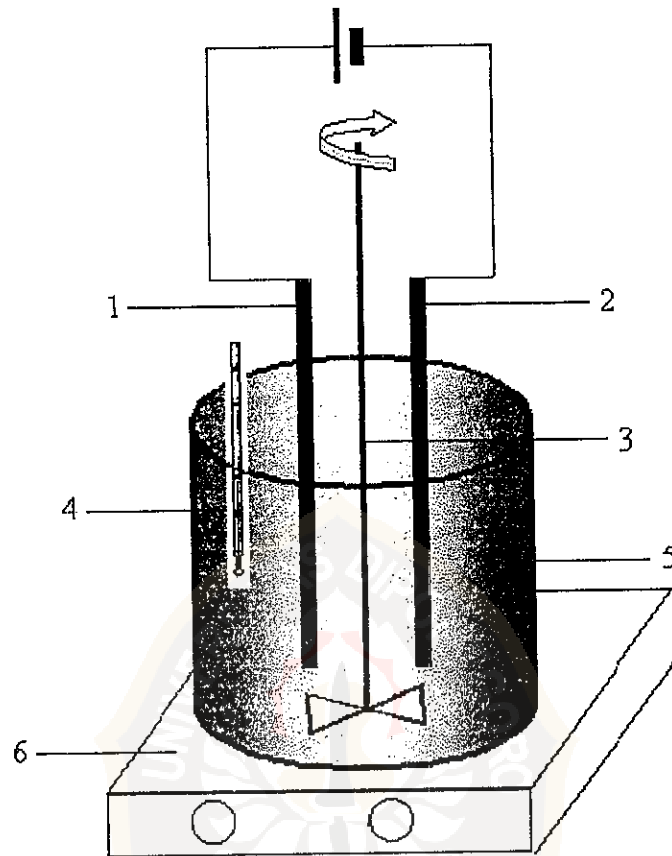


## Lampiran 1. Skema Rangkaian Alat Elektrolisis



Keterangan gambar:

1. Batang karbon
2. Plat  $\text{Al}_2\text{O}_3$
3. Pengaduk
4. Termometer
5. Larutan elektrolit
6. Pemanas listrik

## Lampiran 2. Difraktogram Hasil Analisis Al

\*\*\* Basic Data Process \*\*\*

### # Data Infomation

Group Name : Standard  
Data Name : Dina UNDIP  
File Name : Dina UNDIP.RAW  
Sample Name : plat Al  
Comment : plat Al  
Date & Time : 10-21-02 11:57:32

### # Measurement Condition

X-ray tube  
target : Cu  
voltage : 40.0 (kV)  
current : 30.0 (mA)  
Slits  
divergence slit : 1.00 (deg)  
scatter slit : 1.00 (deg)  
receiving slit : 0.30 (mm)  
Scanning  
drive axis : Theta-2Theta  
scan range : 10.0000 - 100.0000 (deg)  
scan mode : Continuous Scan  
scan speed : 10.0000 (deg/min)  
sampling pitch : 0.0200 (deg)  
preset time : 0.12 (sec)

### # Data Process Condition

Smoothing [ AUTO ]  
smoothing points : 9  
B.G.Subtraction [ AUTO ]  
sampling points : 9  
repeat times : 30  
Kal-a2 Separate [ MANUAL ]  
Kal a2 ratio : 50 (%)  
Peak Search [ AUTO ]  
differential points : 9  
FWHM threshold : 0.050 (deg)  
intensity threshold : 30 (par mil)  
FWHM ratio (n-1)/n : 2  
System error Correction [ NO ]  
Precise peak Correction [ NO ]

## \*\*\* Basic Data Process \*\*\*

Group Name : Standard  
 Data Name : Dina UNDIP  
 File Name : Dina UNDIP.PKR  
 Sample Name : plat Al  
 Comment : plat Al

