

Cover
 See Todd P. Whitehead *et al.*,
 pp. 339–346.
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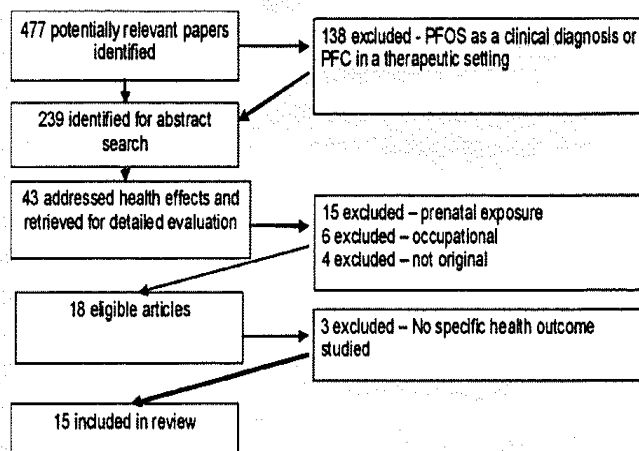
CRITICAL REVIEW

329

The impact of PFOS on health in the general population: a review

Sohel Saikat,* Irene Kreis, Bethan Davies,
 Stephen Bridgman and Robie Kamanyire

Health impacts from currently reported PFOS levels, to which the general population is exposed to, are likely to be minimal.



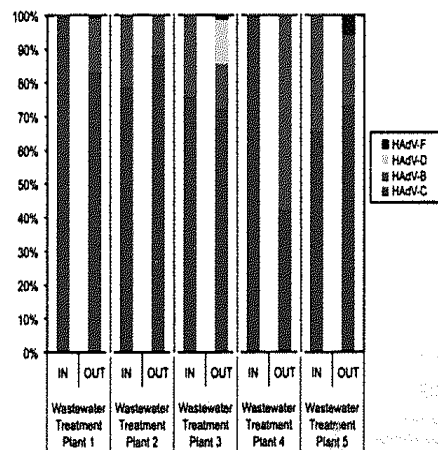
COMMUNICATION

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Prevalence of respiratory adenovirus species B and C in sewage sludge

Kyle Bibby and Jordan Peccia*

Assessment of adenovirus diversity in sewage sludge revealed the prevalence and dominance of respiratory adenovirus species HAdV-B and -C.



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Determinants of polychlorinated biphenyls in dust from homes in California, USA

Todd P. Whitehead,* Mary H. Ward, Joanne S. Colt, Marcia G. Nishioka, Patricia A. Buffler, Stephen M. Rappaport and Catherine Metayer

Polychlorinated biphenyl (PCB) production ceased in the U.S. over 30 years ago, but these persistent chemicals remain ubiquitous contaminants.

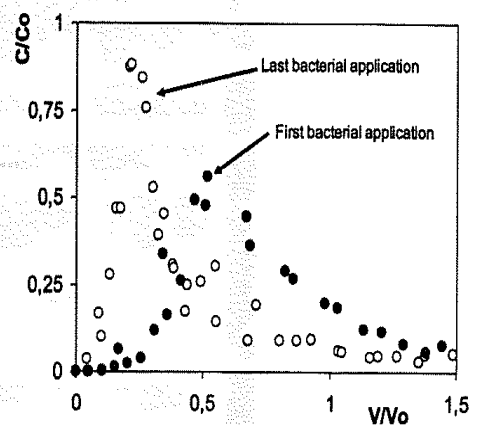


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Role of macropore flow in the transport of *Escherichia coli* cells in undisturbed cores of a brown leached soil

Jean M. F. Martins,* Samer Majdalani, Elsa Vitorge, Aurélien Desauay, Aline Navel, Véronique Guiné, Jean François Daïan, Erwann Vince, Hervé Denis and Jean Paul Gaudet

Rain-induced modifications of soil pore structure affect the transfer of *Escherichia coli* cells repeatedly injected into undisturbed soil cores.



