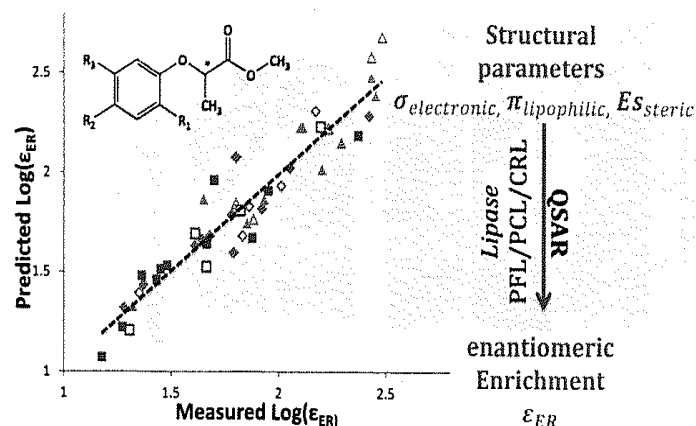


1370

Quantitative structure–activity relationship correlation between molecular structure and the Rayleigh enantiomeric enrichment factor

S. Jammer, D. Rizkov, F. Gelman* and O. Lev*

The enantiomeric enrichment caused by enzymatic enantioselective hydrolysis is studied for a homologous series, revealing a correlation between substrate molecular features and the Rayleigh enantiomeric enrichment factor, ϵ_{ER} .

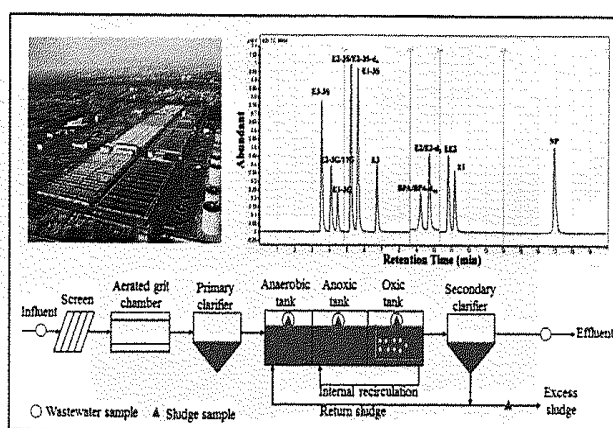


1377

Simultaneous detection of endocrine disrupting chemicals including conjugates in municipal wastewater and sludge with enhanced sample pretreatment and UPLC-MS/MS

Bing Zhu, Weiwei Ben, Xiangjuan Yuan, Yu Zhang, Min Yang and Zhimin Qiang*

Free and conjugated endocrine disrupting chemicals were simultaneously detected in wastewater and sludge to explore their behavior and fate in wastewater treatment plants.

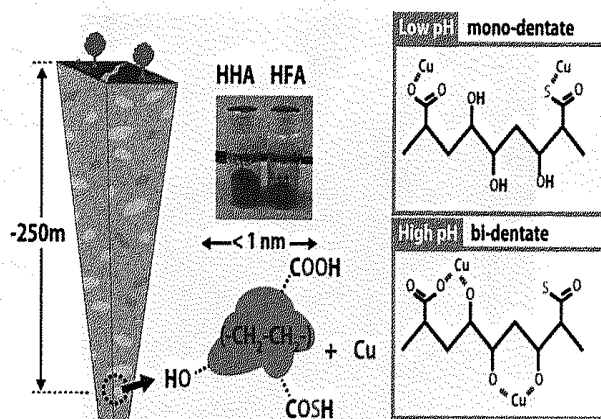


1386

Physicochemical and ion-binding properties of highly aliphatic humic substances extracted from deep sedimentary groundwater

Takumi Saito,* Motoki Terashima, Noboru Aoyagi, Seiya Nagao, Nobuhide Fujitake and Toshihiko Ohnuki

We have revealed distinctive physicochemical and ion-binding properties of humic and fulvic acids from deep sedimentary groundwater.

