

# MSE 2024

24 - 26 Sep 2024 (Darmstadt)

dgm.de

Topic S: Structural Materials

## S06: Intermetallic phases in Aluminum Alloys: Precipitation Phenomena, Particle formation, their Structure and Effects on Properties

Aluminum is the most used light weight metal for the development of many technologies to improve our lives and gain a sustainable future. Intermetallic phases on different scales are a key structural feature to design the properties of Aluminum alloys. This microsymposium brings together professionals and scientists working on the following, but not limited to those, range of topics related to intermetallic phases in Aluminum alloys:

- phase formation during advanced processing technology including additive manufacturing and postprocessing heat treatments,
- crystal structure and microstructure aspects, precipitates from atomic and nano scale to particles in micrometer range,
- thermodynamic and kinetic aspects of intermetallic phase formation,
- property testing and performance evaluation: mechanical, thermal, electrical, biocompatibility, wear, corrosion,
- improvements in sustainability, recycling, and live cycle of aluminum alloys.

### Symposium Organizer



Dr. Hanka Becker  
TU Bergakademie Freiberg



Prof. Dr. Yanjun Li  
Norwegian University of Science and Techn...



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