



LAMPIRAN 1 : Formula Polimerisasi

Formula Polimerisasi APS 0.1%, SLS 1 CMC

Formula		Stirena 17%	Stirena 23%	Stirena 29%	Stirena 35%
Initial Charge	Air	430.8	321.95	212.93	104.1
	SLS	0.33	0.33	0.33	0.33
	Monomer	7.3	9.9	12.4	15
Stream 1	Air	10.37	10.33	10.28	10.24
	APS	0.13	0.17	0.22	0.26
Stream 2	Air	180.6	244.35	308.25	372
	SLS	1.32	1.32	1.32	1.32
	Monomer	120.4	162.9	205.5	248
	KOH	0.2	0.2	0.2	0.2
Total (gram)		751.45	751.45	751.45	751.45

Formula Polimerisasi APS 0.4%, SLS 1 CMC

Formula		Stirena 17%	Stirena 23%	Stirena 29%	Stirena 35%
Initial Charge	Air	429.15	320.3	211.3	102.45
	SLS	0.33	0.33	0.33	0.33
	Monomer	7.3	9.9	12.4	15
Stream 1	Air	9.99	9.81	9.63	9.45
	APS	0.51	0.679	0.87	1.05
Stream 2	Air	180.6	244.35	308.25	372
	SLS	1.32	1.32	1.32	1.32
	Monomer	120.4	162.9	205.5	248
	KOH	0.2	0.2	0.2	0.2
Total (gram)		751.45	751.45	751.45	751.45

Formula Polimerisasi APS 0.4%, SLS 2 CMC

Formula		Stirena 17%	Stirena 23%	Stirena 29%	Stirena 35%
Initial Charge	Air	429.15	320.3	211.3	102.45
	SLS	0.66	0.66	0.66	0.66
	Monomer	7.3	9.9	12.4	15
Stream 1	Air	9.99	9.81	9.63	9.45
	APS	0.51	0.69	0.87	1.05
Stream 2	Air	180.6	244.35	308.25	372
	SLS	2.64	2.64	2.64	2.64
	Monomer	120.4	162.9	205.5	248
	KOH	0.2	0.2	0.2	0.2
Total (gram)		751.45	751.45	751.45	751.45

Formula Polimerisasi APS 0.4%, SLS 3 CMC

Formula		Stirena 17%	Stirena 23%	Stirena 29%	Stirena 35%
Initial Charge	Air	427.5	318.65	209.65	100.8
	SLS	0.99	0.99	0.99	0.99
	Monomer	7.3	9.9	12.4	15
Stream 1	Air	9.99	9.81	9.63	9.45
	APS	0.51	0.69	0.87	1.05
Stream 2	Air	180.6	244.35	308.25	372
	SLS	3.96	3.96	3.96	3.96
	Monomer	120.4	162.9	205.5	248
	KOH	0.2	0.2	0.2	0.2
Total (gram)		751.45	751.45	751.45	751.45

Formula Polimerisasi APS 0.4%, SLS 4 CMC

Formula		Stirena 17%	Stirena 23%	Stirena 29%	Stirena 35%
Initial Charge	Air	425.85	317	208	99.15
	SLS	1.32	1.32	1.32	1.32
	Monomer	7.3	9.9	12.4	15
Stream 1	Air	9.99	9.81	9.63	9.45
	APS	0.51	0.69	0.87	1.05
Stream 2	Air	180.6	244.35	308.25	372
	SLS	5.28	5.28	5.28	5.28
	Monomer	120.4	162.9	205.5	248
	KOH	0.2	0.2	0.2	0.2
Total (gram)		751.45	751.45	751.45	751.45

Formula Polimerisasi APS 0.4%, SLS 5 CMC

Formula		Stirena 17%	Stirena 23%	Stirena 29%	Stirena 35%
Initial Charge	Air	424.2	315.35	206.35	97.5
	SLS	1.65	1.65	1.65	1.65
	Monomer	7.3	9.9	12.4	15
Stream 1	Air	9.99	9.81	9.63	9.45
	APS	0.51	0.69	0.87	1.05
Stream 2	Air	180.6	244.35	308.25	372
	SLS	6.6	6.6	6.6	6.6
	Monomer	120.4	162.9	205.5	248
	KOH	0.2	0.2	0.2	0.2
Total (gram)		751.45	751.45	751.45	751.45

Formula Polimerisasi APS 1%, SLS 2 CMC

Formula		Stirena 35%
Initial Charge	Air	102.45
	SLS	0.66
	Monomer	15
Stream 1	Air	7.87
	APS	2.63
Stream 2	Air	372
	SLS	2.64
	Monomer	248
	KOH	0.2
Total (gram)		751.45

LAMPIRAN 2 : Perhitungan teoritis (formula 35% monomer, SLS 2 CMC, APS 1%)

- Kandungan padatan teoritis
= berat monomer + berat surfaktan + berat inisiator + berat KOH

- % Kandungan padatan teoritis
= $\frac{\text{kandungan padatan teoritis}}{\text{total formula polimerisasi}} \times 100\%$

Keterangan :

