

Review of affinity precipitation methods

ABSTRACT

In recent decades, considerable attention has been focused on Affinity precipitation methods because it is an easy and scalable one to develop affinity ligands. There are a lot of methods and models have been implying for different reasons in different field. Here, some of these methods have been reviewed regarding to their importance in different aspects. 1) Conjugation of PABA-poly (NIPAM). This mathematical model can be useful to analyzing kinetic enzyme in experimental system. 2) Affinity Precipitation using the dimer of nicotinamide-adenine dinucleotide which is proposed by Mosbach and Larsson (1979). 3) Metal Affinity Precipitation of Proteins that bischelates of Cu (II) as macroligands used to precipitate of proteins. 4) Metal Affinity Aggregation of Proteins for aggregating of proteins which obtained via applying classical gelation theory and ion binding equilibrium. 5) Purification of Lectin by Affinity Precipitation is done by mixing extracted lectins from wheat germ, potato and tomato and 2 ml of chitosan solution. 6) Lectins from wheat germ, potato and tomato extracts (1.0 ml clarified extracts containing 21 722, 54 650 and 19 280 units) were added to 2 ml of chitosan solution (0.4% wv21 in 50 mM acetate buffer, pH 5.5). Other methods which are explained 6) Affinity Chromatography for Purification of Enzymes, and 7) Affinity precipitation method using k-carrageenan. In conclusion, Affinity Precipitation, as one of the most suitable research tools for molecular recognition, must be considered gratefully in future.

Keyword: Affinity; Chromatography; Mathematical model; Precipitation; Protein purification