# Strongest 3 peaks

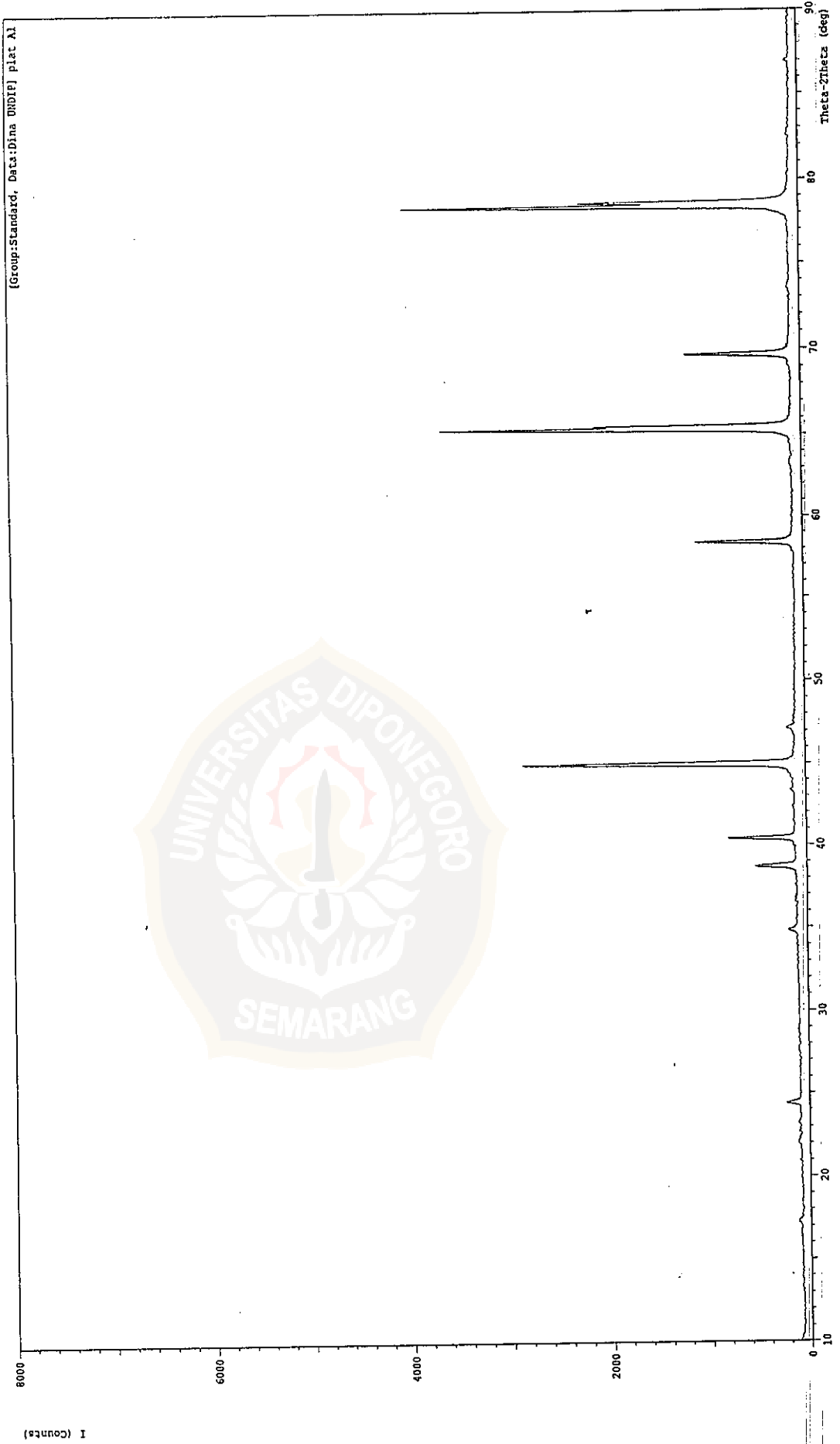
no.	peak no.	2Theta (deg)	d (A)	I/I1	FWHM (deg)	Intensity (Counts)	Integrated Int (Counts)
1	10	78.3652	1.21923	100	0.16550	3798	31572
2	6	65.2480	1.42880	90	0.15710	3420	31738
3	3	44.8896	2.01758	64	0.14750	2437	20908

# Peak Data List

peak no.	2Theta (deg)	d (A)	I/I1	FWHM (deg)	Intensity (Counts)	Integrated Int (Counts)
1	38.6514	2.32763	9	0.15320	347	3229
2	40.3725	2.23228	16	0.13420	593	4547
3	44.8896	2.01758	64	0.14750	2437	20908
4	58.3305	1.58065	24	0.14810	930	7400
5	58.6672	1.57238	5	0.10200	205	1023
6	65.2480	1.42880	90	0.15710	3420	31738
7	69.6546	1.34879	27	0.16400	1020	8939
8	70.0678	1.34184	5	0.13620	204	1331
9	78.0200	1.22376	3	0.24000	116	3216
10	78.3652	1.21923	100	0.16550	3798	31572
11	78.5800	1.21643	7	0.09320	274	3239
12	99.1814	1.01165	4	0.20070	145	1736

\*\*\* Multi Plot \*\*\*

File Name : Standard\Dina UNDIP  
Sample Name : plat Al  
Date & Time : 10-21-02 11:57:32  
Condition  
X-ray Tube : Cu(1.54060 Å) Voltage : 40.0 kV Current : 30.0 mA  
Scan Range : 10.0000 <-> 100.0000 deg Step Size : 0.0200 deg  
Count Time : 0.12 sec Slit DS : 1.00 deg SS : 1.00 deg RS : 0.30 mm  
Comment : plat Al



### Lampiran 3. Difraktogram Hasil Analisis Al<sub>2</sub>O<sub>3</sub>/Al

\*\*\* Basic Data Process \*\*\*

#### # Data Infomation

Group Name : Standard  
Data Name : dina UNDIP (3)  
File Name : dina UNDIP (3).RAW  
Sample Name : Plat Al 203  
Comment : Kode 8  
Date & Time : 10-21-02 13:01:31

#### # Measurement Condition

X-ray tube  
target : Cu  
voltage : 40.0 (kV)  
current : 30.0 (mA)  
Slits  
divergence slit : 1.00 (deg)  
scatter slit : 1.00 (deg)  
receiving slit : 0.30 (mm)  
Scanning  
drive axis : Theta-2Theta  
scan range : 10.0000 - 80.0000 (deg)  
scan mode : Continuous Scan  
scan speed : 5.0000 (deg/min)  
sampling pitch : 0.0200 (deg)  
preset time : 0.24 (sec)