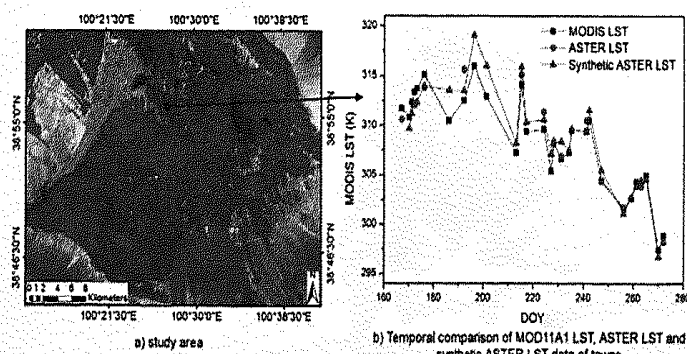


1396

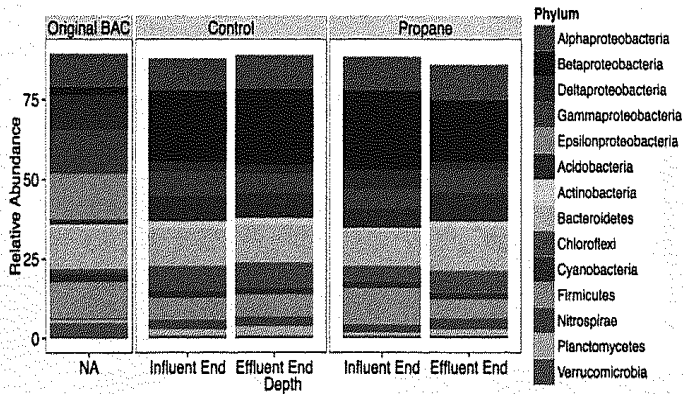
Generating daily high spatial land surface temperatures by combining ASTER and MODIS land surface temperature products for environmental process monitoring

Mingquan Wu,* Hua Li, Wenjiang Huang, Zheng Niu and Changyao Wang

Daily high spatial land surface temperatures for environmental process monitoring were generated by fusion of ASTER and MODIS LST products.



1405



Propane biostimulation in biologically activated carbon (BAC) selects for bacterial clades adept at degrading persistent water pollutants

Kristin M. Mikkelsen, Carissa L. Homme, Dong Li and Jonathan O. Sharp*

Biologically activated carbon column experiments were run with propane-amended and un-amended influents to determine how the microbial community responds to this form of biostimulation and the implications for contaminant attenuation.

1415

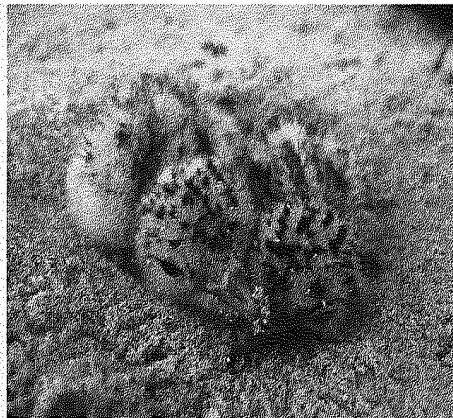


Use of the distributions of adamantane acids to profile short-term temporal and pond-scale spatial variations in the composition of oil sands process-affected waters

Sabine K. Lengger, Alan G. Scarlett, Charles E. West, Richard A. Frank, L. Mark Hewitt, Craig B. Milestone and Steven J. Rowland*

The tricyclic naphthenic acid distributions of two tailings ponds showed industry-dependent differences and spatial, but little short-term temporal variability.

1424

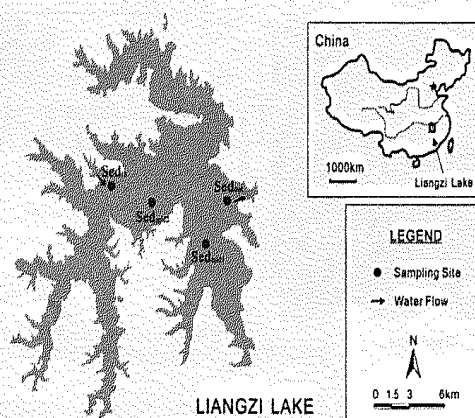


Exposure to mercury and Aroclor 1268 congeners in least terns (*Sterna antillarum*) in coastal Georgia, USA

Gabrielle L. Robinson,* Gary L. Mills, Angela H. Lindell, Sara H. Schweitzer and Sonia M. Hernandez

We demonstrate the previously undocumented transport of a rare PCB mixture (Aroclor 1268) from a Superfund site in Georgia, and compare mercury loads among sample types, using least tern samples.