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The bioavailability of manganese in welders in relation to its solubility in welding fumes

Dag G. Ellingsen,* Evgenij Zibarev, Zarina Kusraeva, Balazs Berlinger, Maxim Chashchin, Rita Bast-Pettersen, Valery Chashchin and Yngvar Thomassen

Solubility data of welding aerosol samples were used to assess manganese and iron concentrations in biological samples from welders.

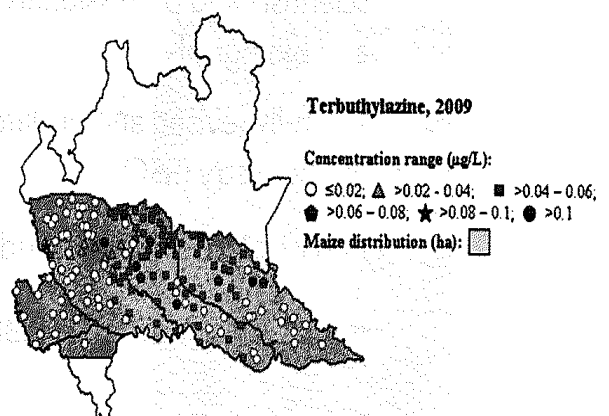


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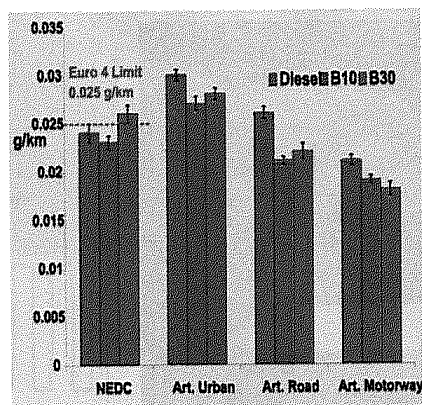
Spatial and temporal trend of groundwater contamination from terbutylazine and desethyl-terbutylazine in the Lombardy Region (Italy)

Silvia Bozzo, Giovanna Azimonti, Sara Villa, Andrea Di Guardo and Antonio Finizio*

This study summarizes the spatial and temporal trend of groundwater contamination from terbutylazine and desethyl-terbutylazine in the Lombardy Region (Italy).



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Regulated, carbonyl and polycyclic aromatic hydrocarbon emissions from a light-duty vehicle fueled with diesel and biodiesel blends

Evangelos B. Bakeas* and Georgios Karavalakis

This study attempts to address the issue of mid-low concentration biodiesel blends application in modern passenger cars and their potential impact on the criteria and unregulated exhaust emissions and air pollution.

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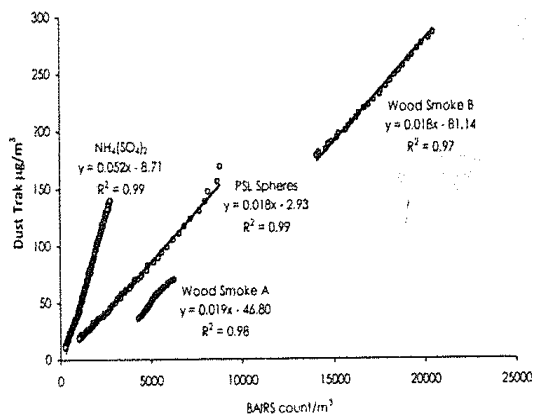


Evaluating the sediment–water exchange of hexachlorocyclohexanes (HCHs) in a major lake in North China

Guohua Dai, Xinhui Liu,* Gang liang, Wenwen Gong, Li Tao and Dengmiao Cheng

A fugacity ratio approach was used to evaluate the direction of sediment–water exchange of hexachlorocyclohexane (HCH) isomers between sediment and water in a major lake in North China.

