

**LAMPIRAN A**  
**HASIL PENGUJIAN IMMERSI**

Konsentrasi Inhibitor (ppm)	Jenis dan Pengu-langan	Lama Peren-daman (jam ±1 jam)	Massa Awal (gr)	Massa Akhir (gr)	Massa Selisih (gr)	Laju korosi (mmpy)	Efesiensi Inhibi-tor (%)
300	A8 (sp 1)	192	64,83	64,80	0.03	0.0567	
200	A8 (sp 1)	192	62,22	62,18	0.05	0.0945	
100	A8 (sp 1)	192	63,30	63,23	0.07	0.1323	
0	A8 (sp 1)	192	62,62	62,52	0.10	0.0945	-
300	A8 (sp 2)	192	61,0345	61,0094	0.0251	0.0474	
200	A8 (sp 2)	192	60,4107	60,3841	0.0266	0.0502	
100	A8 (sp 2)	192	60,8837	61,8538	0.0299	0.0565	
0	A8 (sp 2)	192	64,0317	639.903	0.0414	0.0782	
300	A8 (sp 3)	192	64,0272	63,9985	0.0287	0.0542	
200	A8 (sp 3)	192	63,8618	63,8299	0.0319	0.0603	
100	A8 (sp 3)	192	63,9507	63,9166	0.0341	0.0644	
0	A8 (sp 3)	192	61,4256	614.088	0.0468	0.0883	
300	A1 (sp 1)	24	62,8690	62,,8635	0.0055	0.0831	
200	A1 (sp 1)	24	64,1666	64,1627	0.0039	0.0589	
100	A1 (sp 1)	24	63,3578	63,,3535	0.0043	0.0650	
0	A1 (sp 1)	24	62,2480	62,2408	0.0072	0.1089	

Konsentrasi Inhibitor (ppm)	Jenis dan Pengu-langan	Lama Peren-daman (jam ±1 jam)	Massa Awal (gr)	Massa Akhir (gr)	Massa Selisi h(gr)	Laju korosi (mmpy)	Efesiensi Inhibi-tor (%)
300	A1 (sp 2)	24	60,8969	60,8919	0,0050	0,0756	
200	A1 (sp 2)	24	57,7175	57,7142	0,0039	0,0589	
100	A1 (sp 2)	24	59,5386	59,5346	0,0043	0,0650	
0	A1 (sp 2)	24	60,9720	60,9623	0,0097	0,1467	
300	A1 (sp 3)	24	71,0903	71,0876	0,0029	0,0438	
200	A1 (sp 3)	24	71,6821	71,6780	0,0041	0,0602	
100	A1 (sp 3)	24	71,5496	71,5450	0,0046	0,0695	
0	A1 (sp 3)	24	71,1844	71,1789	0,0055	0,0831	
300	A7 (sp 1)	168	63,2743	63,2463	0,0280	0,0605	
200	A7 (sp 1)	168	62,4775	62,4550	0,0225	0,0486	
100	A7 (sp 1)	168	62,7249	62,6977	0,0272	0,0587	
0	A7 (sp 1)	168	62,2175	62,1698	0,0477	0,1030	-
300	A7 (sp 2)	168	65,1977	65,1718	0,0259	0,0559	
200	A7 (sp 2)	168	65,0232	64,9908	0,0324	0,0700	
100	A7 (sp 2)	168	64,9205	64,8860	0,0345	0,0745	
0	A7 (sp 2)	168	65,2547	65,2102	0,0445	0,0961	-
300	A7 (sp 3)	168	65,4788	65,5051	0,0263	0,0568	
200	A7 (sp 3)	168	66,6157	66,5883	0,0274	0,0592	
100	A7 (sp 3)	168	66,0341	66,0060	0,0281	0,0607	
0	A7 (sp 3)	168	65,6972	65,6512	0,0460	0,0994	

