

Applications of Partial-Discard Strategy for Simulated Moving Bed Chromatography

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Simulated moving bed (SMB) chromatography is an advanced technology for separation of various valuable substances. It has received great attentions due to the effective separation performance.

In the recent study, we suggested “Partial-Discard” strategy to improve the SMB performances, especially purity. The “Partial-Discard” strategy significantly enhanced the purity by controlling discard length, but deteriorated the other performance parameters, especially recovery.

In this study, as the application of “Partial-Discard” strategy, “Improved Partial-Discard” strategy and “Partial-Discard with recycle” can suggested to minimize the recovery loss of conventional “Partial-Discard” operation. These investigations will provide a valuable engineering database for “Partial-Discard” operation to various SMB processes.