#### # Data Process Condition

Smoothing [ AUTO ]  
smoothing points : 9  
B.G.Subtraction [ AUTO ]  
sampling points : 9  
repeat times : 30  
Kal-a2 Separate [ MANUAL ]  
Kal a2 ratio : 50 (%)  
Peak Search [ AUTO ]  
differential points : 9  
FWHM threshold : 0.050 (deg)  
intensity threshold : 30 (par mil)  
FWHM ratio (n-1)/n : 2  
System error Correction [ NO ]  
Precise peak Correction [ NO ]

## \*\*\* Basic Data Process \*\*\*

Group Name : Standard  
 Data Name : dina UNDIP (3)  
 File Name : dina UNDIP (3).PKR  
 Sample Name : Plat Al 203  
 Comment : Kode 8

# Strongest 3 peaks

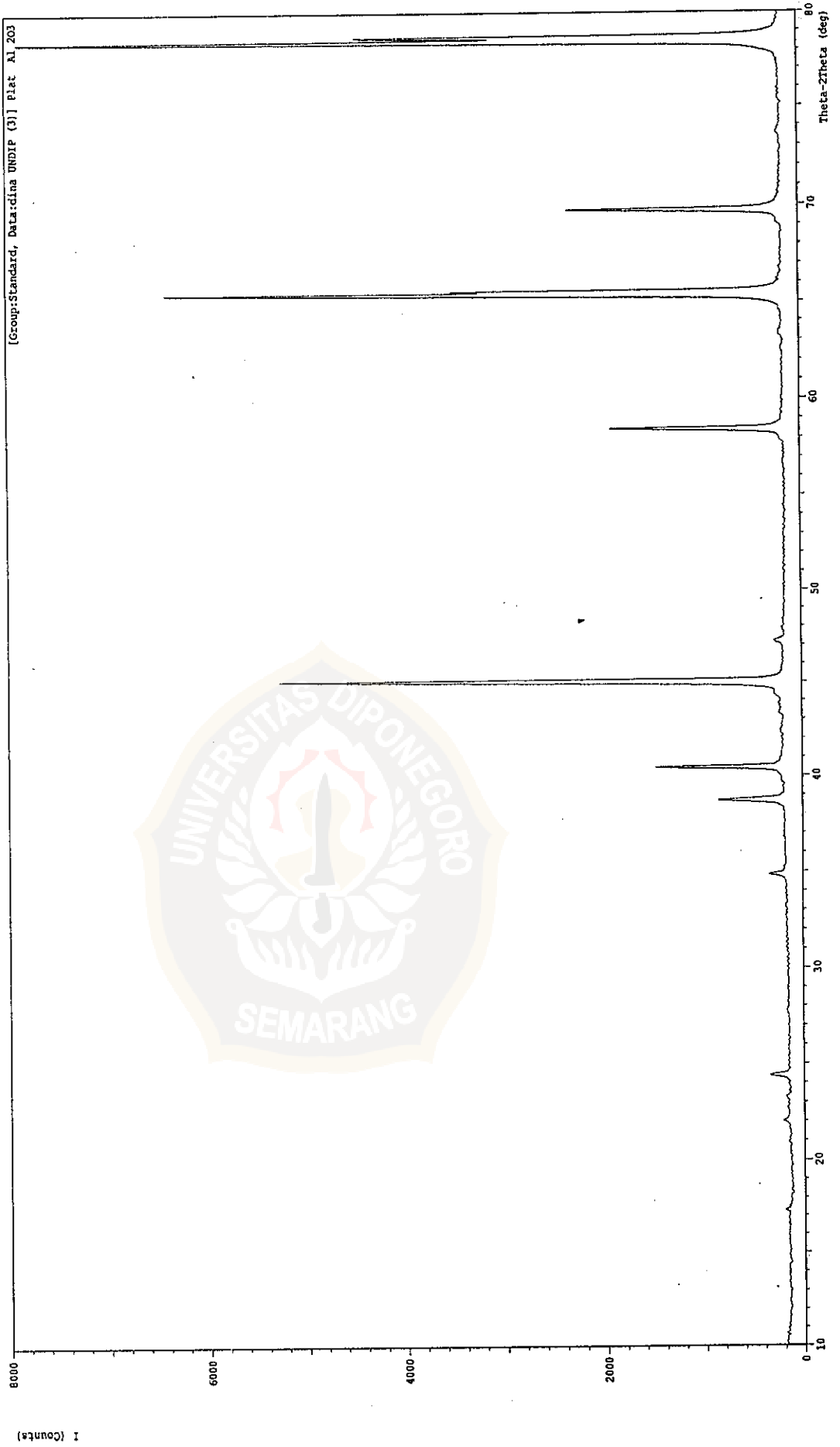
no.	peak no.	2Theta (deg)	d (A)	I/I1	FWHM (deg)	Intensity (Counts)	Integrated Int (Counts)
1	9	78.4079	1.21867	100	0.16550	7459	72230
2	6	65.2918	1.42795	80	0.15380	5953	54456
3	3	44.9297	2.01588	61	0.13890	4565	36702

