

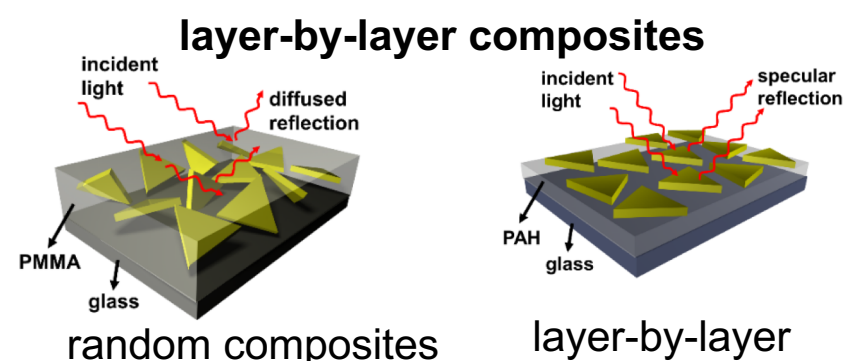
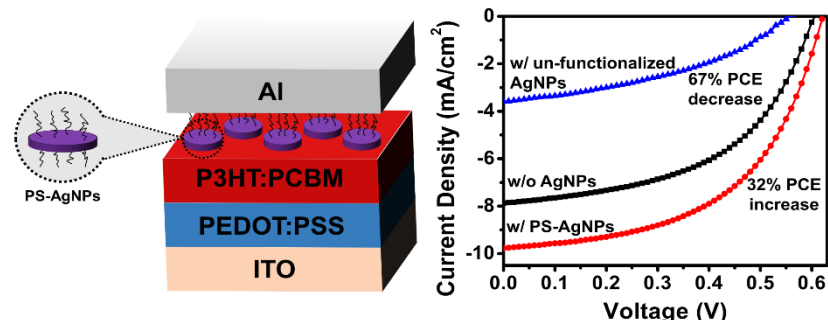


Block Copolymers and Plasmonic Nanoparticles

Project 1: Polymer-Plasmonic Nanoparticle Composites

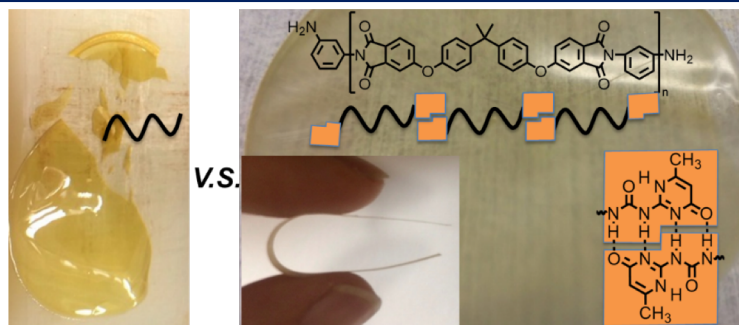


Plasmonic nanoplates in solar cells

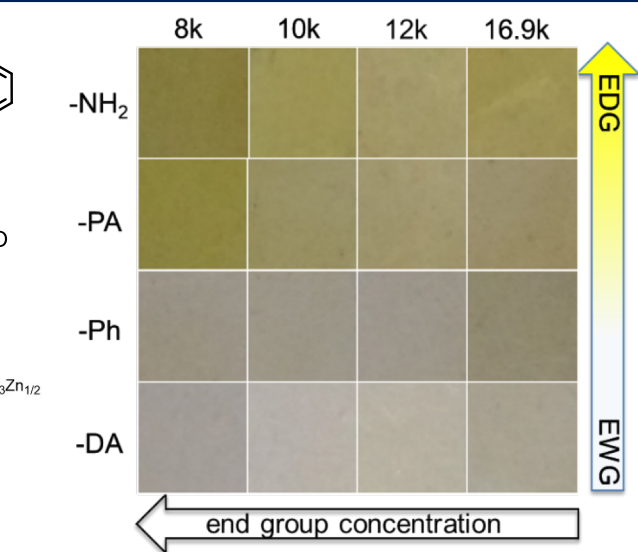
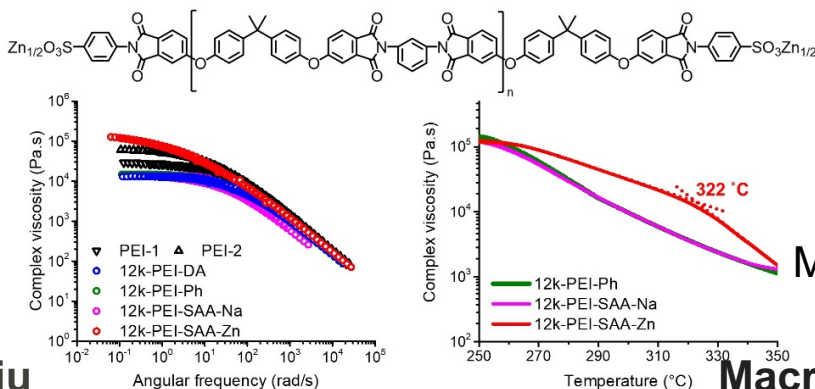


