Phenol removal via cellular immobilization: a mini review

ABSTRACT

Phenolic compounds or phenols are a group of aromatic compounds that comprises a hydroxyl group (OH) that is directly bonded to an aromatic ring. Phenols are injurious to organisms even at even low concentrations with many of them are categorized as dangerous pollutants because of their likely harm to human well-being. This review attempts to discuss the various merits and demerits of immobilization matrices employed for phenol-degrading microorganismsô immobilization. One of several key points of cellular immobilization is the capacity to protect bioremediation agents towards toxic levels of specific toxicants and safeguarding from predatory microorganisms. However, this shielding course of action should never impede the diffusion of substrates into the pores of the immobilization structure. In the end the choice of a particular immobilization method will strongly hinge on aspects of economy, safety and efficacy.

Keyword: Phenol; Biodegradation; Immobilisation; Removal