# Peak Data List

peak no.	2Theta (deg)	d (A)	I/I1	FWHM (deg)	Intensity (Counts)	Integrated Int (Counts)
1	38.6767	2.32616	8	0.15600	560	5110
2	40.4088	2.23036	15	0.12950	1133	8718
3	44.9297	2.01588	61	0.13890	4565	36702
4	58.3747	1.57956	22	0.14350	1654	12835
5	58.7089	1.57136	5	0.10670	360	2037
6	65.2918	1.42795	80	0.15380	5953	54456
7	69.6969	1.34807	28	0.15710	2080	18061
8	70.1044	1.34123	6	0.12590	466	2848
9	78.4079	1.21867	100	0.16550	7459	72230
10	78.8000	1.21359	3	0.10180	227	2657

\*\*\* Multi Plot \*\*\*

File Name : Standard\dina UNDIP (3) Comment : Kode 8  
Sample Name : Plat Al 203  
Date & Time : 10-21-02 13:01:31  
Condition  
X-ray Tube : Cu(1.54060 Å) Voltage : 40.0 kV Current : 30.0 mA  
Scan Range : 10.0000 <-> 80.0000 deg Step Size : 0.0200 deg  
Count Time : 0.24 sec Slit DS : 1.00 deg SS : 1.00 deg RS : 0.30 mm



#### Lampiran 4. Difraktogram Hasil Analisis ZnS/Al<sub>2</sub>O<sub>3</sub>/Al

\*\*\* Basic Data Process \*\*\*

##### # Data Infomation

Group Name : Standard  
Data Name : dina UNDIP (2)  
File Name : dina UNDIP (2).RAW  
Sample Name : Plat Al (3)  
Comment : Kode 3  
Date & Time : 10-21-02 12:42:57

##### # Measurement Condition

X-ray tube  
target : Cu  
voltage : 40.0 (kV)  
current : 30.0 (mA)  
Slits  
divergence slit : 1.00 (deg)  
scatter slit : 1.00 (deg)  
receiving slit : 0.30 (mm)  
Scanning  
drive axis : Theta-2Theta  
scan range : 10.0000 - 80.0000 (deg)  
scan mode : Continuous Scan  
scan speed : 5.0000 (deg/min)  
sampling pitch : 0.0200 (deg)  
preset time : 0.24 (sec)

##### # Data Process Condition

Smoothing [ AUTO ]  
smoothing points : 11  
B.G.Subtraction [ AUTO ]  
sampling points : 11  
repeat times : 30  
Kal-a2 Separate [ MANUAL ]  
Kal a2 ratio : 50 (%)  
Peak Search [ AUTO ]  
differential points : 9  
FWHM threshold : 0.050 (deg)  
intensity threshold : 30 (par mil)  
FWHM ratio (n-1)/n : 2  
System error Correction [ NO ]  
Precise peak Correction [ NO ]



## \*\*\* Basic Data Process \*\*\*

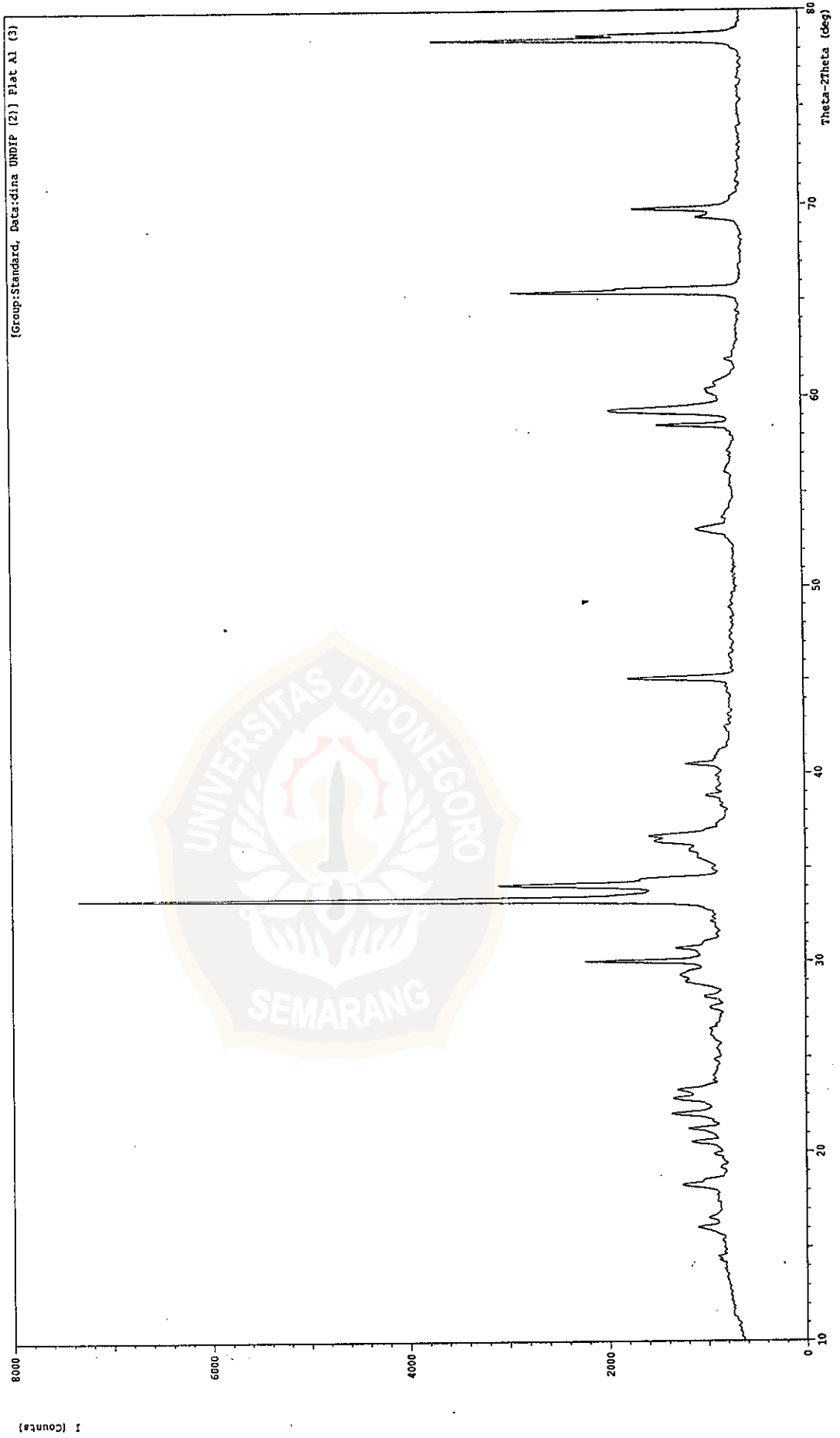
Group Name : Standard  
 Data Name : dina UNDIP (2)  
 File Name : dina UNDIP (2).PKR  
 Sample Name : Plat Al (3)  
 Comment : Kode 3

