

FEMS EUROMAT23

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FEMS EUROMAT is the most important international congress in materials science and technology in Europe. It continues a successful congress series promoting the transfer of knowledge and the exchange of experience between academia and industry. **Extended submission deadline: 15 March 2023**

Area C: Processing

C11: Multi-Material Additive Manufacturing

Multi-material additive manufacturing (AM) possesses enormous potential to extend the design space beyond complex geometries. In particular, the ability to manufacture parts from multiple materials using AM technologies enables optimization of the mechanical properties of the parts or/and provides additional functions for the final parts. Different materials combinations, including materials from different classes (e.g., metal-polymer, ceramic-metal, etc.) and various AM technologies, have already been explored to create customized multi-functional objects to suit many needs. Along with the fascinating opportunities, multi-material 3D and 4D printing technologies are facing many challenges, for example, those related to materials recycling. The objective of this symposium is to discuss the current opportunities and challenges of multi-material additive manufacturing related (but not limited) to the following topics:

- Modeling and simulation of AM multi-materials and processes
- Artificial intelligence assisted design of AM multi-materials
- Synthesis of novel AM multi-materials
- Characterization of novel AM multi-materials and their interfaces
- Design of innovative AM processes
- Energy aspects in AM multi-materials synthesis
- Post-treatment of AM multi-materials
- Application of AM multi-materials
- Recycling of AM multi-materials
- Sustainability and circular economy in multi-materials processing

Symposium Organizer



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