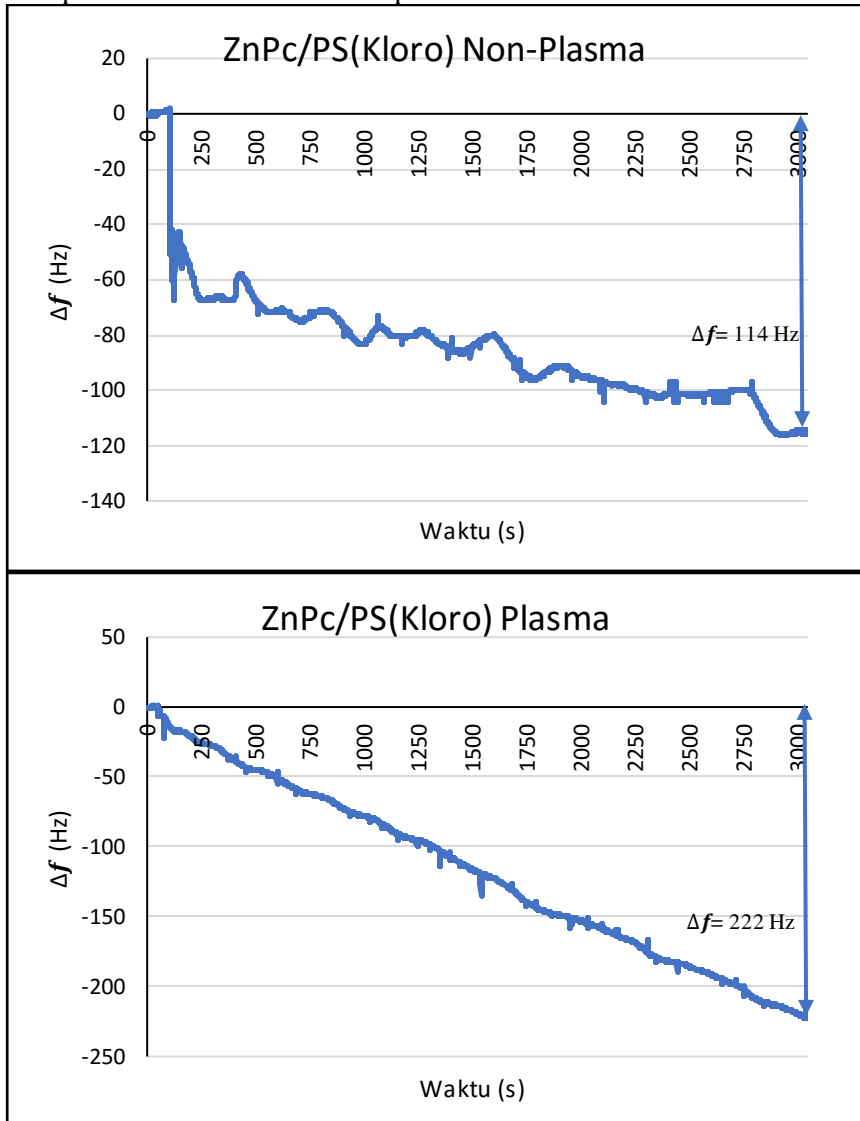
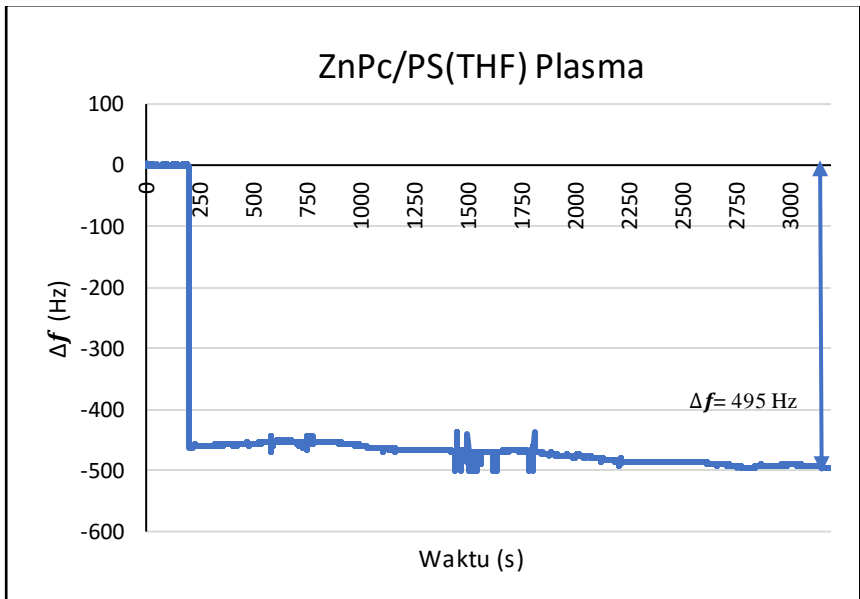