Konsentrasi	Jenis dan	Lama Peren-	Massa Awal	Massa Akhir	Massa Massa	Laju korosi (mmpy)	Efisiensi
300	B (sp 1)	24	64.5909	64.5863	0.0046	0.0695	
200	B (sp 1)	24	63.7148	63.7095	0.0053	0.0698	
100	B (sp 1)	24	63.3082	64,3000	0.0082	0.1240	
0	B (sp 1)	24	64.4730	64.4625	0.0105	0.1588	
300	B (sp 2)	24	64.6436	64.6416	0.0020	0.0302	
200	B (sp 2)	24	64.6312	64.6299	0.0023	0.0347	
100	B (sp 2)	24	64.7799	64.7766	0.0033	0.0499	
0	B (sp 2)	24	64.6422	64.6378	0.0044	0.0665	
300	B (sp 3)	24	70.7209	70,7169	0.0040		
200	B (sp 3)	24	69,7305	69,7260	0,0045		
100	B (sp 3)	24	69,4908	69,4851	0,0049		
0	B (sp 3)	24	70,8453	70,8399	0,0054	0,0816	



**LAMPIRAN B**  
**HASIL PERHITUNGAN KONSENTRASI INHIBITOR**  
**UNTUK PENGUJIAN WEIGHT LOSS**

1. Konsentrasi inhibitor 0 ppm

Larutan dengan volume 0.1 L membutuhkan 0 mg ekstrak inhibitor.

$$0 \text{ ppm} = \frac{0 \text{ gram}}{0.1 \text{ L}} = 0 \text{ g/L}$$

2. Konsentrasi inhibitor 100 ppm

Larutan dengan volume 0.1 L membutuhkan 0.01 g ekstrak inhibitor.

$$100 \text{ ppm} = \frac{0.01 \text{ gram}}{0.1 \text{ L}} = 0.1 \text{ g/L}$$

3. Konsentrasi inhibitor 200 ppm

Larutan dengan volume 0.1 L membutuhkan 0.02 g ekstrak inhibitor.

$$200 \text{ ppm} = \frac{0.02 \text{ gram}}{0.1 \text{ L}} = 0.2 \text{ g/L}$$

4. Konsentrasi inhibitor 300 ppm

Larutan dengan volume 0.1 L membutuhkan 0.03 g ekstrak inhibitor.

$$300 \text{ ppm} = \frac{0.03 \text{ gram}}{0.1 \text{ L}} = 0.3 \text{ g/L}$$

Hasil perhitungan efisiensi inhibitor untuk pengujian *weight loss* :

A. Perendaman B

1. Konsentrasi inhibitor 100 ppm

$$\text{IE (100 ppm)} = \frac{0,1202 \text{ mm/tahun} - 0,0990 \text{ mm/tahun}}{0,1202 \text{ mm/tahun}} \times 100\% = 17,59\%$$

2. Konsentrasi inhibitor 200 ppm

$$\text{IE (200 ppm)} = \frac{0,1202 \text{ mm/tahun} - 0,0689 \text{ mm/tahun}}{0,1202 \text{ mm/tahun}} \times 100\% = 42,91\%$$

3. Konsentrasi inhibitor 300 ppm

$$\text{IE (300 ppm)} = \frac{0,1202 \text{ mm/tahun} - 0,065 \text{ mm/tahun}}{0,1202 \text{ mm/tahun}} \times 100\% = 45,92\%$$

B. Perendaman A1

4. Konsentrasi inhibitor 100 ppm

$$\text{IE (100 ppm)} = \frac{0,1129 \text{ mm/tahun} - 0,0665 \text{ mm/tahun}}{0,1129 \text{ mm/tahun}} \times 100\% = 41,09\%$$

5. Konsentrasi inhibitor 200 ppm

$$\text{IE (200 ppm)} = \frac{0,1129 \text{ mm/tahun} - 0,0599 \text{ mm/tahun}}{0,1129 \text{ mm/tahun}} \times 100\% = 46,91\%$$

6. Konsentrasi inhibitor 300 ppm

$$\text{IE (300 ppm)} = \frac{0,1129 \text{ mm/tahun} - 0,0675 \text{ mm/tahun}}{0,1129 \text{ mm/tahun}} \times 100\% = 40,21\%$$

C. Perendaman A7

7. Konsentrasi inhibitor 100 ppm

$$\text{IE (100 ppm)} = \frac{0,0995 \text{ mm/tahun} - 0,0646 \text{ mm/tahun}}{0,0995 \text{ mm/tahun}} \times 100\% = 35,04\%$$

8. Konsentrasi inhibitor 200 ppm

$$\text{IE (200 ppm)} = \frac{0,0995 \text{ mm/tahun} - 0,0592 \text{ mm/tahun}}{0,0995 \text{ mm/tahun}} \times 100\% = 40,43\%$$

