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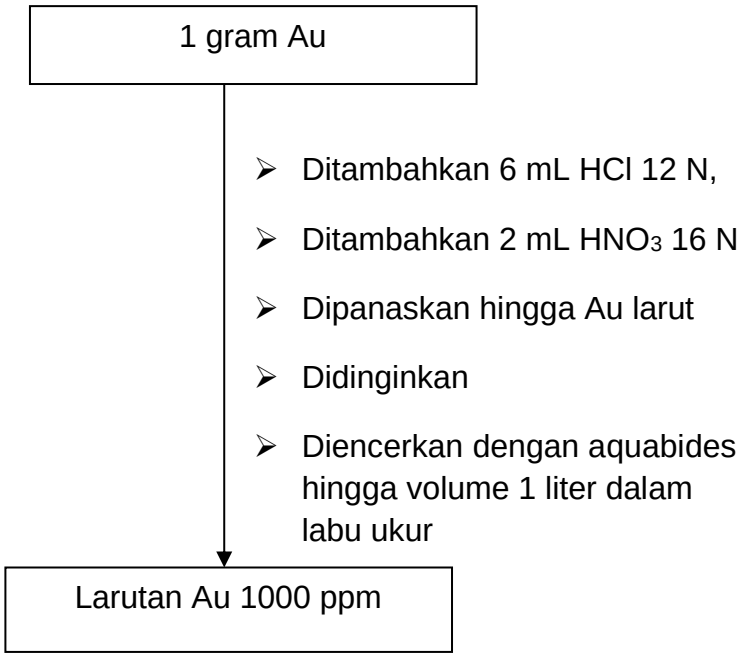
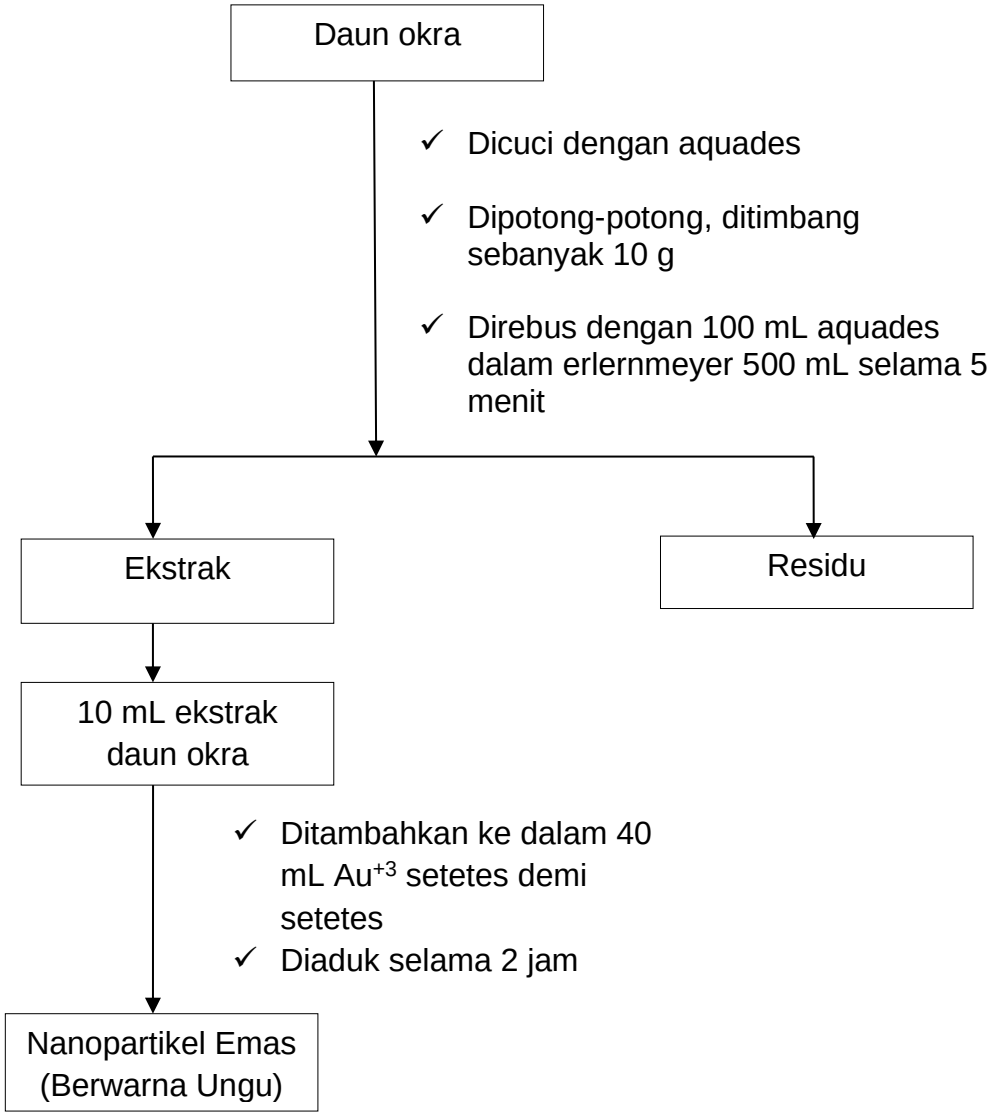
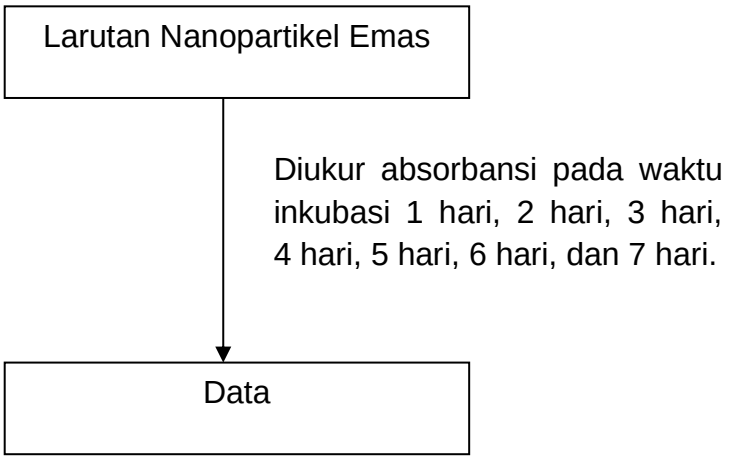
Lampiran 1. Bagan Pembuatan Larutan Emas Induk Au^{+3} 1000 ppm



