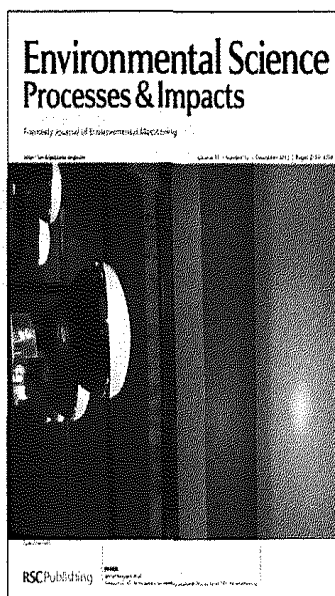


**Cover**  
See Bahareh Kokabian and Veera Ganeswar Gude, pp. 2178–2185.  
Image reproduced by permission of Veera Ganeswar Gude from *Environ. Sci.: Processes Impacts*, 2013, **15**, 2178.



**Inside cover**  
See Bernd Nowack *et al.*, pp. 2186–2193.  
Image reproduced by permission of Bernd Nowack from *Environ. Sci.: Processes Impacts*, 2013, **15**, 2186.

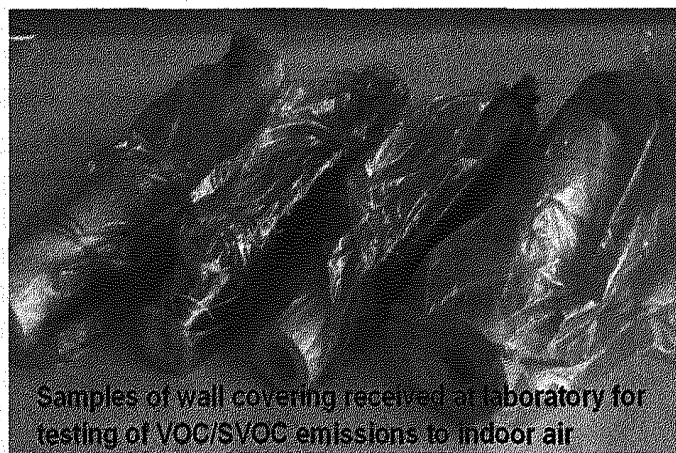
PERSPECTIVE

2164

**Assessing and controlling risks from the emission of organic chemicals from construction products into indoor environments**

Veronica M. Brown, Derrick R. Crump\* and Paul T. C. Harrison

Effective characterisation of complex mixtures of VOCs emitted from construction products for public health protection necessitates international collaboration by chemists.



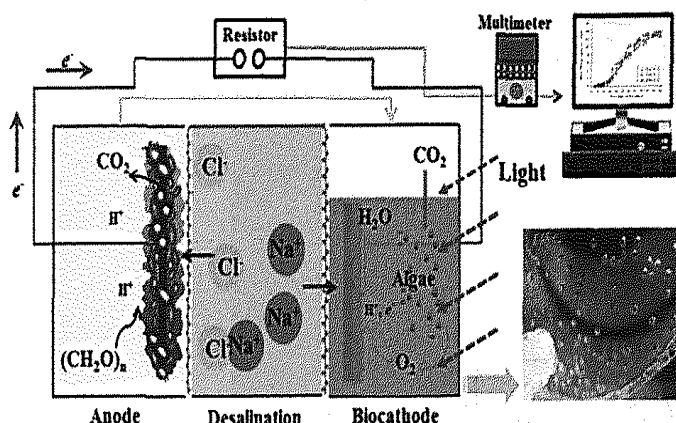
PAPERS

2178

**Photosynthetic microbial desalination cells (PMDCs) for clean energy, water and biomass production**

Bahareh Kokabian and Veera Ganeswar Gude\*

Current microbial desalination cells (MDCs) use expensive and toxic chemical catalysts in the cathode chambers which is not sustainable. Algae biocathodes in photosynthetic MDCs have the potential to improve their performance in an environmentally-friendly manner.

