

Lampiran 1

Penentuan Panjang Gelombang Maksimum Ketoprofen (λ maks)

λ maks (nm)	Absorbansi		
	C ₂ (8 μ g/ml)	C ₃ (10 μ g/ml)	C ₄ (12 μ g/ml)
260,0	0.447	0.629	0.712
260,6	0.448	0.630	0.714
260.8	0.449	0.632	0.714
261.0	0.448	0.632	0.713
261.2	0.447	0.631	0.713
26104	0.447	0.629	0.712

Scan Blangko

λ maks (nm)	Absorbansi
260,8	0,000

Pembuatan Larutan Baku Induk Ketoprofen

$$\begin{aligned}
 W_{\text{ketoprofen}} &= 0,1001 \text{ g} = 100,1 \text{ mg} / \text{ad } 100 \text{ ml} \\
 &= \frac{100,1 \text{ mg}}{100 \text{ ml}} \times 1000 \mu\text{g/ml} = 1001 \mu\text{g/ml}
 \end{aligned}$$

Pembuatan Larutan Baku Kerja

$$\begin{aligned}
 C_1 &= \frac{30 \mu\text{l}}{5 \text{ ml}} \times 1001 \mu\text{g/ml} = 6,006 \mu\text{g/ml} \\
 C_1 &= \frac{40 \mu\text{l}}{5 \text{ ml}} \times 1001 \mu\text{g/ml} = 8,008 \mu\text{g/ml} \\
 C_1 &= \frac{50 \mu\text{l}}{5 \text{ ml}} \times 1001 \mu\text{g/ml} = 10,010 \mu\text{g/ml} \\
 C_1 &= \frac{60 \mu\text{l}}{5 \text{ ml}} \times 1001 \mu\text{g/ml} = 12,012 \mu\text{g/ml} \\
 C_1 &= \frac{70 \mu\text{l}}{5 \text{ ml}} \times 1001 \mu\text{g/ml} = 14,014 \mu\text{g/ml}
 \end{aligned}$$

Lampiran 2

Kurva Baku Ketoprofen

Baku Kerja	C ₁	C ₂	C ₃	C ₄	C ₅
C (µg/ml)	6,006	8,008	10,010	12,012	14,014
Absorbansi	0.436	0.449	0.632	0.714	0.865

Range kurva baku : 0,436 – 0,865

$$\begin{aligned}
 \text{LR : } a &= -0,0577 \\
 b &= 0,0560 \\
 r &= 0,9770 > 0,574 \text{ (r tabel)} \\
 y &= bx + a \longrightarrow y = 0,0561x - 0,0577
 \end{aligned}$$

Penetapan Kadar Ketoprofen

- Campuran Fisik A (1: 1 : 2)

Batch	Replikasi	W (mg)	A	C (ppm)	C' (ppm)	% Kadar	Rata-rata ± SD
I	1	40,2	0,510	32,16	8,0624	25,06 %	25,03 % ± 0,05
	2	40,2	0,508	32,16	8,0267	24,96 %	
	3	40,2	0,510	32,16	8,0624	25,06 %	
II	1	40,1	0,509	32,08	8,0445	25,07 %	25,01 % ± 0,06
	2	40,1	0,507	32,08	8,0089	24,97 %	
	3	40,1	0,507	32,08	8,0089	24,97 %	
III	1	40,2	0,507	32,16	8,0089	24,90 %	25,00 % ± 0,06
	2	40,2	0,510	32,16	8,0624	25,06 %	
	3	40,2	0,509	32,16	8,0446	25,01 %	

Contoh perhitungan campuran fisik batch I replikasi 1

$$C = \frac{40,2 \text{ mg}}{40,0 \text{ mg}} \times 32 \text{ ppm} = 32,16 \text{ ppm}$$

$$C' = x \longrightarrow 0,510 = 0,0561x - 0,0577 \quad ; \quad x = 8,0624 \text{ ppm}$$

$$\% \text{ kadar} = \frac{8,0624}{32,16} \times 100 \% = 25,06 \%$$

Lampiran 3

Uji Disolusi

• Ketoprofen (replikasi 1)

t (menit)	A	C (ppm)	Wt (mg)	% Wt	AUC	AUC kum	Log(Wt~ - Wt)
0	0	0	0	0	0	0	0.828
5	0.125	1.199	1.080	16.05	2.700	2.700	0.752
10	0.207	2.661	2.395	35.60	8.688	11.388	0.637
15	0.259	3.588	3.229	48.00	14.811	26.199	0.544
20	0.287	4.087	3.679	54.69	17.269	43.468	0.484
30	0.301	4.337	3.903	58.02	37.911	81.379	0.451
40	0.313	4.551	4.096	60.88	39.994	121.373	0.420
50	0.342	5.068	4.561	67.80	43.285	164.658	0.336
65	0.381	5.763	5.187	77.11	48.738	213.396	0.188
80	0.390	5.923	5.331	79.25	78.882	292.278	0.145
100	0.443	6.868	6.181	91.88	115.120	407.398	-0.263
120	0.447	7.474	6.727	100	129.077	536.475	-

Contoh perhitungan: untuk ketoprofen (replikasi 1)

$$\%ED_{120} = \frac{\text{Jumlah AUC}}{\text{AUC total}} \times 100 \%$$

$$\text{AUC total} = t_{\text{last}} \times \text{dosis} = 120 \times 10 \text{ mg} = 1200$$

$$C = x \longrightarrow 0,125 = 0,0561x + 0,0577$$

$$x = 1,199$$

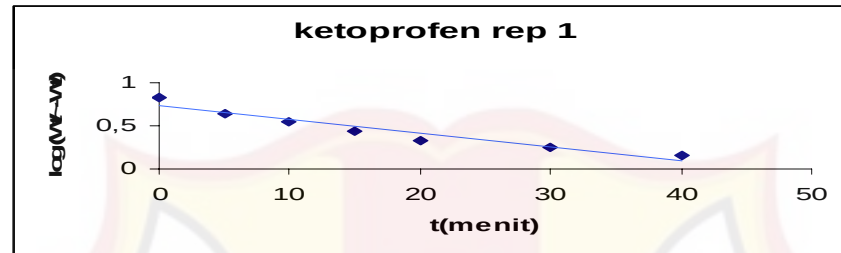
$$Wt = 1,199 \times \frac{900}{1000} = 1,080 \text{ mg}$$

$$\% Wt = \frac{1,080}{6.727} \times 100 \% = 16.05\%$$

$$\text{AUC} = \frac{0 + 1,080}{2} \times (5-0) = 2.700$$

$$\% ED_{120} = \frac{536.475}{1200} \times 100 \% = 45.70 \%$$

Menghitung harga k (tetapan laju disolusi):



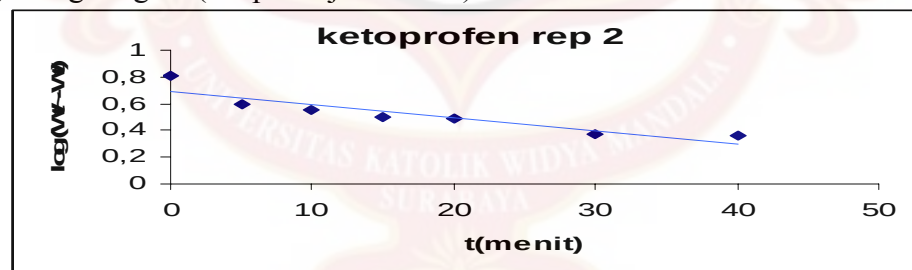
LR dari 7 data pertama :
 $a = 0,7559$
 $b = - 0,0091$
 $r = - 0,9729 > 0,602$ (r tabel)
 $k_{\text{Disolusi}} = - b \times 2,303 = 0,0091 \times 2,303 = 0,0211 \text{ menit}^{-1}$

• Ketoprofen (replikasi 2)

t (menit)	A	C	Wt (mg)	% Wt	AUC	AUC kum	Log (Wt~ - Wt)
0	0	0	0	0	0	0	0.833
5	0.119	1.092	0.983	14.44	2.458	2.458	0.765
10	0.218	2.857	2.572	37.78	8.888	11.346	0.627
15	0.283	4.016	3.614	53.10	15.465	26.811	0.504
20	0.298	4.284	3.855	56.63	18.673	45.484	0.470
30	0.312	4.533	4.079	59.93	39.067	85.154	0.436
40	0.343	5.086	4.577	67.24	43.280	128.434	0.389
50	0.375	5.656	5.090	74.78	48.335	176.769	0.235
65	0.389	5.905	5.315	78.08	63.038	239.807	0.543
80	0.397	6.048	5.443	79.97	65.685	305.492	0.135
100	0.453	7.046	6.342	93.16	117.830	423.322	-0.333
120	0.482	7.563	6.807	100	131.490	554.812	-

% ED₁₂₀ = 46.23 %

Menghitung harga k (tetapan laju disolusi):



