

Special Issue on
**Inorganic Pollutants into Groundwater:
From Geochemistry to Treatment**

WILEY



CALL FOR PAPERS

Potentially harmful elements such as antimony (Sb), arsenic (As), chromium (Cr), cobalt (Co), copper (Cu), fluorine (F), nickel (Ni), uranium (U) and others, can reach high concentrations in the natural water systems, becoming extremely dangerous for both the environment and human health. Despite the fact that these elements can also originate from anthropogenic sources, their origin from geogenic sources is dominant by far. Their release, mobility, and fate highly vary in each geological setting due to different hydrogeochemical conditions which occur during the water-rock interaction processes. Although the features of these harmful contaminants are widely discussed, some of these are poorly studied.

Naturally occurring harmful pollutants in groundwaters have been increasingly reported at concentrations exceeding the World Health Organization's threshold, and the improving of living standards through the development of suitable and efficient remediation is becoming an urgent challenge. In this regard, the main goal for the scientific community is to understand the environmental issue using geochemical approaches in order to develop efficient remediation systems. Indeed, the geochemical approaches allow a strong scientific-based selection on effective process to use for each case-study.

This Special Issue solicits methodological contributions and multidisciplinary case-studies of geochemical survey, alone or combined with different types of water remediation methods aiming to remove toxic species and purify the contaminated water. We particularly welcome contributions that aim on to understanding of water-rock interaction processes through geochemical characterization and/or geochemical modelling. We welcome contributions on treatment systems meeting the discharge criteria by pollution control, with recovery, recycling or safe storage in order to optimize the decontamination process during the application on site.

Potential topics include but are not limited to the following:

- ▶ Geochemical prospection to identify and confine the natural polluted areas
- ▶ Geochemical characterization coupled with geochemical modeling to define the chemical-physical parameters of groundwater, saturation state with respect mineral phases, the possible source of contaminants, the redox state of these chemical species, and their fate during the water-rocks interaction
- ▶ Use of conventional and novel technologies for water remediation
- ▶ Environmentally and economically sustainable management of the produced residual waste

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/geofluids/ipig/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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