

A study on the simulation of 1,3-butadiene recovery process

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Computer simulation was performed to obtain nearly pure 1,3-butadiene product from mixed C4 using NMP as a solvent through an extractive distillation process. Especially, this simulation was performed both extractive distillation section and ordinary distillation section. NRTL-RK model and Peng-Robinson model were used to simulate the each other process section. A result of this study, final 1,3-butadiene product with a purity of 99.7 percent by weight and a recovery of 99.75 percent was obtained through an extractive distillation process which is sufficient for plant demand. It is shown that the simulation results can be achieved for revamping with extractive distillation process.