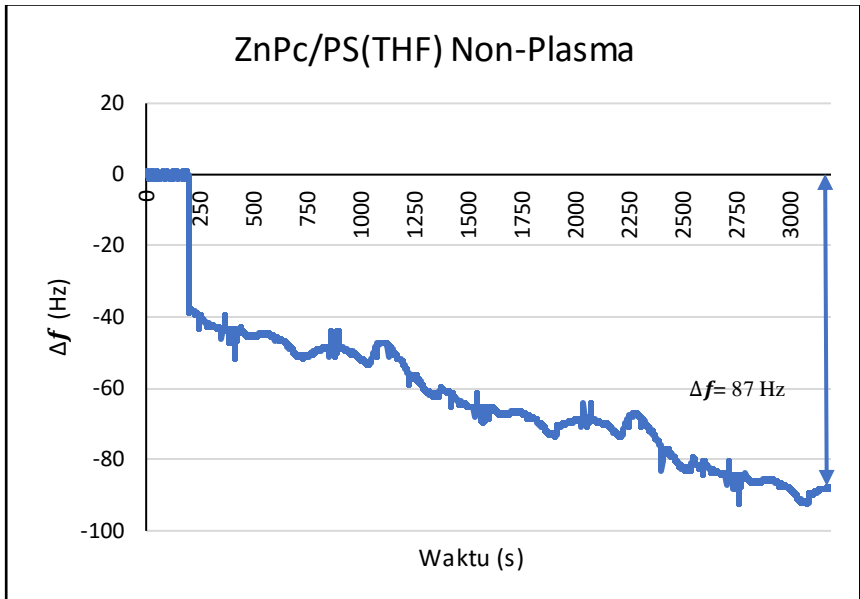


