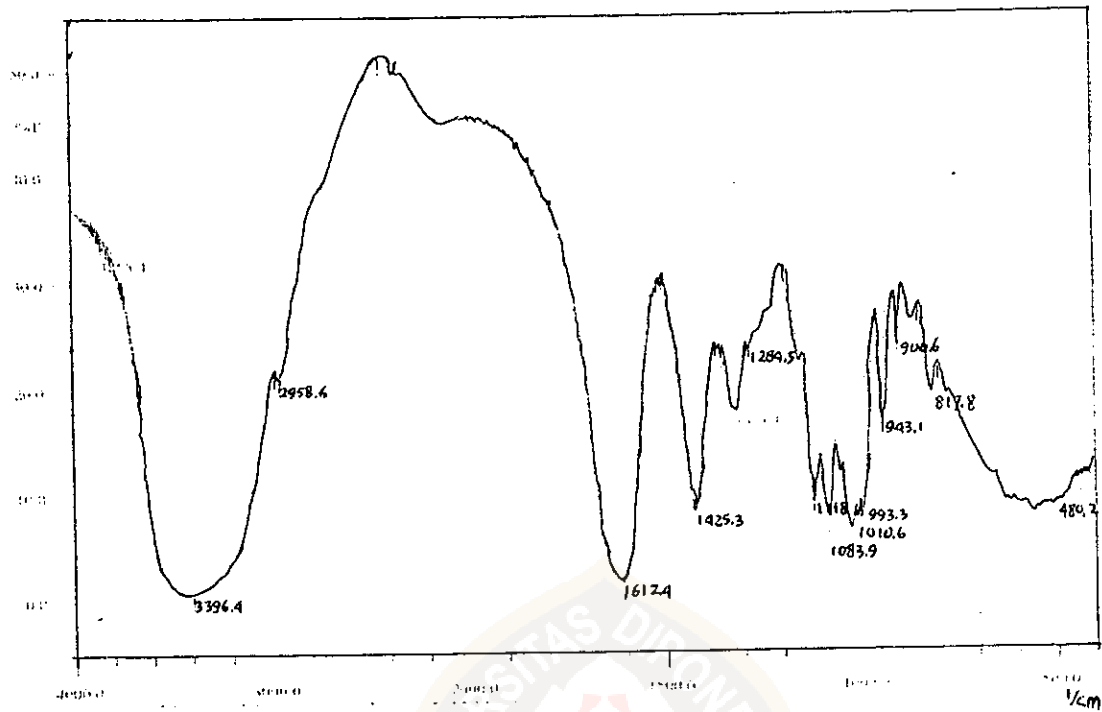
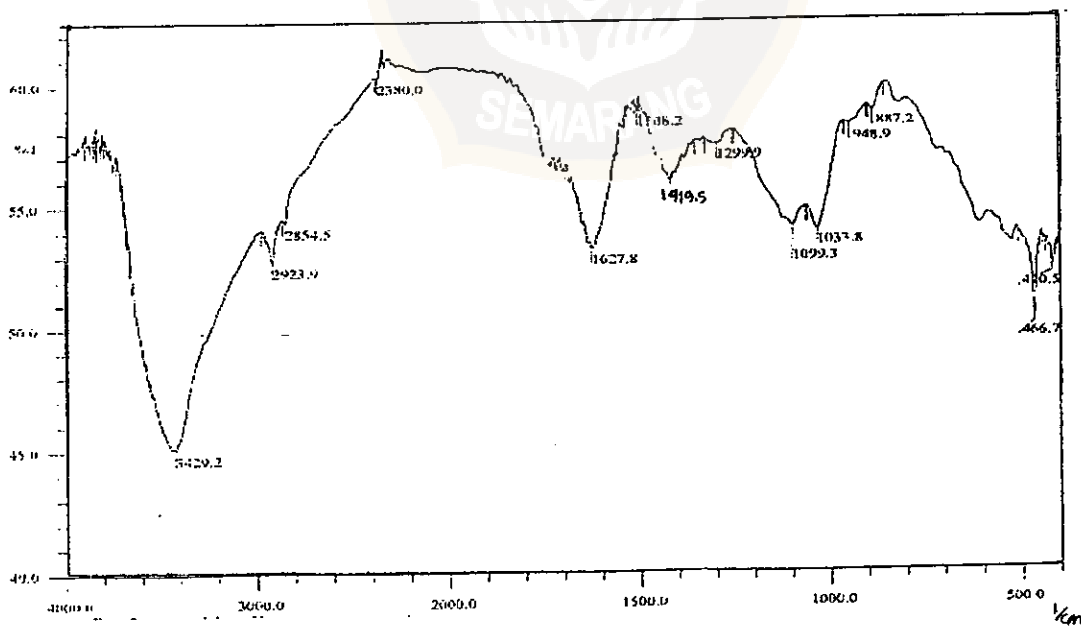