# Strongest 3 peaks							
no.	peak no.	2Theta (deg)	d (A)	I/I1	FWHM (deg)	Intensity (Counts)	Integrated Int (Counts)
1	14	33.2495	2.69239	100	0.16730	4967	49959
2	34	78.4783	1.21775	61	0.17750	3029	31355
3	30	65.3688	1.42645	44	0.16640	2193	21651

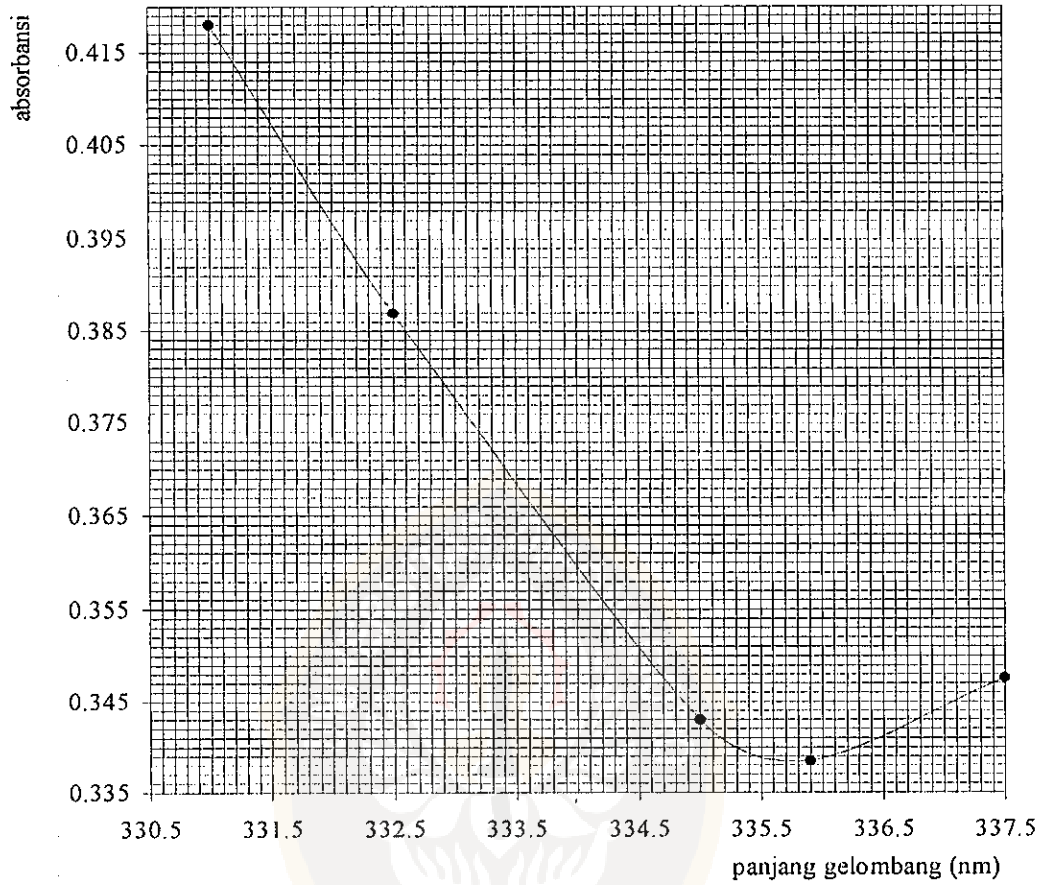
# Peak Data List							
peak no.	2Theta (deg)	d (A)	I/I1	FWHM (deg)	Intensity (Counts)	Integrated Int (Counts)	
1	16.0175	5.52883	4	0.27510	180	4187	
2	18.2647	4.85334	6	0.32060	287	4734	
3	18.5000	4.79213	3	0.23080	152	1744	
4	20.5067	4.32750	4	0.20910	204	2703	
5	21.2073	4.18610	4	0.18930	221	2762	
6	21.9936	4.03818	6	0.23690	319	4791	
7	22.7852	3.89965	6	0.30960	308	5569	
8	23.2400	3.82435	6	0.23860	280	4215	
9	28.9000	3.08694	5	0.36800	227	7765	
10	29.2800	3.04774	5	0.00000	249	0	
11	29.4800	3.02751	4	0.26500	177	3866	
12	29.9837	2.97779	20	0.14360	1017	8996	
13	30.6818	2.91161	6	0.19630	302	6054	
14	33.2495	2.69239	100	0.16730	4967	49959	
15	33.5000	2.67283	13	0.00000	650	0	
16	34.0319	2.63226	31	0.26170	1555	28022	
17	34.3600	2.60788	11	0.23720	526	6655	
18	35.8800	2.50080	4	0.93260	194	5106	
19	36.0200	2.49140	3	0.00000	159	0	
20	36.3400	2.47020	9	0.27260	440	7283	
21	36.6600	2.44937	10	0.22520	503	7775	
22	40.4797	2.22662	7	0.15750	328	3945	
23	45.0147	2.01227	19	0.15920	922	8569	
24	52.9920	1.72661	5	0.34930	260	6567	
25	58.4548	1.57759	14	0.14480	709	5538	
26	58.7973	1.56921	3	0.11530	156	841	
27	59.1939	1.55964	20	0.31310	990	16959	
28	60.2200	1.53550	4	0.40000	177	3373	
29	60.3800	1.53181	3	0.20440	151	2928	
30	65.3688	1.42645	44	0.16640	2193	21651	
31	69.3364	1.35420	8	0.21250	404	5150	
32	69.7668	1.34689	20	0.17760	1001	9346	
33	70.1814	1.33995	5	0.14270	247	1749	
34	78.4783	1.21775	61	0.17750	3029	31355	

