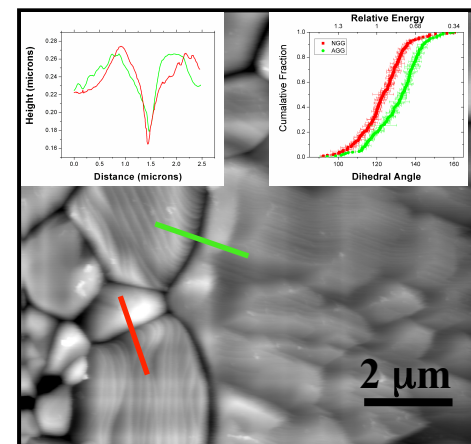
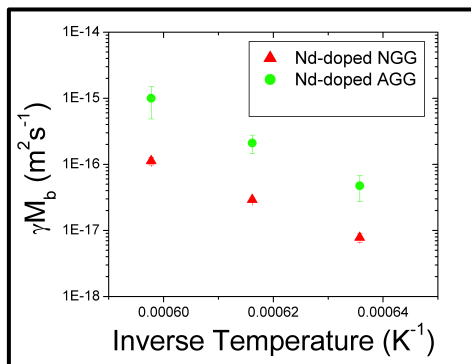
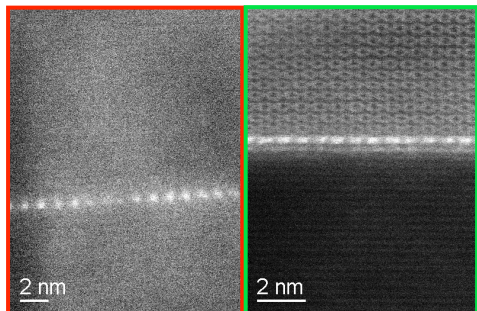


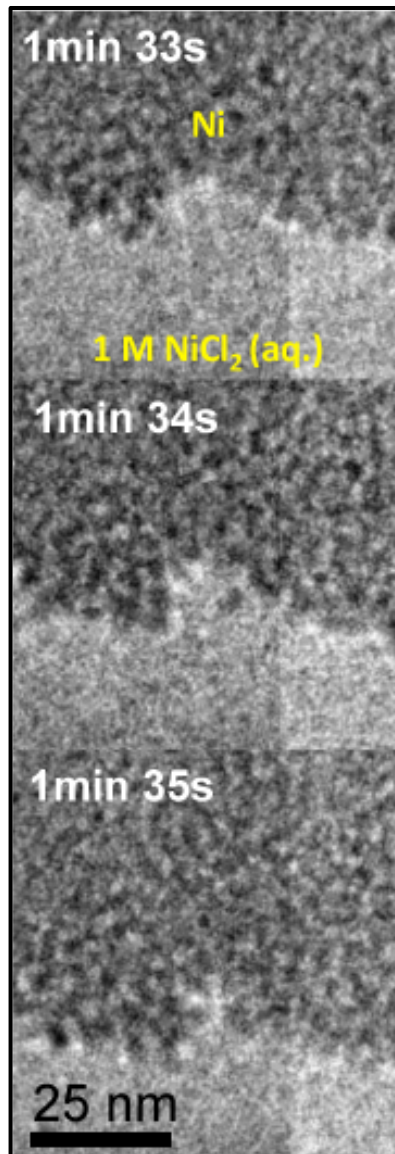
# Shen Dillon - Research Themes

## Interface structure thermodynamics & kinetics



Our group focuses on the relationship between interface structure, kinetics and thermodynamics and the impact of these factors on materials evolution and properties. The data here demonstrates the case of alumina where chemically induced interfacial structural transitions that lower the interfacial energy result in abnormal grain growth.

## In-situ Interfacial processes in energy systems



Our group also develops in-situ techniques for characterization in electron microscopes. The example here demonstrates in-situ electrodeposition of nickel from aqueous solution. The results visualize nucleation events that could not be deduced from ex-situ observations after significant room temperature coarsening would have occurred.