Ref: ACS Nano, 2019, 13 (4), 4255

Project 2: High-Performance Poly(ether imide) Membranes for Energy



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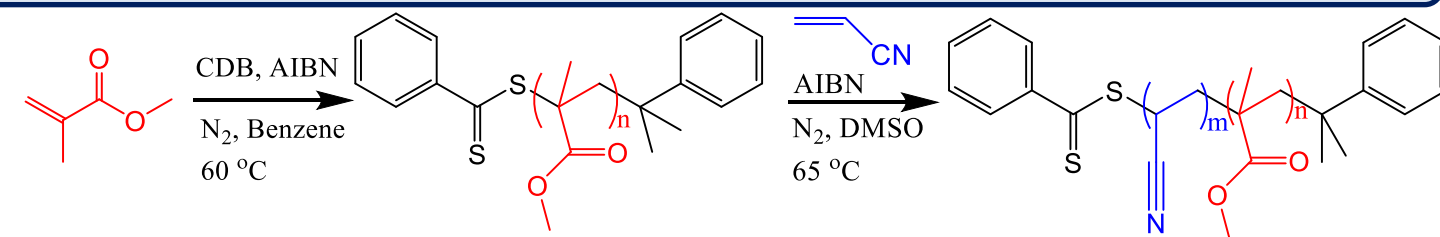


Mechanical, rheological, & optical

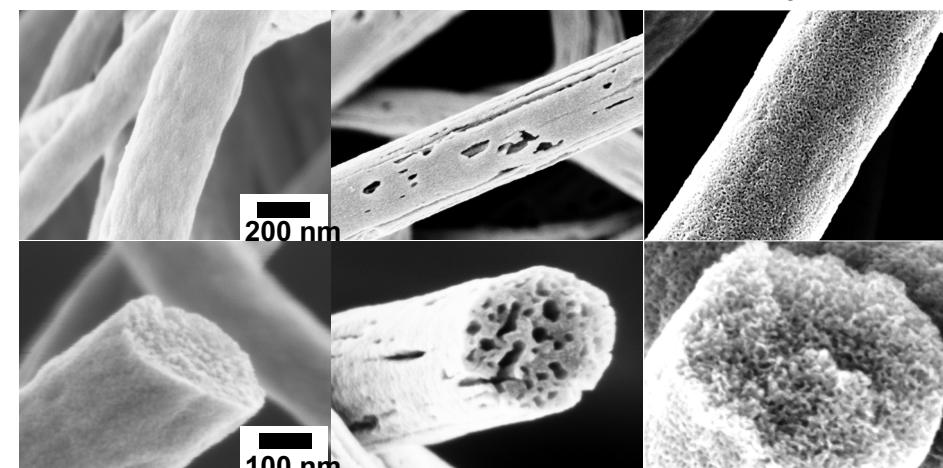
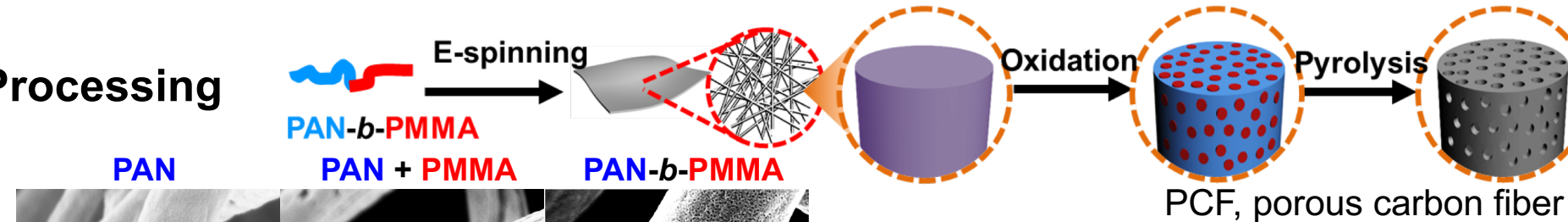
Macromolecules, 2019, 52(19), 7361;
Macromolecules, 2017, 50 (5), 2016