\*\*\* Multi Plot \*\*\*

File Name : Standard\dina UNDIP (2)  
Sample Name : Plat Al (3) Comment : Kode 3  
Date & Time : 10-21-02 12:42:57  
Condition  
X-ray Tube : Cu(1.54060 Å) Voltage : 40.0 kV Current : 30.0 mA  
Scan Range : 10.0000 <-> 80.0000 deg Step Size : 0.0200 deg  
Count Time : 0.24 sec Slit DS : 1.00 deg SS : 1.00 deg RS : 0.30 mm

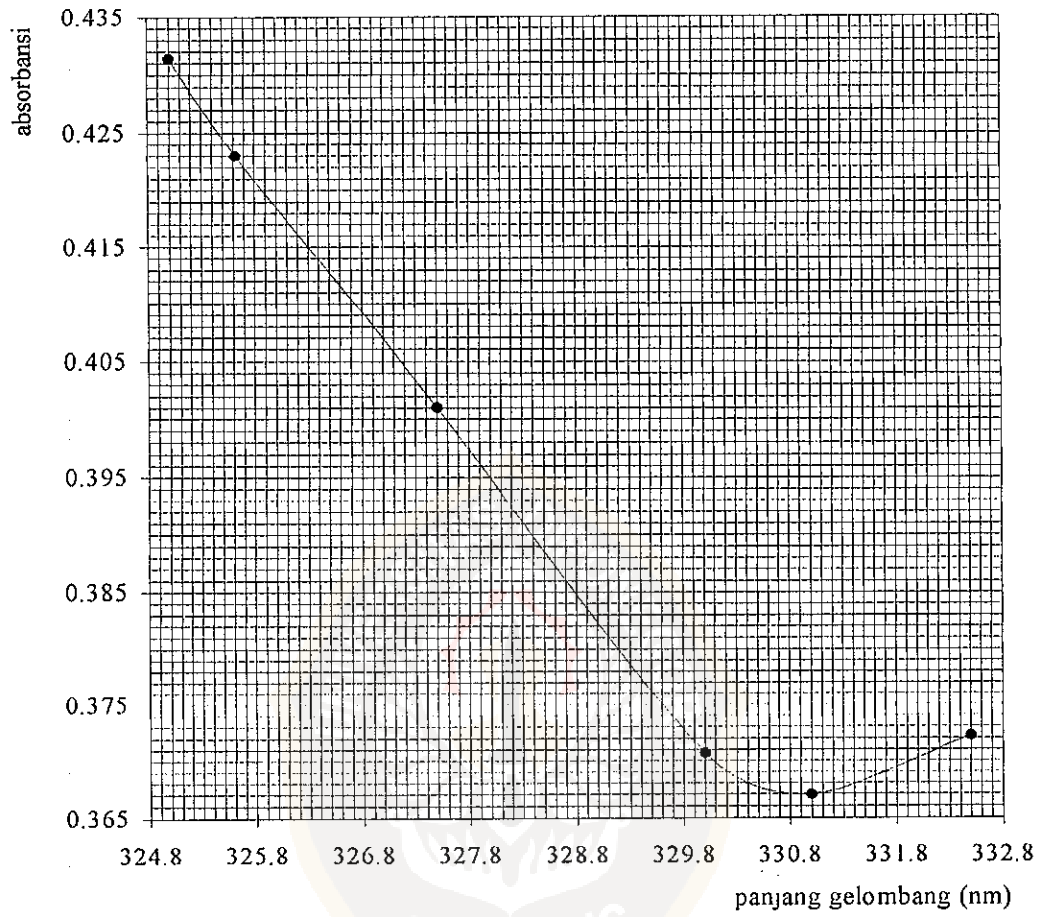


Lampiran 5. Spektra UV-Vis Reflektans pada pH 9,0

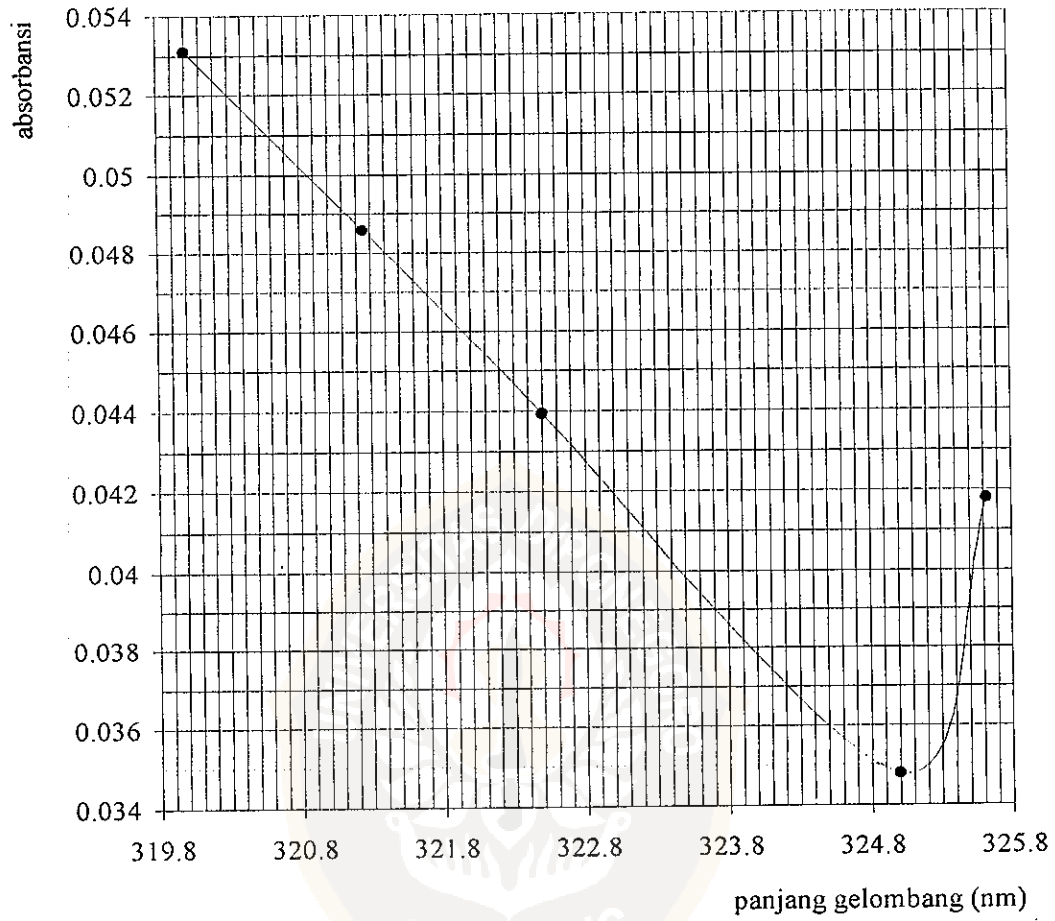


SEMARANG

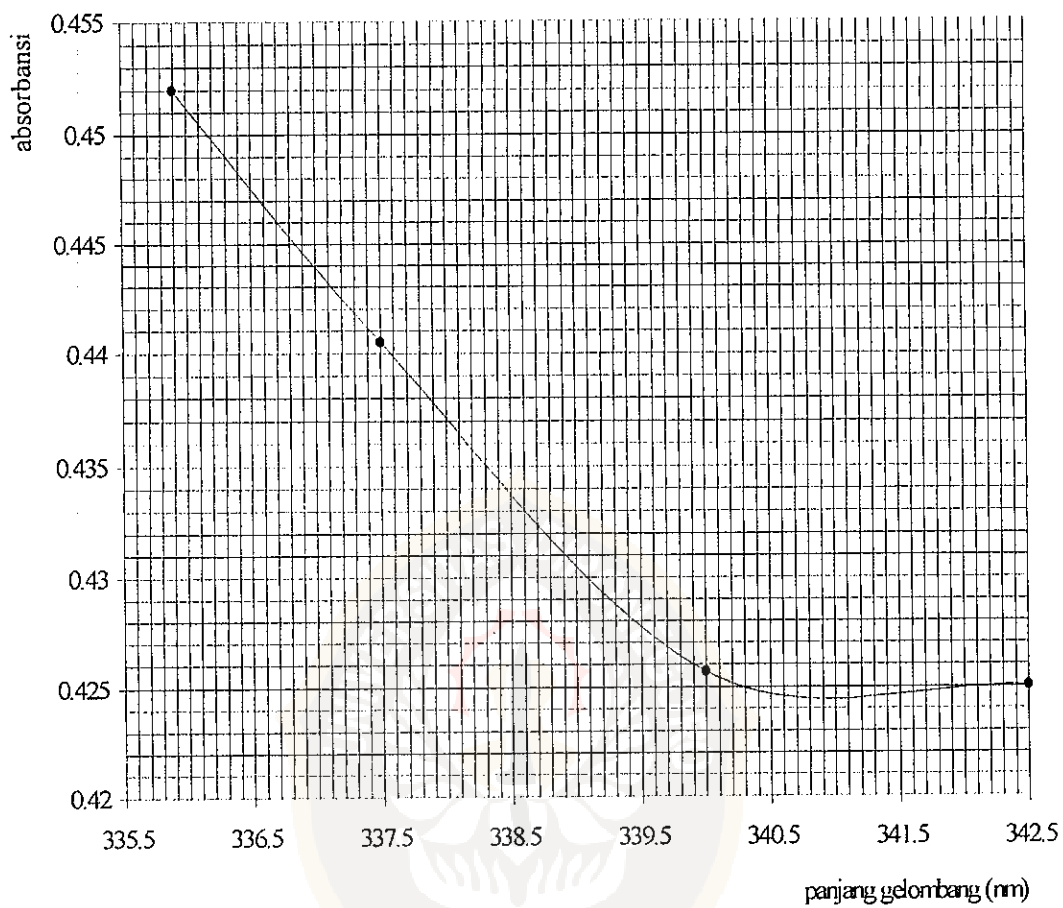
Lampiran 6. Spektra UV-Vis Reflektans pada pH 9,2



