

## Economic evaluation of D-,L-mandelic acid separation in SMB(Simulated Moving Bed) chromatography

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SMB(simulated moving bed) is a chromatographic process that, unlike traditional HPLC system, operates continuously without losing the enantiomeric purity of the outlet streams. We performed separation experiments for separating D- and L-form from racemate mandelic acid mixture by using lab-scale SMB unit with 9 operation conditions. The operating conditions were chosen from results simulated by Aspen chromatography as well as batch chromatographic HPLC experiments. The objective of this study is to minimize manufacturing cost. We compared operating costs at 9 operating conditions.

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