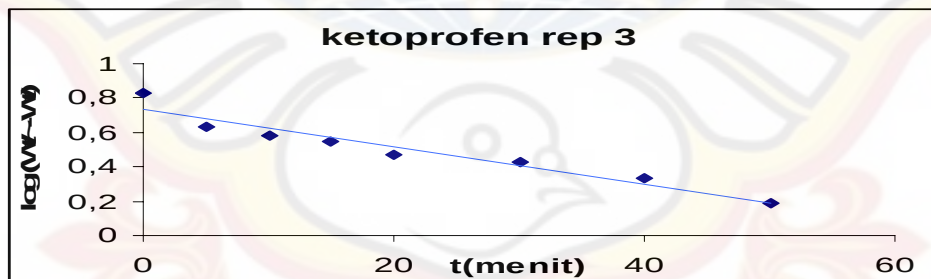
LR dari 7 data pertama :
 $a = 0,7475$;
 $b = - 0,0087$;
 $r = - 0,8848 > 0,602$ (r tabel)
 $k_{\text{Disolusi}} = - b \times 2,303 = 0,0087 \times 2,303 = 0,0201 \text{ menit}^{-1}$

• Ketoprofen (replikasi 3)

t (menit)	A	C	Wt (mg)	% Wt	AUC	AUC kum	Log (Wt [∞] - Wt)
0	0	0	0	0	0	0	0.839
5	0.124	1.182	1.064	15.59	2.660	2.660	0.760
10	0.211	2.733	1.640	24.03	6.760	9.420	0.715
15	0.262	3.642	3.278	48.04	12.295	21.715	0.530
20	0.283	4.016	3.614	52.97	17.230	38.945	0.489
30	0.315	4.586	4.128	60.50	39.355	78.300	0.431
40	0.349	5.193	4.673	68.49	44.005	122.305	0.332
50	0.364	5.459	4.914	72.02	47.935	170.240	0.281
65	0.387	5.870	5.283	77.43	76.478	246.718	0.188
80	0.405	6.191	5.572	81.66	81.413	328.131	0.097
100	0.437	6.761	6.085	89.18	116.570	444.701	-0.132
120	0.483	7.581	6.823	100	129.080	573.781	-

$$\% \text{ED}_{120} = 47.81 \%$$

Menghitung harga k (tetapan laju pelarutan):



LR dari 7 data pertama : $a = 0,7469$;
 $b = - 0,0088$;
 $r = - 0,9777 > 0,602$ (r tabel)

$$k_{\text{Disolusi}} = - b \times 2,303 = 0,0088 \times 2,303 = 0,0204 \text{ menit}^{-1}$$

● Campuran Fisik A (replikasi 1)

t (menit)	A	C	Wt	% Wt	AUC	AUC kum	Log (Wt~ - Wt)
0	0	0	0	0	0	0	0.906
5	0.124	1.182	1.064	13.20	2.659	2.659	0.845
10	0.187	2.305	2.074	25.74	7.885	10.504	0.777
15	0.272	3.820	3.438	42.66	13.781	24.285	0.665
20	0.313	4.551	4.096	50.83	18.834	43.119	0.598
30	0.354	5.282	4.754	58.99	44.246	87.365	0.519
40	0.410	6.279	5.662	70.14	52.027	139.392	0.381
50	0.460	7.171	6.454	80.09	60.530	199.921	0.205
65	0.488	7.670	6.903	85.67	100.179	300.100	0.063
80	0.497	7.831	7.048	87.46	104.631	404.731	0.005
100	0.526	8.348	7.513	93.23	145.604	550.3354	-0.263
120	0.560	8.954	8.058	100	155.711	706.0464	-

$$\% \text{ED}_{120} = 58.84 \%$$

$$\text{LR} : a = 0,8645; b = -0,0116; r = -0,9929 > 0,602 \text{ (r tabel)}$$

$$k_{\text{Disolusi}} = -b \times 2,303 = 0,0116 \times 2,303 = 0,0267 \text{ menit}^{-1}$$

● Campuran Fisik A (replikasi 2)

t (menit)	A	C	Wt	% Wt	AUC	AUC kum	Log (Wt~ - Wt)
0	0	0	0	0	0	0	0.911
5	0.194	2.234	2.011	24.71	2.028	2.028	0.782
10	0.201	2.554	2.299	28.25	10.775	12.802	0.766
15	0.272	3.820	3.438	42.24	14.342	27.145	0.672
20	0.315	4.587	4.128	50.72	18.915	46.059	0.603
30	0.350	5.210	4.689	57.62	44.086	90.145	0.538
40	0.397	6.049	5.443	66.88	45.663	135.808	0.431
50	0.458	7.136	6.422	78.91	59.326	195.134	0.235
65	0.475	7.439	6.695	82.26	98.375	293.508	0.159
80	0.499	7.866	7.079	86.99	103.308	396.816	0.025
100	0.537	8.544	7.689	84.48	147.690	544.506	-0.348
120	0.565	9.043	8.139	100	158.278	702.784	-

$$\% \text{ED}_{120} = 58.57 \%$$

$$\text{LR} : a = 0,8695; b = -0,0115; r = -0,9736 > 0,602 \text{ (r tabel)}$$

$$k_{\text{Disolusi}} = -b \times 2,303 = 0,0115 \times 2,303 = 0,0266 \text{ menit}^{-1}$$

● Campuran Fisik A (replikasi 3)

t (menit)	A	C	Wt	% Wt	AUC	AUC kum	Log (Wt~ - Wt)
0	0	0	0	0	0	0	0.904
5	0.131	1.307	1.176	14.68	2.939	2.939	0.835
10	0.193	2.412	2.171	27.10	8.366	11.306	0.766
15	0.253	3.481	3.133	39.12	10.759	22.066	0.688
20	0.324	4.747	4.272	53.33	18.514	40.579	0.573
30	0.352	5.246	4.721	58.94	44.968	85.547	0.517
40	0.431	6.654	5.989	74.76	53.551	139.098	0.306
50	0.460	7.171	6.454	80.57	62.214	201.312	0.192
65	0.487	7.652	6.887	85.98	100.059	301.371	0.050
80	0.502	7.919	7.128	88.98	105.113	406.484	-0.054
100	0.531	8.437	7.593	94.74	147.208	553.692	-0.379
120	0.557	8.900	8.010	100	156.032	709.723	-

$$\% ED_{120} = 59.14 \%$$

$$LR : a = 0,8712; b = - 0,0125; r = - 0,9947 > 0,602 \text{ (r tabel)}$$

$$k_{\text{Disolusi}} = - b \times 2,303 = 0,0125 \times 2,303 = 0,0287 \text{ menit}^{-1}$$

● Dispersi Solid A (replikasi 1)

t (menit)	A	C	Wt	% Wt	AUC	AUC kum	Log (Wt~ - Wt)
0	0	0	0	0	0	0	1.025
5	0.230	3.071	2.764	26.09	6.911	6.911	0.894
10	0.315	4.587	4.128	38.97	17.230	24.141	0.811
15	0.403	6.155	5.539	52.29	24.169	48.309	0.704
20	0.523	8.294	7.465	70.47	32.511	80.820	0.495
30	0.545	8.686	7.818	73.80	76.409	157.229	0.443
40	0.548	8.740	7.866	74.25	78.418	165.646	0.436
50	0.563	9.364	8.427	79.55	81.465	247.111	0.336
65	0.589	9.471	8.524	80.46	127.130	374.242	0.316
80	0.619	10.005	9.005	85.01	131.462	505.704	0.201
100	0.631	10.219	9.197	86.82	182.022	687.726	0.145
120	0.718	11.770	10.593	100	197.905	885.6310	-

$$\% ED_{120} = 73.80 \%$$

$$LR : a = 0,9547; b = - 0,0156; r = - 0,9373 > 0,666 \text{ (r tabel)}$$

$$k_{\text{Disolusi}} = - b \times 2,303 = 0,0156 \times 2,303 = 0,0360 \text{ menit}^{-1}$$

• Dispersi Solid A (replikasi 2)

t (menit)	A	C	Wt	% Wt	AUC	AUC kum	Log (Wt~ - Wt)
0	0	0	0	0	0	0	0.9621
5	0.059	0.023	0.021	00.23	0.052	0.052	0.933
10	0.278	3.927	3.534	38.56	8.888	8.940	0.751
15	0.304	4.390	3.951	43.11	18.714	27.654	0.717
20	0.371	5.585	5.026	54.84	22.444	50.098	0.671
30	0.461	7.189	6.470	70.59	57.481	107.579	0.417
40	0.502	7.919	7.128	77.77	67.989	175.568	0.311
50	0.538	8.562	7.705	84.07	74.166	240.734	0.157
65	0.584	9.382	8.443	92.12	121.115	370.849	-0.102
80	0.615	9.934	8.914	97.55	130.379	501.229	-0.142
100	0.621	10.041	9.037	98.60	179.775	681.004	-0.644
120	0.629	10.184	9.165	100	182.021	863.025	-

$$\% \text{ED}_{120} = 71.92 \%$$

$$\text{LR : } a = 0,9572; b = -0,0164; r = -0,9961 > 0,666 \text{ (r tabel)}$$

$$k_{\text{Disolusi}} = -b \times 2,303 = 0,0164 \times 2,303 = 0,0377 \text{ menit}^{-1}$$

