

RESEARCH PAPERS

固定化金属离子亲和分配用的亚胺二乙酸-聚乙二醇偶联物的制备

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摘要 The synthesis route was investigated and optimized for the preparation of iminodiacetic

acid polyethylene glycol (IDA-PEG) for immobilized metal ion affinity partitioning in aqueous two-phase systems. IDA PEG was synthesized from PEG in two steps by the reaction of iminodiacetic acid with a monosubstituted derivative of epichlorohydrin-activated PEG. The Cu²⁺ content combined with IDA-PEG was determined by atomic absorption spectrometry as 0.5 mol.mol⁻¹ (PEG). Furthermore, the affinity partitioning behavior of lactate dehydrogenase in polyethylene glycol/hydroxypropyl starch aqueous two-phase systems was studied to clarify the affinity effect of the Cu(II)-IDA-PEG.

关键词 [immobilized metal ion affinity partitioning](#) [iminodiacetic acid-polyethylene glycol aqueous two-phase system](#)

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Preparation of Iminodiacetic Acid-Polyethylene Glycol for Immobilized Metal Ion Affinity Partitioning

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Abstract The synthesis route was investigated and optimized for the preparation of iminodiacetic acid polyethylene glycol (IDA-PEG) for immobilized metal ion affinity partitioning in aqueous two-phase systems. IDA PEG was synthesized from PEG in two steps by the reaction of iminodiacetic acid with a monosubstituted derivative of epichlorohydrin-activated PEG. The Cu²⁺ content combined with IDA-PEG was determined by atomic absorption spectrometry as 0.5 mol.mol⁻¹ (PEG). Furthermore, the affinity partitioning behavior of lactate dehydrogenase in polyethylene glycol/hydroxypropyl starch aqueous two-phase systems was studied to clarify the affinity effect of the Cu(II)-IDA-PEG.

Key words [immobilized metal ion affinity partitioning](#); [iminodiacetic acid-polyethylene glycol](#); [aqueous two-phase system](#)

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