

## BAB V

### KESIMPULAN DAN SARAN

#### 5.1 Kesimpulan

1. Modifikasi secara asetilasi-fosforilasi merupakan modifikasi yang memberikan hasil DS dan sifat fungsional terbaik dibandingkan dengan modifikasi secara fosforilasi-asetilasi.
2. Semakin besar rasio reagen STMP/pati dan pH reaksi fosforilasi, maka kandungan fosfat dan nilai derajat substitusi juga semakin besar.
3. Nilai derajat substitusi yang dihasilkan untuk variasi rasio reagen STMP/pati 2%, 4%, dan 6% serta pH reaksi fosforilasi 8, 9, dan 10 berkisar antara 0,0348-0,0643.
4. Modifikasi pati secara asetilasi-fosforilasi dapat meningkatkan sifat fungsional pati diantaranya kelarutan, kemampuan mengembang, daya serap air, daya serap minyak, dan kejernihan pasta jika dibandingkan dengan pati alami.
5. Kondisi terbaik pada penelitian ini yaitu saat rasio reagen STMP/pati 6% dan pH reaksi fosforilasi 10.
6. Sifat kimia dan fungsional yang dihasilkan menunjukkan bahwa pati tapioka asetat fosfat dapat digunakan sebagai *food thickener*.

#### 5.2 Saran

1. Perlu dilakukan analisa lebih lanjut mengenai profil viskositas sebagai *food thickener* sebelum dan sesudah modifikasi ganda.
2. Perlu dilakukan variasi rasio reagen asetat anhidrida dan pH reaksi asetilasi untuk mengetahui pengaruh modifikasi secara asetilasi terhadap modifikasi ganda.
3. Perlu dilakukan pengamatan terhadap variabel yang lain seperti waktu reaksi dan temperatur pada modifikasi ganda.

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