• Dispersi Solid A (replikasi 3)

t (menit)	A	C	Wt	% Wt	AUC	AUC kum	Log (Wt~ - Wt)
0	0	0	0	0	0	0	0.964
5	0.201	2.554	2.298	24.99	5.747	5.747	0.839
10	0.235	3.160	2.844	30.93	12.858	18.606	0.803
15	0.317	4.622	4.159	45.23	17.511	36.116	0.702
20	0.375	5.656	5.090	55.35	23.126	59.242	0.614
30	0.470	7.349	6.614	71.92	58.524	117.766	0.142
40	0.503	7.938	7.144	77.67	68.792	186.558	0.313
50	0.541	8.615	7.754	84.30	74.487	216.045	0.159
65	0.582	9.346	8.411	91.45	113.735	374.780	-0.105
80	0.617	9.969	8.973	97.56	130.379	505.159	-0.649
100	0.627	10.148	9.133	99.30	181.059	686.218	-1.193
120	0.631	10.219	9.197	100	183.305	869.523	-

$$\% \text{ED}_{120} = 72.46 \%$$

$$\text{LR : } a = 0,9418; b = -0,0161; r = -0,9978 > 0,666 \text{ (r tabel)}$$

$$k_{\text{Disolusi}} = -b \times 2,303 = 0,0161 \times 2,303 = 0,0369 \text{ menit}^{-1}$$

● Dispersi Solid B (replikasi 1)

t (menit)	A	C	Wt	% Wt	AUC	AUC kum	Log (Wt~ - Wt)
0	0	0	0	0	0	0	1.006
5	0.293	4.194	3.775	37.27	9.438	9.438	0.720
10	0.362	5.424	4.882	48.20	21.643	31.081	0.665
15	0.401	6.119	5.507	54.37	25.973	57.054	0.625
20	0.483	7.581	6.823	67.37	30.825	87.879	0.497
30	0.502	7.919	7.128	70.38	69.754	157.633	0.387
40	0.537	8.544	7.689	75.92	73.040	230.673	0.235
50	0.582	9.346	8.411	83.05	80.500	311.173	0.114
65	0.608	9.809	8.828	87.16	129.293	440.466	-0.215
80	0.641	10.398	9.358	92.40	136.395	576.816	-0.380
100	0.663	10.789	9.711	95.88	190.690	767.551	-0.630
120	0.689	11.253	10.128	100	198.390	965.941	-

$$\% \text{ED}_{120} = 80.49 \%$$

$$\text{LR} : a = 0,8692; b = -0,0167; r = -0,9901 > 0,632 \text{ (r tabel)}$$

$$k_{\text{Disolusi}} = -b \times 2,303 = 0,0167 \times 2,303 = 0,0385 \text{ menit}^{-1}$$

● Dispersi Solid B (replikasi 2)

t (menit)	A	C	Wt	% Wt	AUC	AUC kum	Log (Wt~ - Wt)
0	0	0	0	0	0	0	1.007
5	0.289	4.123	3.711	36.52	9.278	9.278	0.796
10	0.368	5.531	4.978	48.99	21.723	31.001	0.714
15	0.403	6.155	5.540	54.52	26.295	57.296	0.665
20	0.487	7.652	6.887	67.79	31.068	88.364	0.151
30	0.499	7.866	7.080	69.68	69.835	158.199	0.387
40	0.539	8.579	7.721	75.99	74.005	232.204	0.250
50	0.580	9.310	8.380	82.47	80.505	312.709	0.123
65	0.611	9.863	8.876	87.37	129.420	442.129	-0.109
80	0.645	10.469	9.422	92.74	137.235	579.364	-0.232
100	0.659	10.718	9.647	94.95	190.690	770.054	-0.405
120	0.691	11.289	10.160	100	198.070	968.124	-

$$\% \text{ED}_{120} = 80.68 \%$$

$$\text{LR} : a = 0,8809; b = -0,0166; r = -0,9893 > 0,666 \text{ (r tabel)}$$

$$k_{\text{Disolusi}} = -b \times 2,303 = 0,0166 \times 2,303 = 0,0382 \text{ menit}^{-1}$$

● Dispersi Solid B (replikasi 3)

t (menit)	A	C	Wt	% Wt	AUC	AUC kum	Log (Wt~ - Wt)
0	0	0	0	0	0	0	1.003
5	0.295	4.229	3.807	37.77	9.518	9.518	0.797
10	0.359	5.371	4.834	47.95	21.603	31.121	0.715
15	0.403	6.155	5.540	54.96	25.935	57.056	0.657
20	0.485	7.617	6.855	68.01	30.988	88.044	0.509
30	0.507	8.009	7.208	71.51	70.315	158.359	0.458
40	0.543	8.615	7.786	77.24	74.970	233.329	0.316
50	0.581	9.328	8.395	83.29	80.905	314.234	0.227
65	0.613	9.898	8.909	88.38	129.780	444.014	-0.063
80	0.635	10.291	9.261	91.88	136.275	580.289	-0.385
100	0.671	10.932	9.839	97.61	191.000	771.289	-0.618
120	0.686	11.199	10.080	100	199.190	970.479	-

$$\% \text{ED}_{120} = 80.87 \%$$

$$\text{LR} : a = 0,8630; b = -0,0163; r = -0,9829 > 0,632 \text{ (r tabel)}$$

$$k_{\text{Disolusi}} = -b \times 2,303 = 0,0163 \times 2,303 = 0,0375 \text{ menit}^{-1}$$

● Dispersi Solid C (replikasi 1)

t (menit)	A	C	Wt	% Wt	AUC	AUC kum	Log (Wt~ - Wt)
0	0	0	0	0	0	0	1.029
5	0.305	4.408	3.967	37.11	9.918	9.918	0.827
10	0.432	6.672	6.005	56.18	24.930	34.848	0.713
15	0.451	7.011	6.310	59.03	30.788	65.636	0.641
20	0.475	7.439	6.695	62.63	32.513	98.149	0.601
30	0.571	9.149	8.235	77.04	74.650	172.799	0.390
40	0.613	9.898	8.909	83.35	85.720	258.519	0.250
50	0.648	10.522	9.470	88.59	91.895	350.414	0.086
65	0.679	11.075	9.967	93.25	145.778	496.192	-0.067
80	0.693	11.324	10.192	95.35	151.193	647.385	-0.423
100	0.712	11.663	10.497	98.20	206.890	854.275	-0.805
120	0.724	11.877	10.689	100	211.860	1066.135	-

$$\% \text{ED}_{120} = 88.84 \%$$

$$\text{LR} : a = 0,9357; b = -0,0179; r = -0,9957 > 0,602 \text{ (r tabel)}$$

$$k_{\text{Disolusi}} = -b \times 2,303 = 0,0179 \times 2,303 = 0,0413 \text{ menit}^{-1}$$

● Dispersi Solid C (replikasi 2)

t (menit)	A	C	Wt	% Wt	AUC	AUC kum	Log (Wt~ - Wt)
0	0	0	0	0	0	0	1.029
5	0.307	4.444	3.999	37.36	9.998	9.998	0.826
10	0.435	6.725	6.053	56.54	25.130	35.128	0.710
15	0.457	7.118	6.406	59.84	31.148	66.276	0.633
20	0.481	7.545	6.791	63.44	32.993	99.269	0.593
30	0.575	9.221	8.299	77.52	75.450	174.719	0.381
40	0.618	9.988	8.989	83.97	86.440	216.159	0.245
50	0.650	10.558	9.502	88.76	92.455	353.614	0.080
65	0.683	11.146	10.032	93.71	146.505	500.119	-0.172
80	0.701	11.467	10.320	96.41	152.640	625.759	-0.415
100	0.715	11.717	10.545	98.50	208.650	861.409	-0.796
120	0.725	11.895	10.705	100	212.500	1073.909	-

$$\% \text{ED}_{120} = 89.49 \%$$

$$\text{LR} : a = 0,9315; b = -0,0178; r = -0,9933 > 0,666 \text{ (r tabel)}$$

$$k_{\text{Disolusi}} = -b \times 2,303 = 0,0178 \times 2,303 = 0,0410 \text{ menit}^{-1}$$

