BAB V

KESIMPULAN DAN SARAN

5.1 Kesimpulan

1. Semakin tinggi temperatur reaksi dan rasio reagen STPP/pati (berat/berat) yang digunakan maka semakin tinggi nilai Derajat Substitusi (DS) pati fosfat yang dihasilkan.
2. Pembuatan pati gandum fosfat pada rentang temperatur 110°C – 130°C dan rasio reagen STPP/pati (berat/berat) antara 0,5 – 1 menghasilkan pati fosfat dengan rentang kandungan fosfor 0,05%-b – 0,29%-b serta nilai Derajat Substitusi (DS) antara 0,002 – 0,016.
3. Seluruh variasi dalam percobaan ini menghasilkan pati fosfat yang telah memenuhi persyaratan keamanan bahan pangan yang ditetapkan oleh *Food Chemical Codex* (FCC), yaitu kandungan gugus fosfat tidak melebihi 0,4%.
4. Fosforilasi pati gandum dapat meningkatkan, kelarutan, kekuatan mengembang, viskositas, daya serap air dan minyak, serta kejernihan dari pati gandum alami.

5.2 Saran

1. Untuk penelitian selanjutnya, sebaiknya modifikasi dilakukan pada variabel lain seperti pH reaksi, rasio reagen STPP dan/STMP untuk mengetahui pengaruh dari masing-masing variabel.
2. Penelitian selanjutnya sebaiknya dilakukan pada pH yang lebih tinggi/rendah untuk lebih mengetahui efek *crosslinking* pada karakteristik produk yang dihasilkan dan membandingkannya dengan hasil penelitian yang telah dilakukan.

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