

THE WORLD COMES HERE.
TMS 2025
154th Annual Meeting & Exhibition



March 23–27, 2025
MGM Grand Las Vegas
Hotel & Casino
Las Vegas, Nevada, USA
#TMSAnnualMeeting



SUBMIT AN ABSTRACT FOR THE FOLLOWING TMS2025 SYMPOSIUM:

MATERIALS SYNTHESIS AND PROCESSING

Advanced Laser Manufacturing of High-Performance Materials

The advanced laser manufacturing session aims to address the pressing need for advancing research and development in laser processing technologies. This session will serve as a crucial platform for presenting and discussing cutting-edge advancements in both process and materials research, highlighting their pivotal role in driving further progress in advanced laser manufacturing. One of the primary objectives of this session is to showcase the latest innovations and breakthroughs in laser processing techniques. By presenting novel methodologies and optimization strategies, researchers will demonstrate how advancements in process engineering can significantly enhance the efficiency, precision, and quality of laser manufacturing processes.

This can include but is not limited to:

- Surface modification for material functionalization
- Novel athermal ablation to reduce heat affected zones.
- Large scale laser ablation of large acreage/volumes
- Laser material interaction of novel wavelengths/pulse energies
- explorations of laser processes on novel high-performance high-temperature materials

ORGANIZERS

Adam Hicks, Air Force Research Laboratory; **Jared Speltz**, University of Dayton Research Institute

SYMPOSIUM SPONSORS

TMS Materials Processing & Manufacturing Division, TMS Surface Engineering Committee

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QUESTIONS?

Contact programming@tms.org