UAA College of Engineering
University of Alaska Anchorage

UAA Professional Development Seminar Series

Photoreactivity of Petrogenic Dissolved Organic Matter

Presented by Phoebe Zito, Assistant Professor, University of New Orleans

The two largest contributors of oil entering the marine environment are from natural oil seeps (47 %) and anthropogenic sources (53 %). Once petroleum enters the environment, it can undergo many chemical and physical changes. Due to its dark color, it is optically active (contains many chromophores) and can undergo photodegradation, which is an important weathering process in the environment. These photodegradation processes result in the formation of oxyhydrocarbons, petroleum compounds formed upon weathering. Some oxyhydrocarbons are polar enough to dissolve into the water, becoming highly mobile and bioavailable to the ecosystem. Methodologies and techniques for assessing the impact of this on the environment can also be applied to other bodies of water that are affected by organic contaminants.

Phoebe Zito is an Assistant Professor in the Chemistry Department at the University of New Orleans. She specializes in studying the photochemical formation and fate of petroleum-derived dissolved organic matter. Phoebe has a B.S. from the University of South Florida (2007), and worked as an Associate Chemist in the pharmaceutical industry (2007-2011). She earned her Ph.D. from the University of New Orleans (2014), was a post-doctoral associate at the National High Magnetic Field Laboratory (2015 – 2017), and has been working in the environmental analytical field since 2017.

Friday, September 6, 2019
11:45 am - 12:45 pm
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