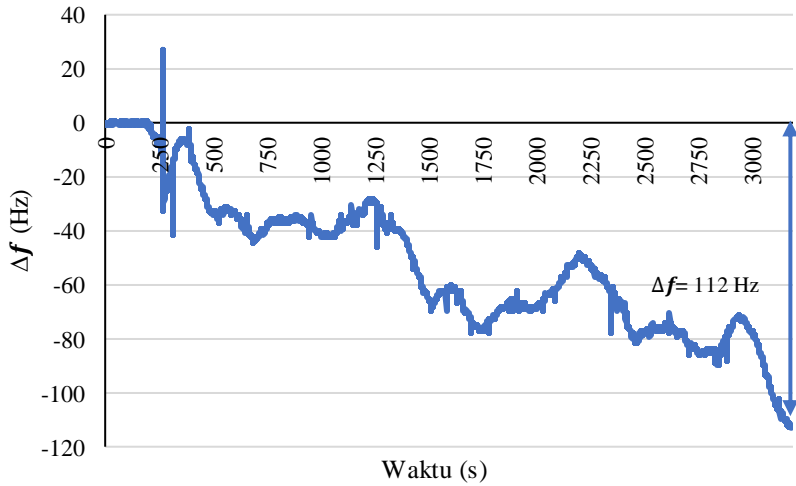
LAMPIRAN

Lampiran 1 Data immobilisasi lapisan ZnPc

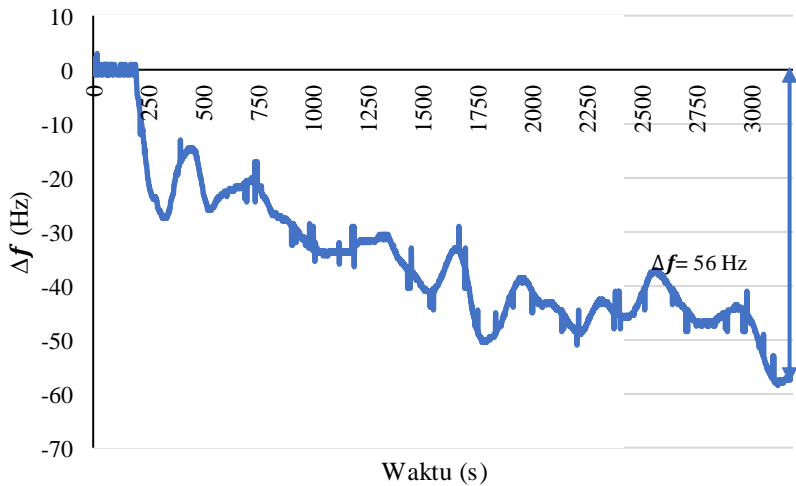


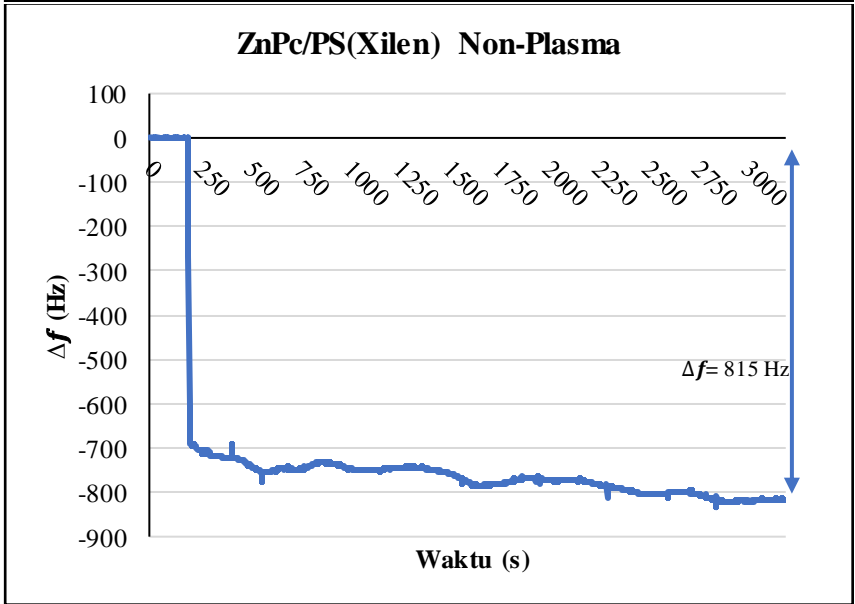
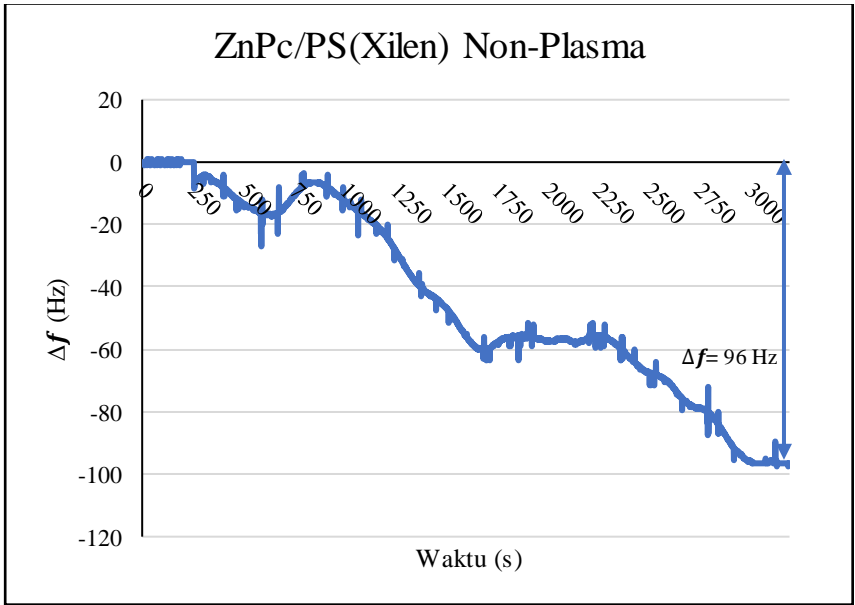


