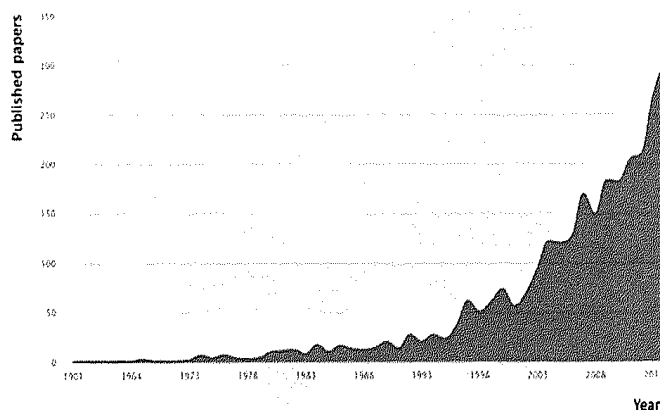


1531

Chromatographic methods for the isolation, separation and characterisation of dissolved organic matter

Sara Sandron, Alfonso Rojas, Richard Wilson, Noel W. Davies, Paul R. Haddad, Robert A. Shellie, Pavel N. Nesterenko, Brian P. Kelleher and Brett Paull*

This review presents an overview of the separation techniques applied to the complex challenge of dissolved organic matter characterisation.



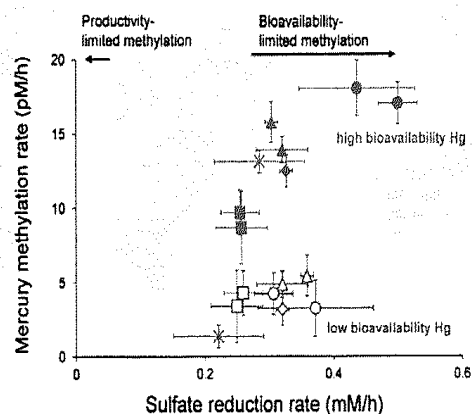
PAPERS

1568

Relative contributions of mercury bioavailability and microbial growth rate on net methylmercury production by anaerobic mixed cultures

Katarzyna H. Kucharzyk, Marc A. Deshusses, Kaitlyn A. Porter and Heileen Hsu-Kim*

Net production of methylmercury correlated with sulfate reduction rates in cultures exposed to dissolved Hg, but was insensitive to sulfate reduction rates for cultures exposed to nanoparticulate HgS.



1578

Annual air pollution caused by the Hungry Ghost Festival

B. Khezri, Y. Y. Chan, L. Y. D. Tiong and R. D. Webster*

The burning of joss paper, incense and papier-mâché objects as offerings during the annual Hungry Ghost Festival months (August and September) results in increases in many elements and ions detected in atmospheric particulate matter (< 2.5 micron) and rain water.

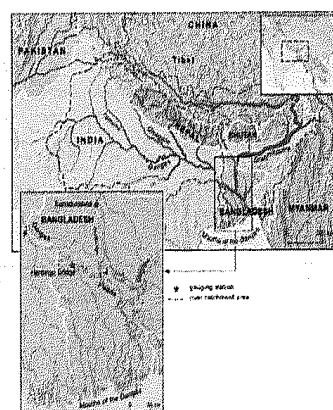


1587

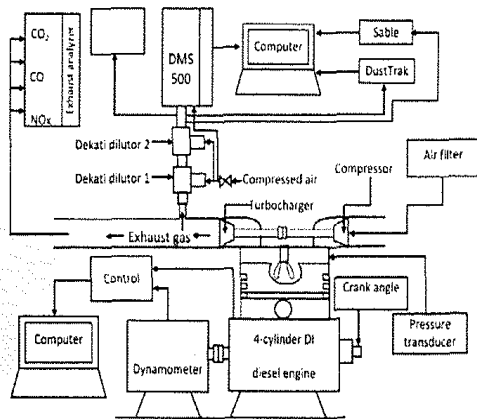
A first look at the influence of anthropogenic climate change on the future delivery of fluvial sediment to the Ganges–Brahmaputra–Meghna delta

Stephen E. Darby*, Frances E. Dunn, Robert J. Nicholls, Munsur Rahman and Liam Riddy

We employ a climate-driven hydrological water balance and sediment transport model (HydroTrend) to simulate future climate-driven sediment loads flowing into the Ganges–Brahmaputra–Meghna (GBM) mega-delta.