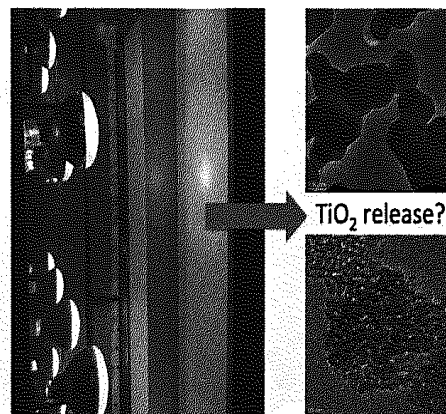


2186

### Release of $\text{TiO}_2$ from paints containing pigment- $\text{TiO}_2$ or nano- $\text{TiO}_2$ by weathering

Ahmed Al-Kattan, Adrian Wichser, Roger Vonbank, Samuel Brunner, Andrea Ulrich, Stefano Zuin and Bernd Nowack\*

The release of nanomaterials from products and applications that are used by industry and consumers has only been studied to a very limited extent.

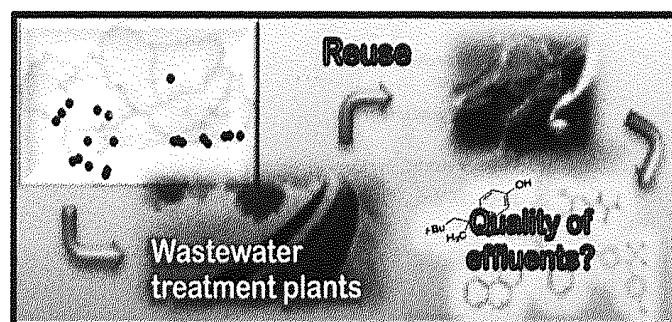


2194

### Priority organic compounds in wastewater effluents from the Mediterranean and Atlantic basins of Andalusia (Spain)

Nieves Barco-Bonilla, Roberto Romero-González, Patricia Plaza-Bolaños, José Luis Martínez Vidal, Antonio J. Castro, Isabel Martín, Juan José Salas and Antonia Garrido Frenich\*

A characterization study of secondary and tertiary effluents from different areas of Andalusia is shown.

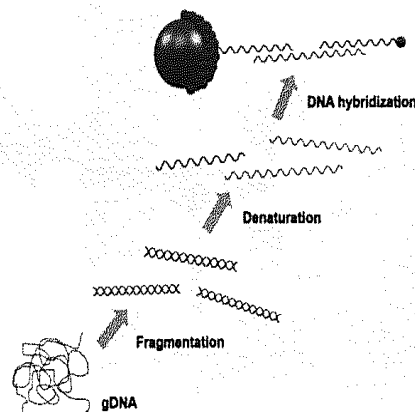


2204

### Effects of pretreatment on the denaturation and fragmentation of genomic DNA for DNA hybridization

Xiaofang Wang and Ahjeong Son\*

Effects of pretreatment comprising denaturation and fragmentation for genomic DNA were investigated to facilitate the optimum DNA hybridization for bacteria quantification *via* NanoGene assay.

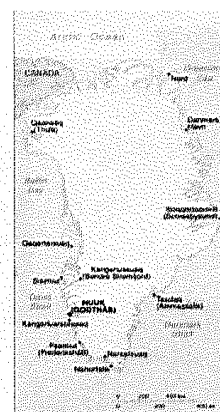


2213

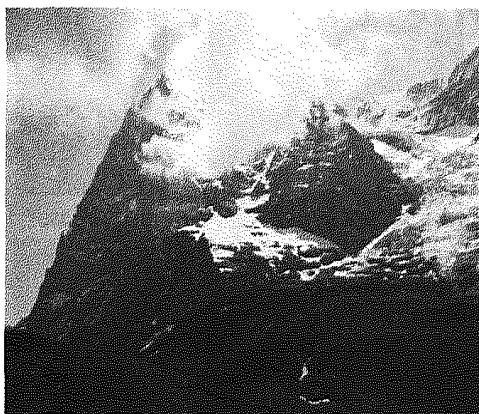
### Three years (2008–2010) of measurements of atmospheric concentrations of organochlorine pesticides (OCPs) at Station Nord, North-East Greenland

Rossana Bossi,\* Carsten Ambelas Skjøth and Henrik Skov

Atmospheric concentrations of organochlorine pesticides (OCPs) have been measured for the first time at Station Nord, North-East Greenland, from 2008 to 2010.