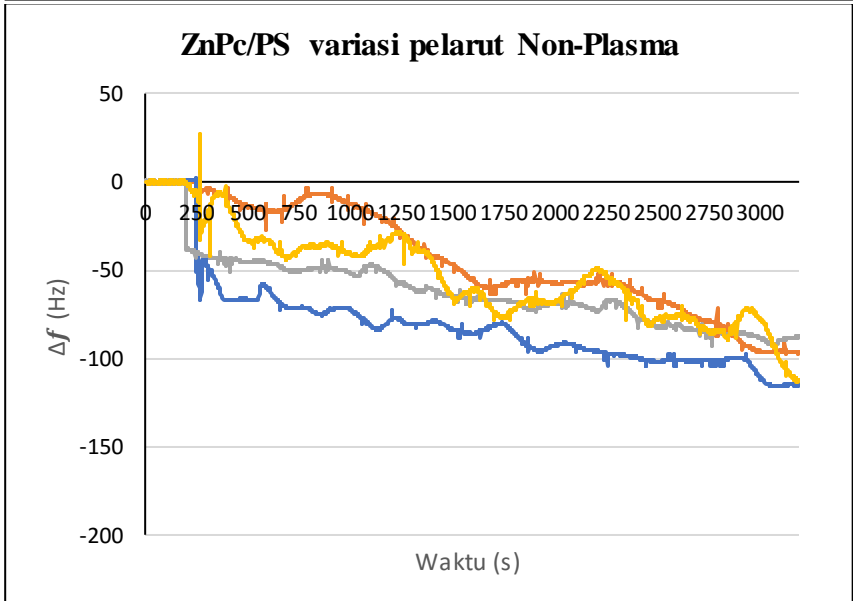
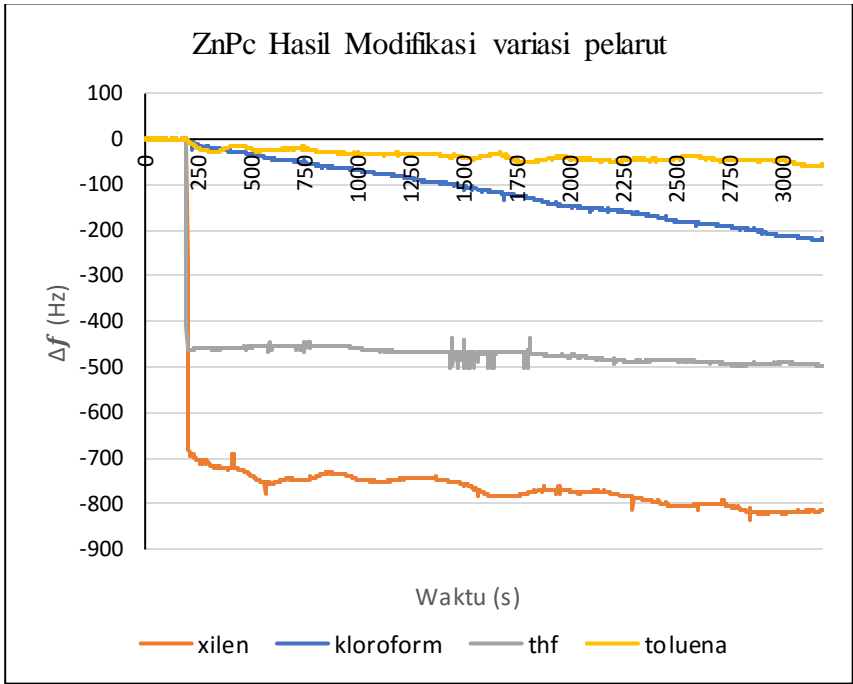
ZnPc/PS(toluen) Non-Plasma



