

SMB Simulation by Aspen Chromatography for Mandelic Acid Separation

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Simulated moving bed (SMB) chromatography is a suitable process for continuous separation of chiral compounds. We have designed our own lab-scale SMB chromatography using 5 HPLC pumps as well as 4 stainless steel columns to separate a racemic mixture of mandelic acid. Operating parameters (flow rates of four zones, switching time and feed concentration and so on) for SMB chromatography have been calculated from batch chromatography experiments and the triangle theory. we performed simulations with Aspen Chromatography which is a powerful tool of chromatographic simulation.

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