Development of separation and purification process for 1,3-propanediol

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A novel isolation and purification method was developed for producing 1,3-propanediol, to guarantee high purity and yield from mixtures containing 1,3-propanediol, 1,2-propanediol, glycerol, and glucose. This method was a simple and efficient procedures, for the isolation and purification of 1,3-propanediol from four mixtures, consisting of phase separation and chromatography. The use of a phase separation process allows rapid separation of 1,3-propanediol from interfering compounds and dramatically reduces solvent usage compared to alternative methodologies. The overall purity and yield of 1,3-propanediol were 98% and 82% in the purification process, respectively.