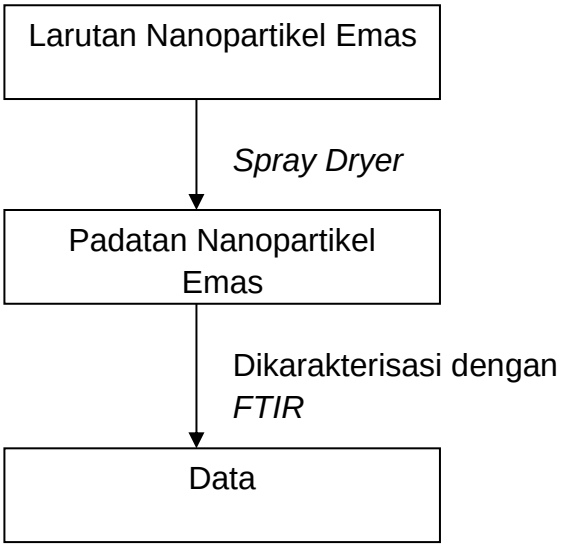
Lampiran 2. Bagan Kerja Sintesis Nanopartikel Emas dari Ekstrak Daun Okra (*Abelmoschus esculentus* (L.) Moench).



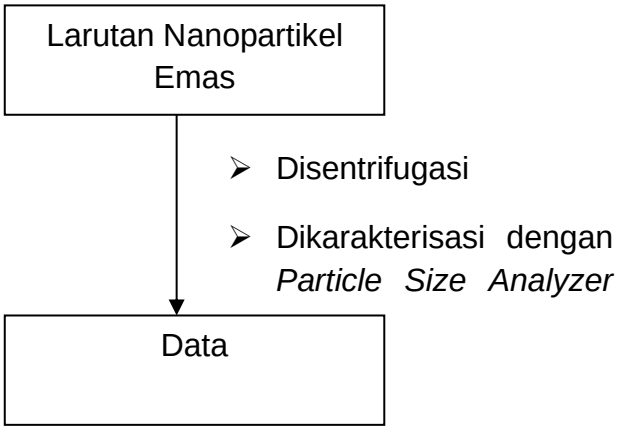
Lampiran 3. Karakterisasi Nanopartikel Emas dengan Spektrofotometri UV-Vis