Total formula polimerisasi = 751,45 g

Berat monomer stirena = 263 g

Berat surfaktan(SLS) = 3,3 g

Berat inisiator APS = 4.03 g

Berat KOH = 0,2 g

kandungan padatan teoritis

$$= 263 \text{ g} + 2,63 \text{ g} + 3,3 \text{ g} + 0,2 \text{ g}$$

$$= 269,13 \text{ g}$$

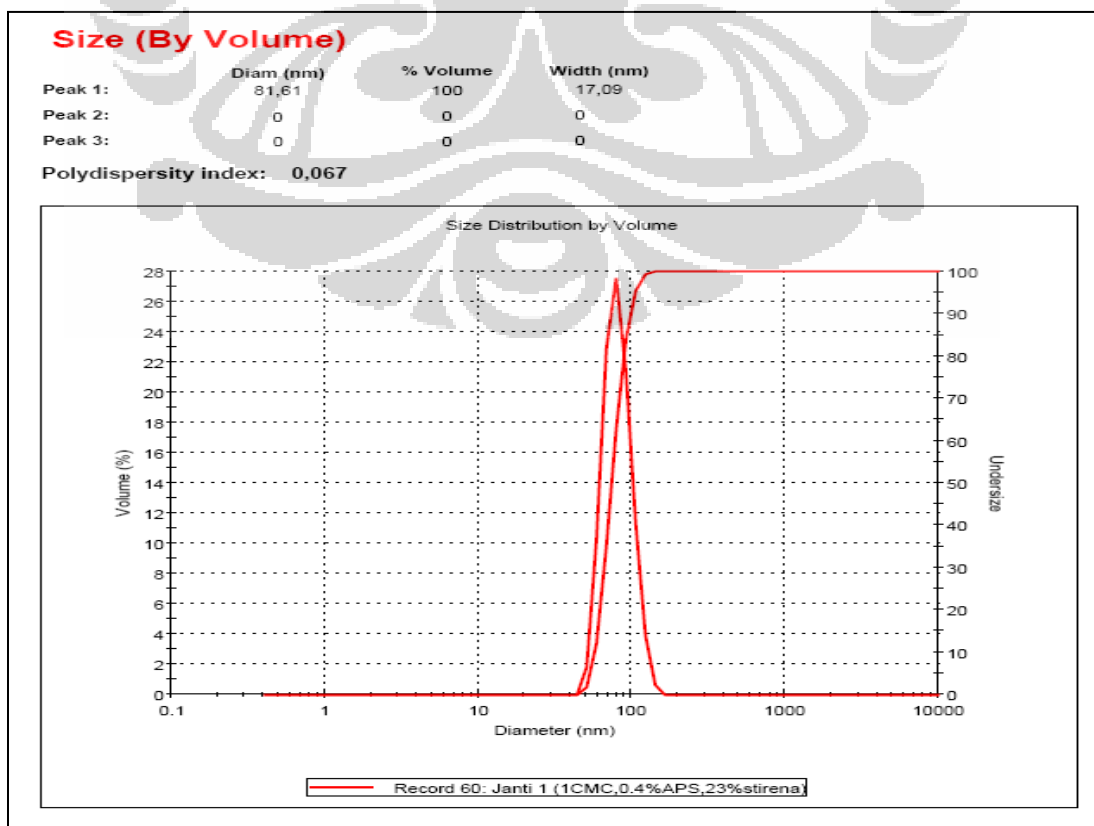
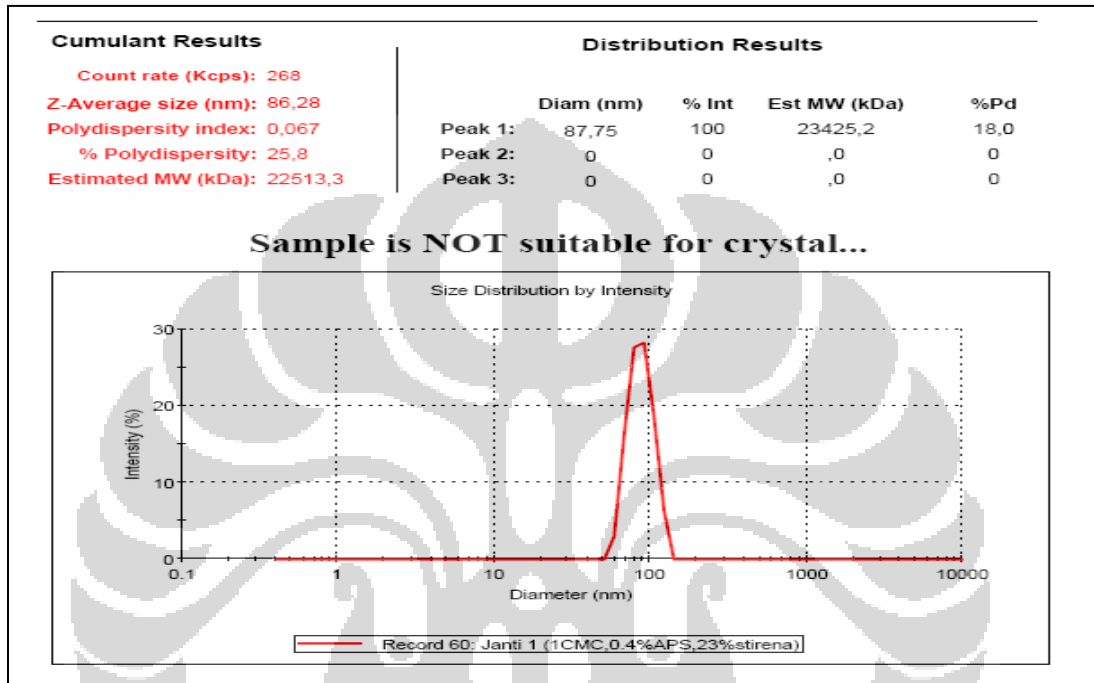
% kandungan padatan teoritis

