



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

Biosustainable Materials for a Circular Economy

This symposium covers the full gamut of materials produced by biological processes that are geared toward scalable implementation. This includes organic materials based on polysaccharides, proteins, peptides, other biopolymers, and fungi, but also bioceramics produced via biomineralization. Examples are materials grown by plants (wood, bamboo, etc.), grown by animals (bone, silk, etc.) and materials produced by microorganisms, such as bacteria, algae, and diatoms. Approaches based on synthetic biology and genetically modified organisms are included, as are living materials.

Production of such bio-sourced materials has the potential to reduce the carbon footprint and other forms of pollution, including microplastics; recyclability of such materials is usually significantly better compared to synthetic materials. Development and promotion of these materials is an important step toward a circular materials economy, where the entire materials life cycle is sustainable, reducing the continuous depletion of resources and pollution characteristic of the current paradigm based on a linear materials life cycle.

Applications of such materials include but are not limited to structural, packaging, adhesion, thermal management, filtration, or biomedicine, just to name a few. Experimental, modeling, and data-based approaches are welcome.

SPONSORED BY:

TMS Functional Materials Division; TMS Biomaterials Committee

ORGANIZED BY:

- **Hannes Schniepp**, William & Mary
- **Jeffrey Bates**, University of Utah