2220

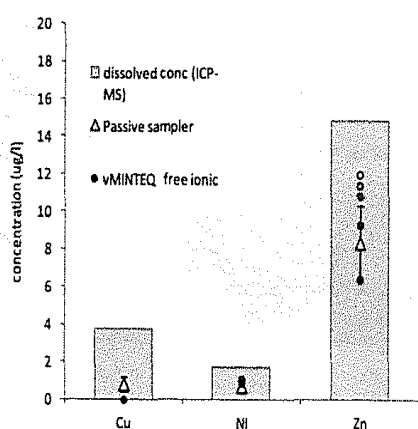


### Model-based exploration of the drivers of mountain cold-trapping in soil

John N. Westgate and Frank Wania\*

Spatial scale, temperature, rain, and atmospheric particles all play a role in controlling the accumulation of contaminants at higher elevation.

2233

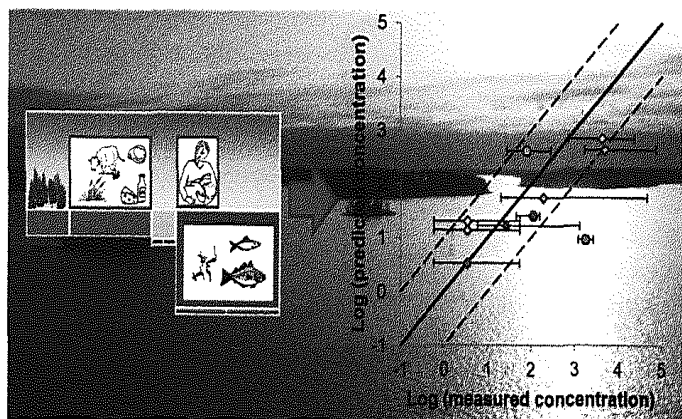


### Evaluation of a passive sampler for the speciation of metals in urban runoff water

Jesper Knutsson,\* Pavleta Knutsson, Sebastien Rauch, Thomas J. R. Pettersson and Gregory M. Morrison

This paper describes the deployment of a passive sampler to measure Cu, Ni and Zn in an urban runoff water treatment facility. The passive samplers are compared to results from an automated water sampler and to computer model predictions. Results show that passive samplers are a useful technique for metal speciation in chemodynamic conditions.

2240

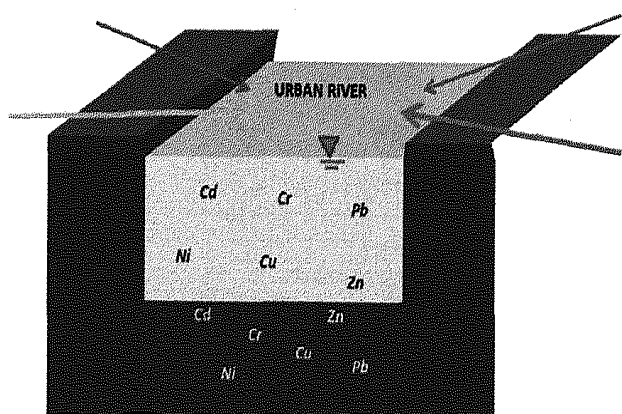


### Evaluating the environmental fate of short-chain chlorinated paraffins (SCCPs) in the Nordic environment using a dynamic multimedia model

Ingjerd S. Krogseth,\* Knut Breivik, Jon A. Arnot, Frank Wania, Anders R. Borgen and Martin Schlabach

The CoZMoMAN model in concert with observations is used to evaluate the overall understanding of the environmental behavior of short-chain chlorinated paraffins.