ZnPc/PS(Toluen) Plasma







Keterangan:

B1-B4 : Sampel dengan perlakuan plasma

C1-C4 : Sampel tanpa perlakuan plasma

Lampiran 2 data nilai impedansi QCM

Sample	Pelarut PS	Impedansi (Ω)		
		QCM	QCM/PS	QCM/PS/ZnPc
B1	Kloroform	6,6608	6,1757	10,2402
B2	THF	6,6478	12,7630	18,5344
B3	Toluen	6,2611	9,2521	10,6228
B4	Xilen	5,8690	5,5752	5,7273

	Pelarut PS	Impedansi (Ω)			
		QCM	QCM /PS	QCM/PS/ Plasma	QCM/PS/ Plasma/ZnPc
C1	Kloroform	7,5920	8,4556	8,4736	13,0032
C2	THF	6,2326	8,7806	12,8781	9,5997
C3	Toluen	7,3553	11,0365	12,7682	9,0763
C4	Xilen	8,1082	8,0002	14,3194	11,7713

Lampiran 3 pengukuran frekuensi QCM

	Pelarut	Frekuensi (Hz)			
		QCM	QCM/PS	QCM/PS/ Plasma	QCM/PS/ Plasma/ ZnPc
B1	Kloroform	10004404	9991038	9991124	9989395
B2	THF	10003022	9986297	9985896	9984139
B3	Toluen	10006067	10000438	9999997	9998933
B4	Xilen	10003323	9998100	9995186	9994258

Sample	Pelarut	Frekuensi (Hz)		
		QCM	QCM/PS	QCM/PS/ZnPc
C1	Kloroform	10005193	9990038	9988622
C2	THF	10005132	9987760	9986930
C3	Toluen	10003165	9987961	9987695
C4	Xilen	10005133	9996448	9995927

Lampiran 4. Perhitungan ketebalan Lapisan Polistiren

	Pelarut	Frekuensi (Hz)			Ketebalan PS
		f_{awal}	f_{akhir}	Δf	(μm)
B1	kloroform	10004404	9991038	13366	0.561746
B2	THF	10003022	9986297	16725	0.492188
B3	Toluene	10006067	10000438	5629	0.165551
B4	Xylene	10003323	9998100	5223	0.153695

	Pelarut	Frekuensi (Hz)			Ketebalan PS
		f_{awal}	f_{akhir}	Δf	(μm)
C1	kloroform	10005193	9990038	15155	0.636839
C2	THF	10005132	9987760	17371	0.511005
C3	Toluene	10003165	9987961	15204	0.447415
C4	Xylene	10005133	9996448	8685	0.255477

Lampiran 5. Pengukuran ketebalan lapisan ZnPc

Sample	Pelarut	Frekuensi (Hz)			Ketebalan PS (μm)
		f_{awal}	f_{akhir}	Δf	
B1	kloroform	9991124	9989395	1729	0,051003
B2	THF	9985896	9984139	1757	0,051883
B3	Toluene	9999997	9998933	1064	0,03121
B4	Xylene	9995186	9994258	928	0,027352

Sample	Pelarut	Frekuensi (Hz)			Ketebalan PS (μm)
		f_{awal}	f_{akhir}	Δf	
C1	kloroform	9990038	9988622	1416	0,04179
C2	THF	9987760	9986930	830	0,024508
C3	Toluene	9987961	9987695	266	0,007866
C4	Xylene	9996448	9995927	521	0,015367

