SoFlacs

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Section Meeting

Friday, September 29, 5:00 PM
Wiegand Science Building, 116 East
Barry University
11300 NE 2nd Avenue, Miami Shores

Functionalized Biochar for Removal of Discarded Prescription Drugs

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Abstract

The problem of waste management is now one of the most important global environmental issues due to active improper disposal of synthetic products such as medication. The drugs that contain harmful molecules in high concentration dissolve in the water, which poisons it and leads to changes that can have an extremely negative impact on the ecosystem and health of people. The aim of the present study is to review the possible applications of the nanoparticles and different types of biochar such as commercial brands, Sugar cane, Brazilian peppertree, and Slash pine for the reduction of concentration of medication such as aspirin and 4-acetamidophenol. Biochars were incorporated with Fe_xO_y nanoparticles, and calcium, which resulted in ten nanoproducts. Aspirin and 4-acetamidophenol were treated with biochar plus nanoproducts. In order to determine if nanoproducts reduced concentration of pollutant solutions, ultraviolet spectrometer was obtained. We were able to observe that if the nanoparticles have attached to contaminant and stayed attached to the biochar, the final contaminant solution treated with nanoproduct would have a lower absorbance (concentration) than contaminant solution with no treatment. If the nanoparticles have attached to contaminant, but dislodged from the biochar, an enhacement of absorbance (concentration) of treated contaminant solution would be observed.

CONGRATULATIONS TO

SoFL-ACS Councilor Zaida Morales-Matinez for being selected as the 2017 recipient of the Stanley C. Israel Regional Award for "Advancing Diversity in the Chemical Sciences" in the Southeastern Region of ACS. The award will be presented at the ACS Southeastern Regional Meeting (SERMACS) in Charlotte, NC, November 7-11. In addition to a $1000 award to continue her diversity efforts, Zaida will receive a plaque and travel expenses to the SERMACS meeting. Congratulations Mamma Z!

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