

# TMS2016

145<sup>th</sup> Annual Meeting & Exhibition

FEBRUARY 14-18 DOWNTOWN NASHVILLE,  
TENNESSEE MUSIC CITY CENTER

Connecting the Global Minerals, Metals, and Materials Community.



## Recent Advancement on Stretchable and Wearable Electronics

Additive manufacturing and printed electronics technologies employing metal, dielectric, polymer, and ceramic materials have the potential to enable new products and markets. Advanced additive manufacturing and direct-write techniques in combination with rapidly expanding material and device sets and their application range have the potential to meet the cost and performance demands of future manufacturing technologies. This symposium will focus on the emerging additive manufacturing concepts and techniques for the processing of 2D/3D structures and integration of functional electronic components and devices on engineered geometries. Additive manufacturing technology in combination with printed electronics has the potential to define path towards hybrid technology integration of sensors and electronics on engineered 3D geometries. Invited and contributed papers will discuss both the fundamental aspects underlying certain applications and the particular challenges regarding technology, fabrication processes, and reliability.

### Topics of interest include:

- Nanomaterials for 2D/3D additive manufacturing
- Additive manufacturing and characterization of 3D structures and geometries
- Printed electronics: materials, processes, and fabrication and characterization techniques
- Low thermal budget integration of functional inks and 2D/3D materials
- Multifunctional flexible and printed electronic devices: sensors, detectors, TFTs, antennas, and batteries
- Hybrid electronics: merging printed electronics and additive manufacturing

### Organizers include:

Pooran Joshi, Oak Ridge National Laboratory (USA)

Amit Pandey, Rolls Royce LG Fuel Cell Systems Inc. (USA)

Jiahua Zhu, The University of Akron (USA)

Nuggehalli Ravindra, New Jersey Institute of Technology (USA)

Catherine Dubourdieu, CNRS - INL (France)

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