

BAB V

KESIMPULAN DAN SARAN

5.1 Kesimpulan

Berdasarkan penelitian yang sudah dilakukan, dapat disimpulkan beberapa hal sebagai berikut:

1. Berdasarkan hasil analisis varian, Rasio reagen STPP/berat pati tidak mempengaruhi nilai derajat substitusi pati, dimana didapatkan rentang nilai derajat substitusi sebesar 0,00814-0,0125.
2. Peningkatan rasio reagen STPP/berat pati tidak mempengaruhi perubahan persen *solubility* produk pati, namun secara keseluruhan, reaksi fosforilasi dapat menyebabkan penurunan persen *solubility* produk pati fosfat yang dihasilkan
3. Peningkatan rasio reagen STPP/berat pati tidak mempengaruhi perubahan nilai *swelling power* produk pati, namun secara keseluruhan, reaksi fosforilasi dapat menyebabkan peningkatan nilai *swelling power* produk pati fosfat yang dihasilkan
4. Peningkatan rasio reagen STPP/berat pati tidak mempengaruhi perubahan persen kejernihan pasta produk pati, namun secara keseluruhan, reaksi fosforilasi dapat menyebabkan peningkatan persen kejernihan pasta produk pati fosfat yang dihasilkan
5. Kondisi reaksi terbaik pada sintesis pati tapioka fosfat diperoleh pada rasio reagen STPP/berat pati 7,5 %.

5.2 Saran

Berdasarkan penelitian yang sudah dilakukan, dapat diberikan beberapa saran untuk penelitian selanjutnya, yaitu:

1. Melakukan analisis proksimat dan kandungan fosfor terhadap bahan baku pati yang digunakan supaya data-data yang diperoleh lebih relevan.
2. Melakukan jenis variasi lain seperti pH dan waktu reaksi untuk mengetahui kondisi terbaik pada reaksi fosforilasi pati tapioka.
3. Melakukan variasi rasio reagen yang lebih beragam untuk mengetahui sifat kimia dan fungsional pati dengan lebih menyeluruh.

4. Melakukan analisis viskositas untuk mengetahui kurva *pasting* pada produk pati fosfat yang dapat digunakan untuk mengidentifikasi keberadaan *crosslinking* pada pati.
5. Melakukan uji organoleptik untuk mengetahui pengaruh fosforilasi terhadap rasa pati.

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