Phosphorus
An Element that could have been called Lucifer

This book starts with depiction of the phosphorus role in life creation and evolution. Then it outlines in which vital processes different phosphates participate in life of all flora and fauna, from DNA molecules till body tissues. Crucial function of phosphates was noticed long ago, but only in XIX century discovery of mineral fertilizers made it possible to sustain the needs of growing global population, thus initiating a “green revolution”. Though, for many decades after it, the complexity of interactions “fertilizer-soil-plant roots” was underrated, causing massive damages, such as soil destruction and eutrophication of waters. Still, mining of exhausting natural phosphate reserves continued worldwide.

Features
- Examines the role of phosphorous in the evolution of life
- The authors touch upon recycling technologies for phosphorous

Contents
Introduction.- The Role of Phosphorus in the Origin of Life and in Evolution.- Phosphorus in the Organic Life.- Cells, Tissues, Organisms.- Phosphorous in Social Life.- Silent Underground Life.- Fertilizers - 100 Years of Supremacy.- Non-Fertilizer Uses of Phosphorous.- Eutrophication.- The Politics of P.- Peak Phosphorous.- Phosphate Recycling or Welcome from Lucifer?

Fields of interest
Sustainable Development; Agriculture; Chemistry/ Food Science, general

Target groups
Research

Product category
Brief

Due March 2013

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Climate Change, Agriculture and Rural Livelihoods in Developing Countries

This book is about climate change and its relation to agriculture and rural livelihoods. It starts by providing a basic understanding of climate change science followed by the relation of climate change to agriculture, the impact of which is discussed based on the particular impact of climate change on plant and animal physiology.

Contents


Fields of interest

Climate Change; Landscape/Regional and Urban Planning; Agriculture

Target groups

Research

Product category

Monograph

Agricultural Implications of the Fukushima Nuclear Accident

T. M. Nakanishi, K. Tanoi, The University of Tokyo, Japan (Eds)
Environmental Security
Assessment and Management of Obsolete Pesticides in Southeast Europe

Contents
Preface.- Acknowledgements.- List of Contributors.- Obsolete Pesticides – A Threat to Environment, Biodiversity and Human Health.- Designing Good Sampling Plans for Characterizing Pesticide Pollution.- Analytical Approaches for Sampling and Sample Preparation for Pesticide Analysis in Environmental, Food and Biological Samples.- The Problem of Seeking Environmentally Sound Development: The Case of Obsolete Pesticides Assessment Models.- Exposure Assessment to Hazardous Pesticides – Strategies to Reduce Human and Environmental Risks. [...]