



## **Development and Application of X-rays in Metal Analysis of Soil and Plants**

Guest Editors:

**Prof. Roberto Terzano**

**Dr. Ignazio Allegretta**

**Dr. Fabjola Bilo**

**Dr. Eva Marguí**

**Dr. Galina V. Pashkova**

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### **Message from the Guest Editors**

Modern agriculture needs careful and fast determination of metal micro and macronutrients as well as trace and potentially toxic elements in soil and plants to define correct soil management strategies or to assess the quality and safety of productions. In recent years, X-ray-based techniques have evolved in a plethora of instrumentations, allowing different types of metal determinations within soils and plants. Such instrumentations span from simple portable devices that can be used in the field to high-performance dedicated synchrotron beamlines only accessible through high-level international projects. Today, available X-ray methods allow metal analysis from percent concentrations down to sub-ppb levels and from the bulk sample to the micro and nano scale.

In this Special Issue, developments of new instrumentation or analytical methodologies for the analysis of metals in soil and plants will be considered, as well as well applications in agronomy and agroecology, including (but not limited to) soil heath and plant nutrition, metal pollution and remediation concerning the soil-plant system, and quality and safety of food crops.





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## Editor-in-Chief

### Prof. Dr. Leslie A. Weston

Gulbali Centre for Agriculture,  
Water and Environment  
Research, Charles Sturt  
University, Wagga Wagga, NSW  
2678, Australia

## Message from the Editor-in-Chief

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*Agronomy* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
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