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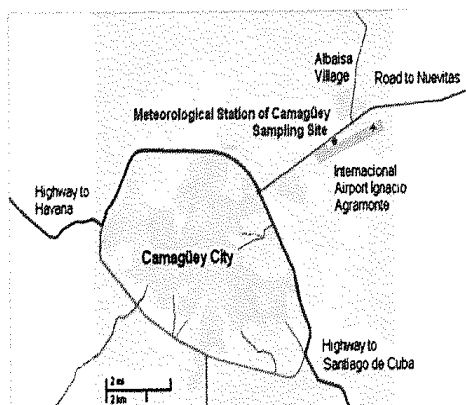


A low-cost particle counter as a realtime fine-particle mass monitor

Amanda L. Northcross,* Rufus J. Edwards, Michael A. Johnson, Zhong-Min Wang, Kunning Zhu, Tracy Allen and Kirk R. Smith

Exposure to particles with aerodynamic diameters less than 2.5 µm is estimated to cause significant morbidity and mortality worldwide leading many countries to develop ambient air pollution standards and guidelines.

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Atmospheric particulate matter levels, chemical composition and optical absorbing properties in Camagüey, Cuba

Boris Barja,* Sandra Mogo, Victoria E. Cachorro, Juan Carlos Antuña, Rene Estevan, Ana Rodrigues and Ángel de Frutos

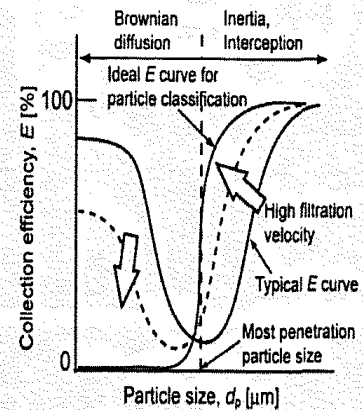
Atmospheric aerosol particles were collected at Camagüey, Cuba, during the period from February 2008 to April 2009 in order to know the particulate matter levels (PM) together with a general chemical and absorption characterization.

454

Development of a high-volume air sampler for nanoparticles

M. Hata,* T. Thongyen, L. Bao, A. Hoshino, Y. Otani, T. Ikeda and M. Furuuchi

As a tool to evaluate the characteristics of aerosol nanoparticles, a high-volume air sampler for the collection of nano-particles was developed based on the inertial filter technology.

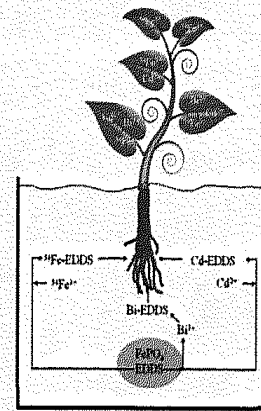


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Impact of a snail pellet on the phytoavailability of different metals to cucumber plants (*Cucumis sativus* L.)

Sabine Freitag,* Eva M. Krupp, Andrea Raab and Jörg Feldmann

FePO₄/chelating agent based molluscicides (snail pellets) lead to the mobilisation and increased phytoavailability of metals to *Cucumis sativus* (cucumber), indicating a potential environmental impact.

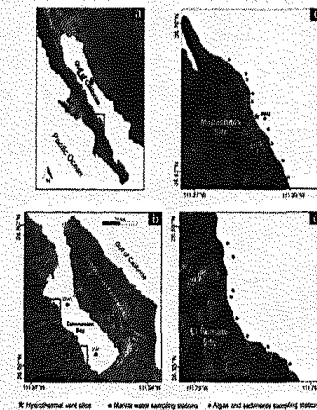


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The impact of marine shallow-water hydrothermal venting on arsenic and mercury accumulation by seaweed *Sargassum sinicola* in Concepcion Bay, Gulf of California

María Luisa Leal-Acosta, Evgueni Shumilin,* Nicolai Mirlean, Francisco Delgadillo-Hinojosa and Ignacio Sánchez-Rodríguez

Arsenic and mercury are enriched in the seaweed *Sargassum sinicola* in the marine shallow-water hydrothermal system of Concepcion Bay.