● Dispersi Solid C (replikasi 3)

t (menit)	A	C	Wt	% Wt	AUC	AUC kum	Log (Wt~ - Wt)
0	0	0	0	0	0	0	1.027
5	0.301	4.337	3.903	36.68	9.758	9.758	0.829
10	0.432	6.672	6.005	56.43	24.770	34.528	0.711
15	0.450	6.993	6.294	59.15	30.748	65.276	0.643
20	0.473	7.403	6.663	62.61	32.393	97.669	0.599
30	0.575	9.221	8.299	77.99	74.810	172.479	0.370
40	0.618	9.988	8.989	84.47	86.440	258.919	0.218
50	0.648	10.522	9.470	88.90	92.295	315.214	0.069
65	0.678	11.057	9.915	93.52	145.658	496.872	-0.161
80	0.691	11.289	10.159	95.48	150.825	647.697	-0.317
100	0.711	11.645	10.481	98.49	206.400	854.097	-0.796
120	0.721	11.824	10.641	100	211.220	1065.317	-

$$\% \text{ED}_{120} = 88.78 \%$$

$$\text{LR} : a = 0,9322; b = -0,0176; r = -0,9932 > 0,666 \text{ (r tabel)}$$

$$k_{\text{Disolusi}} = -b \times 2,303 = 0,0176 \times 2,303 = 0,0405 \text{ menit}^{-1}$$

● Dispersi Solid D (replikasi 1)

t (menit)	A	C	Wt	% Wt	AUC	AUC kum	Log (Wt~ - Wt)
0	0	0	0	0	0	0	1.041
5	0.313	4.552	4.097	37.27	10.243	10.243	0.839
10	0.347	5.158	4.642	42.22	21.848	32.091	0.803
15	0.429	6.619	5.957	54.18	26.498	58.589	0.702
20	0.587	9.435	8.491	77.23	36.120	94.709	0.614
30	0.601	9.684	8.716	79.28	86.035	180.744	0.412
40	0.615	9.933	8.939	81.31	88.275	269.019	0.313
50	0.653	10.610	9.549	86.86	92.440	361.459	0.160
65	0.694	11.342	10.207	92.84	148.170	509.629	-0.104
80	0.730	11.966	10.769	97.95	157.320	666.949	-0.648
100	0.739	12.144	10.930	99.42	216.990	883.939	-1.193
120	0.743	12.216	10.994	100	219.240	1163.179	-

$$\% \text{ED}_{120} = 96.93 \%$$

$$\text{LR} : a = 1.0446; b = -0.0206; r = -0.9878 > 0.602 \text{ (r tabel)}$$

$$k_{\text{Disolusi}} = -b \times 2,303 = 0.0206 \times 2,303 = 0.0475 \text{ menit}^{-1}$$

● Dispersi Solid D (replikasi 2)

t (menit)	A	C	Wt	% Wt	AUC	AUC kum	Log (Wt~ - Wt)
0	0	0	0	0	0	0	1.042
5	0.310	4.497	4.048	36.76	10.120	10.120	0.842
10	0.345	5.1212	4.609	41.86	21.643	31.763	0.806
15	0.425	6.547	5.893	53.52	26.255	58.218	0.704
20	0.588	9.453	8.507	77.27	36.000	94.218	0.623
30	0.601	9.684	8.716	79.16	86.115	180.333	0.397
40	0.616	9.952	8.957	81.35	88.365	268.698	0.312
50	0.654	10.629	9.566	86.89	92.615	361.313	0.159
65	0.683	11.146	10.032	91.11	146.985	508.298	-0.010
80	0.731	12.002	10.802	98.11	156.255	664.553	-0.651
100	0.736	12.091	10.882	98.84	216.840	881.393	-1.204
120	0.744	12.234	11.010	100	279.794	1161.187	-

$$\% \text{ED}_{120} = 96.77 \%$$

$$\text{LR} : a = 1.0546; b = -0.0208; r = -0.9805 > 0.602 \text{ (r tabel)}$$

$$k_{\text{Disolusi}} = -b \times 2,303 = 0.0208 \times 2,303 = 0.0480 \text{ menit}^{-1}$$

● Dispersi Solid D (replikasi 3)

t (menit)	A	C	Wt	% Wt	AUC	AUC kum	Log (Wt~ - Wt)
0	0	0	0	0	0	0	1.041
5	0.309	4.479	4.032	36.72	10.080	10.080	0.842
10	0.347	5.157	4.641	42.28	21.683	31.763	0.801
15	0.428	6.601	5.941	54.11	26.455	58.218	0.702
20	0.588	9.453	8.507	77.50	36.120	94.338	0.393
30	0.605	9.756	8.780	79.98	86.435	180.773	0.342
40	0.615	9.933	8.939	81.43	88.595	269.368	0.309
50	0.658	10.701	9.630	87.73	92.845	362.213	0.130
65	0.692	11.307	10.176	92.69	148.545	510.758	-0.096
80	0.728	11.948	10.753	97.95	156.968	667.726	-0.648
100	0.740	12.162	10.946	99.70	216.990	884.716	-1.293
120	0.742	12.198	10.978	100	279.240	1163.956	-

% ED₁₂₀ = 96.99 %

LR : a = 1.0137; b = - 0,0208; r = - 0,9779 > 0,602 (r tabel)

k_{Disolusi} = - b x 2,303 = 0,0208 x 2,303 = 0,0479 menit⁻¹

Lampiran 4

PERHITUNGAN ANAVA**Nilai K (Tetapan Disolusi)**

JUMLAH	P E R L A K U A N						JUMLAH
	Keto	CFA	SDA	SDB	SDC	SDD	
1	0.0211	0.0267	0.0360	0.0385	0.0413	0.0475	
2	0.0201	0.0266	0.0377	0.0382	0.0410	0.0480	
3	0.0204	0.0287	0.0369	0.0375	0.0405	0.0479	
n	3	3	3	3	3	3	18
RATA-RATA	0.02053	0.02733	0.03687	0.03807	0.04093	0.04780	-
Ji	0.06160	0.08200	0.11060	0.11420	0.12280	0.14340	0.63460
Ji ²	0.00379	0.00672	0.01223	0.01304	0.01508	0.02056	0.07144

Perhitungan JK: k = 6 n = 3 N = 18

$$\sum Y_{ij}^2 = 0.02381776 \quad J = \sum J_i = 0.6346$$

$$JK \text{ TOTAL} = \sum Y_{ij}^2 - \frac{J^2}{N} = 0.001445$$

$$JK.Py = \frac{\sum J_i^2}{n} - \frac{J^2}{N} = 0.001439$$

$$JK.Ey = \text{TOTAL} - Py = 0.4149$$

TABEL ANAVA

SV	db	JK	RJK	F hit.	F (0.05)
Py	5	0.0014	0.0003	598.120	3.11
Ey	12	0.0000	0.0000		
TOTAL	17	0.0014	-	-	-

$$db \text{ (TOTAL)} = kn - 1$$

$$RJK = JK / db$$

$$db \text{ (Py)} = (k - 1)$$

$$F \text{ hitung} = RJK \text{ (Py)} / RJK \text{ (Ey)}$$

$$db \text{ (Ey)} = db \text{ (TOTAL)} - Py$$

UJI TUCKEY (HSD)

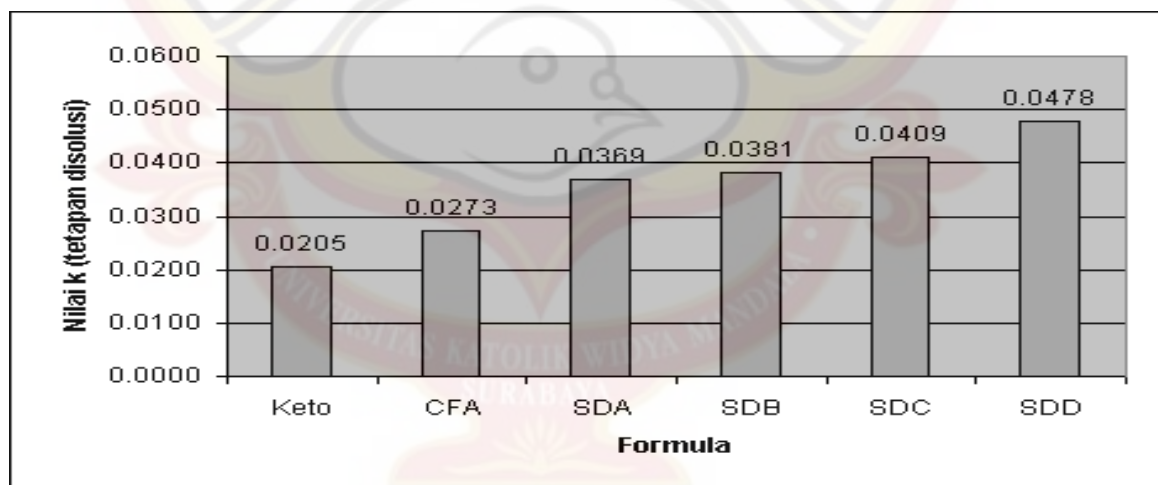
PERL.		<i>Keto</i>		<i>CFA</i>		<i>SDA</i>		<i>SDB</i>		<i>SDC</i>		<i>SDD</i>	
	MEAN	0.0205		0.0273		0.0369		0.0381		0.0409		0.0478	
<i>Keto</i>	0.0205	0.0000		0.0068	*	0.0163	*	0.0175	*	0.0204	*	0.0273	*
<i>CFA</i>	0.0273			0.0000		0.0095	*	0.0107	*	0.0136	*	0.0205	*
<i>SDA</i>	0.0369					0.0000		0.0012	ts	0.0041	*	0.0109	*
<i>SDB</i>	0.0381							0.0000		0.0029	*	0.0097	*
<i>SDC</i>	0.0409									0.0000		0.0069	*
<i>SDD</i>	0.0478											0	ts

$$\begin{aligned}
 RJK &= 0.00000 \\
 n &= 3 \\
 db &= 12
 \end{aligned}
 \quad
 \begin{aligned}
 q_{(5\%/2;p;db)} &= 4.75 \\
 HSD(5\%) &= q \sqrt{\frac{RJK}{n}} = 0.002
 \end{aligned}$$

