

ADDITIVE Around the U.S.



Additive Manufacturing & Design Seminar Series

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Zoom link available in notification email

Dana Frankel

Manager of Design and Product Development
QuesTek Innovations LLC
Evanston, Illinois

ICME-based Alloy Design and Optimization for Additive Manufacturing

ABSTRACT

Traditional wrought and cast alloys are not optimized for processing via Additive Manufacturing, and in some cases may not be printable at all. Furthermore, while there is a growing interest in use of AM parts as-built or with minimal post processing, design of optimized AM post-processing (heat treatment, HIP, surface finish, etc.) is critical to achieving property objectives. By applying computational models to capture process-structure-property relationships specific to AM, QuesTek has designed alloys that are not just optimized for AM processing, but in fact harness unique AM process conditions to in some cases exceed performance of wrought material.

BIOGRAPHY

Dana Frankel is the Manager of Design and Product Development at QuesTek Innovations LLC, where she leads the Design group, oversees alloy design activities, and coordinates strategic development of QuesTek's IP portfolio. Since joining QuesTek in 2015, Dana has led a number of large-scale R&D programs on a range of topics including the design of steels, aluminum, copper, nickel, and refractory alloys for additive manufacturing. Dana received her Ph.D. from Northwestern University and her Sc.B. from Brown University, both in Materials Science.