1601

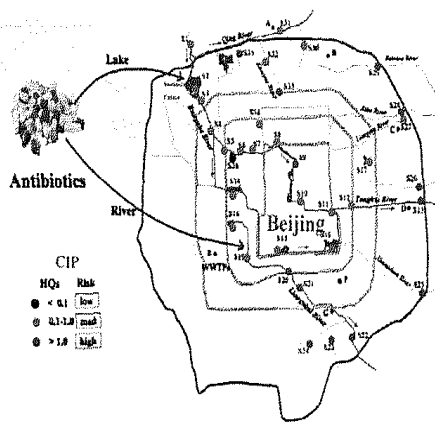


Particle emissions from microalgae biodiesel combustion and their relative oxidative potential

M. M. Rahman, S. Stevanovic, M. A. Islam, K. Heimann, M. N. Nabi, G. Thomas, B. Feng, R. J. Brown and Z. D. Ristovski*

Microalgae are considered to be one of the most viable biodiesel feedstocks for the future due to their potential for providing sustainable and cleaner alternatives to petroleum diesel.

1611

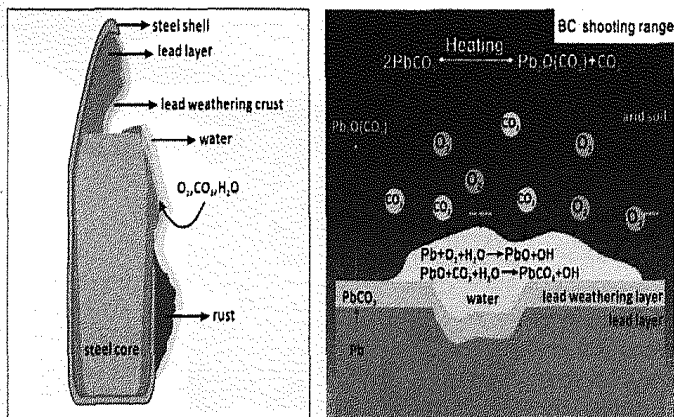


Occurrence, distribution and risks of antibiotics in urban surface water in Beijing, China

Wenhui Li, Lihong Gao, Yali Shi, Jiemin Liu* and Yaqi Cai*

The occurrence and distribution of 22 antibiotics, including eight fluoroquinolones, nine sulfonamides and five macrolides, were investigated in the urban surface waters in Beijing, China.

1620

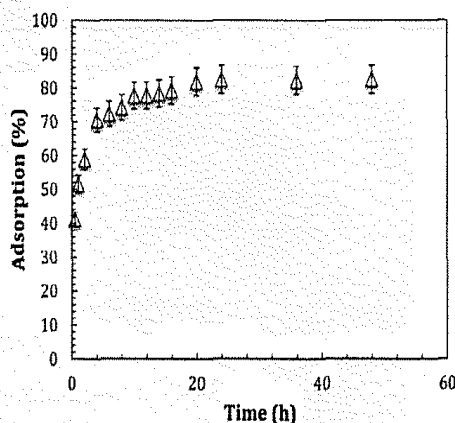


The weathering and transformation process of lead in China's shooting ranges

Yeling Li, Yongbing Zhu, Sanping Zhao and Xiaodong Liu*

Environmental conditions impact the transformation process and fate of lead originating from steel-core bullets disposed in shooting ranges of China.