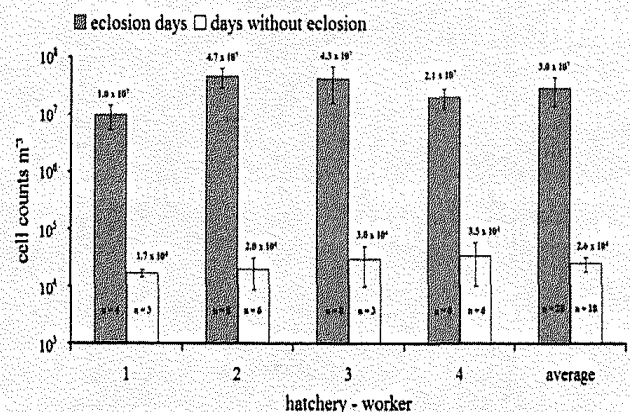


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Microbial exposure and respiratory dysfunction in poultry hatchery workers

Elena Martin, Solveig Ernst, Gabriele Lotz, Gunter Linsel and Udo Jäckel*

Today's modern animal confinement with high stocking density of a single species has resulted in new workplaces that are rarely characterised in regard to microbial exposure.

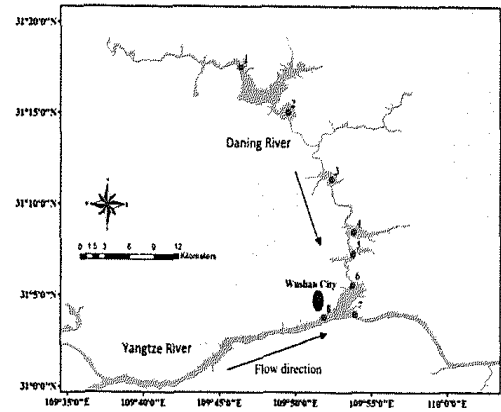


485

Linking fluorescence spectroscopy to diffuse soil source for dissolved humic substances in the Daning River, China

Hao Chen,* Bing-hui Zheng* and Lei Zhang

Dissolved organic matter collected in the Daning River (China) in July 2009 was investigated with parallel factor analysis (PARAFAC) and fluorescence spectroscopy with the aim of identifying the origin of dissolved humic substance (HS) components.

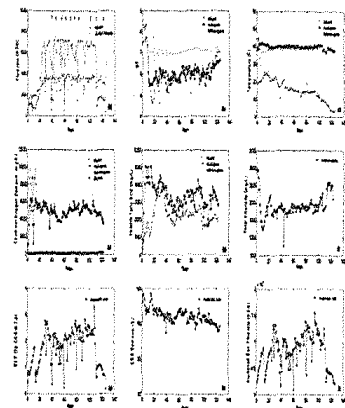


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Monitoring the performance and microbial diversity dynamics of a full scale anaerobic wastewater treatment plant treating sugar factory wastewater

N. Altınay Perendeci,* F. Yeşim Ekinci and Jean Jaques Godon

Microbial community dynamics and the overall system performance of a real scale anaerobic wastewater treatment plant treating sugar industry wastewater were studied.

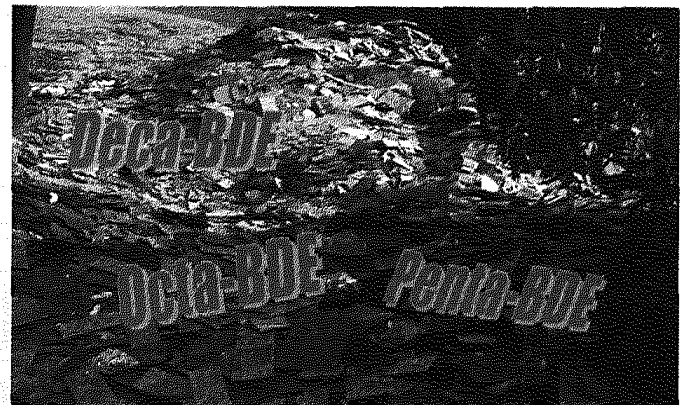


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Levels and distribution of polybrominated diphenyl ethers in soil, sediment and dust samples collected from various electronic waste recycling sites within Guiyu town, southern China

Iryna Labunska,* Stuart Harrad, David Santillo, Paul Johnston and Kevin Brigden

Highest reported concentration of PBDEs in soils and sediments from e-waste recycling facilities in Guiyu, China.