Lampiran A
Spektra IR Asam Alginat dan Alginat perdagangan

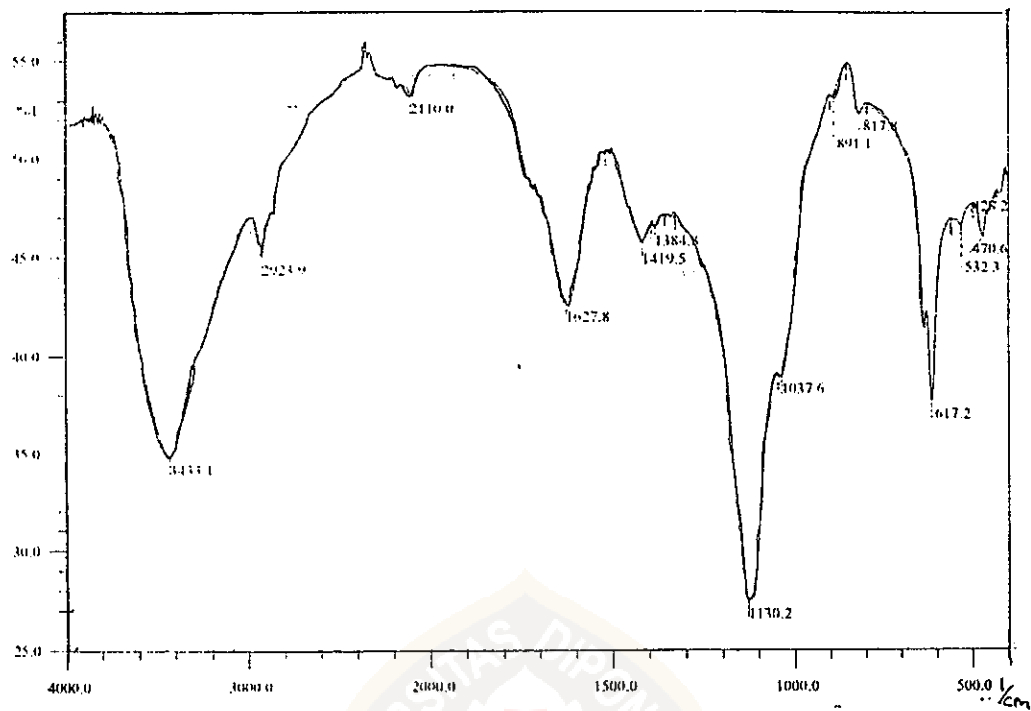


Gambar 4.6. Spektra IR Isolat Asam Alginat

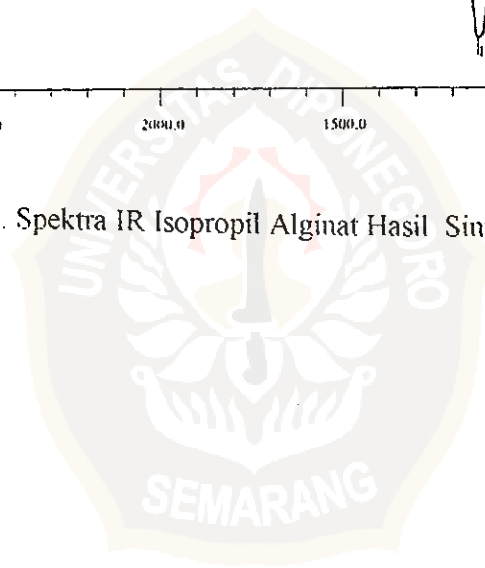


Gambar 4.7. Spektra IR Asam Alginat Perdagangan

Lampiran B
Spektra IR Isopropil Alginat

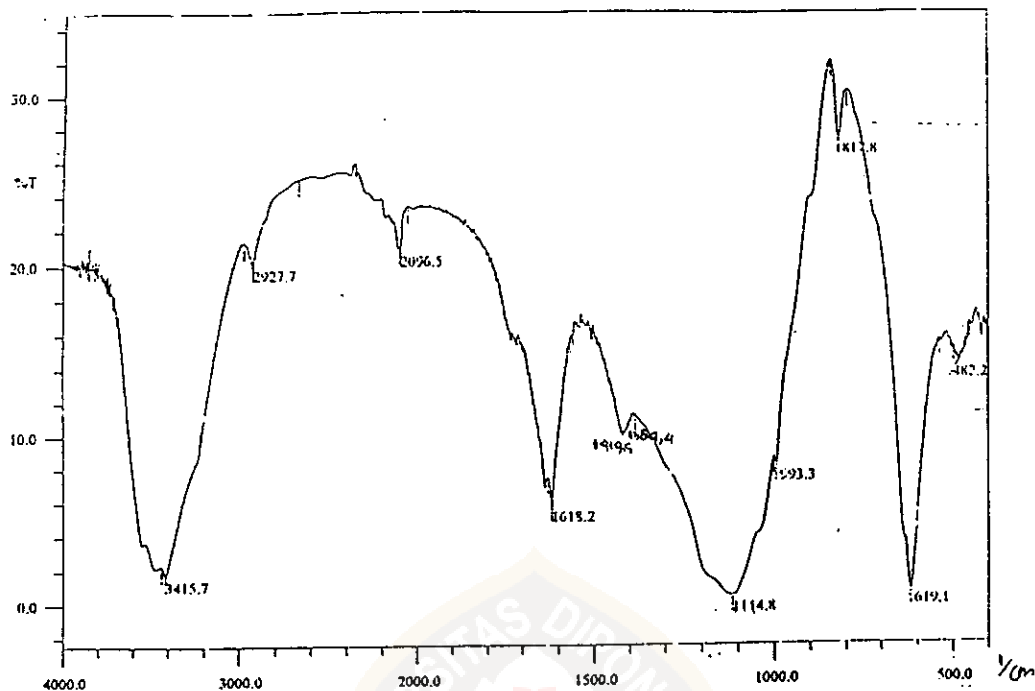


Gambar 4.8. Spektra IR Isopropil Alginat Hasil Sintesis