Project 3: Block Copolymer-based Porous Carbon Fibers

Polymerization



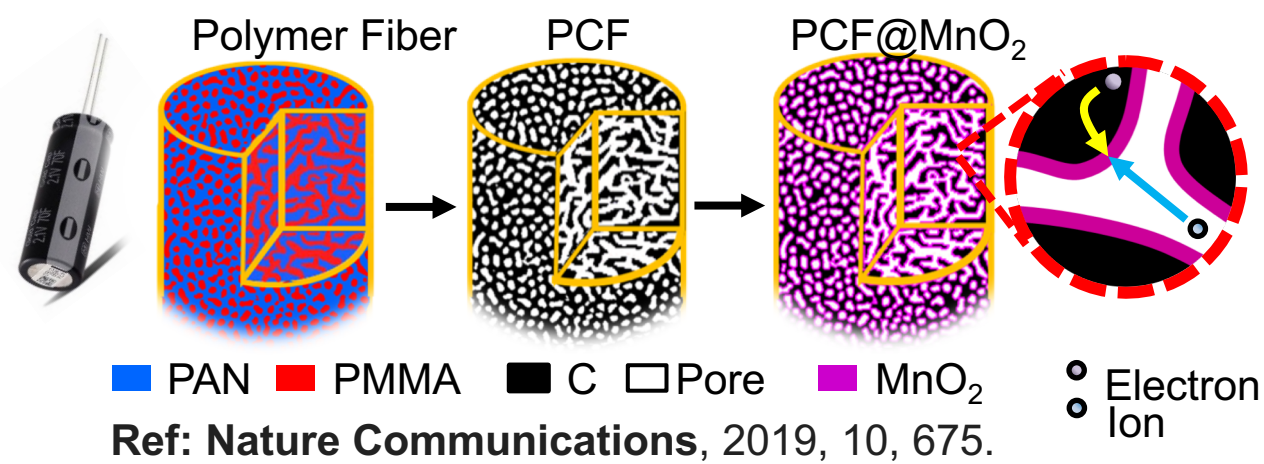
Processing



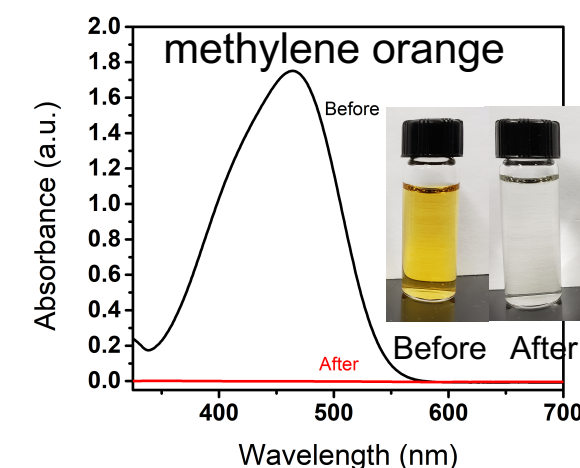
Ref: Science Advances, 2019, 5(2), eaau6852.

Applications

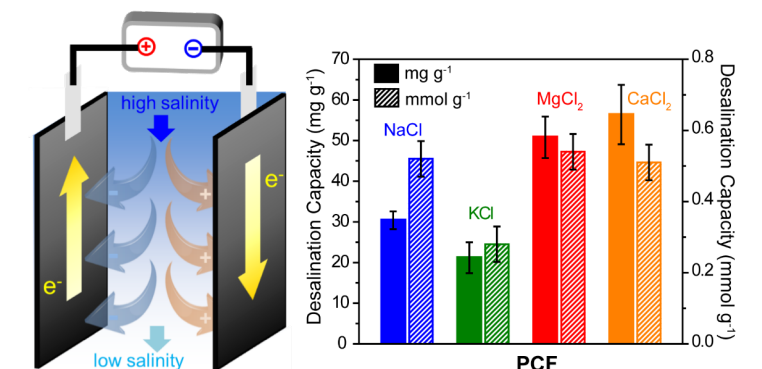
1. Supercapacitor



3. Filtration



2. Water desalination



Ref: Science Advances, 2020, accepted.