2252



### Assessing pollution in Izmir Bay from rivers in western Turkey: heavy metals

Gorkem Akinci,\* Duyusen E. Guven and Sanem Keles Ugurlu

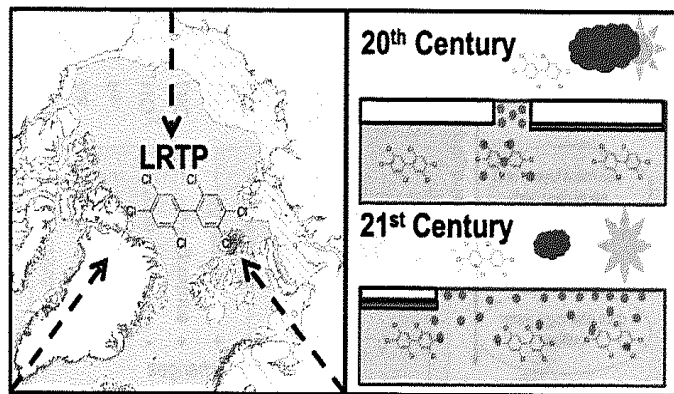
Heavy metal contribution from urban rivers to the Aegean Sea is under the influence of the predominant land use and air pollution.

2263

**Exploring the potential influence of climate change and particulate organic carbon scenarios on the fate of neutral organic contaminants in the Arctic environment**

James M. Armitage\* and Frank Wania

The potential influence of climate change and particulate organic carbon scenarios on the fate of neutral organic contaminants transported to the Arctic is explored using an evaluative global-scale modelling approach.

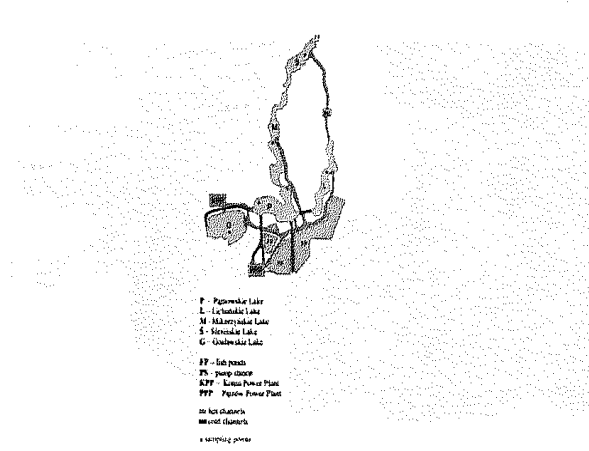


2273

**Occurrence of Legionella pneumophila in lakes serving as a cooling system of a power plant**

Maciej Walczak,\* Hanna Kletkiewicz and Aleksandra Burkowska

This study was aimed at determining whether Legionella pneumophila can be found in lakes serving as a natural cooling system of a power plant.

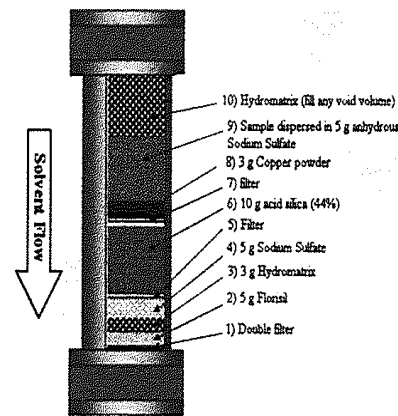


2279

**A one-step extraction/clean-up method for determination of PCBs, PBDEs and HBCDs in environmental solid matrices**

Mohamed Abou-Elwafa Abdallah,\* Daniel Drage and Stuart Harrad

A selective pressurized liquid extraction (S-PLE) method was developed for rapid determination of 3 classes of halogenated organic contaminants in indoor dust, soil and sediment samples.

