the dynamic degrees of freedom of formamidinium and the optoelectronic properties. As most commercially viable hybrid halide perovskites are heavily substituted, we will also consider the effects of cesium substitution on the dynamics of formamidinium and their implications for optoelectronic properties.

Thursday, April 21 • 10 AM CDT • [Zoom Link](#)

Meeting ID: 958 6172 3631 • Password: mse_FLS

Questions? Contact Elena.Lindstrom@northwestern.edu