

**New Insights into Metallic Alloy Microstructural Evolution
by In-situ Characterization**

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Biography

Amy J. Clarke is an Associate Professor in the George S. Ansell Department of Metallurgical and Materials Engineering, Site Director for the Center for Advanced Non-Ferrous Structural Alloys (CANFSA), and an affiliate of the Advanced Steel Processing and Products Research Center (ASPPRC) at the Colorado School of Mines (CSM). She is also a Guest Scientist at Los Alamos National Laboratory (LANL). Her current research focuses on making, measuring, and modeling metallic alloys during processing, including x-ray, proton, and electron imaging of multi-scale solidification dynamics at national user facilities, the study of phase transformations and microstructural evolution, and non-ferrous and ferrous physical metallurgy. Amy earned her B.S. degree from Michigan Technological University and her M.S. and Ph.D. from CSM in Metallurgical and Materials Engineering. Prior to joining CSM, she was a Scientist and Seaborg Institute Postdoctoral Fellow at LANL and Senior Engineer – Development/Research at Caterpillar Inc. Amy has received a U.S. DOE Office of Science Early Career Research Program Award and a Presidential Early Career Award for Scientists and Engineers (PECASE). Amy serves on The Minerals, Metals & Materials Society (TMS) Board of Directors, is Chair of Argonne National Laboratory's Advanced Photon Source Users Organization Steering Committee, and is an Editor for Metallurgical and Materials Transactions A. She has also served on the Association for Iron and Steel Technology (AIST) Board of Directors.