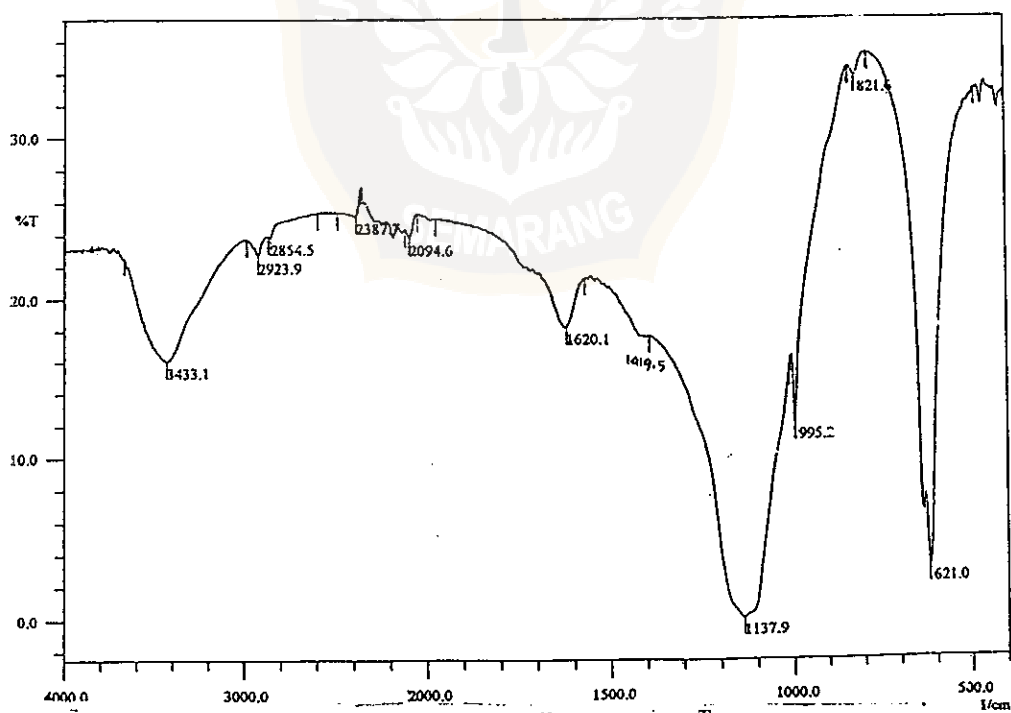


Lampiran C

Spektra IR Isopropil Alginat Hasil Sintesis dengan Variasi pH dan Suhu

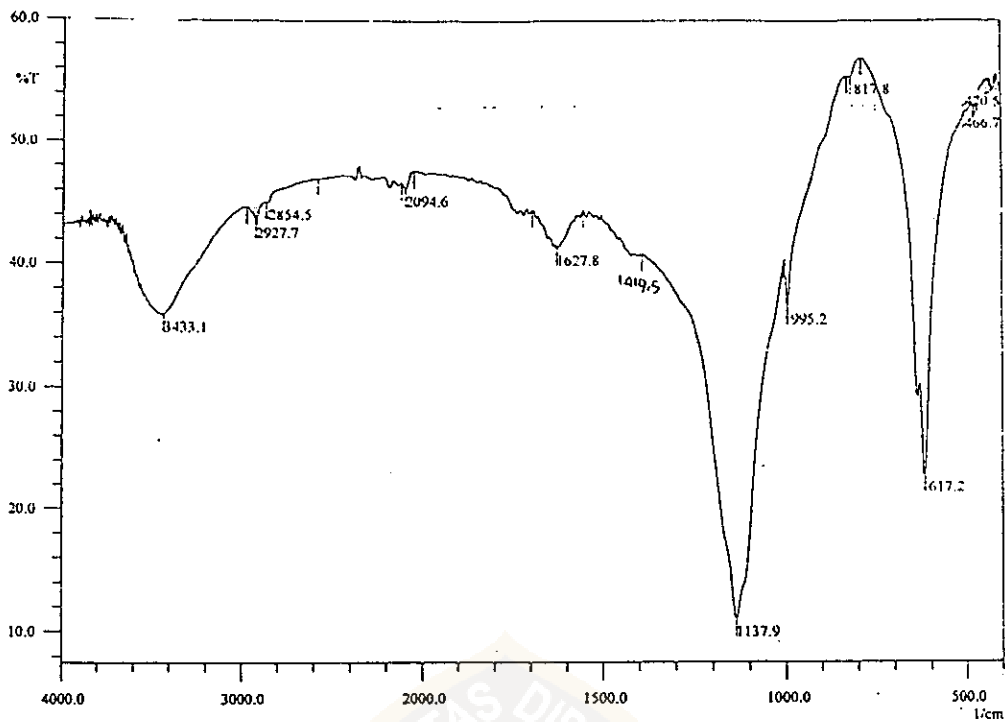


Gambar 4.9. Spektra IR Isopropil Alginat Hasil Sintesis pH 2 T 40 °C

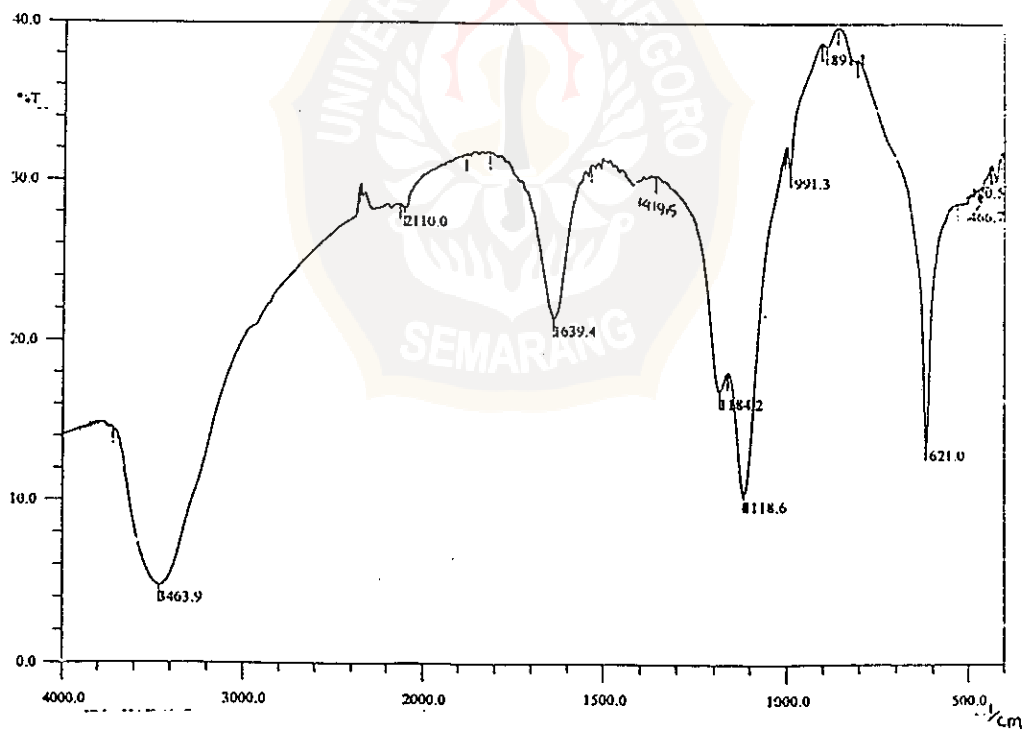


Gambar 4.10. Spektra IR Isopropil Alginat Hasil Sintesis pH 3 T 40 °C

Lampiran C (lanjutan)

