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Research Interests

- **Speciation and transformation of heavy metals in soil**
- **Heavy metal uptake, translocation and detoxification in crops**
- **Remediation of contaminated soil**

Publication

Microbial mechanisms responsible for the variation of soil Cd availability under different pe+pH environments, Ecotoxicology and Environmental Safety, 2020, DOI: 10.1016/j.ecoenv.2020.111057

Responses of soil microbial communities and their network interactions to saline-alkaline stress in Cd-contaminated soils, Environmental Pollution, 2019, DOI: 10.1016/j.envpol.2019.06.082

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Responses of soil aggregates and bacterial communities to soil-Pb immobilization induced by biofertilizer, Chemosphere, 2019, DOI: 10.1016/j.chemosphere.2018.12.214

Saline stress modifies the effect of cadmium toxicity on soil archaeal communities,

Ecotoxicology and Environmental Safety, 2019, DOI: 10.1016/j.ecoenv.2019.109431

Manipulation of the rhizosphere bacterial community by biofertilizers is associated with mitigation of cadmium phytotoxicity, Science of the Total Environment, 2018, DOI: 10.1016/j.scitotenv. 2018.08.174

Foliar spraying of melatonin confers cadmium tolerance in Nicotiana tabacum L, Ecotoxicology and Environmental Safety, 2019, DOI: 10.1016/j.ecoenv.2018.11.127

Iron fractions responsible for the variation of Cd bioavailability in paddy soil under variable pe+pH conditions, Chemosphere. 2020, DOI: 10.1016/j.chemosphere.2020.126355

Microalgal cell disruption in a high-power ultrasonic flow system, Bioresource Technology, 2015, DOI: 10.1016/j.biortech.2015.06.040

Modeling bubble dynamics and radical kinetics in ultrasound induced microalgal cell disruption, Ultrasonics Sonochemistry, 2016, DOI: 10.1016/j.ultsonch.2015.06.025

Agronomic management for cadmium stress mitigation // In: Cadmium Tolerance in Plants: Agronomic, Molecular, Signaling, and Omic approaches, Academic Press/Elsevier, USA. 2019, ISBN: 978-0-12-815794-7

Concept and types of bioremediation // In: HANDBOOK OF BIOREMEDIATION: Physiological, Molecular and Biotechnological Interventions, Academic Press/Elsevier, USA. 2020, ISBN: 978-0-12- 819382-2