9. Konsentrasi inhibitor 300 ppm

$$\text{IE (300 ppm)} = \frac{0,0995 \text{ mm/tahun} - 0,0577 \text{ mm/tahun}}{0,0995 \text{ mm/tahun}} \times 100\% = 41,97\%$$

D. Perendaman A8

10. Konsentrasi inhibitor 100 ppm

$$\text{IE (100 ppm)} = \frac{0,0782 \text{ mm/tahun} - 0,0565 \text{ mm/tahun}}{0,0782 \text{ mm/tahun}} \times 100\% = 27,74\%$$

11. Konsentrasi inhibitor 200 ppm

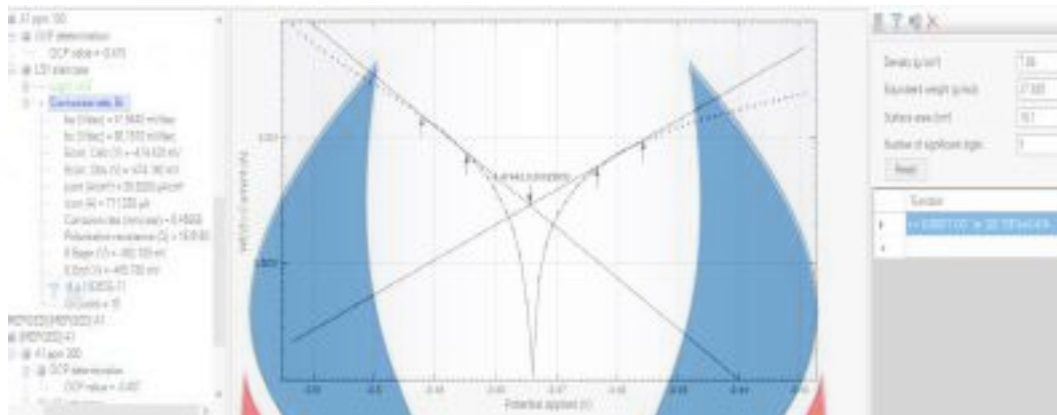
$$\text{IE (200 ppm)} = \frac{0,0782 \text{ mm/tahun} - 0,0502 \text{ mm/tahun}}{0,0782 \text{ mm/tahun}} \times 100\% = 35,80\%$$

12. Konsentrasi inhibitor 300 ppm

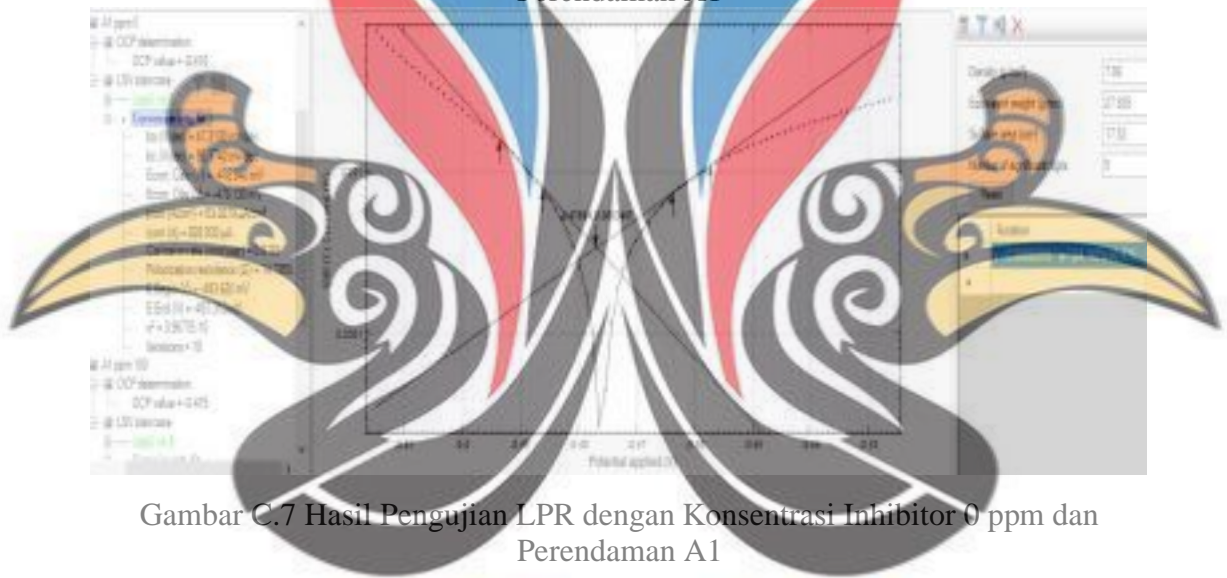
$$\text{IE (300 ppm)} = \frac{0,0782 \text{ mm/tahun} - 0,0474 \text{ mm/tahun}}{0,0782 \text{ mm/tahun}} \times 100\% = 39,38\%$$



