# Preface

It's well-know natural mineral elements could show both toxicity and nutrient benefits, depending on their doses. In the past decades, phytoremediation was introduced to remove excessive mineral pollutants from soil with green plants and biofortification was another innovative biotechnology raising the mineral level in human foods. Because of different aims, the researchers get used to separately develop and utilize these two bio-technologies in their fields. Actually, they are two sides of one coin and could be closely integrated, especially for essential mineral trace elements, such as Fe, I, Cu, Zn, and Se. In this book, authors reviewed two pathways to connect phytoremediation and biofortification, as previously proposed by several international groups. First, the plant materials from phytoremediation can be further used as supplementary sources of mineral nutrients. Second, the micronutrient-laden plant materials can be made as green fertilizers to increase concentrations of micronutrient in agricultural soils. In 2009, I led a Chinese research group to make the roadmap of agricultural technology to 2050 in China, which raise a new conception on functional agriculture to produce nutraceutical foods. This trend has encouraged more studies to focus on integrating advanced biofortification and phytoremediation technologies in the practice. I believe this novel insight would determinately benefit the works in environmental remediation and micronutrient fields.

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