Message

From: Strynar, Mark [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=5A9910D5B38E471497BD875FD329A20A-STRYNAR, MARK]
Sent: 3/17/2017 11:42:37 AM
To: Detlef Knappe [knappe@ncsu.edu]; Sun, Mei [msun8@uncc.edu]; Lindstrom, Andrew [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=04bf7cf26aa44ce29763fbc1c1b2338e-Lindstrom, Andrew]
Subject: RE: Fwd: ES&T Letters Best Papers of 2016

Detlef,

I am fine with the edited version.

Mark

From: Detlef Knappe [mailto:knappe@ncsu.edu]
Sent: Thursday, March 16, 2017 9:45 PM
To: Sun, Mei <msun8@uncc.edu>; Strynar, Mark <Strynar.Mark@epa.gov>; Lindstrom, Andrew <Lindstrom.Andrew@epa.gov>
Subject: Re: Fwd: ES&T Letters Best Papers of 2016

Hello everyone,

Please review.

Edited here (original below):

While it is well established that perfluoroalkyl substances (PFASs) are contaminants present in many aquatic systems, the broad range of structures of these chemicals are only beginning to be understood. The paper "Legacy and Emerging Perfluoroalkyl Substances Are Important Drinking Water Contaminants in the Cape Fear River Watershed of North Carolina" by Mei Sun, Elisa Arevalo, Mark Strynar et al. reported on the detection of a class of "alternative" fluorinated chemicals, the perfluoroalkyl ether carboxylic acids (PFECAs), in river water and at different stages of the drinking water treatment process. PFECAs and legacy PFASs were detected at concentrations ranging from tens to hundreds of ng/L, and PFECAs were dominant downstream of a fluorochemical manufacturing facility. Perfluoro-2-propoxypropanoic acid ("GenX"), a replacement for perfluorooctanoic acid (PFOA), and other PFECAs could not be removed by conventional and advanced drinking water treatment processes. Also, activated carbon adsorption was less effective for GenX removal than for PFOA removal. This work suggests the need for monitoring a broader range of fluorinated substances and for developing new removal techniques to safeguard drinking water consumers. *Environ. Sci. Technol. Lett.*, **2016**, 3(12), 415–419 | DOI: 10.1021/acs.estlett.6b00398

On 3/15/17 3:59 PM, Sun, Mei wrote:

> While it is well established that perfluoroalkyl substances (PFASs) are contaminants present in many aquatic systems, the broad range of structures of these chemicals are only beginning to be understood. The paper "Legacy and Emerging Perfluoroalkyl Substances Are Important Drinking Water Contaminants in the Cape Fear River Watershed of North Carolina" by Mei Sun, Elisa Arevalo, Mark Strynar et al. reported on the detection of a class of "alternative"

fluorinated chemicals, the perfluoroalkyl ether carboxylic acids, in river water and at different stages of the drinking water treatment processes. These compounds and legacy PFASs were detected in raw and finished waters at concentrations ranging from tens to hundreds of ng/L, with perfluoro-2-propoxypropanoic acid being particularly prevalent. While perfluorinated carboxylic and sulfonic acids with chain lengths > 7 could be removed by powdered activated carbon, the mono- and multi- ethers were not effectively removed. This work suggests the need for monitoring a broader range of fluorinated substances and for developing new removal techniques to safeguard consumers of treated water. *Environ. Sci. Technol. Lett.*, **2016**, 3(12), 415–419 | DOI: 10.1021/acs.estlett.6b00398

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