$$= (269,13 / 751,45) \times 100\%$$

$$= 35,8148\%$$

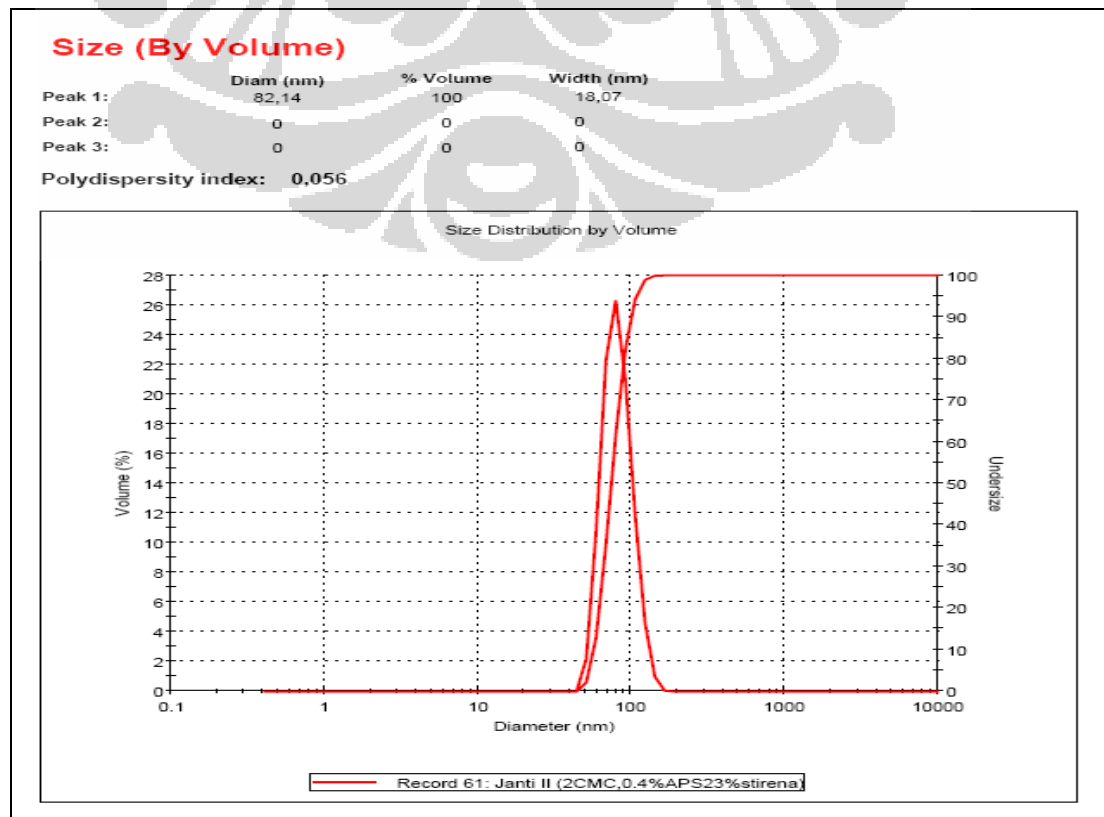
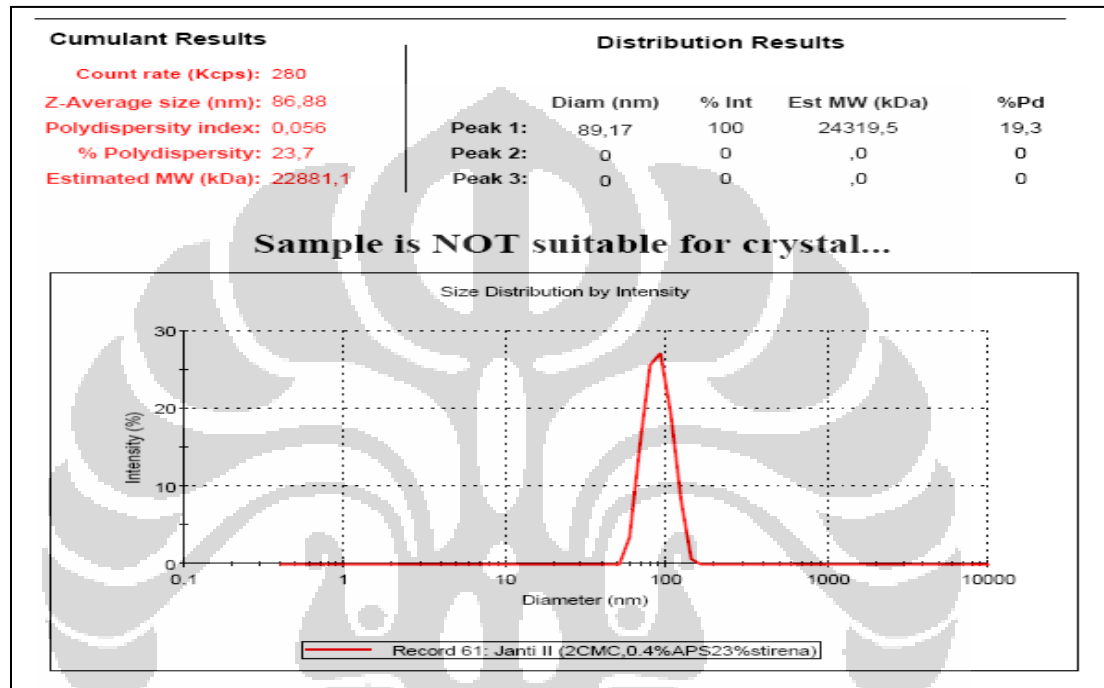
Lampiran 4