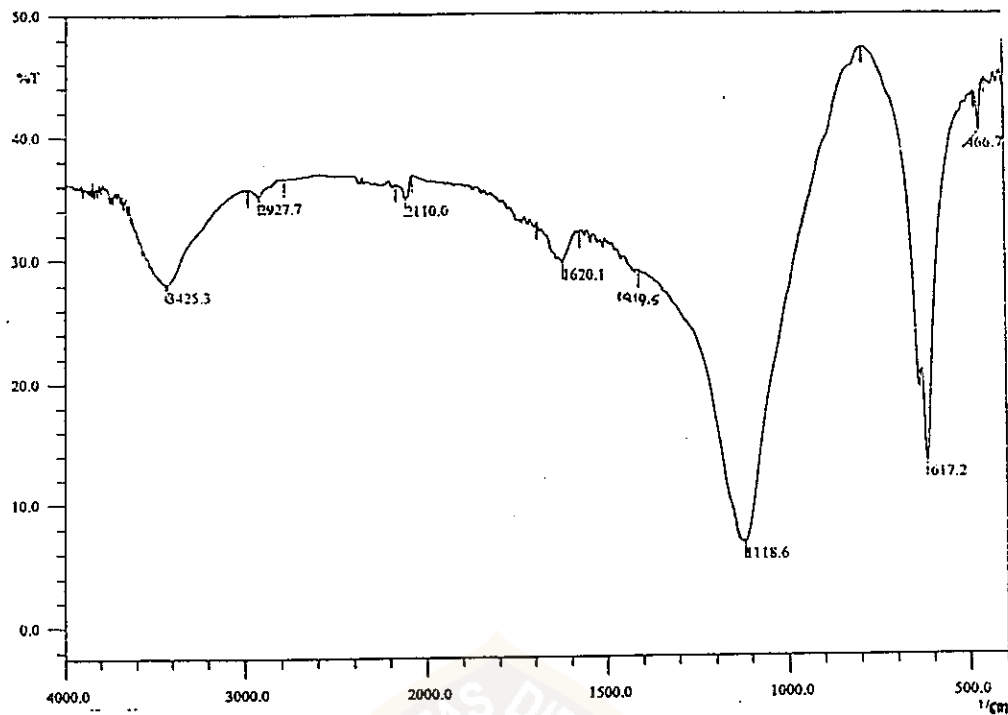


Gambar 4.11. Spektra IR Isopropil Alginate Hasil Sintesis pH 4 T 40 °C

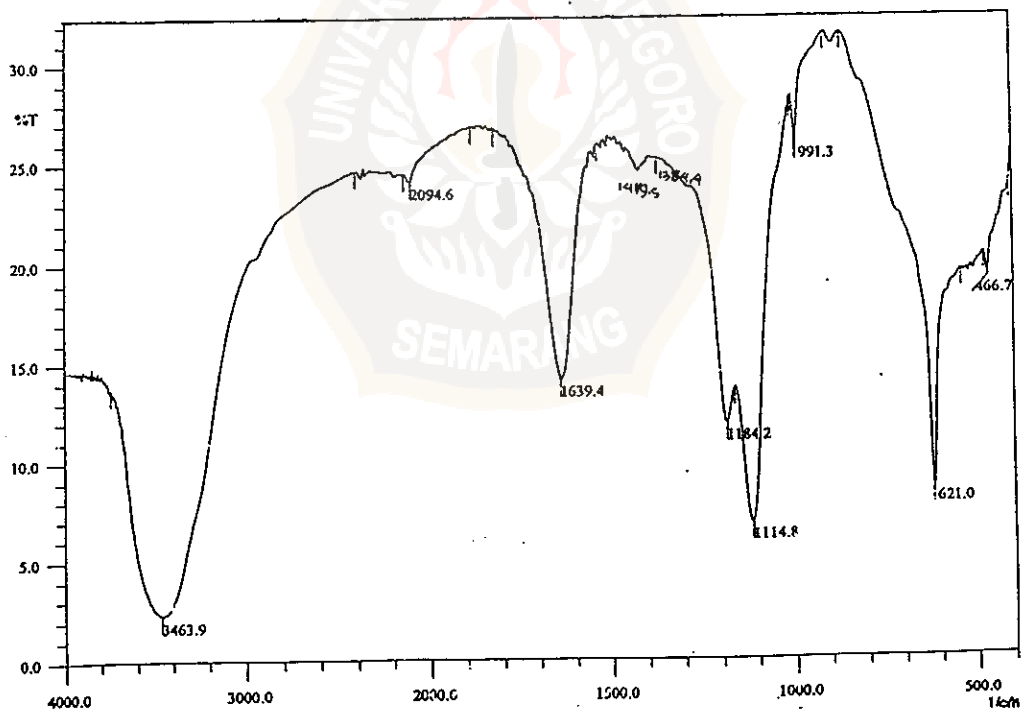


Gambar 4.12. Spektra IR Isopropil Alginate Hasil Sintesis pH 5 T 40 °C

Lampiran C (lanjutan)

