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896

**Passive sampling for volatile organic compounds in indoor air-controlled laboratory comparison of four sampler types**

Todd McAlary,\* Hester Groenevelt, Stephen Disher, Jason Arnold, Suresh Seethapathy, Paolo Sacco, Derrick Crump, Brian Schumacher, Heidi Hayes, Paul Johnson and Tadeusz Górecki

Chamber tests were conducted using 4 passive samplers, 10 VOCs, and three levels of temperature, humidity, velocity, duration and concentration.

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906

**Potentiometric sensing array for monitoring aquatic systems**

Nadezda Pankratova, Gastón A. Crespo, Majid Ghahraman Afshar, Miquel Coll Crespi, Stéphane Jeanneret, Thomas Cherubini, Mary-Lou Tercier-Waeber, Francesco Pomati and Eric Bakker\*

A potentiometric sensing array was developed and successfully deployed for continuous monitoring of pH, calcium, nitrate and carbonate levels on the lake Greifensee.

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915

**The influence of ethylenediamine tetra acetic acid (EDTA) on the transformation and solubility of metallic palladium and palladium(II) oxide in the environment**

Fathi Zereini, Clare L. S. Wiseman,\* My Vang, Peter Albers, Wolfgang Schneider, Roland Schindl and Kerstin Leopold

Metallic palladium used in automotive catalytic converters is likely to be solubilized in small amounts post-emission under ambient conditions.

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922

**Comparison of nickel speciation in workplace aerosol samples using sequential extraction analysis and X-ray absorption near-edge structure spectroscopy**

Lisa L. Van Loon,\* Cassidy Throssell and Michael D. Dutton

XANES and ZATCA speciation methods were compared for application in epidemiology of occupational aerosols from sulphidic nickel production.

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932

**AMS analyses of I-129 from the Fukushima Daiichi nuclear accident in the Pacific Ocean waters of the Coast La Jolla – San Diego, USA**

C. Stan-Sion,\* M. Enachescu and A. R. Petre

This paper presents the results of an experimental study we performed by using the Accelerator Mass Spectrometry (AMS) method with iodine 129 ( $T_{1/2} = 15.7$  My), to determine the increase of the radionuclide content in the USA West Pacific Coast waters, two years after the March 2011 Fukushima Daiichi nuclear power plant accident.

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939

**Aquatic photochemical kinetics of benzotriazole and structurally related compounds**

Elisabeth M. L. Janssen, Emily Marron and Kristopher McNeill\*

Benzotriazole corrosion inhibitors are not completely removed during wastewater treatment and are frequently detected in surface waters.

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**A sensitive and high throughput bacterial luminescence assay for assessing aquatic toxicity – the BLT-Screen**

Jason P. van de Merwe\* and Frederic D. L. Leusch

The development of a cost effective, sensitive and high throughput aquatic toxicity assay with a wide range of research and monitoring applications.

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**Correlation of trace contaminants to wastewater management practices in small watersheds**

Kathleen Schenck,\* Laura Rosenblum, Balaji Ramakrishnan, John Carson, Jr., Dana Macke and Christopher Nietch

A correlation between occurrence of four xenobiotic contaminants in headwaters and septic density in catchments was observed over one year.

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**Temporal analysis of *E. coli*, TSS and wastewater micropollutant loads from combined sewer overflows: implications for management**

Madoux-Humery Anne-Sophie,\* Sarah M. Dorner, Sébastien Sauv , Khadija Aboufadi, Martine Galarneau, Pierre Servais and Mich le Pr vost

A combined sewer overflow (CSO) outfall was monitored during different seasons (including the snowmelt period) to assess the impact of *E. coli*, TSS and WWMP temporal mass loads on the appropriateness of treatment options.

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**Distribution, partition and removal of polycyclic aromatic hydrocarbons (PAHs) during coking wastewater treatment processes**

Wanhui Zhang, Chaohai Wei\* and Guanfeng An

In this study, we report the performance of a full-scale conventional activated sludge (A-O1-O2) treatment in eliminating polycyclic aromatic hydrocarbons (PAHs).

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985

**Analysis of serpentine polymorphs in investigations of natural occurrences of asbestos**

Jeff Wagner\*

Transmission and scanning electron microscopy were employed to address analytical issues for environmental investigations of intergrown serpentine fibers in natural occurrences of asbestos (NOA).

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997

**Effect of crude oil exposure and dispersant application on meiofauna: an intertidal mesocosm experiment**

Soumaya Elarbaoui,\* Marion Richard, Fehmi Boufahja, Ezzeddine Mahmoudi and Hélène Thomas-Guyon

Dispersant application is used as a response technique to minimize the environmental risk of an oil spill.