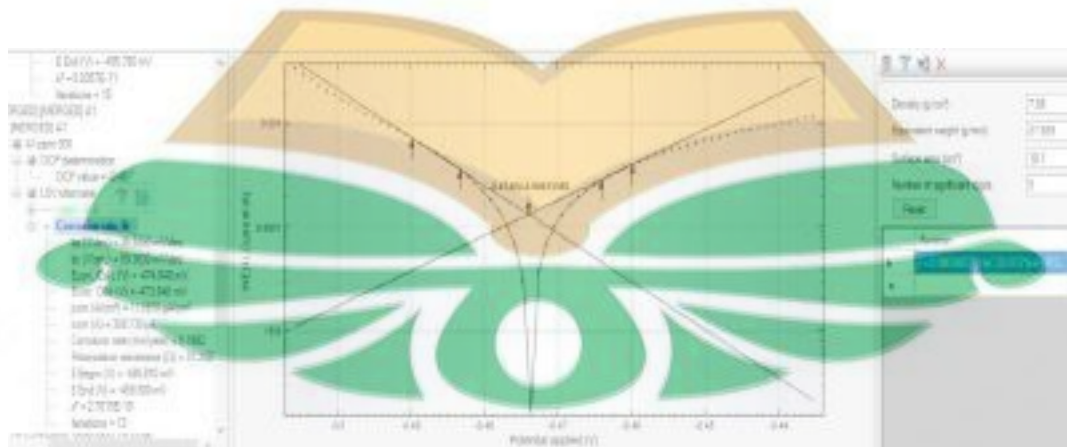




Gambar C.6 Hasil Pengujian LPR dengan Konsentrasi Inhibitor 100 ppm dan Perendaman A1

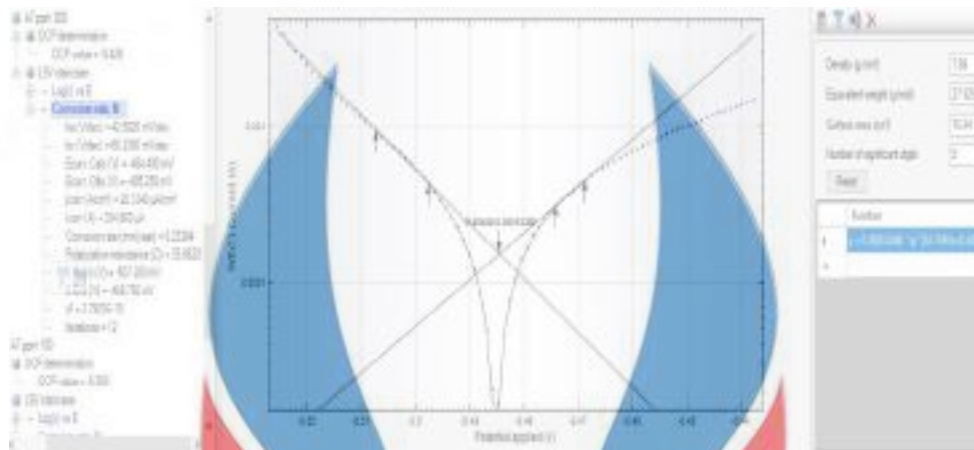


Gambar C.7 Hasil Pengujian LPR dengan Konsentrasi Inhibitor 0 ppm dan Perendaman A1