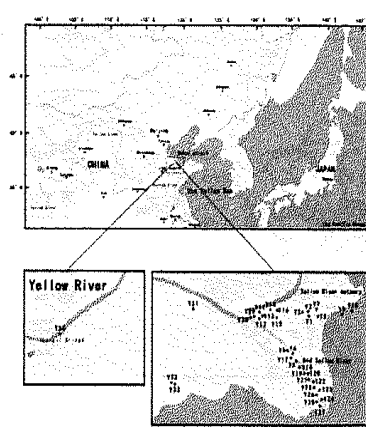


2288

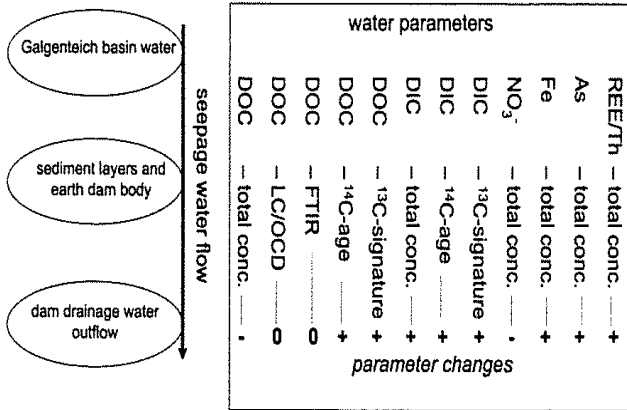
**Distribution, sources, and ecological risks of organochlorine pesticides in surface sediments from the Yellow River Estuary, China**

Chunnian Da, Guijian Liu,\* Quan Tang and Jingjing Liu

Thirty-four surface sediment samples were analyzed for organochlorine pesticides (OCPs), in order to provide information of levels, distribution and sources of these compounds in the Yellow River Estuary, China.



2297

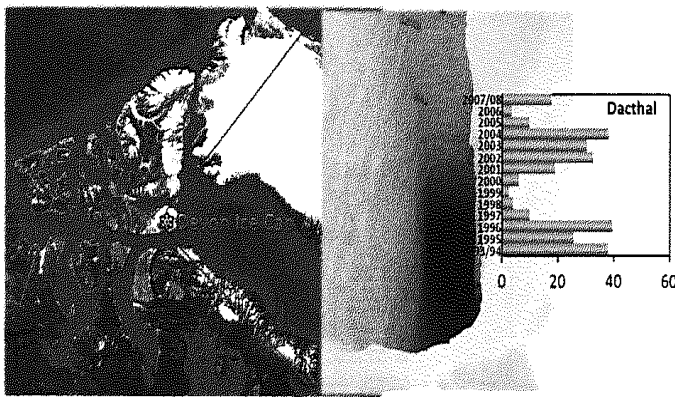


**High mobilization of arsenic, metals and rare earth elements in seepage waters driven by respiration of old allochthonous organic carbon**

Arndt Weiske,\* Jörg Schaller, Tilo Hegewald, Susanne Machill, Ingo Werner and E. Gert Dudel

Metal and metalloid mobilization processes within seepage water are of major concern in a range of water reservoir systems.

2304

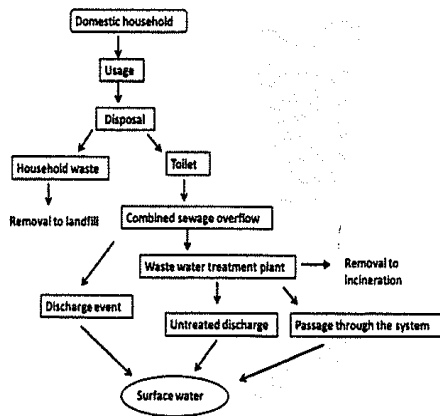


**Atmospheric deposition of current use pesticides in the Arctic: Snow core records from the Devon Island Ice Cap, Nunavut, Canada**

Xianming Zhang, Torsten Meyer, Derek C. G. Muir,\* Camilla Teixeira, Xiaowa Wang and Frank Wania

Current use pesticides (CUPs) have been detected in the Arctic, even though there are no direct sources and their long range atmospheric transport potential is generally lower than that of legacy pesticides.

2312

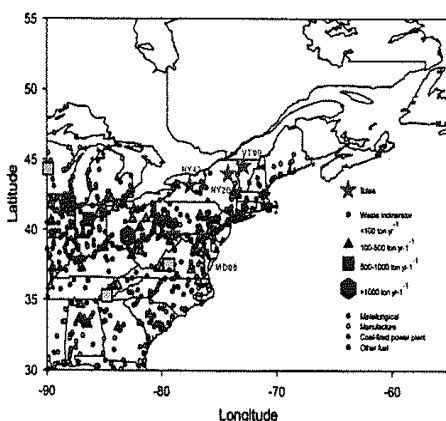


**Do natural rubber latex condoms pose a risk to aquatic systems?**

Scott Lambert,\* Catherine Johnson, Virginie D. J. Keller, Chris J. Sinclair, Richard J. Williams and Alistair B. A. Boxall\*

The presence and potential adverse effects of plastic-polymers in the environment are receiving increasing attention in the popular and scientific press.