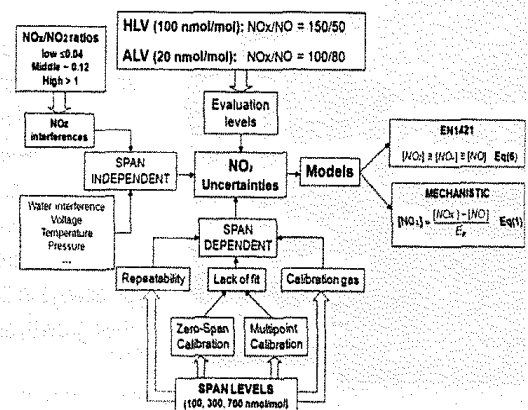


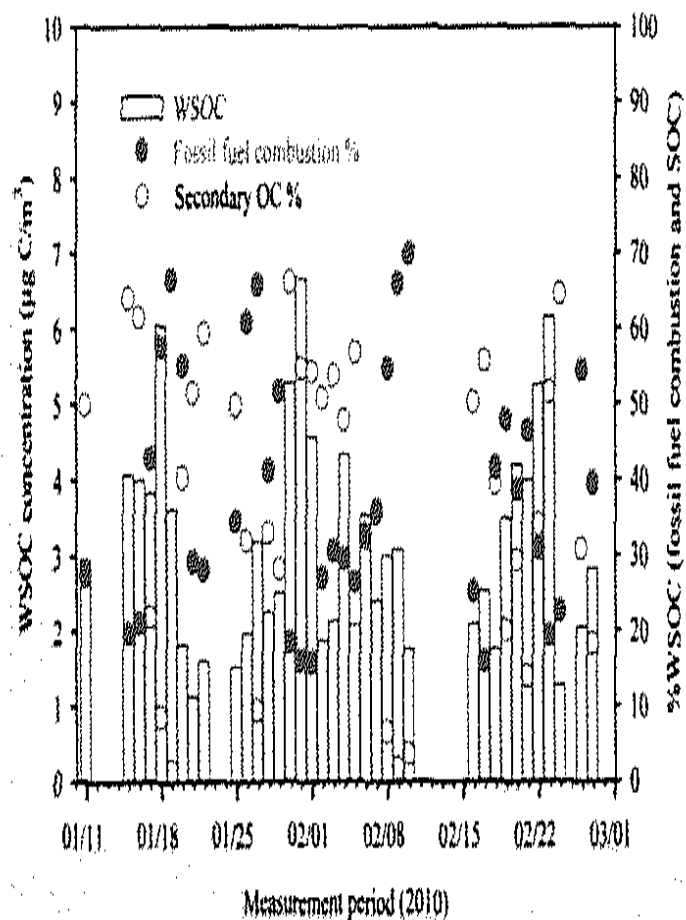
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Uncertainty models and influence of the calibration span on ambient air measurements of NO₂ by chemiluminescence

Marta Doval Miñarro,* Pascual Pérez Ballesta, Jonathan Barberá Rico and Enrique González Ferradás

Uncertainty assessment of NO₂ chemiluminescence measurements via two uncertainty models with three different span concentrations in two different types of environments.





Resolving sources of water-soluble organic carbon in fine particulate matter measured at an urban site during winter

Sung Yong Cho and Seung Shik Park*

WSOC observed at the site during winter was found to have a greater contribution to primary emissions than secondary organic aerosols. The contribution of biomass burning smoke to WSOC showed little variation with pollution episodes, ranging from 24.7–27.5% of WSOC.