1433



Occurrence and distribution of phosphorus fractions in sediments of Liangzi Lake under typical hydrodynamic conditions

Hailan Li, Shuxin Tu,* Guan Guan, Zhijian Xie and Imtiaz Muhammad

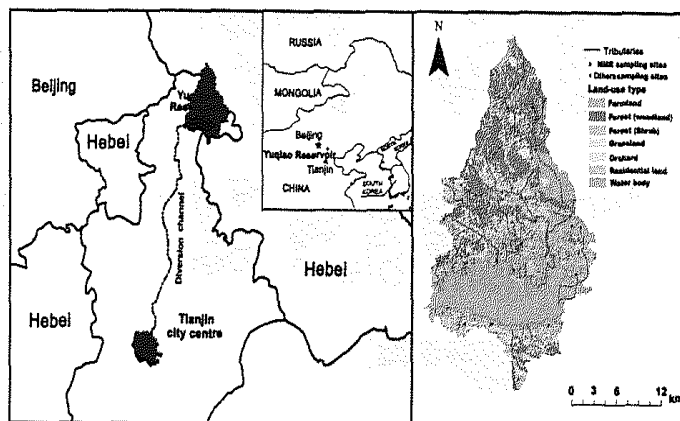
Understanding the transformation and chronological accumulation of phosphorus (P) forms under typical hydrodynamic conditions of a lake is important for clarifying the process of lake evolution and eutrophication.

1443

Land use as an explanatory factor for potential phosphorus loss risk, assessed by P indices and their governing parameters

Bin Zhou,* Rolf D. Vogt, Xueqiang Lu, Xiaoguang Yang, Changwei Lü, Christian W. Mohr and Liang Zhu

This study provides a clear conceptually based and empirically verified ranking of land-use categories according to their importance as potential P leaching risk to surface waters.

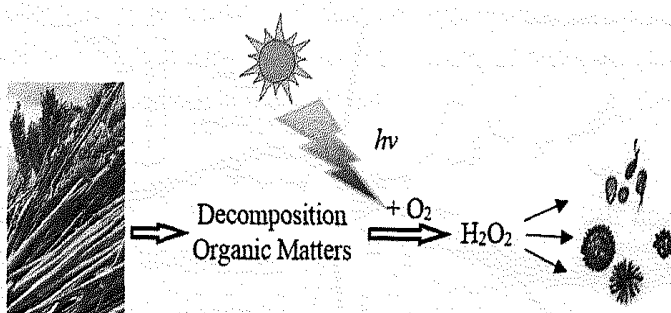


1455

Photochemical production of hydrogen peroxide from natural algicides: decomposition organic matter from straw

Hua Ma,* Jie Zhang, Liyin Tong and Jixiang Yang

The ability of decomposition organic matter from three natural algicides (barley, rice, and wheat straw) and natural organic matter (NOM) isolates to generate hydrogen peroxide under simulated solar irradiation was evaluated in order to understand the mechanism of indirect algae inhibition through a photochemical pathway.

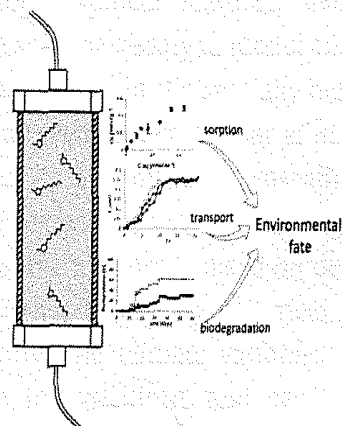


1462

Mobility and biodegradability of an imidazolium based ionic liquid in soil and soil amended with waste sewage sludge

M. Markiewicz,* C. Jungnickel, C.-W. Cho and S. Stolte

Sorption on solids and biodegradation are main phenomena that can mitigate the pollution of soil and water by ionic liquids (ILs).