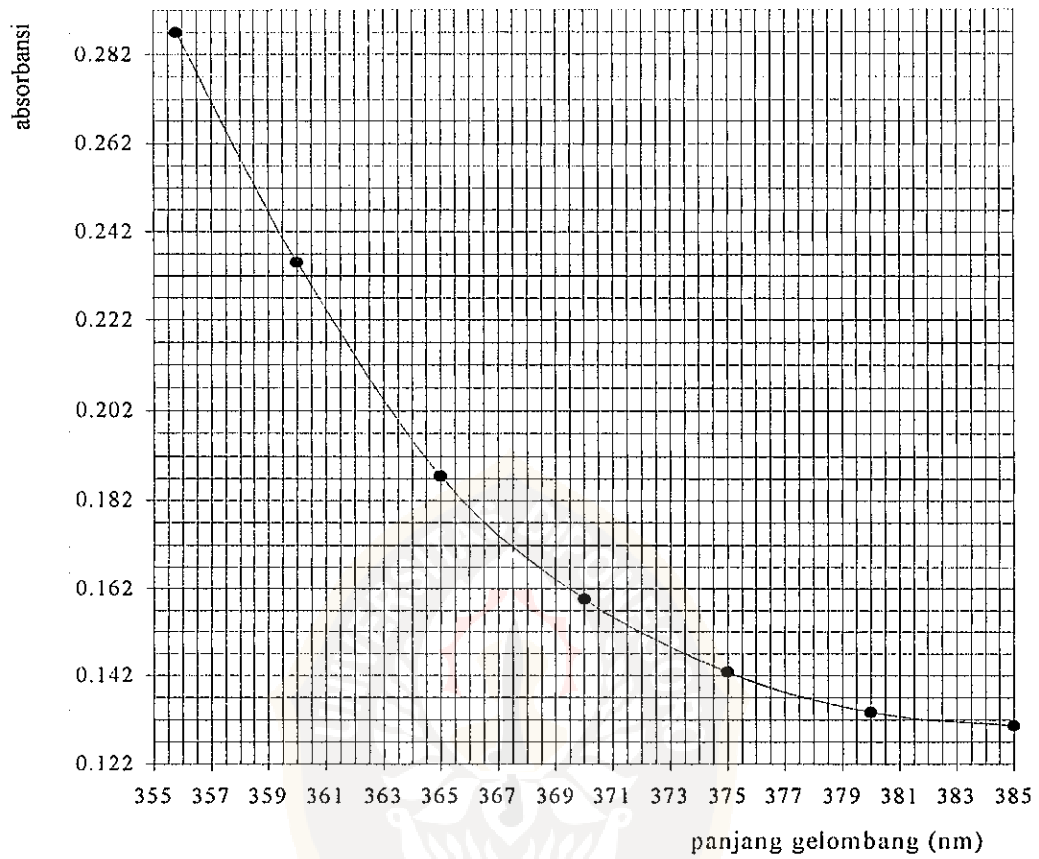
Lampiran 7. Spektra UV-Vis Reflektans pada pH 9,3



### Lampiran 8. Spektra UV-Vis Reflektans pada pH 9,5



### Lampiran 9. Spektra UV-Vis Reflektans pada pH 9,6



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