Abstract

Conventionally, steady state design for distillation column is often completed before dynamics and control issues are considered. The aim of this paper is to use the design issues as a tool to improve dynamic behavior of binary distillation column. The idea is augmenting the liquid holdup in the feed plate through a middle vessel. The degree of interactions between the loops are examined for five well known control schemes by considering different quantities of liquid holdup in the feed plate. Simulation results show that augmenting the hold-up in the feed plate will lead to minimize the interactions between the loops in all cases particularly for DV control scheme where a total decoupling is achieved.