Keterangan

* : Perbedaan signifikan, karena selisihnya > HSD(5%)

TS : Perbedaan signifikan, karena selisihnya < HSD(5%)



Lampiran 5

PERHITUNGAN ANAVA**Nilai % ED**

JUMLAH	PER L A K U A N						JUMLAH
	<i>Keto</i>	<i>CFA</i>	<i>SDA</i>	<i>SDB</i>	<i>SDC</i>	<i>SDD</i>	
1	45.70	58.84	73.80	80.49	88.84	96.93	
2	46.23	58.57	71.92	80.68	89.49	96.77	
3	47.81	59.14	72.46	80.78	88.78	96.99	
n	3	3	3	3	3	3	18
RATA-RATA	46.580	58.850	72.727	80.650	89.037	96.897	-
Ji	139.740	176.550	218.180	241.950	267.110	290.690	1334.220
Ji ²	19527.268	31169.903	47602.512	#####	71347.752	84500.676	312687.91

Perhitungan JK: k = 6 n = 3 N = 18

$$\sum Y_{ij}^2 = 104234.13 \quad J = \sum J_i = 1334.22$$

$$JK \text{ TOTAL} = \sum Y_{ij}^2 - \frac{J^2}{N} = 5337.2962$$

$$JK. Py = \frac{\sum J_i^2}{n} - \frac{J^2}{N} = 5332.4706$$

$$JK.Ey = \text{TOTAL} - Py = 0.000007$$

TABEL ANAVA

SV	db	JK	RJK	F hit.	F (0.05)
Py	5	5332.4706	1066.4941	2652.091	3.11
Ey	12	4.8256	0.4021		
TOTAL	17	5337.2962	-	-	-

$$db \text{ (TOTAL)} = kn - 1$$

$$RJK = JK / db$$

$$db \text{ (Py)} = (k - 1)$$

$$F \text{ hitung} = RJK \text{ (Py)} / RJK \text{ (Ey)}$$

$$db \text{ (Ey)} = db \text{ (TOTAL - Py)}$$

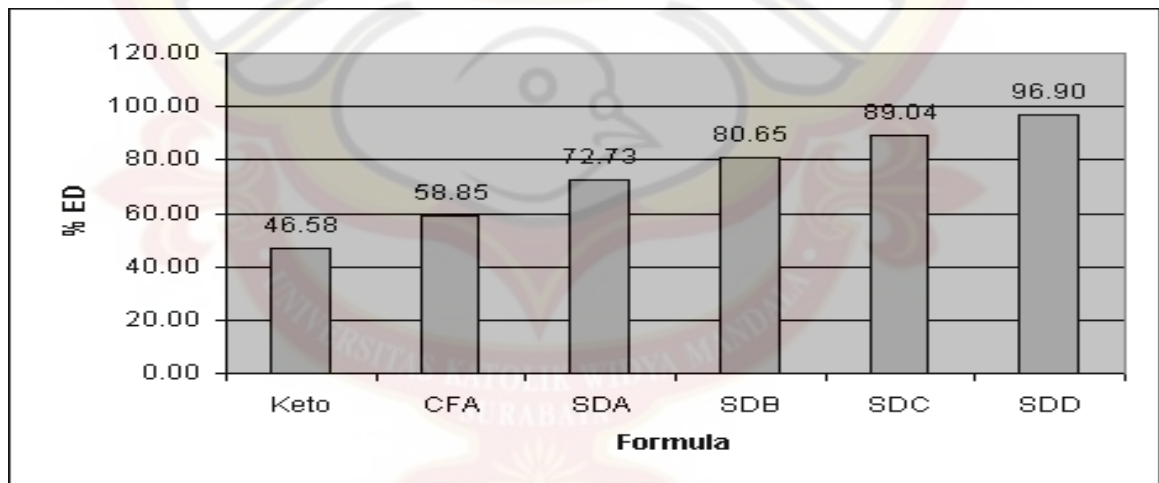
UJI TUCKEY (HSD)

PERL.		Keto	CFA	SDA	SDB	SDC	SDD
	MEAN	46.58	58.85	72.73	80.65	89.04	96.90
Keto	46.58	0	12.270 *	26.147 *	34.070 *	42.45667 *	50.3167 *
CFA	58.85		0	13.877 *	21.800 *	30.18667 *	38.0467 *
SDA	72.73			0	7.923 *	16.31 *	24.17 *
SDB	80.65				0	8.3867 *	16.2467 *
SDC	89.04					0	7.86 *
SDD	96.90						0 ts

$$\begin{aligned}
 \text{RJK} &= 0.40213 \\
 n &= 3 \\
 \text{db} &= 12
 \end{aligned}
 \quad
 \begin{aligned}
 q_{(5\%/2;p;db)} &= 4.75 \\
 \text{HSD}(5\%) &= q \sqrt{\frac{\text{RJK}}{n}} = 1.739
 \end{aligned}$$

Keterangan

* : Perbedaananya signifikan karena selisih rata-rata > HSD (5%).



Lampiran 6

PERHITUNGAN ANAVA PENETAPAN KADAR
Campuran fisik A (1 : 1 : 2)

ULANGAN	P E R L A K U A N			JUMLAH
	Pengulangan 1	Pengulangan 2	Pengulangan 3	
1	25.06	25.07	24.90	
2	24.96	24.97	25.06	
3	25.06	24.97	25.01	
n	3	3	3	9
RATA-RATA	25.0267	25.0033	24.9900	-
Ji	75.080	75.970	74.970	225.060
Ji ²	5637.006	5626.500	5620.501	16884.007

Perhitungan JK: k = 3 n = 3 N = 9

$$\begin{aligned} \sum Y_{ij}^2 &= 5628.029 & J = \sum J_i &= 225.06 \\ JK \text{ TOTAL} &= \sum Y_{ij}^2 - \frac{J^2}{N} & &= 0.0288 \\ JK. Py &= \frac{\sum J_i^2}{n} - \frac{J^2}{N} & &= 0.0021 \\ JK.Ey &= \text{TOTAL} - Py & &= 0.0267 \end{aligned}$$

TABEL ANAVA

SV	db	JK	RJK	F hit.	F (0.05)
Py	2	0.0021	0.0010	0.232	5.14
Ey	6	0.0267	0.0045		
TOTAL	8	0.0228	-	-	-

$$\begin{aligned} db \text{ (TOTAL)} &= kn - 1 & RJK &= JK / db \\ db \text{ (Py)} &= (k - 1) & F \text{ hitung} &= RJK \text{ (Py)} / RJK \text{ (Ey)} \\ db \text{ (Ey)} &= db \text{ (TOTAL} - Py) \end{aligned}$$

Kriteria pengujian : jika F hitung > F(<%) maka berbeda signifikan

PERHITUNGAN ANAVA PENETAPAN KADAR
Dispersi solida A (1 : 1 : 2)

ULANGAN	P E R L A K U A N			JUMLAH
	Pengulangan 1	Pengulangan 2	Pengulangan 3	
1	25.00	25.06	24.91	
2	24.90	24.09	25.02	
3	24.90	24.95	24.91	
n	3	3	3	9
RATA-RATA	24.9333	24.7000	24.9467	-
Ji	74.800	74.100	74.840	223.740
Ji ²	5595.040	5490.810	5601.026	16686.876

Perhitungan JK: k = 3 n = 3 N = 9

$$\begin{aligned}\sum Y_{ij}^2 &= 5562.871 & J = \sum J_i &= 223.74 \\ \text{JK TOTAL} &= \sum Y_{ij}^2 - \frac{J^2}{N} & &= 0.6944 \\ \text{JK. Py} &= \frac{\sum J_i^2}{n} - \frac{J^2}{N} & &= 0.1155 \\ \text{JK.Ey} &= \text{TOTAL} - \text{Py} & &= 0.5789\end{aligned}$$