1634



Comparative adsorption of Eu(III) and Am(III) on TPD

Q. H. Fan,* X. L. Zhao, X. X. Ma, Y. B. Yang, W. S. Wu, G. D. Zheng and D. L. Wang

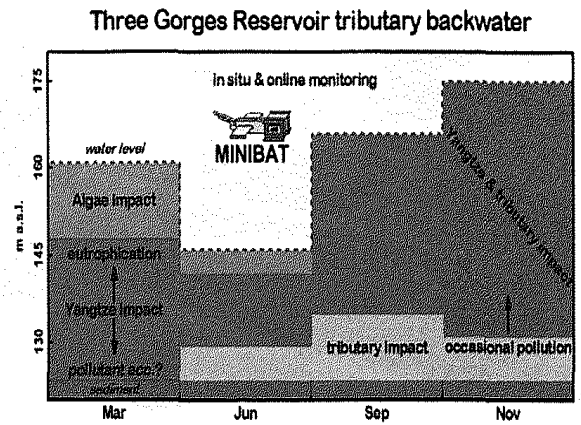
Comparative adsorption behaviors of Eu(III) and Am(III) on thorium phosphate diphosphate (TPD), *i.e.*, $Th_4(PO_4)_4P_2O_7$, have been studied using a batch approach and surface complexation model (SCM) in this study.

1641

Environmental water body characteristics in a major tributary backwater of the unique and strongly seasonal Three Gorges Reservoir, China

A. Holbach,* Y. Bi, Y. Yuan, L. Wang, B. Zheng and S. Norra

The current Three Gorges Dam management causes amplified pollutant transport from the Yangtze River main stream into its tributary backwaters.

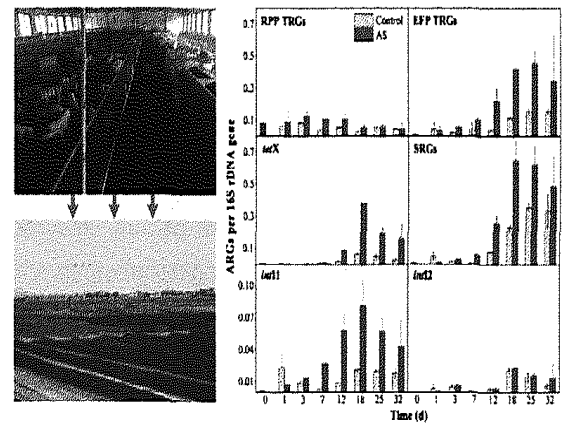


1654

Effects of thermophilic composting on oxytetracycline, sulfamethazine, and their corresponding resistance genes in swine manure

Jian Wang, Weiwei Ben, Yu Zhang, Min Yang and Zhimin Qiang*

This study investigated the removal of oxytetracycline and sulfamethazine as well as the behavior of antibiotic resistance genes during thermophilic composting of swine manure.

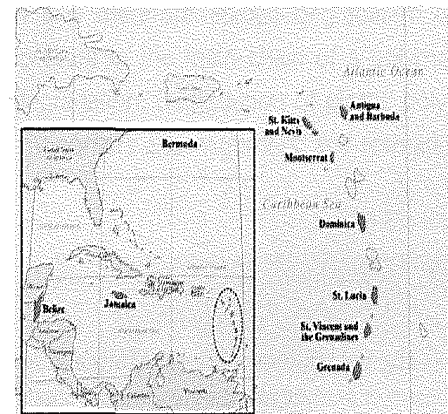


1661

Evaluation of exposure to organophosphate, carbamate, phenoxy acid, and chlorophenol pesticides in pregnant women from 10 Caribbean countries

Martin S. Forde,* Lyndon Robertson, Elhadji A. Laouan Sidi, Suzanne Côté, Eric Gaudreau, Olivia Drescher and Pierre Ayotte

Pesticides are commonly used in tropical regions such as the Caribbean for both household and agricultural purposes.

