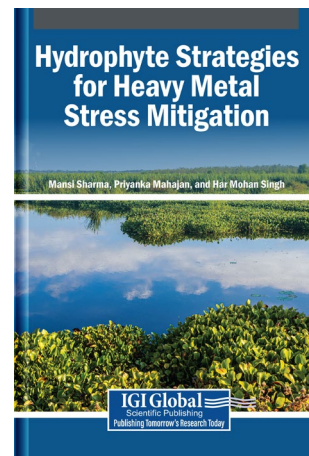


# Hydrophyte Strategies for Heavy Metal Stress Mitigation

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## Description:

Hydrophytes, plants adapted to thrive in aquatic environments, mitigate heavy metal stress in contaminated water bodies. With industrialization and urban runoff contributing to elevated levels of toxic metals in aquatic ecosystems, the need for sustainable remediation strategies increases. Hydrophytes have a range of physiological, biochemical, and morphological adaptations that enable them to tolerate, accumulate, and detoxify harmful substances. By harnessing mechanisms such as metal sequestration, antioxidant defense systems, and metal-binding protein synthesis, these plants offer an eco-friendly and cost-effective solution for phytoremediation. Further exploration of the diverse strategies employed by hydrophytes to cope with heavy metal stress may help highlight their potential in environmental clean-up and sustainable water management practices.

**Hydrophyte Strategies for Heavy Metal Stress Mitigation** explores the potential of hydrophytes to mitigate heavy metal stress in plants. It delves into the advantages of hydrophytes in heavy metal bioremediation, focusing on their unique morphological and physiological adaptations that facilitate their ability to accumulate heavy metals, rapid growth rates, and potential for large-scale cultivation. This book covers topics such as heavy metals, phytochemistry, and pollution mitigation, and is a useful resource for engineers, biologists, academicians, researchers, and environmental scientists.

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## Topics Covered:

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Bioremediation	Plant Biology and Botany
Detoxification	Pollution Mitigation
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