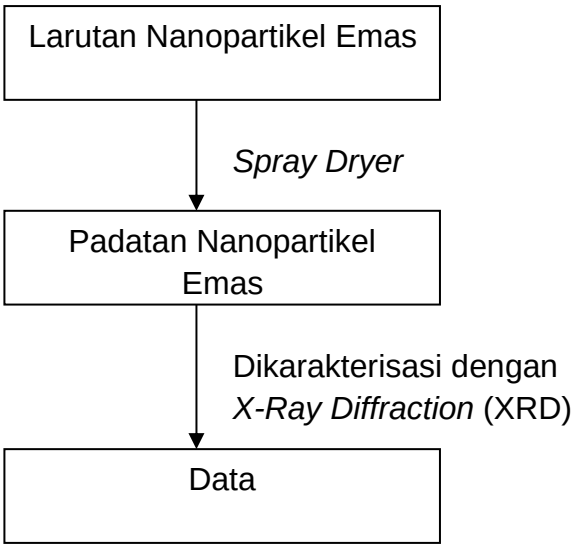
Lampiran 4. Karakterisasi Nanopartikel Emas dengan *FTIR*



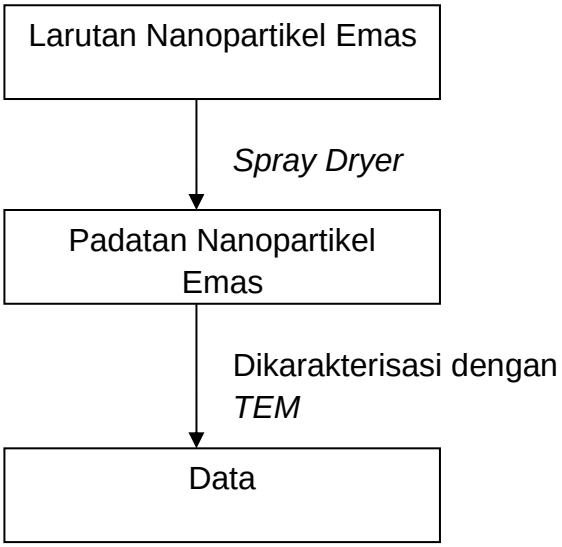
Lampiran 5. Karakterisasi Nanopartikel Emas dengan *Particle Size Analyzer* (PSA)



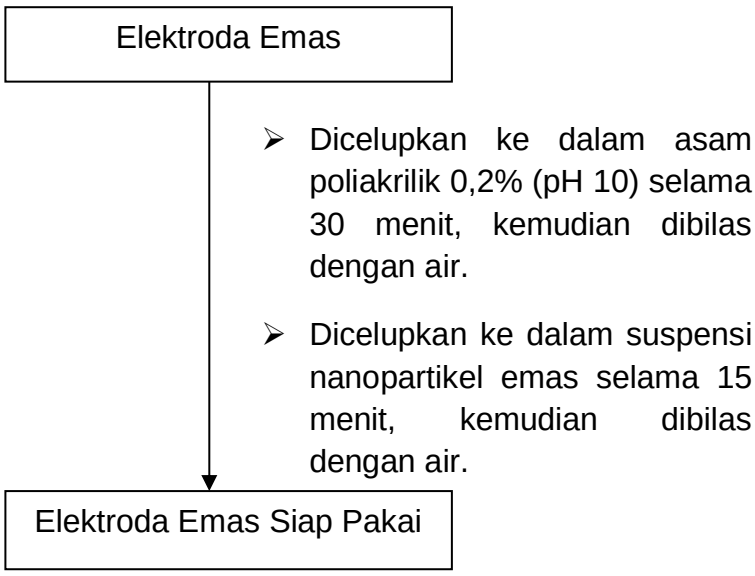
Lampiran 6. Karakterisasi Nanopartikel Emas dengan *X-Ray Diffraction* (XRD)