Lampiran 6. Hasil Pengukuran sudut kontak

Sample	Sudut Kontak (°)					
	QCM/Polistirena			QCM/PS/Plasma		
	Sisi 1	Sisi 2	Rata-rata	Sisi 1	Sisi 2	Rata-rata
B1	91,302	91,272	90,6264	59,0699	59,1604	58,31956
	90,54	90,613		60,4034	60,0178	
	90,081	89,997		56,3879	56,7097	
	89,798	90,015		57,2677	57,0178	
	90,988	91,658		58,9858	58,1752	
B2	85,541	85,942	89,1558	54,7145	54,2089	53,24247
	91,476	91,473		53,1013	53,1354	
	89,558	89,757		54,0239	54,2248	
	89,311	89,06		52,4707	52,3541	
	89,681	89,759		52,0093	52,1818	
B3	85,164	84,986	87,4518	44,6033	44,5674	44,68981
	88,639	89,087		45,981	45,3874	
	87,609	87,887		46,5934	46,0759	
	87,903	87,015		40,5025	40,4837	
	88,011	88,217		46,5934	46,1101	
B4	85,901	85,655	85,7333	40,0282	40,0699	39,85078
	85,334	85,091		40,5704	40,8657	
	86,017	86,244		40,5025	40,2202	
	84,808	85,73		38,4952	38,2477	
	86,162	86,391		39,5309	39,9771	

Sample	Sudut kontak (°)		
	QCM/PS/ZnPc		
	Sisi 1	Sisi 2	Rata-rata
B1	95,993	95,586	96,389
	97,029	97,773	
	95,817	95,878	
	95,908	95,978	

	97,020	96,914	
B2	99,102	98,3669	99,652
	101,060	101,612	
	100,944	100,880	
	98,201	98,328	
	99,102	98,923	
B3	97,322	97,731	98,9204
	98,136	99,219	
	101,366	101,613	
	100,415	100,786	
	95,709	96,9071	
B4	96,446	96,791	96,469
	95,260	95,212	
	97,326	97,311	
	97,326	97,311	
	95,974	95,731	

	Sudut Kontak (°)					
	QCM/Polistiren			QCM/PS/ZnPc		
	Sisi 1	Sisi 2	Rata-rata	Sisi 1	Sisi 2	Rata-rata
C1	90,088	90,574	90,229	91,282	91,162	91,093
	89,997	89,307		90,977	91,228	
	90,155	89,882		91,074	90,789	
	90,579	90,936		91,316	91,081	
	90,072	90,698		90,789	91,228	
C2	85,541	85,942	87,592	88,365	88,542	88,237
	88,476	88,473		88,542	88,365	
	89,558	89,067		88,440	88,277	
	89,606	89,655		87,827	87,791	
	88,901	88,743		88,159	88,063	
C3	86,868	87,098	88,396	89,718	89,698	89,637
	86,508	86,073		89,718	89,698	
	88,652	88,766		89,526	89,718	

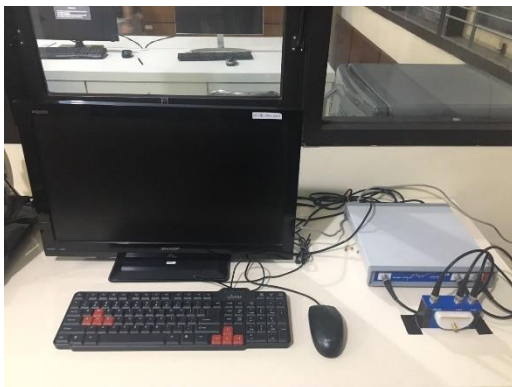
	88,013	87,966		89,758	89,526	
	88,097	87,879		89,653	89,356	
C4	86,384	85,905	85,512	88,373	88,172	88,325
	86,505	86,537		88,373	88,264	
	83,583	84,041		88,264	88,441	
	85,671	85,823		88,331	88,323	
	85,661	85,014		88,458	88,248	