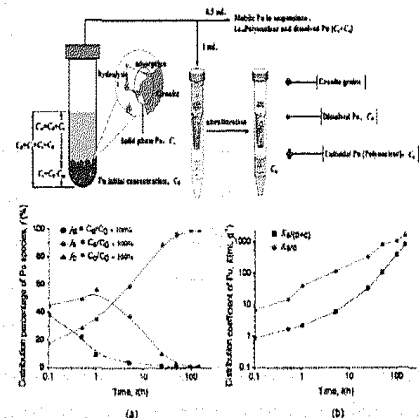


1672

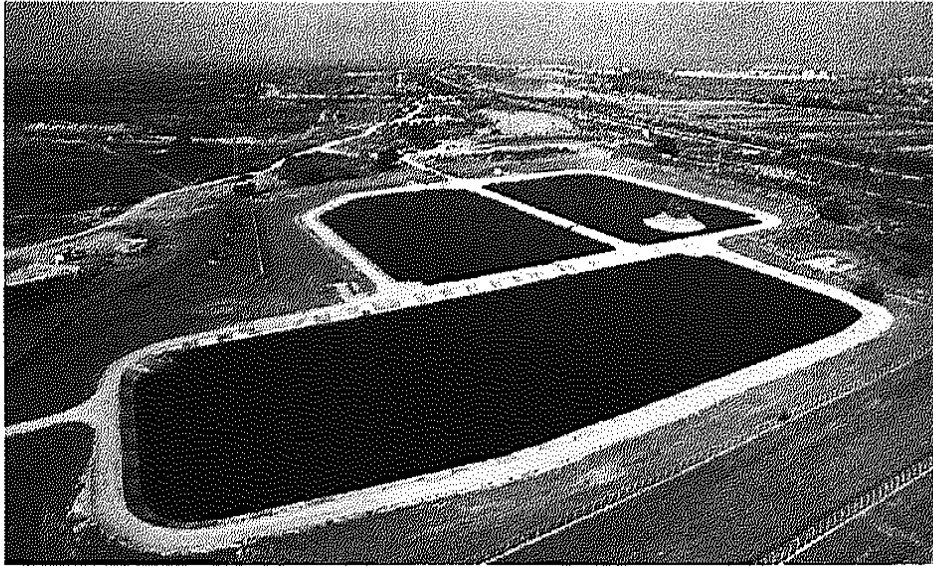
Plutonium partitioning in water–granite and water– α -FeOOH systems: from a viewpoint of a three-phase system

Jianfeng Lin, Haijun Dang,* Jinchuan Xie, Guoqing Zhou, Mei Li and Jihong Zhang

From a viewpoint of a three-phase system, the mobile colloidal species play the most important role in Pu migration in the underground water–granite system.



1680

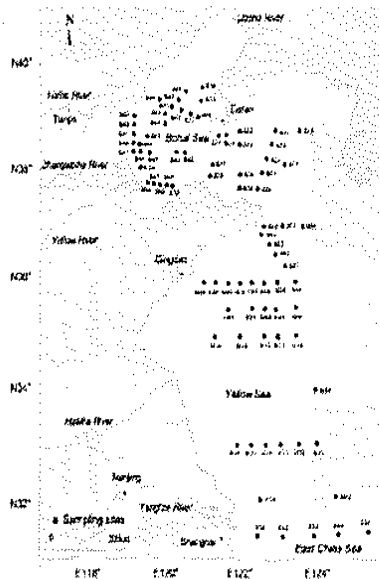


Oxygen profiling of the unsaturated zone using direct push drilling

A. Sopilniak, R. Elkayam, O. Lev* and T. Elad*

A method based on direct push drilling for oxygen profiling of the unsaturated zone was introduced and demonstrated in the vadose zone of a surface spreading aquifer recharge system.

1689



Reduced inorganic sulfur in surface sediment and its impact on benthic environments in offshore areas of NE China

Yanqing Sheng,* Qiyao Sun, Simon H. Bottrell and Robert J. G. Mortimer

Geochemical cycling and biological toxicity of sulfur in marine sediments is closely related to the activity of organisms.