Indeks Polidispersitas, BM rata-rata dan Ukuran Partikel pada Formula 23% monomer, SLS 1 CMC, APS 0,4%



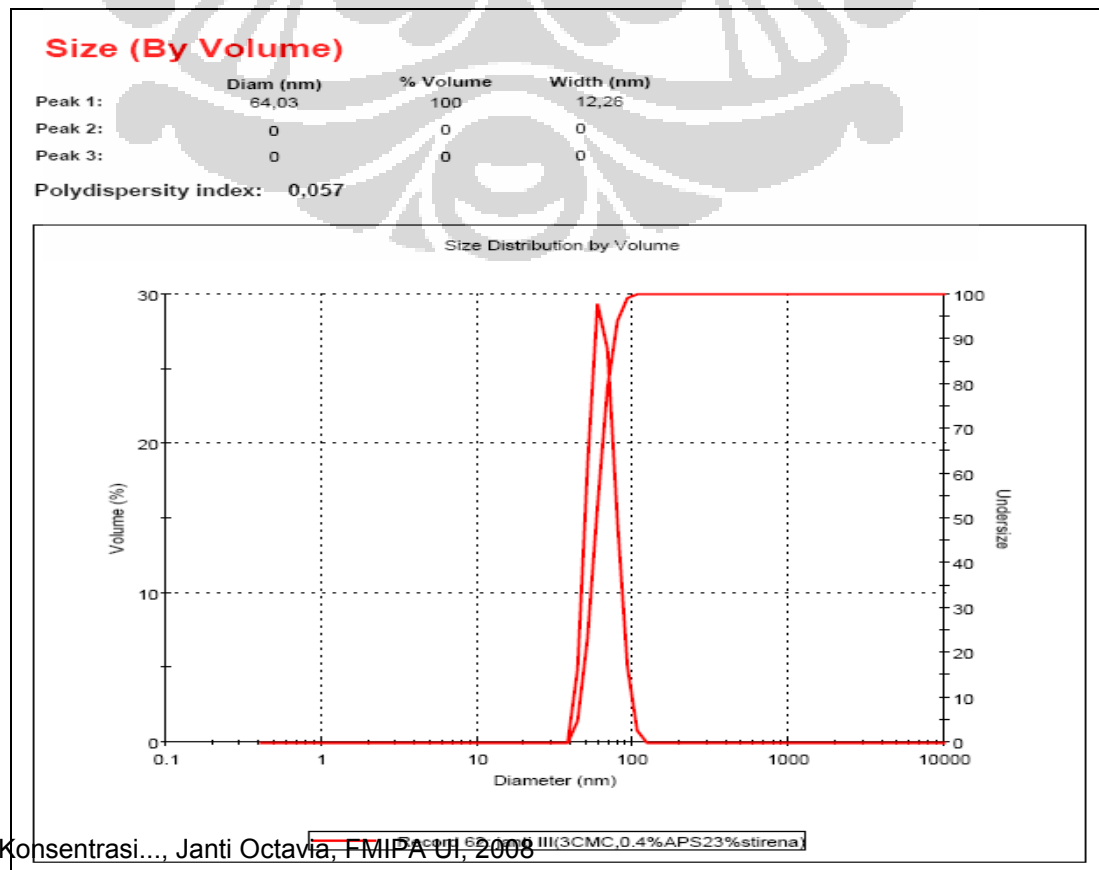
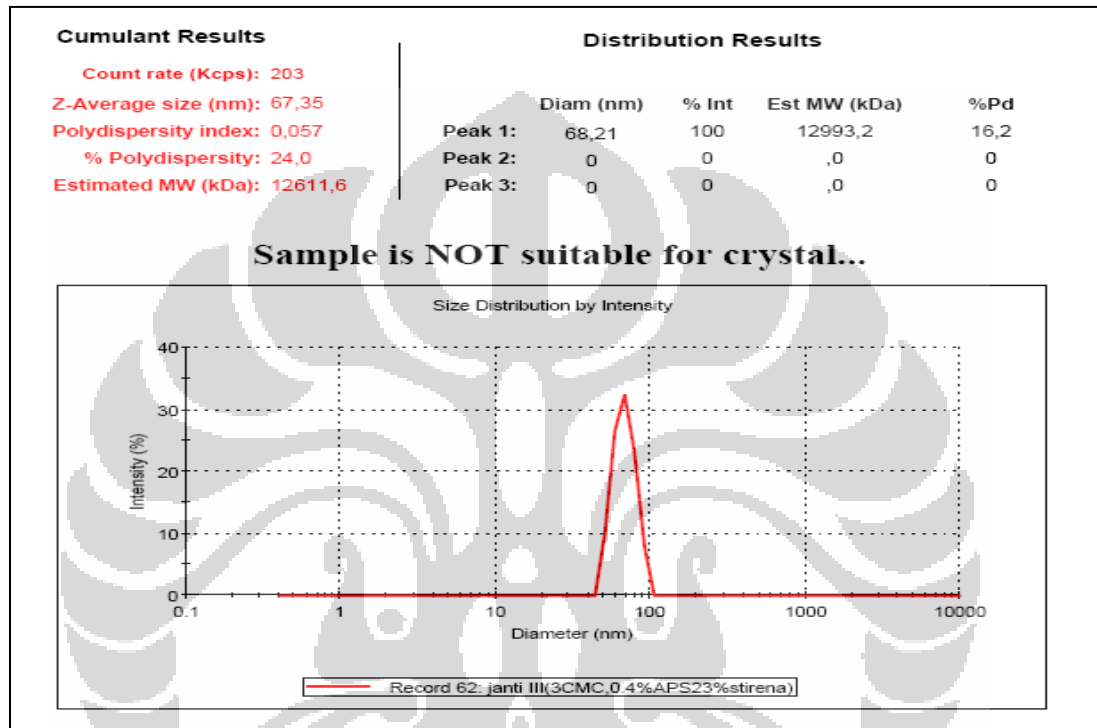
Lampiran 5

