食用菌生物修复重金属污染研究进展

刘剑飞1;胡留杰1;廖敦秀1**;苏世鸣2;周正科1;张生1

1重庆市农业科学院, 重庆 401329|2中国农业科学院农业环境与可持续发展研究所, 北京 100081

Bioremediation of heavy metal pollution by edible fungi: A review.

LIU Jian-fei1, HU Liu-jie1, LIAO Dun-xiu1, SU Shi-ming2, ZHOU Zheng-ke1, ZHANG Sheng1

1Chongging Agricultural Academy 401329, China|2Institute of Environment and Sustainable Development in Agriculture, Chinese Academy of Agricultural Sciences, Beijing 100081, China

- 摘要
- 参考文献
- 相关文章

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摘要

生物修复是利用生物体及其衍生物对重金属进行吸收/吸附来处理环境中重金属污染的方法,具有成本低、来源广、无二次污染等特 点.食用菌富集重金属是生物修复的一个重要研究方向,食用菌修复作用主要通过对重金属的吸收来降低其生态毒性,从而对重金属污 染起到一定的修复作用.本文论述了食用菌对重金属Cu、Cd、Pb、Zn、As、Cr的富集作用, 揭示了食用菌富集重金属的可能机理, 并对采用食用菌富集重金属以治理环境污染的前景进行了展望.

关键词: 食用菌 重金属 富集

Abstract:

Bioremediation is the method of using organisms and their derivatives to absorb heavy metals from polluted environment, with the characteristics of low cost, broad sources, and no secondary pollution. Heavy metals enrichment by edible fungi is an important research focus of bioremediation, because it can decrease the ecotoxicity of heavy metals via the uptake by edible funqi, and thereby, take a definite role in heavy metal remediation. This paper reviewed the research progress on the enrichment of heavy metal copper, cadmium, lead, zinc, arsenic, and chromium by edible fungi and the possible enrichment mechanisms, and prospected the development and applications of heavy metal enrichment by edible fungi in the management of polluted environment.

Key words: edible fungi heavy metal enrichment

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