

BAB V

KESIMPULAN DAN SARAN

5.1 Kesimpulan

Pada hasil penelitian kajian penurunan kandungan minyak pada limbah cair *palm oil mill effluent (POME)* dengan menggunakan cangkang kelapa sawit pada berbagai kondisi operasi, dapat ditarik kesimpulan sebagai berikut:

1. Semakin besar konsentrasi larutan *pretreatment*, Semakin besar persentase *yield* yang diperoleh.
2. Semakin besar konsentrasi minyak, semakin besar persentase *yield* yang diperoleh.
3. Semakin besar dosis adsorben, Semakin kecil persentase *yield* yang diperoleh.
4. Larutan *pretreatment* NaOH dapat menurunkan kandungan minyak dalam *POME* dari 6000 ppm hingga 1600 ppm sedangkan larutan *pretreatment* NH₄OH dapat menurunkan kandungan minyak dalam *POME* dari 6000 ppm hingga 2000 ppm.

5.2 Saran

Berdasarkan penelitian yang telah dilakukan, berikut saran yang dapat dilakukan untuk penelitian selanjutnya:

1. Variasi konsentrasi larutan *pretreatment* dan dosis adsorben masih dapat dilakukan dengan rentang yang lebih kecil agar dapat mengetahui kondisi optimum dari konsentrasi larutan *pretreatment* dan dosis adsorben dalam proses adsorpsi.
2. Variasi waktu kontak dapat dilakukan untuk mengetahui kemampuan adsorpsi hingga adsorben mencapai titik jenuh dan tidak dapat mengadsorp lagi.
3. Luas permukaan adsorben masih dapat diperbesar dengan memperkecil ukuran partikel adsorben sehingga dapat meningkatkan kapasitas adsorpsi.

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