Track 3-19: Material Processing of Flexible/Emerging Electronics, Sensors, and Devices

2020 ASME International Mechanical Engineering Congress and Exposition

Sponsor: MD Materials Processing TC, MD Electronic Materials TC, and AMD Materials Processing and Manufacturing TC, and MD Composite and Heterogeneous Materials TC

This topic/symposium will cover experimental, design-related, and mechanics-based efforts toward ***manufacturing or fabricating flexible/emerging electronics, sensors, and devices***. Sessions might include materials research or processing techniques related to the following areas:

- Modified conventional semiconductor-based processing for large-scale flexible devices
- Materials for biological/human-based monitoring of performance or other factors
- Contact printing/soft lithography and printed electronics
- Additive manufacturing of 3D architected electronics
- Design/fabrication of elastomeric actuators
- Electroactive polymers
- Transparent electronics
- Novel stretchable or flexible substrates
- Energy harvesting
- Wearable devices
- Skin-like sensors
- Artificial intelligence in electronics and sensors

Organizers

Xueju “Sophie” Wang (wangxueju@missouri.edu), Mechanical and Aerospace Engineering, University of Missouri, Columbia

Aaron Mazzeo (aaron.mazzeo@rutgers.edu), Mechanical and Aerospace Engineering, Rutgers University

Majid Minary (Majid.Minary@utdallas.edu), Mechanical Engineering, University of Texas at Dallas

Jianliang Xiao (Jianliang.Xiao@colorado.edu), Mechanical Engineering, University of Colorado

Cunjiang Yu (cyu13@central.uh.edu), Mechanical Engineering, University of Houston