

A descriptive model and methods for up-scaled process routes for interfacial partition of bioparticles in aqueous two-phase systems

ABSTRACT

In this paper, we have developed a descriptive model and methods for the up-scaled interfacial partition of bioparticles in polymer–salt aqueous two-phase systems (ATPS). The model is only valid for ideal spherical particles. The model might shed some light on the mechanism of interfacial partition, which allows one to draft some process routes for its potential operation on a larger scale.

Keyword: Bioseparations, Aqueous two-phase system, Integrated processing, Protein recovery, Purification, Downstream processing