TABEL ANAVA

SV	db	JK	RJK	F hit.	F (0.05)
Py	2	0.1155	0.0577	0.598	5.14
Ey	6	0.5789	0.0965		
TOTAL	8	0.6944	-	-	-

$$\begin{aligned}\text{db (TOTAL)} &= kn - 1 & \text{RJK} &= \text{JK} / \text{db} \\ \text{db (Py)} &= (k - 1) & \text{F hitung} &= \text{RJK (Py)} / \text{RJK (Ey)} \\ \text{db (Ey)} &= \text{db (TOTAL - Py)}\end{aligned}$$

Kriteria pengujian : jika F hitung > F(<%) maka berbeda signifikan

PERHITUNGAN ANAVA PENETAPAN KADAR
Dispersi solida B (1 : 2 : 2)

ULANGAN	P E R L A K U A N			JUMLAH
	Pengulangan 1	Pengulangan 2	Pengulangan 3	
1	20.02	19.98	19.98	
2	20.07	19.94	20.02	
3	20.02	20.02	20.02	
n	3	3	3	9
RATA-RATA	20.0367	19.9800	20.0067	-
Ji	60.110	59.940	60.020	180.070
Ji ²	3613.212	3592.804	3602.400	10808.416

Perhitungan JK: K = 3 n = 3 N = 9

$$\begin{aligned}\sum Y_{ij}^2 &= 3602.811 & J = \sum J_i &= 180.07 \\ JK \text{ TOTAL} &= \sum Y_{ij}^2 - \frac{J^2}{N} & &= 0.0108 \\ JK. Py &= \frac{\sum J_i^2}{n} - \frac{J^2}{N} & &= 0.0048 \\ JK.Ey &= \text{TOTAL} - Py & &= 0.0059\end{aligned}$$

TABEL ANAVA

SV	db	JK	RJK	F hit.	F (0.05)
Py	2	0.0048	0.0024	2.438	5.14
Ey	6	0.0059	0.0010		
TOTAL	8	0.0108	-	-	-

$$\begin{aligned}db \text{ (TOTAL)} &= kn - 1 & RJK &= JK / db \\ db \text{ (Py)} &= (k - 1) & F \text{ hitung} &= RJK \text{ (Py)} / RJK \text{ (Ey)} \\ db \text{ (Ey)} &= db \text{ (TOTAL} - Py)\end{aligned}$$

Kriteria pengujian : jika F hitung > F(<%) maka berbeda signifikan

PERHITUNGAN ANAVA PENETAPAN KADAR
Dispersi solida C (1 : 4 : 2)

ULANGAN	PER L A K U A N			JUMLAH
	Pengulangan 1	Pengulangan 2	Pengulangan 3	
1	14.06	14.13	14.01	
2	14.03	14.10	14.07	
3	14.10	14.13	14.07	
n	3	3	3	9
RATA-RATA	14.0633	14.1200	14.0500	-
Ji	42.190	42.360	42.150	126.700
Ji ²	1779.996	1794.370	1776.623	5350.988

Perhitungan JK: k = 3 n = 3 N = 9

$$\sum Y_{ij}^2 = 1783.67 \quad J = \sum J_i = 126.7$$

$$JK \text{ TOTAL} = \sum Y_{ij}^2 - \frac{J^2}{N} = 0.0138$$

$$JK. Py = \frac{\sum J_i^2}{n} - \frac{J^2}{N} = 0.0083$$

$$JK.Ey = \text{TOTAL} - Py = 0.0016$$

TABEL ANAVA

SV	db	JK	RJK	F hit.	F (0.05)
Py	2	0.0083	0.0041	4.549	5.14
Ey	6	0.0055	0.0009		
TOTAL	8	0.0138	-	-	-

$$\begin{aligned} db \text{ (TOTAL)} &= kn - 1 & RJK &= JK / db \\ db \text{ (Py)} &= (k - 1) & F \text{ hitung} &= RJK \text{ (Py)} / RJK \text{ (Ey)} \\ db \text{ (Ey)} &= db \text{ (TOTAL} - Py) \end{aligned}$$

Kriteria pengujian : jika F hitung > F(<%) maka berbeda signifikan

PERHITUNGAN ANAVA PENETAPAN KADAR
Dispersi solida D(1 : 6 : 2)

ULANGAN	P E R L A K U A N			JUMLAH
	Pengulangan 1	Pengulangan 2	Pengulangan 3	
1	11.04	11.06	11.04	
2	11.02	11.03	11.00	
3	11.04	11.06	11.02	
n	3	3	3	9
RATA-RATA	11.0333	11.0500	11.0200	-
Ji	33.100	33.150	33.060	99.310
Ji ²	1095.610	1098.923	1092.964	3287.496

Perhitungan JK: k = 3 n = 3 N = 9

$$\begin{aligned}\sum Y_{ij}^2 &= 1095.83 & J = \sum J_i &= 99.31 \\ JK \text{ TOTAL} &= \sum Y_{ij}^2 - \frac{J^2}{N} & &= 0.0030 \\ JK. Py &= \frac{\sum J_i^2}{n} - \frac{J^2}{N} & &= 0.0014 \\ JK.Ey &= \text{TOTAL} - Py & &= 0.0016\end{aligned}$$

TABEL ANAVA

SV	db	JK	RJK	F hit.	F (0.05)
Py	2	0.0014	0.0007	2.440	5.14
Ey	6	0.0017	0.0003		
TOTAL	8	0.0030	-	-	-

$$\begin{aligned}db \text{ (TOTAL)} &= kn - 1 & RJK &= JK / db \\ db \text{ (Py)} &= (k - 1) & F \text{ hitung} &= RJK \text{ (Py)} / RJK \text{ (Ey)} \\ db \text{ (Ey)} &= db \text{ (TOTAL} - Py)\end{aligned}$$

Kriteria pengujian : jika F hitung > F(<%) maka berbeda signifikan

Lampiran 7

Tabel Korelasi (r)

Nilai kritis koefisien korelasi ®

	α	r		α	r		α	r
1	0.5	0.997	16	0.5	0.468	35	0.5	0.325
	0.1	1,000		0.1	0.59		0.1	0.418
2	0.5	0.95	17	0.5	0.456	40	0.5	0.304
	0.1	0.99		0.1	0.575		0.1	0.393
3	0.5	0.878	18	0.5	0.444	45	0.5	0.288
	0.1	0.959		0.1	0.561		0.1	0.372
4	0.5	0.811	19	0.5	0.433	50	0.5	0.273
	0.1	0.917		0.1	0.549		0.1	0.354
5	0.5	0.754	20	0.5	0.423	60	0.5	0.25
	0.1	0.874		0.1	0.537		0.1	0.325
6	0.5	0.707	21	0.5	0.413	70	0.5	0.232
	0.1	0.834		0.1	0.526		0.1	0.302
7	0.5	0.666	22	0.5	0.404	80	0.5	0.217
	0.1	0.798		0.1	0.515		0.1	0.283
8	0.5	0.632	23	0.5	0.396	90	0.5	0.205
	0.1	0.765		0.1	0.505		0.1	0.267
9	0.5	0.602	24	0.5	0.388	100	0.5	0.195
	0.1	0.735		0.1	0.496		0.1	0.254
10	0.5	0.576	25	0.5	0.381	120	0.5	0.174
	0.1	0.708		0.1	0.487		0.1	0.228
11	0.5	0.553	26	0.5	0.374	150	0.5	0.159
	0.1	0.684		0.1	0.478		0.1	0.208
12	0.5	0.532	27	0.5	0.367	200	0.5	0.138
	0.1	0.661		0.1	0.47		0.1	0.181
13	0.5	0.514	28	0.5	0.361	300	0.5	0.113
	0.1	0.641		0.1	0.463		0.1	0.148
14	0.5	0.497	29	0.5	0.355	400	0.5	0.98
	0.1	0.623		0.1	0.456		0.1	0.128
15	0.5	0.482	30	0.5	0.349	500	0.5	0.88
	0.1	0.606		0.1	0.449		0.1	0.115
						1000	0.5	0.62
							0.1	0.81

Dikutip dari Sokal, R.R. & Rohlf, F.J., 1991.

