

Journal “Water Quality, Exposure and Health”
(Springer)

Call for contributions to the

Special Issue

**Natural Arsenic: Coupling between Geosphere,
Hydrosphere and Biosphere**



As 2010 Tainan, Taiwan
May 17-21, 2010
**The Third International Congress
on Arsenic in the Environment**
Arsenic in geosphere and human diseases
<http://www.as2010tainan.com.tw/>

SYNOPSIS: The special issue “Groundwater Arsenic: Coupling between Geosphere, Hydrosphere and Biosphere” is the outcome of the 3rd International Congress on Arsenic in the Environment in the Environment in May 2010 in Tainan, Taiwan. The special issue aims to present a holistic approach to interpreting human exposures to groundwater derived arsenic. This would include pathways of geogenic arsenic, from its occurrence in rocks and mineral forms, subsequent release through biogeochemical processes, which are partly catalyzed by microbiological activity— into soil and aqueous environments such as surface and groundwater bodies, and ultimately, transfer to humans from water and food ingestion. Bioavailability of arsenic from water and soil to different organisms, and subsequent metabolism, in plants, fish and animals are addressed with respect to arsenic transfer to humans through the food-chain. Such research is highly timely due to worldwide interest in arsenic-related environmental health issues, which is accelerated by the lowering of limit values for arsenic in drinking water, stronger regulations of arsenic contents in food, and the fact that continuously new regions are detected where the arsenic problem was not known so far.

Note: The Special Issue can contain review papers (very limited) or original research articles. The Special Issue must provide a reasonable assessment of what is new, what is current, what needs to be known or what should be done on the interdisciplinary topic of the occurrence of arsenic in groundwater and respective mitigation where emerging needs for population in rural areas and isolated urban areas are preferentially targeted, including also related economic, social and political aspects contributing to human and economic development. A FULL PAPER is a contribution describing original research, including theoretical exposition, extensive data and in-depth critical evaluation. The journal does not accept case studies, unless it is a study that has a generic importance and global implications. REVIEW PAPERS: Only critical review papers will be considered.

Authors are invited to submit manuscripts for consideration to be published in the special issue covering the following:

I. Arsenic in rocks, ground- and surface water: occurrence, genesis, mobility

1. Sources of geogenic arsenic, occurrence in ground and surface waters in response to geochemical and hydrologic triggers. ground- and surface water: occurrence, genesis, mobility and transport
2. Processes that control mobility and speciation of arsenic in water.

II. Arsenic exchange processes at geosphere-biosphere interface

1. Bioavailability in water and soil for aqueous plants, land plants, aqueous animals.
2. Biotic and abiotic transformations.
3. Phytotoxicity of arsenic.

III. Arsenic in the biosphere

1. Metabolism.
2. Propagation in the food chain up to human uptake.

Manuscripts will be reviewed with the same rigor as for all submissions to Water Quality, Exposure and Health. All manuscripts must follow the instructions given on the journals webpage and must be submitted to the Springer Electronic Submission System by **July 1st 2010**, to be considered. It is important to indicate in your cover letter that the paper is for the *Natural Arsenic: Coupling between Geosphere, Hydrosphere and Biosphere* special issue. Thus, the authors need to make sure that the information “Special Issue: Groundwater Arsenic” appears on the cover letter when submitting your paper to the WQEH Editorial system.

<http://www.springer.com/environment/water/journal/12403?detailsPage=aimsAndScopes>

Jochen Bundschuh, *Institute of Applied Research (IAF), University of Applied Sciences, Moltkestr. 30, 76133 Karlsruhe, Germany, e-mail: jochenbundschuh@yahoo.com*

Jiin-Shuh Jean, *Department of Earth Sciences, National Cheng Kung University, 1 University Road, Tainan City, Taiwan, e-mail: jiinshuh@mail.ncku.edu.tw*

Prosun Bhattacharya, *KTH-International Groundwater Arsenic Research Group, Department of Land and Water Resources Engineering, Royal Institute of Technology (KTH), Stockholm, Sweden, e-mail: prosun@kth.se*