

Environmental Science: Advances

rsc.li/esadvances

The Royal Society of Chemistry is the world's leading chemistry community. Through our high impact journals and publications we connect the world with the chemical sciences and invest the profits back into the chemistry community.

IN THIS ISSUE

ISSN 2754-7000 CODEN ESANEB 3(4) 505–612 (2024)



Cover
See Alaka Samal, Ajaya K. Behera *et al.*, pp. 561–571.
Image reproduced by permission of Alaka Samal from *Environ. Sci.: Adv.*, 2024, 3, 561.

CRITICAL REVIEWS

511

Challenges for reliable analysis of uranium in natural waters using laser-induced fluorimetry/LED-fluorimetry in the presence of fluoride and diverse humic substances in hot arid regions and future advances – review

D. P. S. Rathore,* P. K. Tarafder and V. Balaram

Reliable analysis of uranium in diverse water samples is a great challenge due to the presence of humic substances and fluoride content especially in hot arid regions. Uranium was determined by LED-fluorimeter using standard additions method.

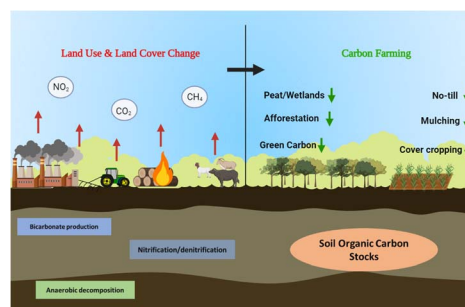
Due to time interval between sample collection and analysis.

Large variations in pH, Total dissolved salts, uranium, major cations, anions depending upon total dissolved salts concentrations due to time interval. Calcium fluoride is co-precipitant of uranium in water samples resulting in large variations. Moreover, biphasic separation of humic acids may take place in the form of flocks due to ~10 degree Celsius change in temperature around 40, which is rich in uranium and result in large variations. Analysis of water samples for uranium should be carried out preferably on the same day for reliable analysis.

522

Carbon farming: a circular framework to augment CO₂ sinks and to combat climate change

Shalini Singh, Boda Ravi Kiran and S. Venkata Mohan*



Royal Society of Chemistry approved training courses

Explore your options.
Develop your skills.
Discover learning
that suits you.

**Courses in the classroom,
the lab, or online**

Find something for every
stage of your professional
development. Search our
database by:

- subject area
- location
- event type
- skill level

Members **get at least 10% off**

Visit rsc.li/cpd-training

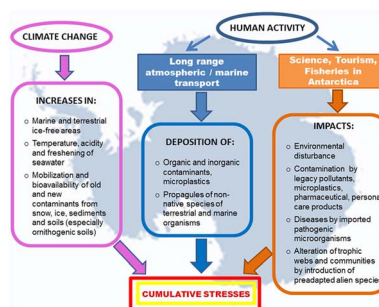


**SAVE
10%**

543

Environmental contamination and climate change in Antarctic ecosystems: an updated overview

Roberto Bargagli and Emilia Rota*

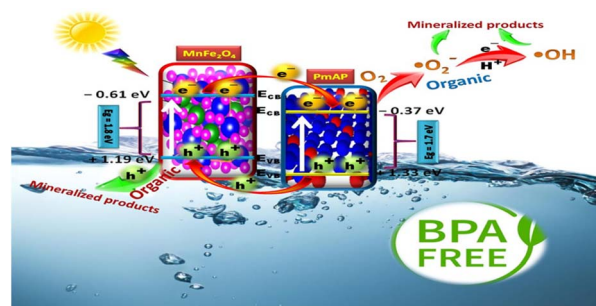


PAPERS

561

Design of inexpensive, magnetically separable MnFe_2O_4 /poly meta-amino phenol (PmAP) heterostructure: catalyst for bisphenol A & reactive blue 19 mineralisation

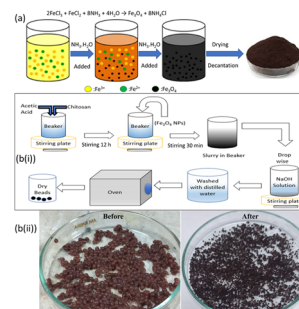
Chirasmayee Mohanty, Priyanka P. Mishra, Alaka Samal,* Nigamananda Das and Ajaya K. Behera*



572

Regenerable chitosan-embedded magnetic iron oxide beads for nitrate removal from industrial wastewater

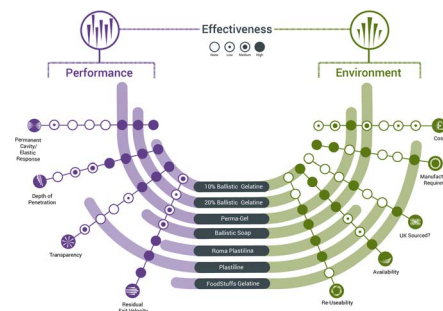
Muntaha Nasir, Farhan Javaid, M. Talha Masood, Dr Muhammad Arshad, Muhammad Yasir, Vladimir Sedlarik, Muhammad Abdel Qadir, Hazim Qiblawey, Wenjuan Zhang, Kashif Mairaj Deen,* Edouard Asselin and Nasir M. Ahmad*

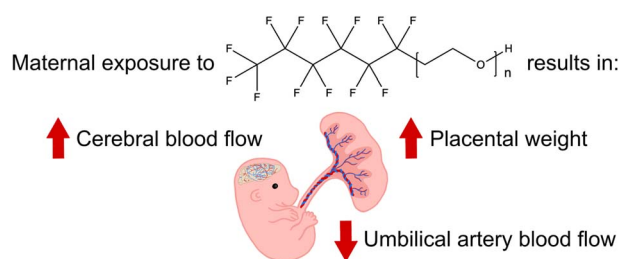


585

Evaluation of soft tissue simulant performance against economic and environmental impact

James Read, Ken McNaught, Rachael Hazael and Richard Critchley*





Fluorotelomer ethoxylates cause developmental toxicity in mice

Katherine L. Steeves, Jenna Hanrahan, Nikita E. Harvey, Karl J. Jobst and Lindsay S. Cahill*

