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Research Theme

Polymer and Natural Materials and Manufacturing (PNMM)
Electromagnetic and Nanoscale Materials and Manufacturing (ENMM)

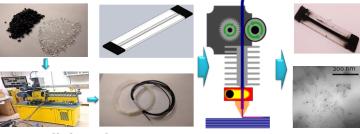
Research Areas

- Multifunctional polymer nanocomposites
- Polymer-based foams
- Processing and characterization of polymers
- Additive manufacturing
- Lignin- and cellulose-based bioproducts
- Smart materials and structures
- Experimental mechanics of materials

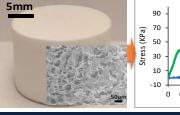
Research Facilities/Tools

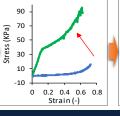
- Twin- and single-screw extrusion systems
- Multiple 3D printers
- Small-scale compression molding system
- High-pressure foaming chamber
- Freeze casting
- Thermal conductivity analyzer
- Differential scanning calorimeter
- Network analyzer and impedance analyzer

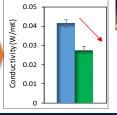
Printed flexible sensors



Nanocellulose foams







Fracture in printed materials