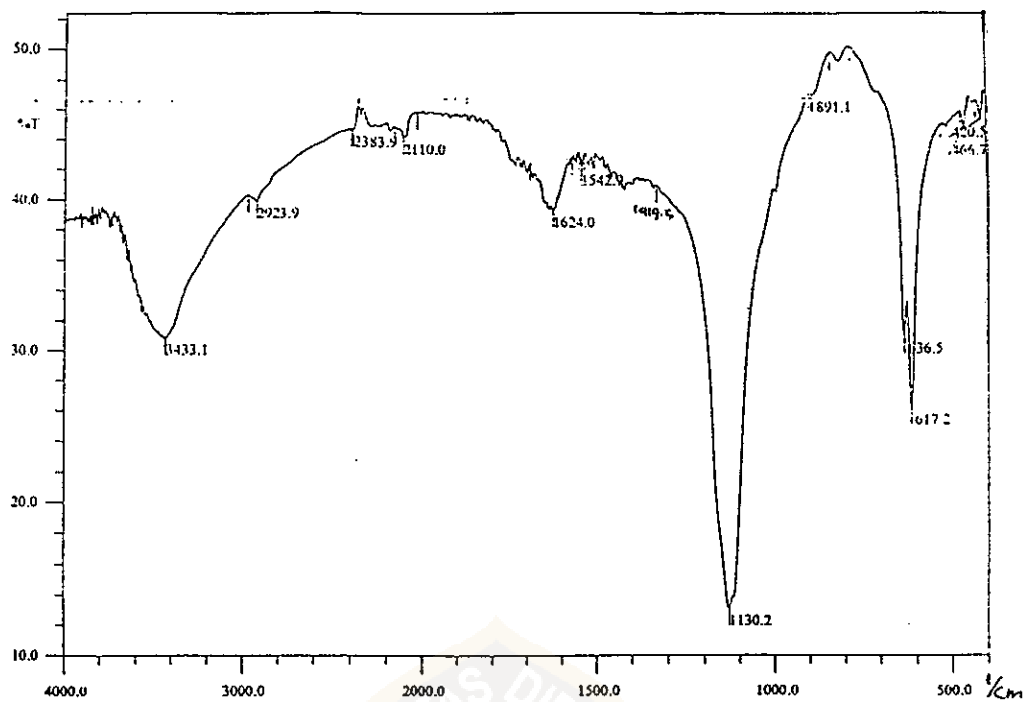


Gambar 4.13. Spektra IR Isopropil Alginat Hasil Sintesis pH 2 T 50 °C

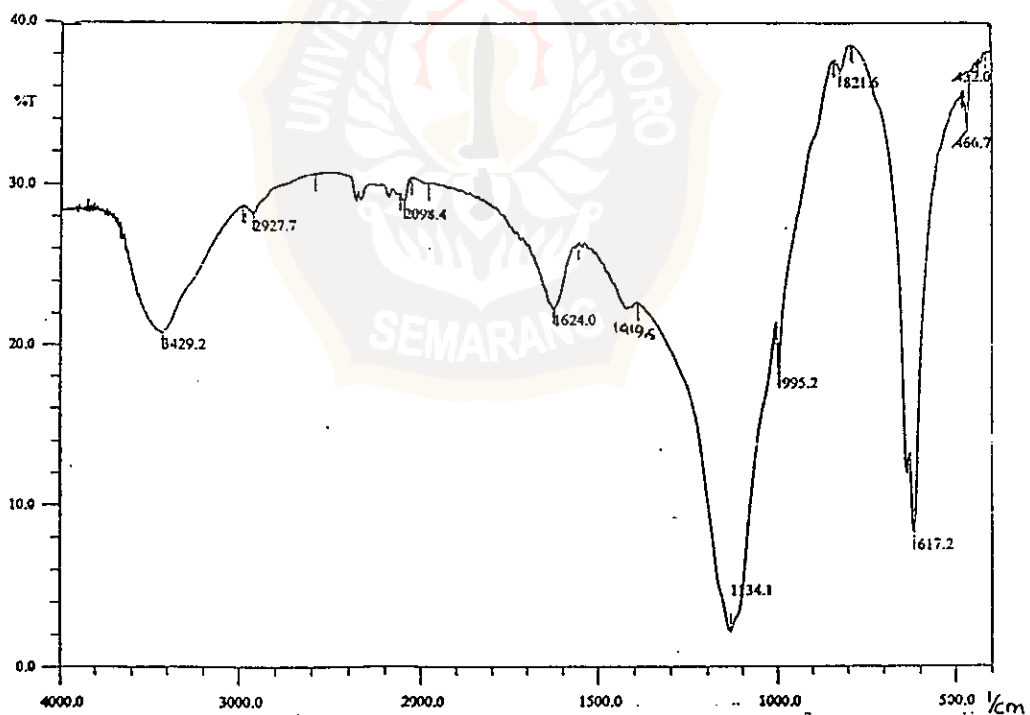


Gambar 4.14. Spektra IR Isopropil Alginat Hasil Sintesis pH 3 T 50 °C

Lampiran C (lanjutan)