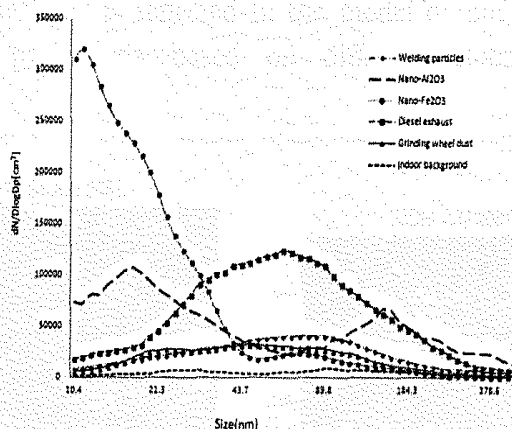


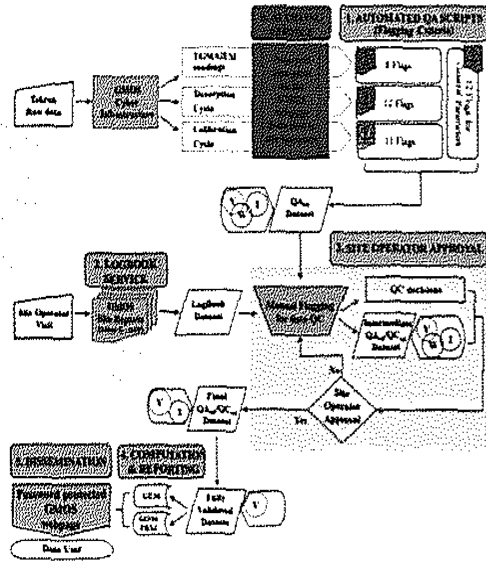
1470

Relationships between number, surface area, and mass concentrations of different nanoparticles in workplaces

Hua Zou, Qunwei Zhang, Mingluan Xing, Xiangjing Gao, Lifang Zhou, David J. Tollerud, Shichuang Tang* and Meibian Zhang*

No consistent metric for measuring exposure to nanoparticles has yet been agreed upon internationally.

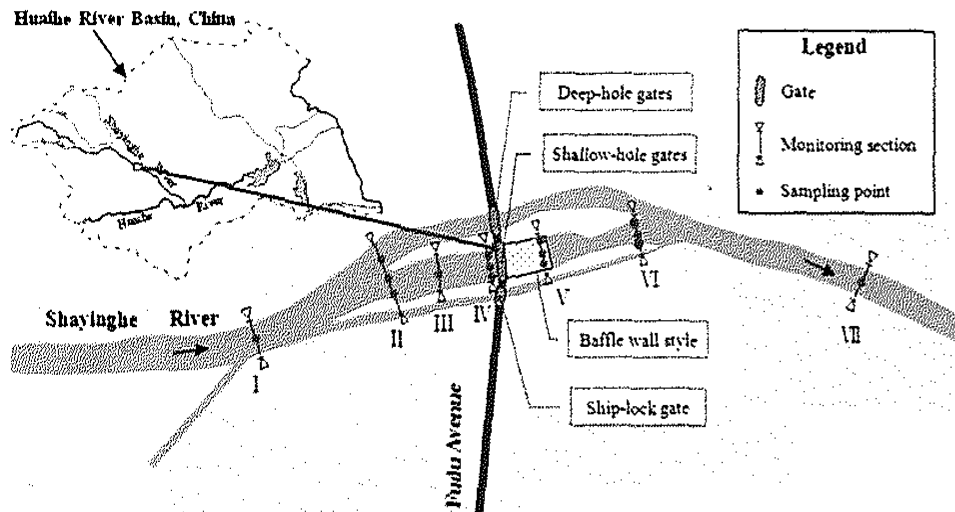




Data quality through a web-based QA/QC system: implementation for atmospheric mercury data from the global mercury observation system

Francesco D'Amore,* Mariantonia Bencardino, Sergio Cinnirella, Francesca Sprovieri and Nicola Pirrone

The overall goal of the on-going Global Mercury Observation System (GMOS) project is to develop a coordinated global monitoring network for mercury, including ground-based, high altitude and sea level stations.



Identification of key factors affecting the water pollutant concentration in the sluice-controlled river reaches of the Shaying River in China via statistical analysis methods

Ming Dou,* Yan Zhang, Qiting Zuo and Qingbin Mi

The construction of sluices creates a strong disturbance in water environmental factors within a river.