Call for Papers

Impact of Materials, Surface Chemistry and Modifications on Biofilm Formation in Environmental Remediation & Engineering Applications

Division of Environmental Chemistry
254th American Chemical Society Fall National Meeting & Exposition
Washington, DC – August 20-24, 2017

Abstract Submission Deadline: March 17, 2017

The ability of microbes to colonize materials and flourish as biofilms in complex environments has for decades caused obstructions and failures of engineered structures, which impact safety, result in high repair costs, and have detrimental health consequences by causing failure of medical devices and implants. However, these same properties have biofilms being widely applied for enhanced bioremediation of groundwater and sediment contaminated with organic pollutants and for energy and nutrient recovery from wastewater via microbial fuel cells.

Application of modified surfaces and novel coatings can enhance biofilm formation and improve characteristics, while other surfaces can be engineered to resist biofilm formation for an extended period of time. The promising aspects of biofilm formation on novel materials and the present state-of-the-art in surface technology will be discussed in order to identify opportunities for directing and promoting beneficial biofilm formation. Topics covered in this session include, but are not limited to:

- Biofilm formation and the race for the surface;
- Modifying surface properties to promote or to avoid biofilm formation;
- The impact of surfaces on the activity of biofilm bacteria;
- Measurements to characterize biofilm response to surface properties;
- Future prospects in material and surface coating technologies to prevent or enhance biofilm formation.

Please submit your abstracts using the ACS Meeting Abstracts Programming System (MAPS) at https://maps.acs.org. General information about the conference can be found at www.acs.org/meetings. Any other inquiries should be directed to the symposium organizers:

Birthe Veno Kjellerup  
bvk@umd.edu  
University of Maryland at College Park

Nancy Lin  
Nancy.lin@nist.gov  
NIST

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