Indeks Polidispersitas, BM rata-rata dan Ukuran Partikel pada Formula 23% monomer, SLS 2 CMC, APS 0,4%



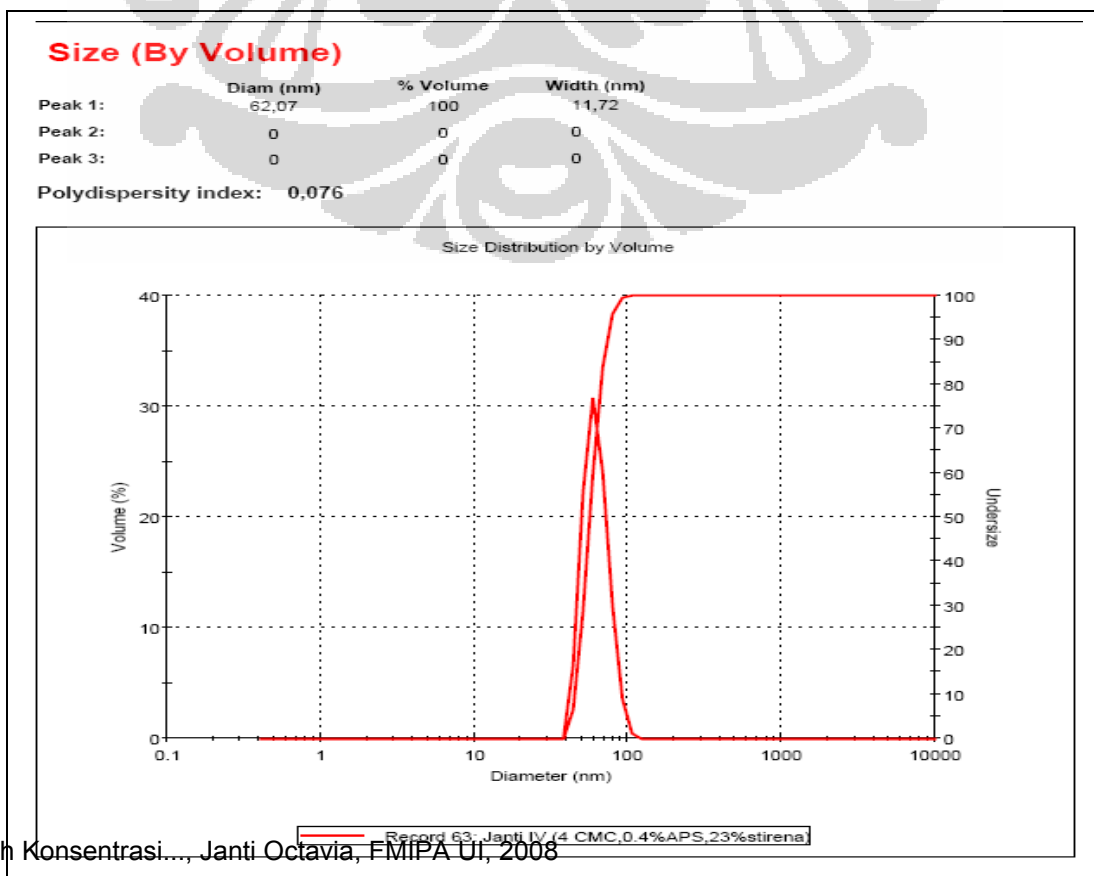
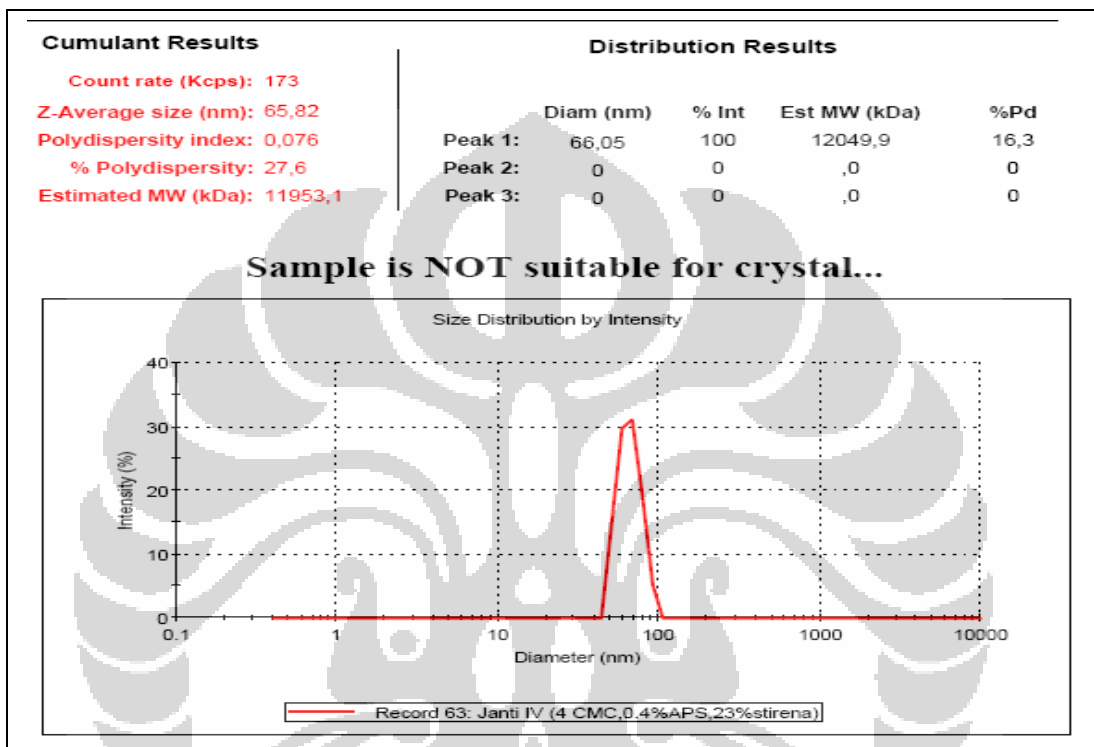
Lampiran 6

Indeks Polidispersitas, BM rata-rata dan Ukuran Partikel pada Formula 23% monomer, SLS 3 CMC, APS 0,4%



