

## BAB 5

### KESIMPULAN DAN SARAN

#### 5.1 Kesimpulan

Berdasarkan seluruh hasil penelitian yang telah dilakukan dan dibahas, maka dapat ditarik kesimpulan bahwa:

1. Kenaikan massa aktivator  $K_2CO_3$  menyebabkan penurunan *yield porous carbon* dengan *yield* terbesar dihasilkan pada sampel KA-600-1 sebesar 20,82%.
2. Kenaikan rasio massa aktivator  $K_2CO_3$  menyebabkan kenaikan daya adsorpsi *porous carbon* dengan daya adsorpsi terbesar pada sampel KA-600-3 sebesar 69,36 mg/g.
3. Melalui analisis SEM, *porous carbon* yang dihasilkan memiliki bentuk *microsphere* dengan diameter sebesar 1,05  $\mu m$ .
4. Melalui analisis XRD, ketiga sampel memiliki struktur amorf yang dominan dibandingkan *crystalline* dengan persentase struktur amorf terbesar sampel KA-600-1 sebesar 72,35%.
5. Melalui analisis EDS, *porous carbon* pada setiap sampel memiliki kadar karbon yang tinggi dengan kadar karbon terbesar pada sampel KA-600-3 sebesar 92,41%-wt.

#### 5.2 Saran

Dari hasil penelitian yang sudah dilakukan, terdapat beberapa saran yang dapat menjadi pertimbangan untuk penelitian selanjutnya, diantaranya adalah:

1. Penambahan analisis untuk sampel *porous carbon* berupa analisis Brunauer-Emmett-Teller / BET untuk dapat mengetahui secara pasti luas permukaan spesifik, volume pori, dan ukuran diameter pori setelah proses aktivasi kimia.

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