**Session Proposal**

# Session Title

Selenium-Heavy Metal Interactions: Biogeochemical Cycling, Health Risks, and Sustainable Remediation Strategies

# Session Organizers

* **Prof. Hua, ZHANG.** Institute of Geochemistry, Chinese Academy of Sciences (Email: zhanghua@mail.gyig.ac.cn);
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# Session Description

The symposium will facilitate critical discussions on selenium-pollutant interaction, focusing on biogeochemical cycling processes between selenium and typical heavy metal pollutants (e.g., mercury, cadmium, arsenic, lead, etc.) within and across soil-plant-human systems. It will address health risk assessment methodologies and sustainable green remediation technology strategies for environmental pollution. Experts and interested participants will extensively exchange research progress, scientific questions, and technological needs regarding selenium-heavy metal interactions related to the soil-crop-human health nexus. The session aims to promote collaboration between early-career and established scientists to tackle key challenges in selenium-heavy metal research, with relevance to food security and environmental policy.

# Format

Invited oral presentations are 20 minutes each, standard oral presentations are 12 minutes each, and student oral presentations are 5 minutes each, or in accordance with the conference guidance.

# Proposed Speakers

It is planned to invite no less than 6~8 special speakers closely related to the topic.

1. Prof. Fei DANG, Institute of Soil Science, Chinese Academy of Sciences (Topic: The interaction process between selenium and cadmium in typical selenium-rich and high-cadmium soils and the regulatory mechanism of selenium-enriched and cadmium-reducing crops)
2. Prof.Wenli TANG, Nanjing University (Topic: Mercury-selenium interactions in soil-rice systems: New insights)
3. Dr. Xuefeng YANG, Institute of Geochemistry, Chinese Academy of Sciences (Topic: Interactions of selenium and heavy metals in paddy systems: Mechanisms and risk assessment)
4. …