

Abstract :

the purpose of this paper is to investigate the effect of design modification on the dynamic behavior of a binary distillation column (2x2 MIMO system). The aim is the use of design modification as a tool to minimize the interactions between the loops. Two different cases are studied; the first is the location of feed plate, whereas the second is the quantity of liquid in the feed plate for DV control scheme. The dynamic magnitude array criterion is used to evaluate the degree of interaction between the loops. The results show that design has a very important effect on the degree of interactions the fact that can be used to improve the control aspects for the column.