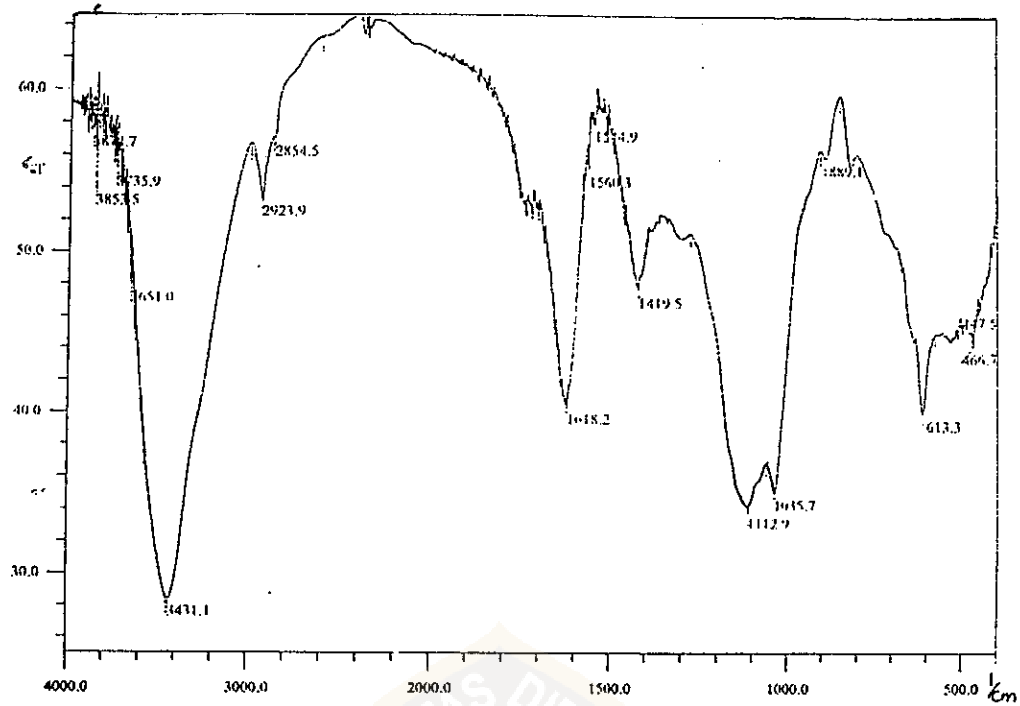


Gambar 4.15. Spektra IR Isopropil Alginat Hasil Sintesis pH 4 T 50 °C

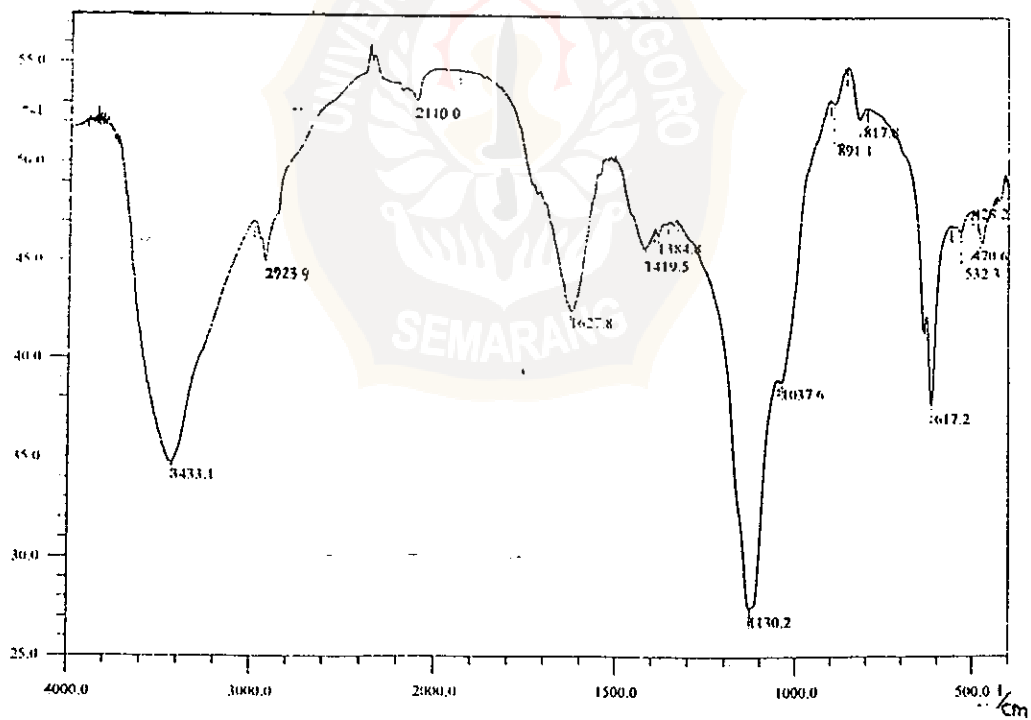


Gambar 4.16. Spektra IR Isopropil Alginat Hasil Sintesis pH 5 T 50 °C

Lampiran C (lanjutan)

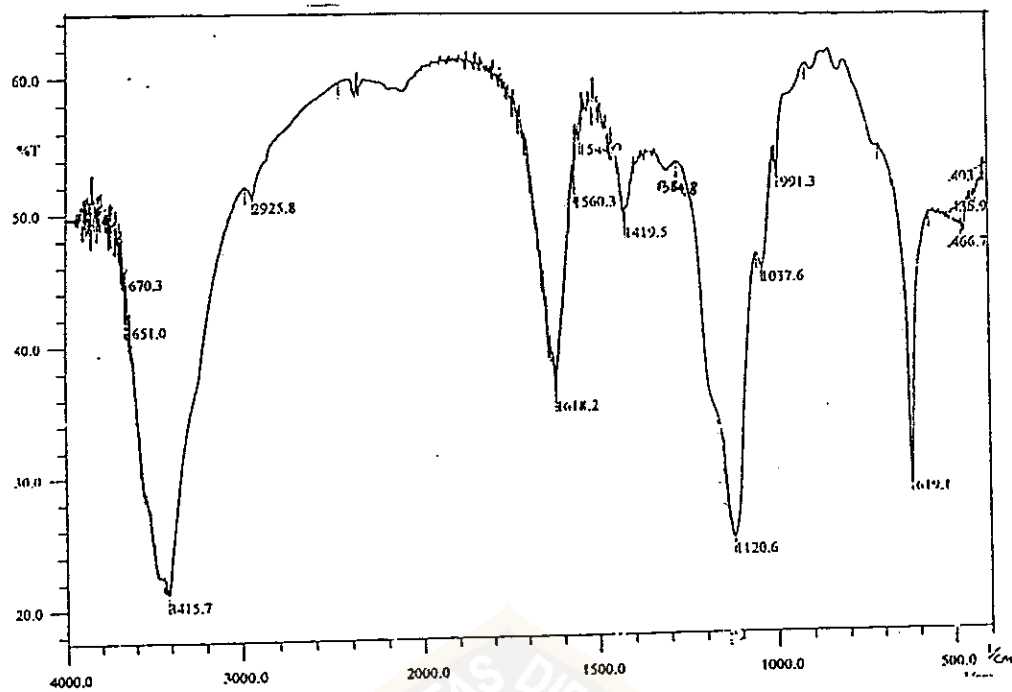


Gambar 4.17. Spektra IR Isopropil Alginat Hasil Sintesis pH 2 T 70 °C

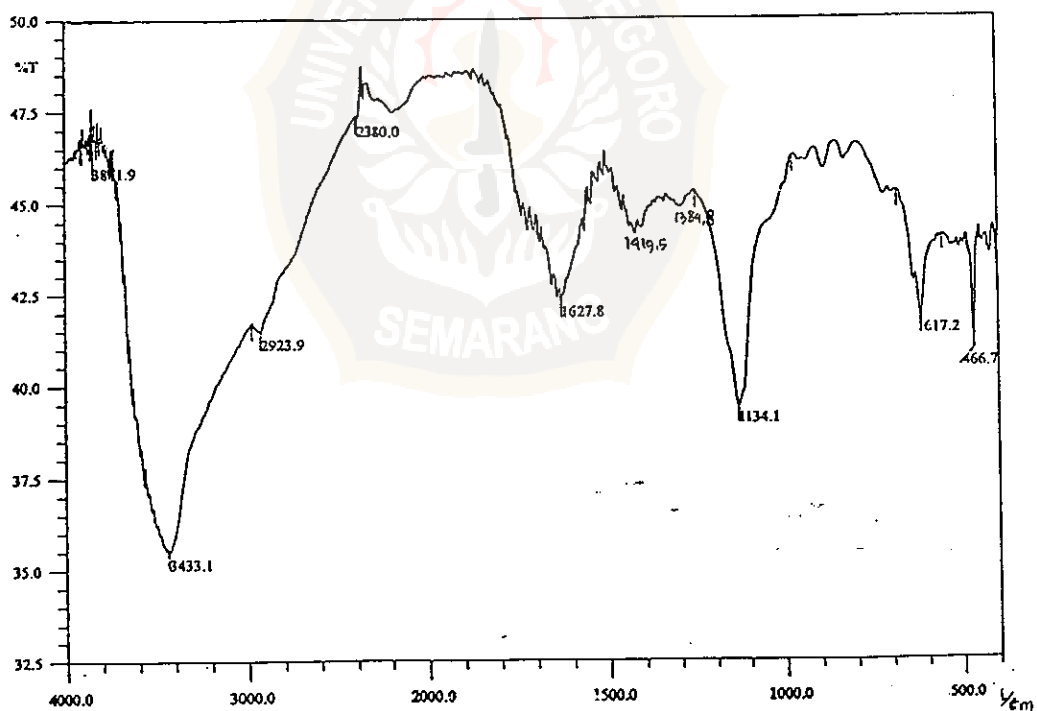


Gambar 4.18. Spektra IR Isopropil Alginat Hasil Sintesis pH 3 T 70 °C

Lampiran C (lanjutan)

