BAB 5
KESIMPULAN & SARAN

5.1 Kesimpulan

Berdasarkan hasil pembahasan penelitian yang telah dilakukan dapat disimpulkan :

a. Penurunan konsentrasi NaOH dan peningkatan suhu pemanasan dapat meningkatkan produksi selulosa mikrokristalin dari eceng gondok.
b. Konsentrasi NaOH dan suhu pemanasan yang optimum yaitu 15,06% dan 81,21 ℃. Dapat ditinjau bahwa hasil prediksi yang dihasilkan untuk indeks kristalin 55,45% dan rendemen sebesar 9,20%.

5.2 Saran

Berdasarkan hasil pembahasan penelitian yang dilakukan dapat disarankan :

a. Dilakukan verifikasi pada kondisi optimum yang dihasilkan dari *Design Expert*.
b. Dilakukan karakterisasi lebih lanjut secara fisikokimiawi meliputi kompaktibilitas, kompresibilitas, dan derajat polimerisasi dari serbuk selulosa eceng gondok.
c. Dilakukan ekstraksi α-selulosa menggunakan enzim *Lignin - modifying enzymes* (LMEs) untuk mengkatalisasi pemecahan lignin.

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