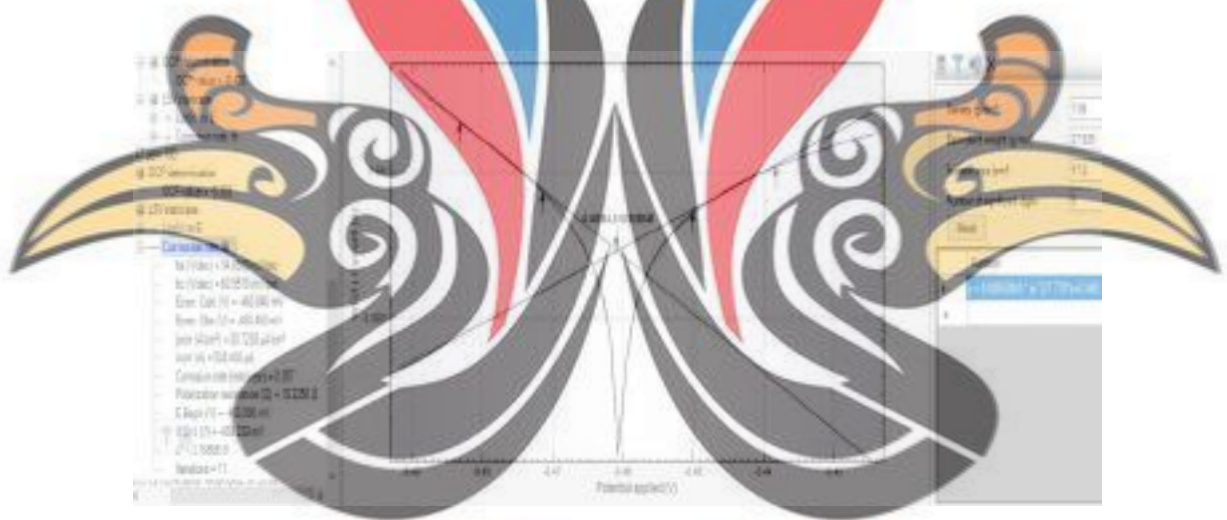


Gambar C.8 Hasil Pengujian LPR dengan Konsentrasi Inhibitor 300 ppm dan Perendaman A

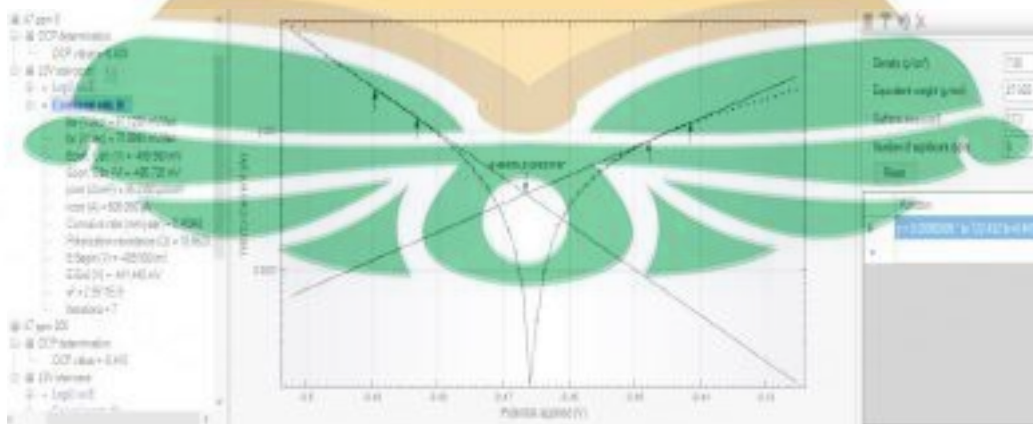




Gambar C.9 Hasil Pengujian LPR dengan Konsentrasi Inhibitor 300 ppm dan Perendaman A7



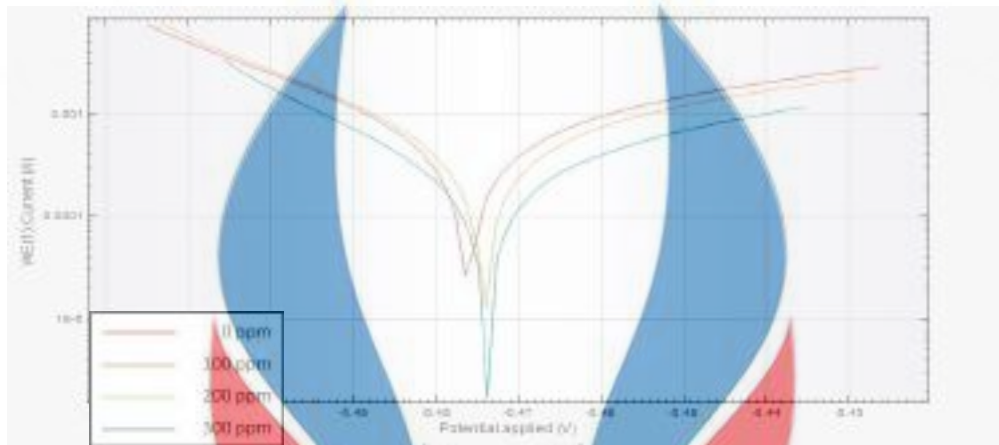
Gambar C.10 Hasil Pengujian LPR dengan Konsentrasi Inhibitor 100 ppm dan Perendaman A7