Lampiran 8

Tabel F

Nilai kritis distribusi F

		ν_1 (derajat bebas kuadrat tengah pembilang)													
ν_2 (derajat bebas kuadrat tengah penyebut)		α	1	2	3	4	5	6	7	8	9	10	11	12	α
	1	0.05	161	199	216	225	230	234	237	239	241	241	243	244	0.05
		0.025	648	800	864	900	922	937	948	957	963	969	973	977	0.025
		0.01	4050	5000	5400	5620	5760	5860	5930	5980	6020	6060	6080	6110	0.01
	2	0.05	18.5	19.0	19.2	19.2	19.3	19.3	19.4	19.4	19.4	19.4	19.4	19.4	0.05
		0.025	38.5	39.0	39.2	39.2	39.3	39.3	39.4	39.4	39.4	39.4	39.4	39.4	0.025
		0.01	98.5	99.0	99.2	99.2	99.3	99.3	99.4	99.4	99.4	99.4	99.4	99.4	0.01
	3	0.05	10.1	9.55	9.28	9.12	9.01	8.94	8.89	8.85	8.81	8.79	8.76	8.74	0.05
		0.025	17.4	16.0	15.4	15.1	14.9	14.7	14.6	14.5	14.5	14.4	14.3	14.3	0.025
		0.01	34.1	30.8	29.5	28.7	28.2	27.9	27.7	27.5	27.3	27.2	27.1	27.1	0.01
	4	0.05	7.71	6.94	6.59	6.39	6.26	6.16	6.09	6.04	6.00	5.96	5.93	5.91	0.05
		0.025	12.2	10.6	9.98	9.60	9.36	9.20	9.07	8.98	8.90	8.84	8.79	8.75	0.025
		0.01	21.2	18.0	16.7	16.0	15.5	15.2	15.0	14.8	14.7	14.5	14.4	14.4	0.01
	5	0.05	6.61	5.79	5.41	5.19	5.05	4.95	4.88	4.82	4.77	4.74	4.71	4.68	0.05
		0.025	10.0	8.43	7.76	7.39	7.15	6.98	6.85	6.76	6.68	6.62	6.57	6.52	0.025
		0.01	16.3	13.3	12.1	11.4	11.0	10.7	10.5	10.3	10.2	10.1	9.99	9.89	0.01
	6	0.05	5.99	5.14	4.76	4.53	4.39	4.28	4.21	4.15	4.10	4.06	4.03	4.00	0.05
		0.025	8.81	7.26	6.60	6.23	5.99	5.82	5.70	5.60	5.52	5.46	5.41	5.37	0.025
		0.01	13.7	10.9	9.78	9.15	8.75	8.47	8.26	8.10	7.98	7.87	7.79	7.72	0.01
	7	0.05	5.59	4.74	4.35	4.12	3.97	3.87	3.77	3.73	3.68	3.64	3.60	3.57	0.05
		0.025	8.07	6.54	5.89	5.52	5.29	5.12	4.99	4.89	4.82	4.76	4.71	4.67	0.025
		0.01	12.2	9.55	8.45	7.85	7.46	7.19	6.99	6.84	6.72	6.62	6.54	6.47	0.01
	8	0.05	5.32	4.46	4.07	3.84	3.69	3.58	3.50	3.44	3.39	3.35	3.31	3.28	0.05
		0.025	7.57	6.06	5.42	5.05	4.82	4.65	4.53	4.43	4.36	4.30	4.25	4.20	0.025
		0.01	11.3	8.65	7.59	7.01	6.63	6.37	6.18	6.03	5.91	5.81	5.73	5.67	0.01
	9	0.05	5.12	4.26	3.86	3.63	3.48	3.37	3.29	3.23	3.18	3.14	3.10	3.07	0.05
		0.025	7.21	5.71	5.08	4.72	4.48	4.32	4.20	4.10	4.03	3.96	3.91	3.87	0.025
		0.01	10.6	8.02	6.99	6.42	6.06	5.80	5.61	5.47	5.35	5.26	5.18	5.11	0.01
	10	0.05	4.96	4.10	3.71	3.48	3.33	3.22	3.14	3.07	3.02	2.98	2.94	2.91	0.05
		0.025	6.94	5.46	4.83	4.47	4.24	4.07	3.95	3.85	3.78	3.72	3.67	3.62	0.025
	0.01	10.0	7.56	6.55	5.99	5.64	5.39	5.20	5.06	4.94	4.85	4.77	4.71	0.01	

Dikutip dari Sokal, R.R. & Rohlf, F.J., 1991.

Lampiran 9

Tabel Uji HSD

Tabel uji HSD (0.05)

k										
d.k.	2	3	4	5	6	7	8	9	10	11
5	3.64	4.60	5.22	5.67	6.03	6.33	6.58	6.80	6.99	7.17
6	3.46	4.34	4.90	5.30	5.63	5.90	6.12	6.32	6.49	6.65
7	3.34	4.16	4.68	5.06	5.36	5.61	5.82	6.00	6.16	6.30
8	3.26	4.04	4.53	4.89	5.17	5.40	5.60	5.77	5.92	6.05
9	3.20	3.95	4.41	4.76	5.02	5.24	5.43	5.59	5.74	5.87
10	3.15	3.88	4.33	4.65	4.91	5.12	5.30	5.46	5.60	5.72
11	3.11	3.82	4.26	4.57	4.82	5.03	5.20	5.35	5.49	5.61
12	3.08	3.77	4.20	4.51	4.75	4.95	5.12	5.27	5.39	5.51
13	3.06	3.73	4.15	4.45	4.69	4.88	5.05	5.19	5.32	5.43
14	3.03	3.70	4.11	4.41	4.64	4.83	4.99	5.13	5.25	5.36
15	3.01	3.67	4.08	4.37	4.59	4.78	4.94	5.08	5.20	5.31
16	3.00	3.65	4.05	4.33	4.56	4.74	4.90	5.03	5.15	5.26
17	2.98	3.63	4.02	4.30	4.52	4.71	4.86	4.99	5.11	5.21
18	2.97	3.61	4.00	4.28	4.49	4.67	4.82	4.96	5.07	5.17
19	2.96	3.59	3.98	4.25	4.47	4.65	4.79	4.92	5.04	5.14
20	2.95	3.58	3.96	4.23	4.45	4.62	4.77	4.90	5.01	5.11
24	2.92	3.53	3.90	4.17	4.37	4.54	4.68	4.81	4.92	5.01
30	2.89	3.49	3.85	4.10	4.30	4.46	4.60	4.72	4.82	4.92
40	2.86	3.44	3.79	4.04	4.23	4.39	4.52	4.63	4.73	4.82
60	2.83	3.40	3.74	3.98	4.16	4.31	4.44	4.55	4.65	4.73
120	2.80	3.36	3.68	3.92	4.10	4.24	4.36	4.47	4.56	4.64
∞	2.77	3.31	3.63	3.86	4.03	4.17	4.29	4.39	4.47	4.55

Catatan kaki: Dari Annals of Mathematical Statistics. Diulang cetak seizing penerbit, The Institute of Mathematical Statistics.

Dikutip dari Scheffler (1987).

Lampiran 10

Via F. Pelli 17
P.O. Box
6901 Lugano - Switzerland
Tel. +41 91 973 21 01
Fax +41 91 973 21 06
Swiss VAT N-r. 584 962
European VAT N-r. ES-NO391421E

CERTIFICATE OF ANALYSIS

Product: KETOPROFEN

Batch : 4503272005 ✓ Quantity : 20.00 KGR ✓
MFG. Date : May 2005 ✓ Retest Date : May 2008 ✓

TEST	SPECIFICATIONS	RESULTS
DESCRIPTION	White or almost white crystalline powder	Conforms
IDENTIFICATION	IR: Conforms to the standard UV: Conforms to the standard	Conforms Conforms
MELTING POINT	93.0 - 96.0 °C	94.4 - 94.9 °C
SULPHATED ASH	Not more than 0.1 %	0.05 %
LOSS ON DRYING	Not more than 0.5 %	0.16 %
RELATED SUBSTANCES	As per BP specifications	Conforms
ASSAY	98.5 - 100.5% on dried substance	99.8 %
BULK-DENSITY LOOSE	0.19 - 0.25 g/ml	0.21 g/ml
BULK-DENSITY TAPPED	0.29 - 0.36 g/ml	0.30 g/ml
REMARKS	This product complies with BP93	