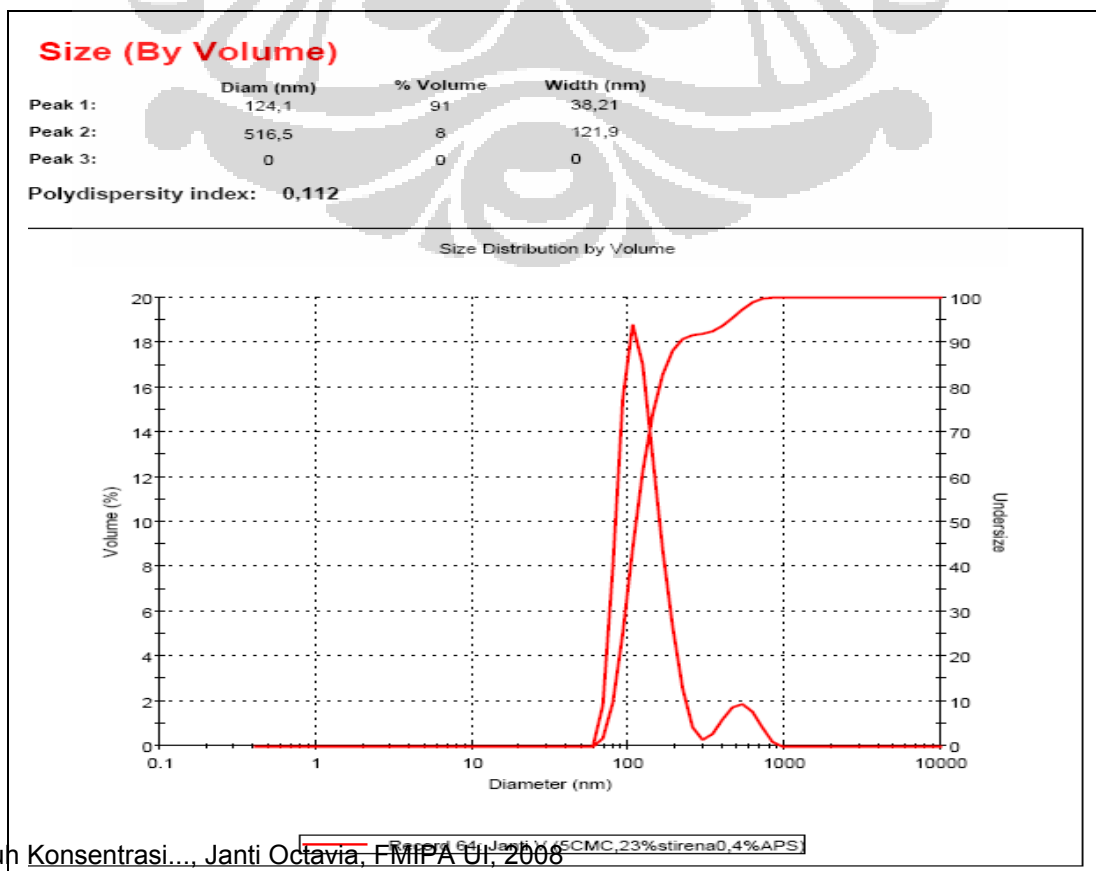
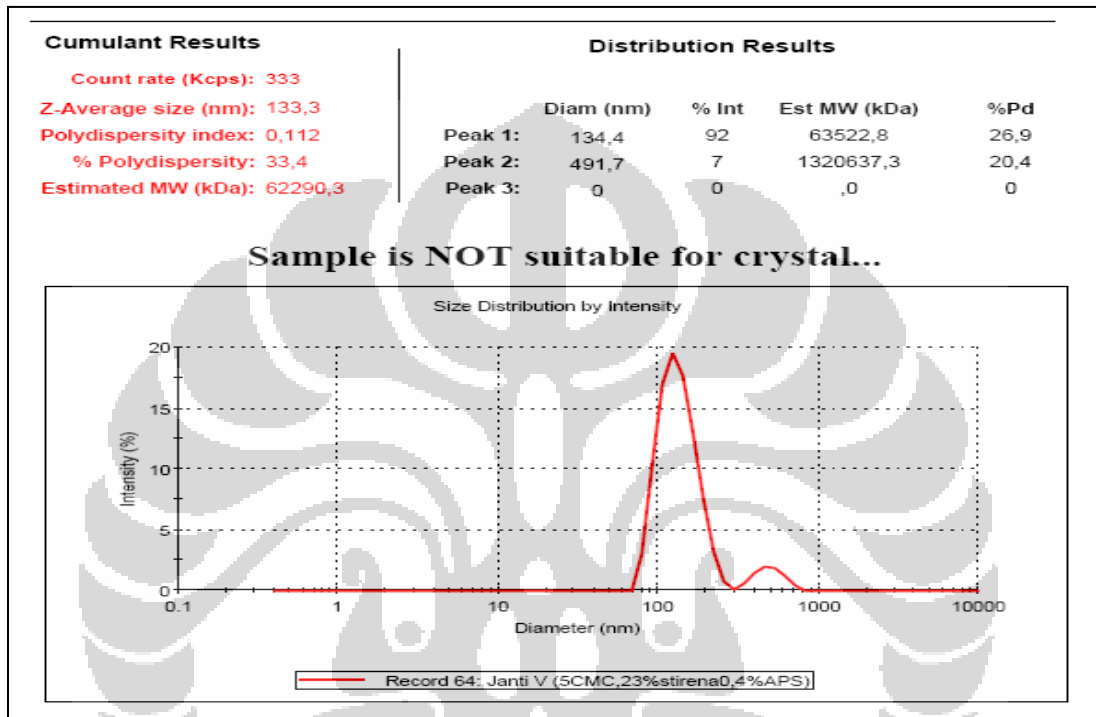
Lampiran 7

Indeks Polidispersitas, BM rata-rata dan Ukuran Partikel pada Formula 23% monomer, SLS 4 CMC, APS 0,4%



