THE WORLD COMES HERE
TMS 2026
155th Annual Meeting & Exhibition

March 15–19, 2026
San Diego Convention Center
and Hilton San Diego Bayfront
San Diego, California, USA
#TMSAnnualMeeting

SUBMIT AN ABSTRACT FOR THE FOLLOWING SYMPOSIUM

BIOMATERIALS

Biomaterials for 3D Printing of Scaffolds & Porous Materials

Additive manufacturing (also called 3D printing) based on layer-by-layer fabrication mechanism, possesses critical advantages in fabrication of 3D structures of biomaterials for various biomedical applications, including complex geometries, heterogeneity, porosities, and incorporation of different growth factors. Typical 3D printing techniques used for biomaterials include binder jetting, selective laser sintering, selective laser melting, microextrusion, powder bed fusion, inkjet printing, stereolithography, to name a few. The most common biomaterials used in 3D printing are ceramics, polymers, and composites. The post-printing properties and microstructures are of great importance to the biomaterial functionality, such as mechanical properties, physical properties including swelling and degradation properties, pore size and porosity. In addition, with the unique structural characteristics and tunable properties, porous materials play an important role in biomedical applications, such as drug delivery systems, theranostic platforms, to name a few. The symposium combines advance in biomaterials for 3D printing of scaffolds and tissues, and advance in porous materials for biomedical applications.

Specific topics of interest include, but are not limited to:
- Design, fabrication and characterization of 3D scaffolds
- Characterization of post-printing properties of biomaterials
- Bioink rheological properties and printability
- Fabrication of biosensors and bioelectronics
- Fabrication of biomaterials-based heterogeneous structures
- Novel 3D printing techniques for scaffold fabrication
- Bioprinting of cellular structures and tissue/organ models
- Organ-on-chips

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QUESTIONS?
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