

— **Call for Papers** —  
A Symposium on  
**Advances in Processing of Polymers  
and Polymer Composites**

Sponsored by the ASME Manufacturing Engineering Division's  
*Manufacturing Processes Technical Committee*  
2019 ASME International Manufacturing Science and Engineering Conference (MSEC)\*  
June 10-14, 2019  
Pennsylvania State University, The Behrend College

### Technical Focus

Processing of polymer and polymer composite has rapidly evolved into a multidisciplinary field through technological developments and fundamental understanding in the areas of rheology, heat transfer and material behavior. Innovative contributions in processing from industry and academia have enabled polymers and their composites to widen their reach from products made with traditional processing to many areas of modern technologies. They are widely used in areas such as flexible wearable electronics, nanocomposites, life sciences, membrane and filtration, superabsorbent, energy storage and harvesting, scaffolds, drug delivery vehicles, shape memory materials, high damping materials, and others. Development of mass-production capable manufacturing processes including fillers (fibers, nanotubes or graphene) and textile based processes and other non-traditional processes for polymeric materials is highly demanded.

This symposium will provide a platform for interdisciplinary discussion on recent development in polymer processing and manufacturing. Specific topics include, but are not limited to:

- Liquid molding and casting, thermoplastic/ thermoset molding, injection molding, welding, over-molding processes
- Fiber spinning processes, cast and blown film extrusion, stretching forming processes
- Production and testing of SMART polymers, foams and composites
- Materials removal/ablation processes
- 3D printing with polymers and polymer composites
- Devices made of polymers/composites
- Precision instrumentation and tooling for injection molding/extrusion/fiber spinning/thermoforming
- Process dynamics and modeling in polymer processing
- Polymer and composite recycling processes and properties of recycled materials
- Polymers for medical applications and medical devices
- Processing-structure-property relationships in polymers and polymer-based composites

### Paper Submission

Authors are encouraged to submit an abstract and full manuscript for review by **November 02, 2018** via the conference website. Final revised manuscripts must be submitted by **March 15, 2019**. The [copyright transfer form](#) must be filled out by **March 08, 2019**, and the presenting author must [pre-register](#) by **April 05, 2019** or the paper will be withdrawn from the conference. Authors may also consult [www.asme.org/divisions/med/call/](http://www.asme.org/divisions/med/call/) for updates. **No papers are to be submitted to the organizers; submissions will only be accepted via the conference website at [www.asmeconferences.org/msec2018/](http://www.asmeconferences.org/msec2018/)**

### Additional Symposium Activities

To highlight advancements in this technical area, symposium organizers will:

- work to attract a high profile international keynote speaker in the area of polymer processing,
- organize a state-of-the-art paper that will be the lead article in the special issue.

### Organizers

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\* The conference is collocated with NAMRI/SME's 47th North American Manufacturing Research Conference (NAMRC47), which will have a separate call-for-papers. Please note that submissions of the same paper to more than one conference are not permitted.