BAB V
KESIMPULAN DAN SARAN

5.1 Kesimpulan

1. Munculnya gugus C=O pada xanthan asetat dengan analisa FTIR membuktikan bahwa xanthan gum mengalami penambahan gugus asetat.
2. Derajat substitusi tertinggi yang diperoleh adalah 5,62 dari batas maksimal 13.
3. Reaksi asetilasi xanthan gum memiliki tekanan optimal pada 100 bar.
4. Jenis katalis yang menghasilkan DS tertinggi adalah K_2CO_3.
5. Derajat substitusi tertinggi yang diperoleh dari reaksi asetilasi xanthan gum dengan pelarut CO_2 bertekanan lebih rendah dari reaksi dalam *ionic liquid*.
6. Xanthan asetat dengan derajat substitusi yang semakin tinggi memiliki sifat yang semakin hidrofobik sesuai sifat plastik.

5.2 Saran

1. Produk xanthan asetat dengan bentuk visual yang berbeda sebaiknya dicuci dengan prosedur yang lain.
2. Penelitian mengenai pembuatan plastic dari xanthan asetat sebaiknya dilakukan pada tekanan 100 bar dan menggunakan katalis K_2CO_3.
3. Sampel xanthan gum dan xanthan asetat sebaiknya dikeringkan terlebih dahulu sebelum dianalisa menggunakan TGA dan DSC.
4. Kestabilan termal produk xanthan asetat sebaiknya dibandingkan dengan produk serupa dari reaksi dalam pelarut lain dengan nilai DS yang sama.

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