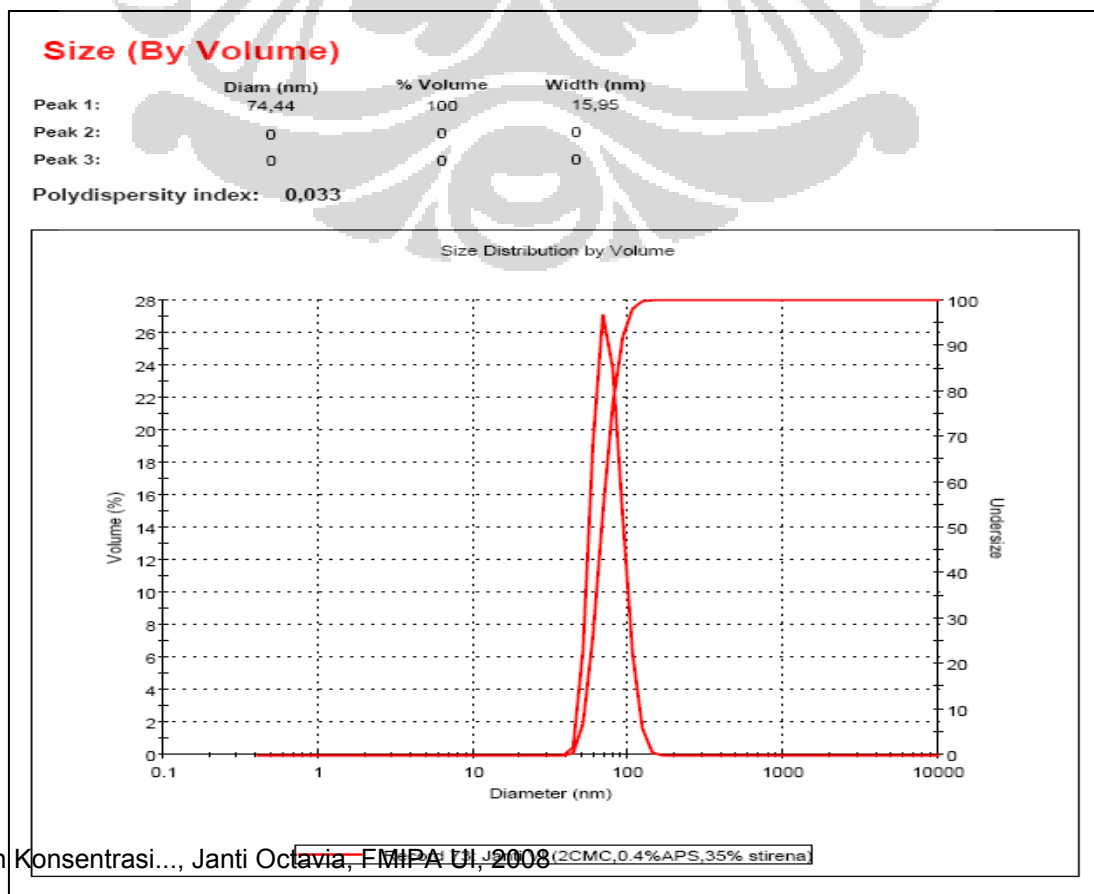
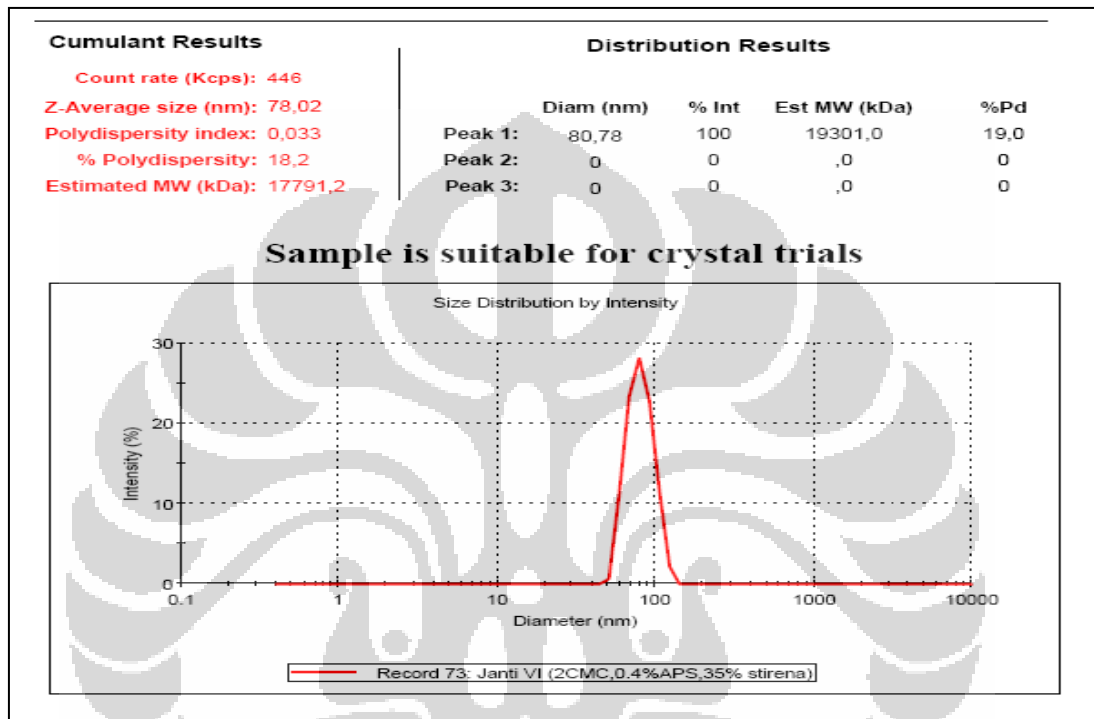
Lampiran 8

Indeks Polidispersitas, BM rata-rata dan Ukuran Partikel pada Formula 23% monomer, SLS 5 CMC, APS 0,4%



Lampiran 9

Indeks Polidispersitas, BM rata-rata dan Ukuran Partikel pada Formula 35% monomer, SLS 2 CMC, APS 0,4%



Lampiran 10

Indeks Polidispersitas, BM rata-rata dan Ukuran Partikel pada Formula 35% monomer, SLS 2 CMC, APS 1%

