



Call for Papers

**254th ACS National Meeting
August 20-24, 2017, Washington, DC**

CELL Program Chair:
Maren Roman, maren.roman@vt.edu

Abstracts Accepted: January 23, 2017 - April 10, 2017

Submit abstracts to the CELL Division at <http://maps.acs.org>. Inquiries should be directed to the symposium organizers or program chair.

General Posters

Organizer: Maren Roman, maren.roman@vt.edu

Recent Advances Towards the Bioeconomy

Organizer: Maren Roman, maren.roman@vt.edu

Cosponsors: AGFD, CARB, ENFL, ENVR

Global economic sustainability requires a transition to renewable feedstocks for the production of fuels and materials, the development of green manufacturing and processing methods, replacement of non-biodegradable and non-recyclable polymers with biodegradable materials, and the increased valorization of waste streams. This symposium seeks to showcase recent advances in the use of bio-based feedstocks, including virgin and waste materials, as well as in manufacturing and processing methods for the production of sustainable materials and technologies. Papers that enhance our understanding of the structure, composition, and properties of bio-based materials and products derived thereof will also be considered.

Sustainable Design of Polymers from Xylochemicals

Organizers: Joseph F. Stanzione, III, stanzione@rowan.edu; Giuseppe R. Palmese, grp27@drexel.edu; John J. La Scala, john.j.lascale.civ@mail.mil; Joshua M. Sadler, joshua.m.sadler4.civ@mail.mil

Cosponsors: CARB, PMSE, POLY

Polymers are utilized ubiquitously in today's society for a wide variety of applications. Unfortunately, most of our polymers are derived from non-renewable resources, namely petroleum. However, over the past two decades, the green chemistry and engineering scientific community has made significant strides in fundamentally understanding, designing, developing, and commercializing chemicals and materials from renewable resources. In order to increase this momentum and aid our society in transforming itself from a largely petroleum-based, linear

economy to a renewable-based, circular economy, both industrial and second-generation lignocellulosic biorefineries have been envisioned and are slowly becoming active. Both biofuels and bio-based chemicals are being generated and sold from these plants, which largely depend on agricultural waste and/or agriculturally grown food as their primary renewable-based feedstocks. Fortunately, much research is currently being conducted in the design and development of lignocellulosic biorefineries that utilize woody-biomass as the primary renewable-based feedstock. Sustainably harvested trees, green processes, and wood-based fuels and wood-derived building blocks (xylochemicals) for materials are the focus of these industrially, socially, and economically transformative facilities. Thus, the sustainable design of polymers from xylochemicals is imperative to advancing our society while significantly reducing our environmental impact and carbon footprint. This symposium will focus on highlighting our progress toward this endeavor, on identifying major hurdles and obstacles that must be overcome, and will contain presentations from leading experts in the field.