

## **BAB V**

### **KESIMPULAN DAN SARAN**

#### **V.1. Kesimpulan**

Berdasarkan dari penelitian yang telah dilakukan, katalis CaO-CuO memiliki aktivitas katalitik yang tinggi pada transesterifikasi minyak goreng dan CPO. Hasil penelitian ini menunjukkan titik optimum dari katalis CaO-CuO untuk transesterifikasi adalah pada 3% Cu dalam CaO-CuO yang dikalsinasi pada suhu 550°C selama 12 jam. Pada titik optimum ini, katalis CaO-CuO dapat menghasilkan *yield* sebesar 94,43% dengan kemurnian 62,92% pada bahan baku minyak goreng dan 85,90% dengan kemurnian 68,22% pada bahan baku CPO. Selain itu, katalis CaO-CuO juga digunakan untuk regenerasi sebanyak 5 kali pada minyak goreng dan CPO. Hasil *yield* yang didapatkan pada regenerasi kelima pada minyak goreng dan CPO sebesar 78,03% dan 67,24%.

#### **V.2. Saran**

Kedepannya penelitian dapat dilakukan studi lebih lanjut untuk sintesis katalis CaO-CuO agar dapat membentuk partikel yang lebih seragam, sehingga agregasi pada partikel dapat diminimalkan. Selain itu, penelitian selanjutnya dapat berfokus dalam mempelajari dan mendalami kondisi optimum pada rasio mol minyak:metanol dalam proses transesterifikasi dengan menggunakan CPO.

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