Lampiran 7. Nilai pengukuran Kekasaran

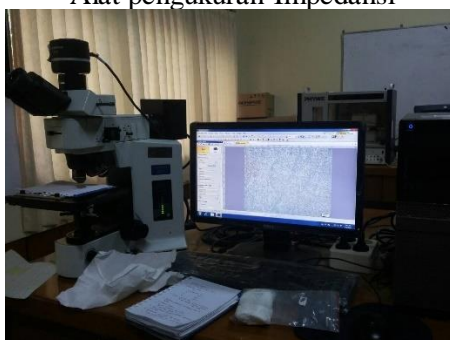
SAMPLE	PELARUT	kekasaran Ra (nm)			
		PS		ZnPc	
		Ra (nm)	rata-rata	Ra (nm)	rata-rata
B1	kloroform	477,281	479,042	527,562	533,414
		532,687		481,959	
		429,492		540,813	
		501,983		577,705	
		453,786		539,041	
B2	THF	439,281	430,682	503,558	516,451
		425,665		515,481	
		410,384		533,394	
		437,892		584,872	
		440,191		444,941	
B3	Toluene	419,851	403,517	490,065	464,969
		409,595		434,206	
		383,712		459,280	
		400,911		492,143	
		430,122		449,161	
B4	Xylene	360,591	379,485	398,819	442,356
		367,112		402,126	
		349,963		482,301	
		375,620		473,165	
		440,275		455,371	

	kekasaran Ra (nm)					
	PS		Plasma		ZnPc	
	Ra (nm)	rata-	Ra (nm)	rata-	Ra (nm)	rata-
B1	456,980	475,002	447,561	424,644	498,765	548,771
	517,932		415,977		591,671	
	488,692		420,881		559,962	
	424,762		436,149		544,694	
	487,411		402,625		576,731	
B2	440,971	424,464	334,431	370,672	524,410	527,254
	410,162		414,159		561,141	
	438,991		369,291		552,645	
	434,110		398,656		518,991	
	398,089		336,823		479,082	
B3	430,138	408,398	335,317	365,438	471,413	489,152
	399,670		371,772		520,157	
	400,141		388,028		488,492	
	385,335		394,172		488,487	
	426,712		337,891		477,198	
B4	388,341	380,899	300,487	330,652	459,761	473,300
	369,490		334,561		478,549	
	330,678		357,670		528,169	
	404,956		335,035		499,802	
	411,031		325,482		400,221	

Lampiran 6. Alat Penelitian



Alat pengukuran Impedansi



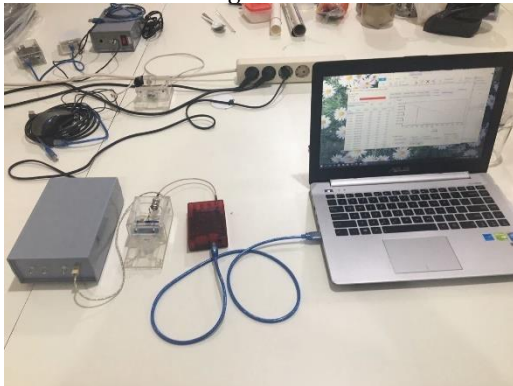
Mikroskop Optik



TMS TopMap μ Lab 1200



Contact Angle Measurement



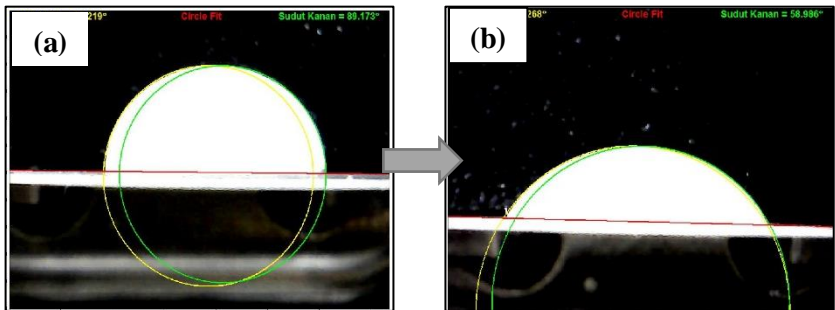
Frequency Counter



Seperangkat Alat Plasma Nitrogen



Ultrasonic Cleaner dan Spin Coating



Profil foto dan hasil pengukuran Sudut Kontak PS sebelum Plasma (a) dan setelah plasma (b)