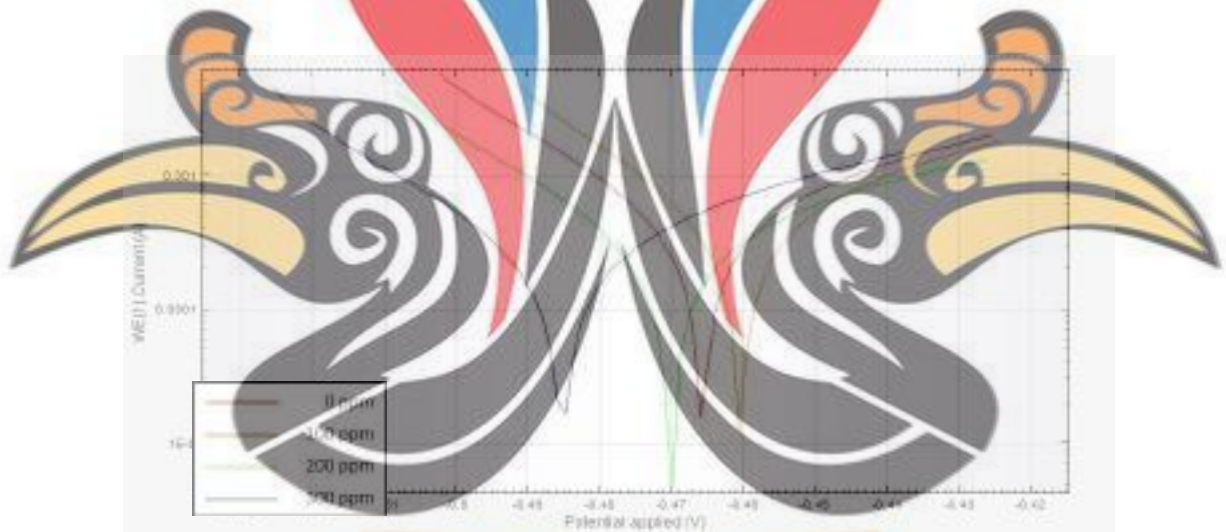
Gambar C.11 Hasil Pengujian LPR dengan Konsentrasi Inhibitor 0 ppm dan Perendaman A7



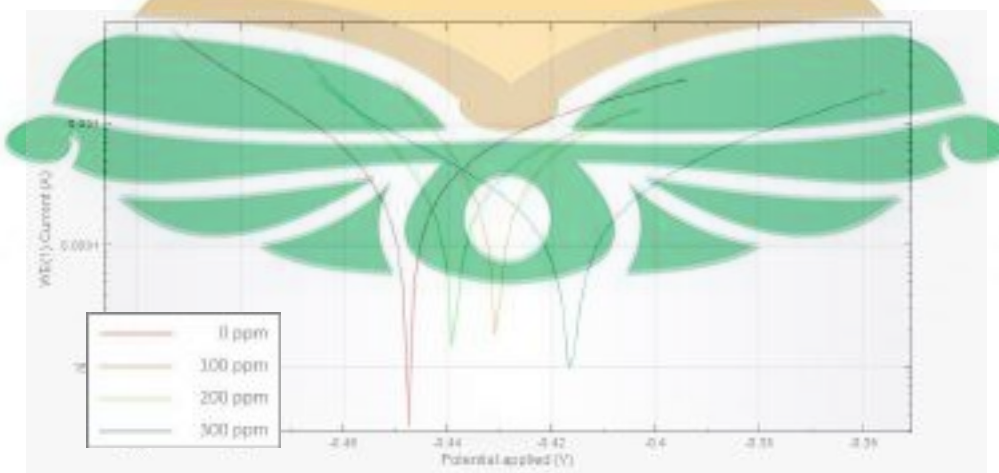




Gambar C.18 Kurva Polarisasi Pada Pengujian A1



Gambar C.19 Kurva Polarisasi Pengujian A7



Gambar C.20 Kurva Polarisasi Pengujian A8