

— **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
Advanced Materials Manufacturing Technical Committee
2020 ASME International Manufacturing Science and Engineering Conference (MSEC)*
June 22 – 26, 2020
Cincinnati, Ohio
Hosted by the University of Cincinnati, College of Engineering and Applied Science

Technical Focus

Processing of polymers and polymer composites 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, superabsorber, 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 of polymers and polymer composites: Processing considerations and applications
- 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. Bio-medical applications of 3D printed polymer composites
- Processing-structure-property relationships in polymers and polymer composites

Paper Submission

Authors are encouraged to submit an abstract and full manuscript for review by **November 15, 2019** via the conference website. Final revised manuscripts must be submitted by **March 26, 2020**. The [copyright transfer form](#) must be filled out by March 19, 2020 and the presenting author must [pre-register](#) by **April 15, 2020** or the paper will be withdrawn from the conference. **No papers are to be submitted to the organizers; submissions will only be accepted via the conference website at <https://event.asme.org/MSEC/>.**

All papers accepted by MSEC2020 can be further submitted to any ASME journals, such as the highly prestigious Journal of Manufacturing Science and Engineering, for consideration of archival publication. In addition, high quality MSEC2020 papers will be automatically channeled to relevant ASME journals for fast-tracked publications.

Additional Symposium Activities

The symposium organizers will work to attract a high-profile international keynote speaker to highlight cutting edge advances in manufacturing of polymers and polymer composites.

Organizers

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* The conference is collocated with NAMRI/SME's 48th North American Manufacturing Research Conference (NAMRC48) and LEM&P (Leading Edge Manufacturing/Materials and Processing) by The Japan Society of Mechanical Engineers (JSME), which will have a separate call-for-papers. Please note that submissions of the same paper to more than one conference are not permitted.