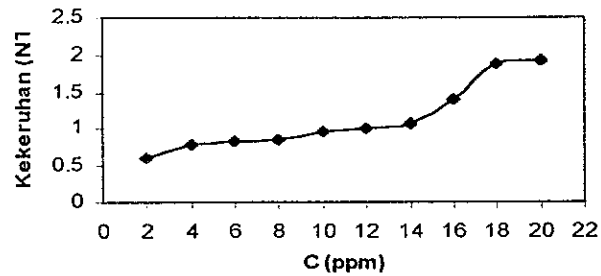


Gambar 4.19. Spektra IR Isopropil Alginat Hasil Sintesis pH 4 T 70 °C

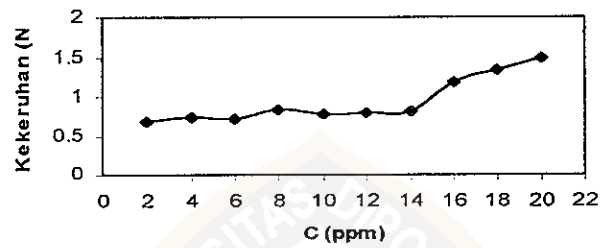


Gambar 4.20. Spektra IR Isopropil Alginat Hasil Sintesis pH 5 T 70 °C

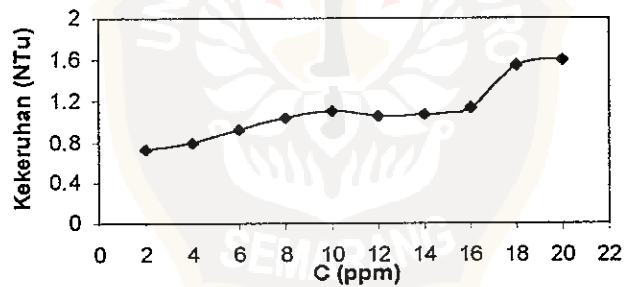
Lampiran D
Kurva CMC Isopropil Alginat



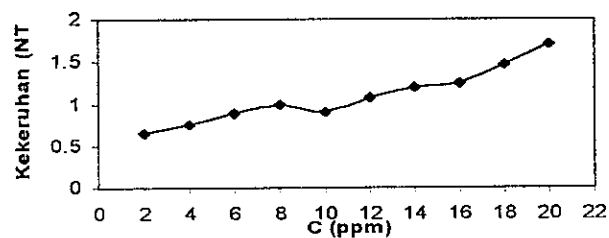
Gambar 4.21. Kurva CMC isopropil alginat pH 2 T 40 °C



Gambar 4.22. Kurva CMC isopropil alginat pH 3 T 40 °C

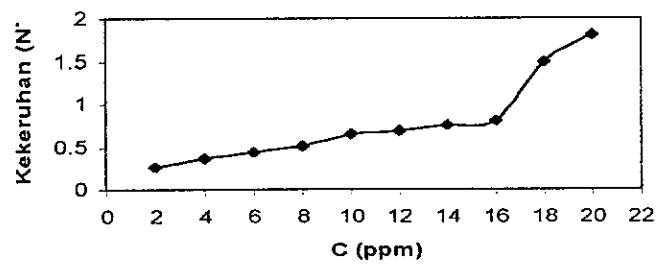


Gambar 4.23. Kurva CMC isopropil alginat pH 4 T 40 °C

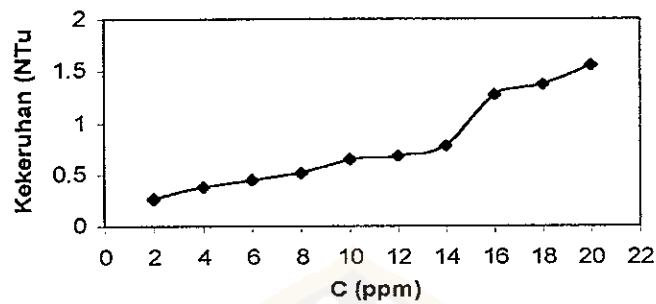


Gambar 4.24. Kurva CMC isopropil alginat pH 5 T 40 °C

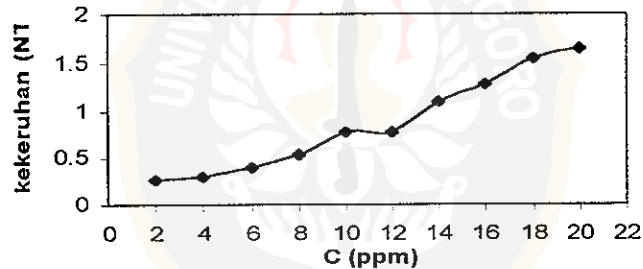
Lampiran D (lanjutan)



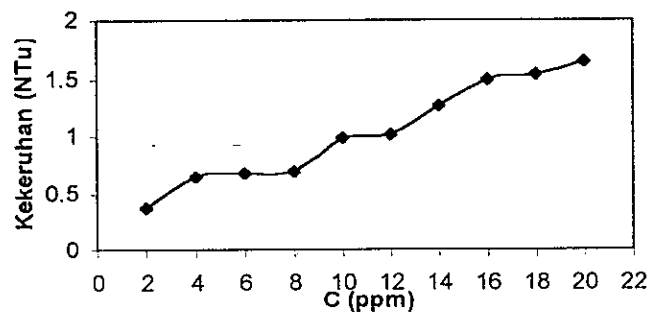
Gambar 4.25. Kurva CMC isopropil alginat pH 2 T 50 °C



