AMERICAN CHEMICAL SOCIETY
DIVISION OF ENVIRONMENTAL CHEMISTRY

CALL FOR PAPERS

Crystal Defects on Surface Reactivity and Heterogeneous Photocatalysis

252nd American Chemical Society National Meeting & Exposition

"Chemistry of the People, by the People, and for the People"

Philadelphia, Pennsylvania

August 21-25, 2016

Abstract Deadline: March 21, 2016

Chemical reactions always take place at phase discontinuities. Of importance are the principles and applications of interfacial reactions toward natural and build water environment. It is well agreed, but not thoroughly understood, that interfacial reactions play an important role in controlling the chemical composition of natural systems, specifically, the mode and the kinetics of hydro-geochemical processes. Furthermore, the applications of interfacial reactions for the benefits of water renovations remain topics of current interests. How interfacial reactions affect the fate and transport of chemical contaminants in natural water system? How interfacial reactions determine the rate and the efficiency of the removal of chemical contaminants from water? How to define, manipulate, crate, tailor, and characterize surface properties that control surface reactions? These are but some of the important questions remain to be answered.

The proposed symposium will have focus on crystal defects and their relationship to surface reactivity and heterogeneous photocatalysis of importance to both natural and build water systems. The primary objective of the proposed symposium is to define crystal or surface defects of natural and synthetic minerals of common environmental significance. The processes, advanced theory and methodology for the creation of surface defects in minerals as well as the applications of defect-based design of surfaces for environmental processes will be presented. The topics that would be covered in this symposium, but not limited to, are:

- Thermodynamics and kinetic aspects of crystal and mineral defects.
- Recent advances in the characterization and quantification of surface defects for non-photocatalytic applications.
- Recent advances in the characterization and quantification of surface defects for photocatalytic applications.
- Defect design of high selectivity adsorbents.
- Defect design of supercapacitors for environmental applications.
- Defect design of catalysts for specific reduction and oxidation reactions in electrode less systems.
- Defect design of catalysts for specific reduction and oxidation reactions in electrode systems.
- Defect design of visible-light sensitivity photocatalysts.

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:

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