



BAB V

KESIMPULAN DAN SARAN

5.1 Kesimpulan

Berdasarkan hasil-hasil penelitian yang disajikan dalam BAB IV, dapat ditarik beberapa kesimpulan berikut ini.

1. Rasio *promotor* K_2CO_3 dan H_3PO_4 sebesar 0,5 dan 0,4 terhadap massa prekursor pada rasio mol Ni:Mo 0,35 memberikan hasil yang memuaskan dengan konversi sebesar 96,59% dan 95,23% dalam reaksi *hydrotreating* minyak biji kapok.
2. Perbandingan angka penyabunan produk-produk *hydrotreating* yang menggunakan variasi nisbah Ni:Mo menunjukkan bahwa semakin besar rasio pusat aktif Ni : Mo, maka konversi yang didapatkan semakin besar pula
3. Kinerja katalis yang memiliki rasio *promotor* K : P sebesar 0,4 cenderung lebih buruk dibanding katalis yang memiliki rasio *promotor* K : P sebesar 0,5. Secara kuantitatif melalui prosedur GCMS, katalis tersebut juga memberikan selektivitas produk HDO lebih rendah.
4. Terdapat korelasi antara polimerisasi yang terjadi pada produk hidrodeoksigenasi dengan terbentuknya gugus *terminal alkene* pada rantai hidrokarbon penyusunnya.

5.2 Saran

Berdasarkan proses penelitian yang telah dilaksanakan, ada beberapa saran yang dapat diberikan untuk penelitian selanjutnya, yaitu sebagai berikut :

1. Perlu dilakukan penelitian lebih lanjut mengenai pengaruh formula katalis pada pembentukan gugus *terminal alkene*
2. Pembenahan *controller* suhu pada reaktor *hydrotreating* yang lebih baik untuk mencegah *offset* yang tinggi selama proses reaksi *hydrotreating*.



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