

## Preparation of phenylalanine imprinted polymeric microbeads by the modified suspension polymerization

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Molecular imprinting is a technology to create recognition sites in the polymer matrices using template molecules. Molecularly imprinted polymers (MIPs) are easy to prepare, stable, inexpensive and capable of molecular recognition and have an affinity even in the racemate solution. Therefore, MIPs can be considered as artificial affinity media.

In continuation to our previous works for the development of new MIPs and their applications, the aim of the present work was to develop phenylalanine (Phe) imprinted polymeric microbeads using a modified suspension polymerization in order to overcome the problems associated with the conventional bulk polymerization method, i.e., crushing, grinding and sieving of the bulk polymer.

In the current study, we have prepared D-Phe imprinted polymeric microbeads by the modified suspension polymerization using functional monomer (methacrylic acid), cross-linker (ethylene glycol dimethacrylate) and stabilizer (polyvinyl alcohol). Phe selective recognitions will be presented in terms of Phe uptake capacity and adsorption selectivity.