



## BAB V KESIMPULAN DAN SARAN

### 5.1 Kesimpulan

Setelah dilakukan percobaan serta analisis data studi dinamika pemisahan IPA-air menggunakan metode distilasi ekstraktif dengan bantuan Aspen Plus Dynamics® maka dapat disimpulkan beberapa hal sebagai berikut :

1. Fungsi Alih yang memiliki *poles* 3 dan *zeros* 0 cocok untuk memodelkan sistem dengan perubahan *input* nilai rasio refluks dan *output* kemurnian IPA distilat dan bottom
2. Fungsi alih yang memiliki *poles* 3 dan *zeros* 0 dengan *time delay* cocok untuk memodelkan sistem dengan perubahan *input* nilai beban reboiler dan *output* kemurnian IPA distilat
3. Fungsi alih yang memiliki *poles* 3 dan *zeros* 0 cocok untuk memodelkan sistem dengan perubahan *input* nilai beban reboiler dan *output* kemurnian IPA bottom
4. Sistem yang menghubungkan *input* nilai rasio refluks dan *output* beban reboiler memiliki kelakuan seperti sistem orde 1.
5. Tidak terdapat fenomena *output multiplicity* pada sistem yang ditinjau dalam penelitian ini

### 5.2 Saran

Berdasarkan hasil penelitian ini, didapatkan beberapa saran sebagai berikut:

1. Melakukan studi lanjut untuk menentukan sistem pengendali yang tepat untuk sistem pemisahan IPA-air
2. Melakukan studi dinamika distilasi ekstraktif dengan integrasi panas



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