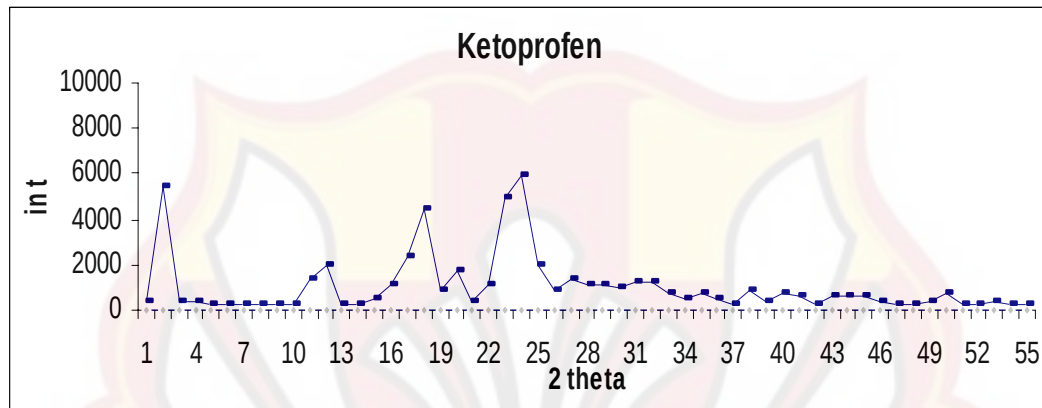
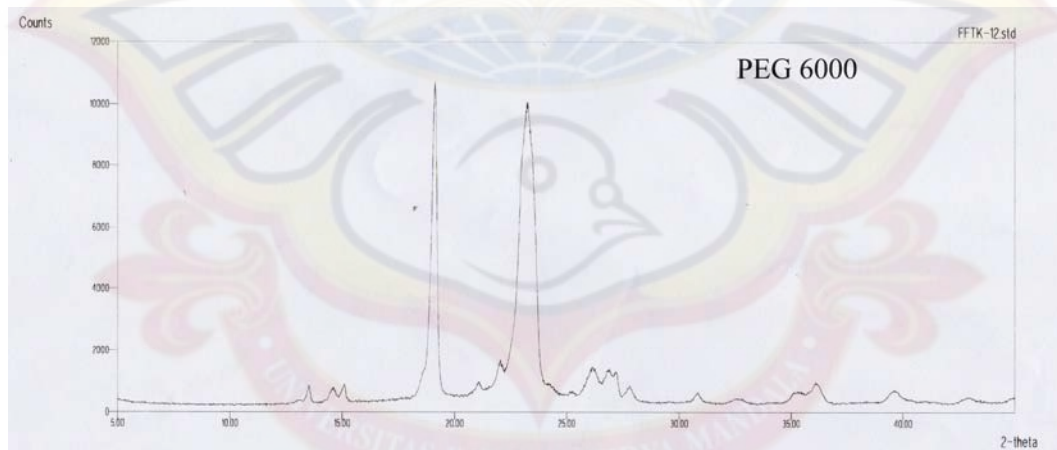
The above data results have been received from the Quality Control Dept.

Technical Director Signature

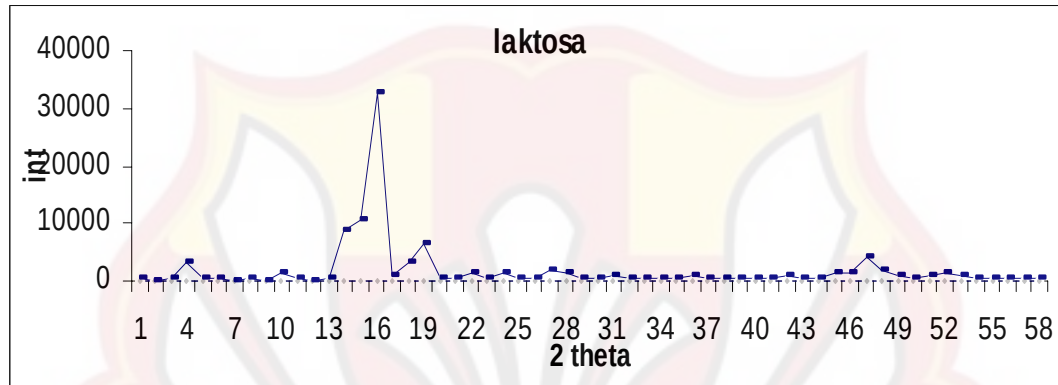
CHEMO S.A.
LUGANO BRANCH

CHEMO

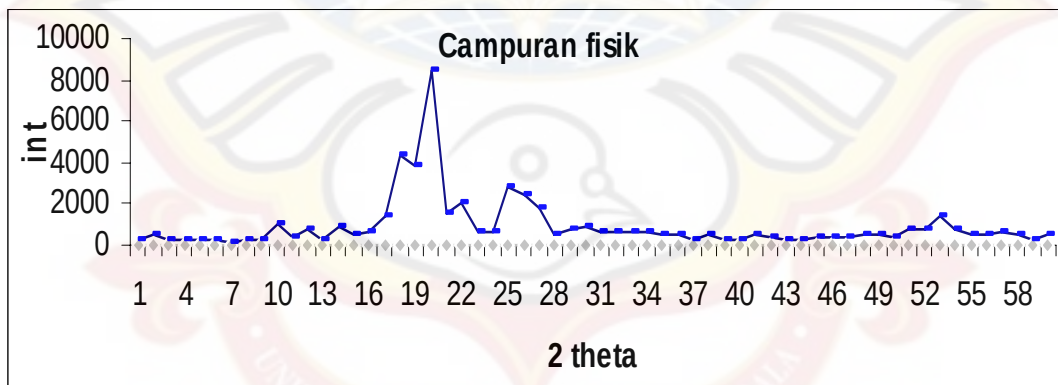
Lampiran 11

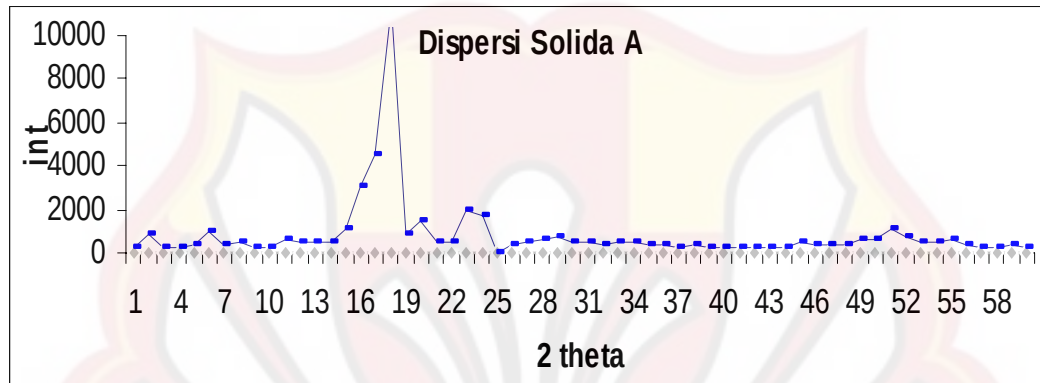
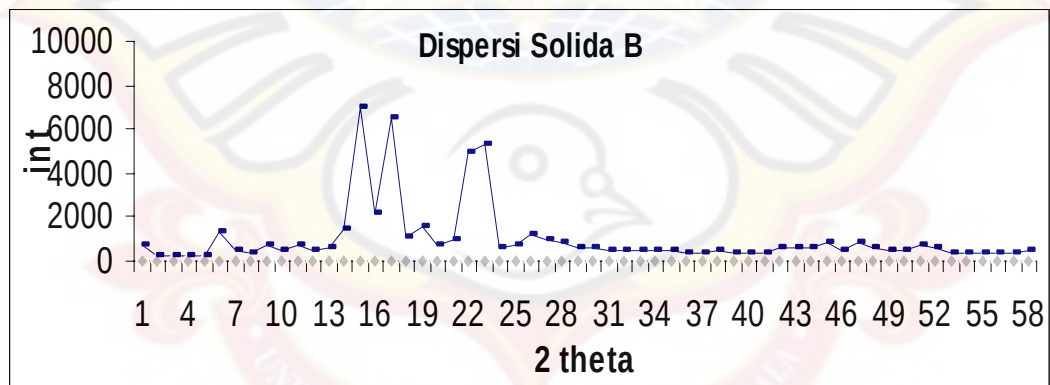
Pola Difraktogram Ketoprofen**Pola Difraktogram PEG 6000**

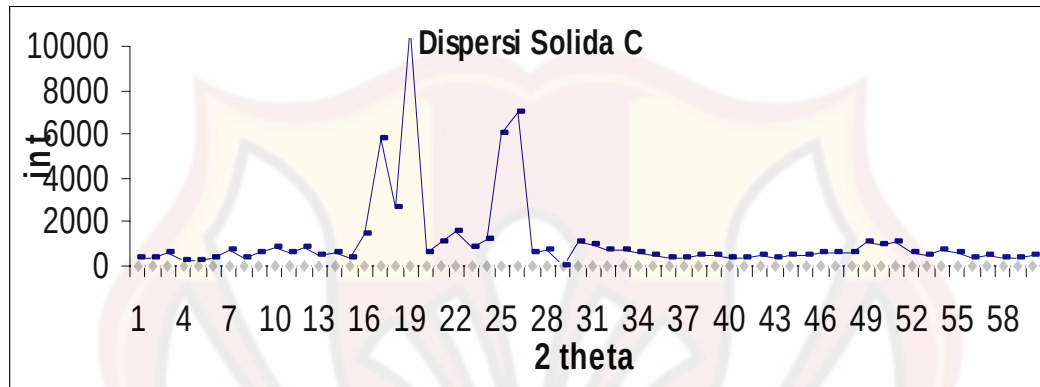
Pola Difraktogram Laktosa



Pola Difraktogram Campuran Fisik



Pola Difraktogram Dispersi Solida A**Pola Difraktogram Dispersi Solida B**

Pola Difraktogram Dispersi Solida C**Pola Difraktogram Dispersi Solida D**