Interactions between biochars and trace elements (TEs) in the environment

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Trace element (TE) contamination is one of the main abiotic stresses that limit plant growth and deteriorate food quality by entering the food chain. The interaction of biochar and TEs is a hot topic in environmental science. Biochars, materials prepared from various types of biomass and waste, are porous, carbon-rich, low-cost and sustainable materials. The properties (such as high cation-exchange capacity (CEC), large surface area, physicochemical stability and alkalinity) of biochars have numerous advantages for alleviation of TE toxicity. Therefore, biochar can be a "pioneer" material for environmental remediation. Presentations discussing the issues listed below are invited.

- Physicochemical behavior of biochar in the environment
- Mechanisms of interactions between biochar and TEs in the environment
- Impact of biochars on soil TE remediation and ecosystem services
- The benefits and risks of biochars in agricultural production
- The sustainable role of biochars in TE removal from water
- Potential and implications of biochar modification for TE removal in the environment
- New techniques to study the reaction, transformation and fate of biochars in soil
- Advanced uses of biochar in TE management in the environment