2321



**Mercury wet deposition in the eastern United States: characteristics and scavenging ratios**

Jiaoyan Huang, Feng-Chih Chang, Shaolei Wang, Young-Ji Han, Mark Castro, Eric Miller and Thomas M. Holsen\*

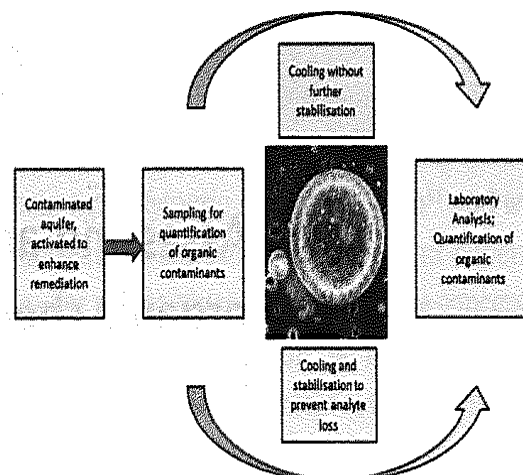
Wet deposition is an important atmospheric mercury (Hg) pathway between air and terrestrial ecosystems.

2329

## Stabilisation of groundwater samples for the quantification of organic trace pollutants

Roland Becker, Ute Dorgerloh,\* Hubert Theißen and Irene Nehls

The concentration of contaminants in groundwater samples can be decreased by degradation in the time course between field sampling and quantification in the laboratory, especially in samples from sites where degradation activity is enhanced by remediation measures.

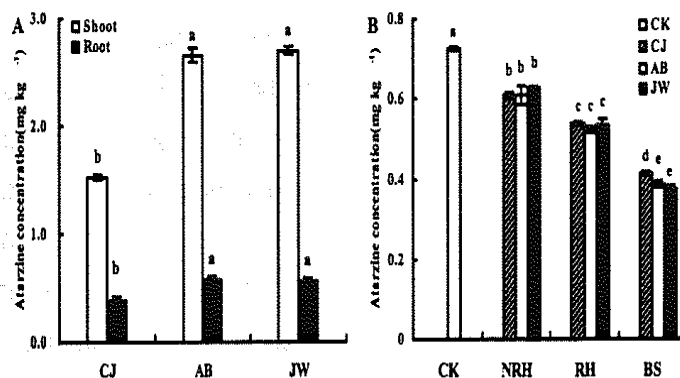


2338

## Bioaccumulation and degradation of atrazine in several Chinese ryegrass genotypes

Ying Sui and Hong Yang\*

Three selected genotypes of ryegrass were comprehensively analyzed with regard to the atrazine accumulation, degradation and toxicological response.

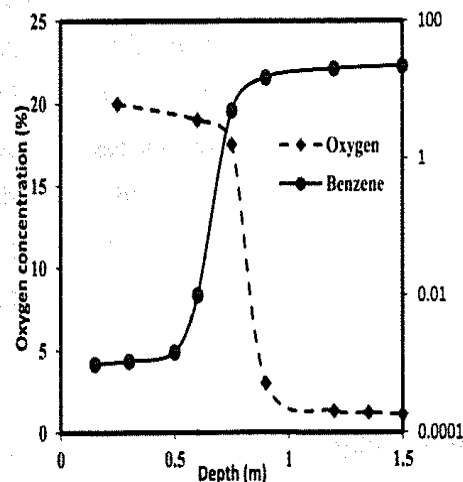


2345

## A numerical investigation of oxygen concentration dependence on biodegradation rate laws in vapor intrusion

Yijun Yao, Rui Shen, Kelly G. Pennel and Eric M. Suuberg\*

In subsurface vapor intrusion, aerobic biodegradation has been considered as a major environmental factor that determines the soil gas concentration attenuation factors for contaminants such as petroleum hydrocarbons.



## ADDITIONS AND CORRECTIONS

2355

Additions and corrections published in 2013