

Experimental Study of FeedCol Strategy in Simulated Moving Bed Chromatography

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Simulated Moving Bed (SMB) Chromatography is a continuous and effective separation process that allows high purity of product from a mixture. It has been widely used in several industries including petrochemicals, fine chemicals, pharmaceuticals and biotechnology etc. In the previous study, the FeedCol (Lee, 2011) strategy was introduced for enhancing performance parameters by applying one short chromatographic column to the SMB process.

The experimental study of the FeedCol strategy was performed in this study. To investigate experimentally the effect of the FeedCol strategy on SMB performance, a set of operating conditions were designed for pure extract product and impure raffinate product, and compared with the results of conventional SMB. Several experiments were performed with various injection times at the fixed injection length of 50%. The results of this study can provide the guideline for applying a new strategy for the real operation.