

Project 29 - Identification of Deformation Mechanisms of Thermally Stable Cast Al-Cu Alloys via Neutron Diffraction

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Program Goal

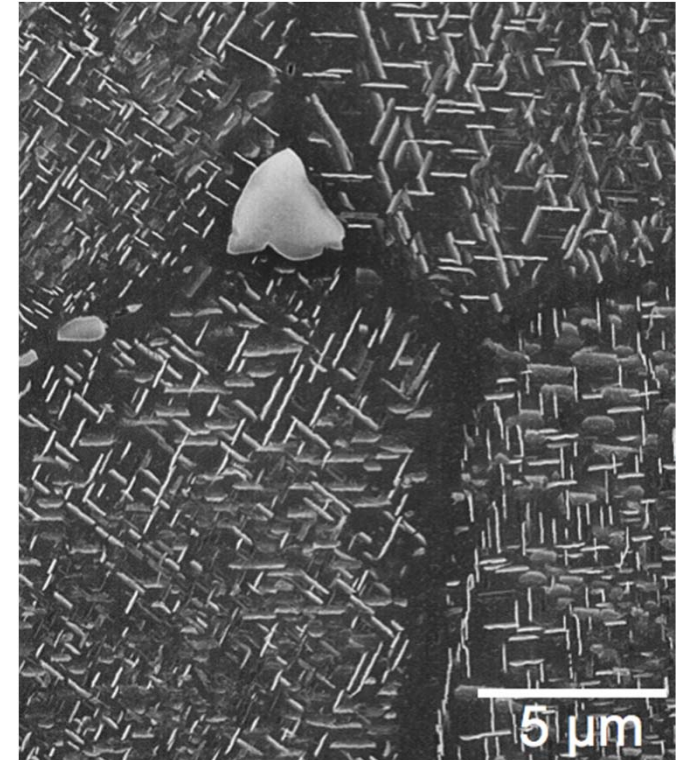
Characterize the mechanical properties and microstructure of thermally stable Al-Cu alloys under various loading and aging conditions

Approach

Utilize neutron diffraction, microscopy, and mechanical testing to identify deformation mechanisms ex-situ and in-situ

Benefits

Improved scientific understanding of mechanical properties in Al-Cu alloys as well as insight into how to improve their performance at high temperature



Precipitation in RR350 aluminum alloy

Project Duration

Aug. 2017 to May 2021



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