

BAB V KESIMPULAN DAN SARAN

5.1 Kesimpulan

Berdasarkan penelitian yang telah dilakukan, maka kesimpulan yang dapat diambil yaitu :

1. Reaksi *cross-linking* dengan mekanisme *diels-alder* mampu menghasilkan pati yang bersifat *thermoreversible*, hal ini dibuktikan melalui terjadinya *retro diels-alder* pada temperatur 150°C.
2. Temperatur reaksi esterifikasi yang tinggi akan semakin meningkatkan nilai *degree of substitution*.
3. Semakin tinggi konsentrasi reagen *methyl 2-furoate* yang digunakan pada tahap reaksi transesterifikasi, maka akan menghasilkan pati ester dengan nilai *degree of substitution* yang semakin tinggi pula.

5.2 Saran

Berdasarkan poin-poin kesimpulan yang telah disebutkan, maka disarankan agar :

1. Perlu dilakukan variasi temperatur serta variasi konsentrasi *methyl 2-furoate* yang lebih tinggi agar dapat diketahui kondisi optimum untuk mendapatkan nilai DS yang paling besar.
2. Perlu dilakukan variasi konsentrasi *bismaleimide* serta variasi temperatur pada tahap reaksi *cross-linking* agar dapat diketahui kondisi optimum untuk mendapatkan produk pati dengan kekuatan silang yang kuat serta % *solubility* terendah.
3. Perlu dilakukan analisis sifat mekanik pada produk pati *cross-linking* sebelum digunakan sebagai plastik.

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