

# Prospective of Microbial Exopolysaccharide for Heavy Metal Exclusion

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**Abstract** Metals as a resource are depleting, and on another side, it fetches serious environmental pollution causing a threat to human health and ecosystem. The heavy metal accumulation due to anthropogenic activities results in toxicological manifestation. The traditional methods of remediation are not cost effective, efficient, and ecofriendly which necessitate and motivate towards the safe, effective, and ecofriendly biological methods. The increasing presence of heavy metals in the microbial habitat compels the microbes to develop the ability to tolerate or resist the presence of heavy metals. Exopolysaccharide (EPS) production is one of the strategies of microbes to fight against metal stress. EPS is a microbial biopolymer which is generally produced under stress from harsh environment and nutrition conditions. EPSs are cell-associated or secreted outside the cell and comprised organic macromolecules such as polysaccharides, proteins, and phospholipids in addition to some non-polymeric molecules.

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