Gambar 4.26. Kurva CMC isopropil alginat pH 3 T 50 °C

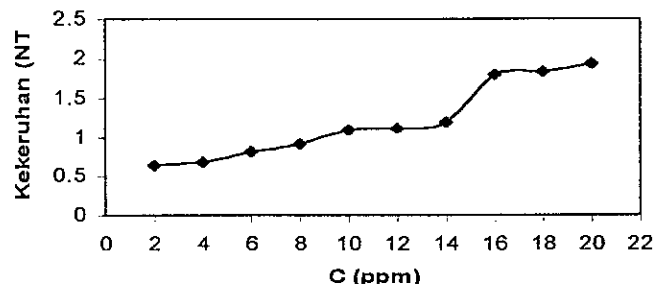


Gambar 4.27. Kurva CMC isopropil alginat pH 4 T 50 °C

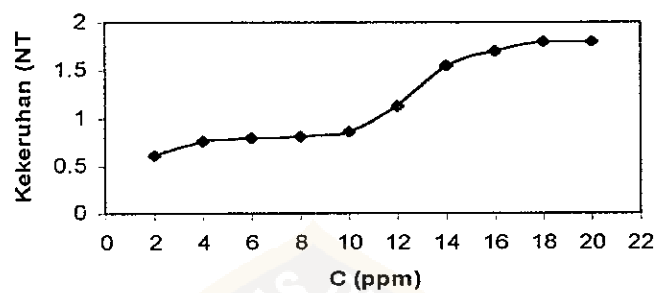


Gambar 4.28. Kurva CMC isopropil alginat pH 5 T 50 °C

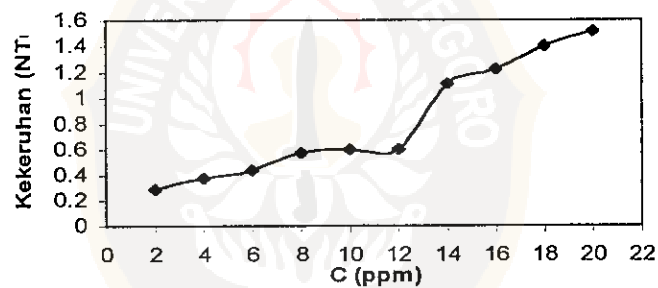
Lampiran D (lanjutan)



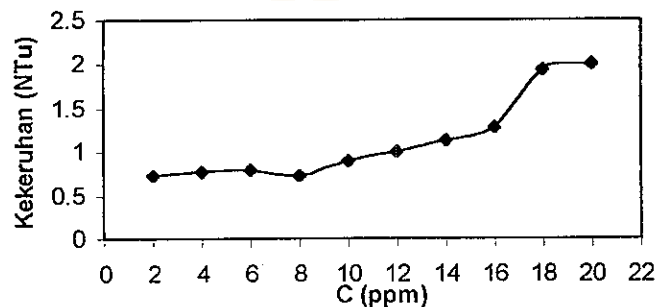
Gambar 4.29. Kurva CMC isopropil alginat pH 2 T 70 °C



Gambar 4.30. Kurva CMC isopropil alginat pH 3 T 70 °C



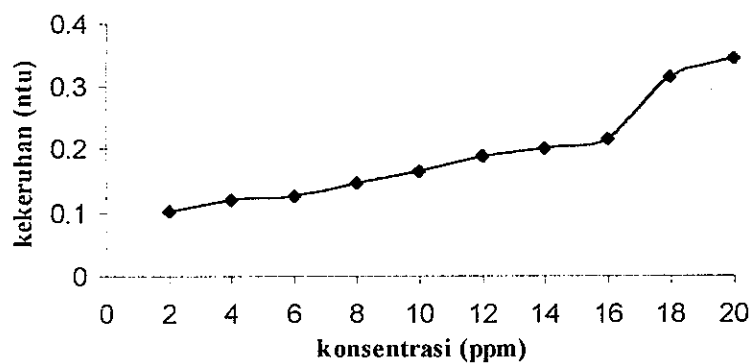
Gambar 4.31. Kurva CMC isopropil alginat pH 4 T 70 °C



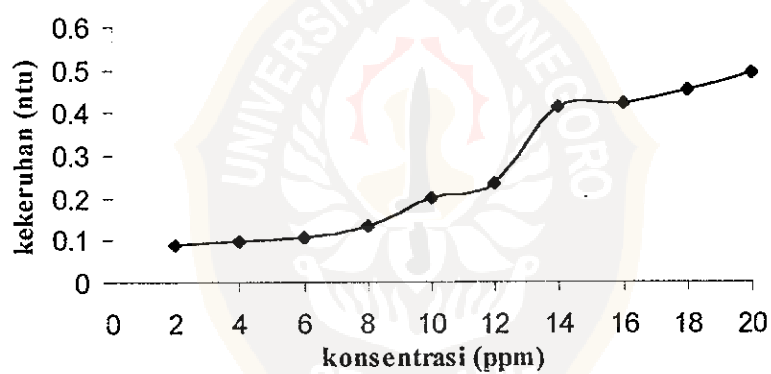
Gambar 4.32. Kurva CMC isopropil alginat pH 5 T 70 °C

Lampiran E

Kurva CMC Natrium Alginat dan Soya Lecitin Perdagangan



Gambar 4.33. Kurva CMC Natrium Alginat Perdagangan



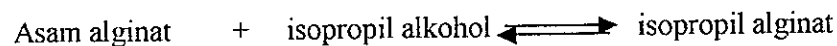
Gambar 4.34. Kurva CMC Soya Lecitin Perdagangan

Lampiran F

Perhitungan Rendemen Persentase Produk Sintesis

Hasil teoretis produk sintesis

Reaksi:



Mula: 3,0204 g 20 ml; $\rho = 0,79 \text{ g/ml}$

BM = 176 g/mol $m = \rho \times v = 15,8 \text{ g}$

$\text{Mol} = \frac{3,0204}{176}$ $\text{mol} = \frac{15,8}{60}$ (BM IPA = 50)

= 0,0172 mol = 0,263 mol

Reaksi: 0,0172 mol 0,0172 mol 0,0172 mol

Sisa: - mol 0,2461 mol 0,0172 mol
 BM = 226 g/mol
 $m = \text{mol} \times \text{BM}$
 = 3,8872 g.

Rendemen persentase = $\frac{\text{hasil eksperimen}}{\text{hasil teoretis}} \times 100 \%$

Tabel 4.4. Perolehan Isopropil Alginat Hasil Sintesis

T (C°)	perolehan isopropil alginat hasil sintesis (g) dan rendemennya (%) pada pH							
	2		3		4		5	
40	0.168 g	4.52 %	0.309 g	8.35 %	0.252 g	6.79 %	0.078 g	2.11 %
50	0.399 g	10.76 %	0.472 g	12.74 %	0.559 g	15.09 %	0.281 g	7.59 %
70	0.739 g	19.93 %	0.912 g	24.61 %	0.604 g	16.28 %	0.379 g	10.22 %

Lampiran G

Penentuan Derajat Esterifikasi Produk Sintesis

Rasio = $\log (P_0/P_1)$ pada serapan 1114 – 1130 cm^{-1} .

Tabel 4.5. Absorbansi Isopropil Alginat

Suhu	Absorbansi pada pH			
	2	3	4	5
40 °C	0,602	0,885	0,845	0,341
50 °C	0,535	0,961	0,962	0,363
70 °C	0,321	0,809	0,609	0,246

Keterangan: P_0 dan P_1 ditentukan seperti contoh pada gambar 2.5