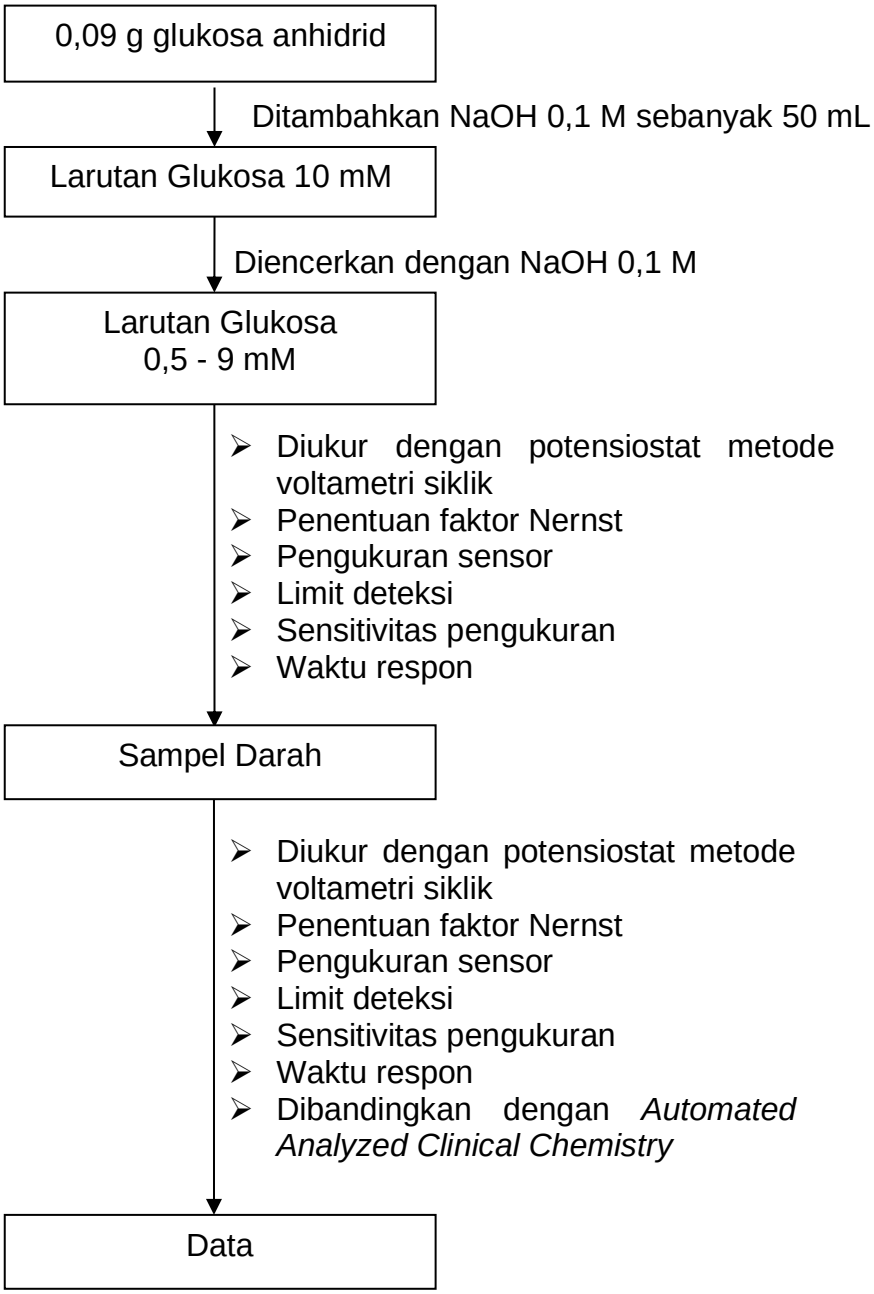
Lampiran 7. Karakterisasi Nanopartikel Emas dengan *TEM*



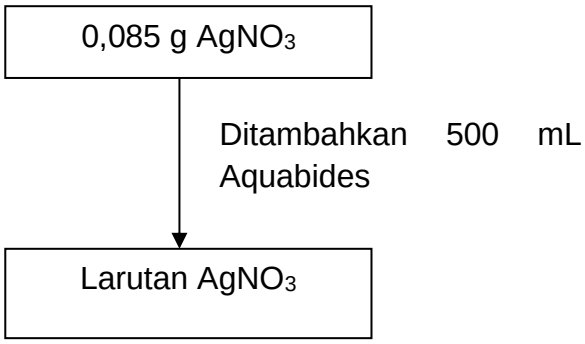
Lampiran 8. Persiapan Elektroda Emas dan Pengendapan Nanopartikel



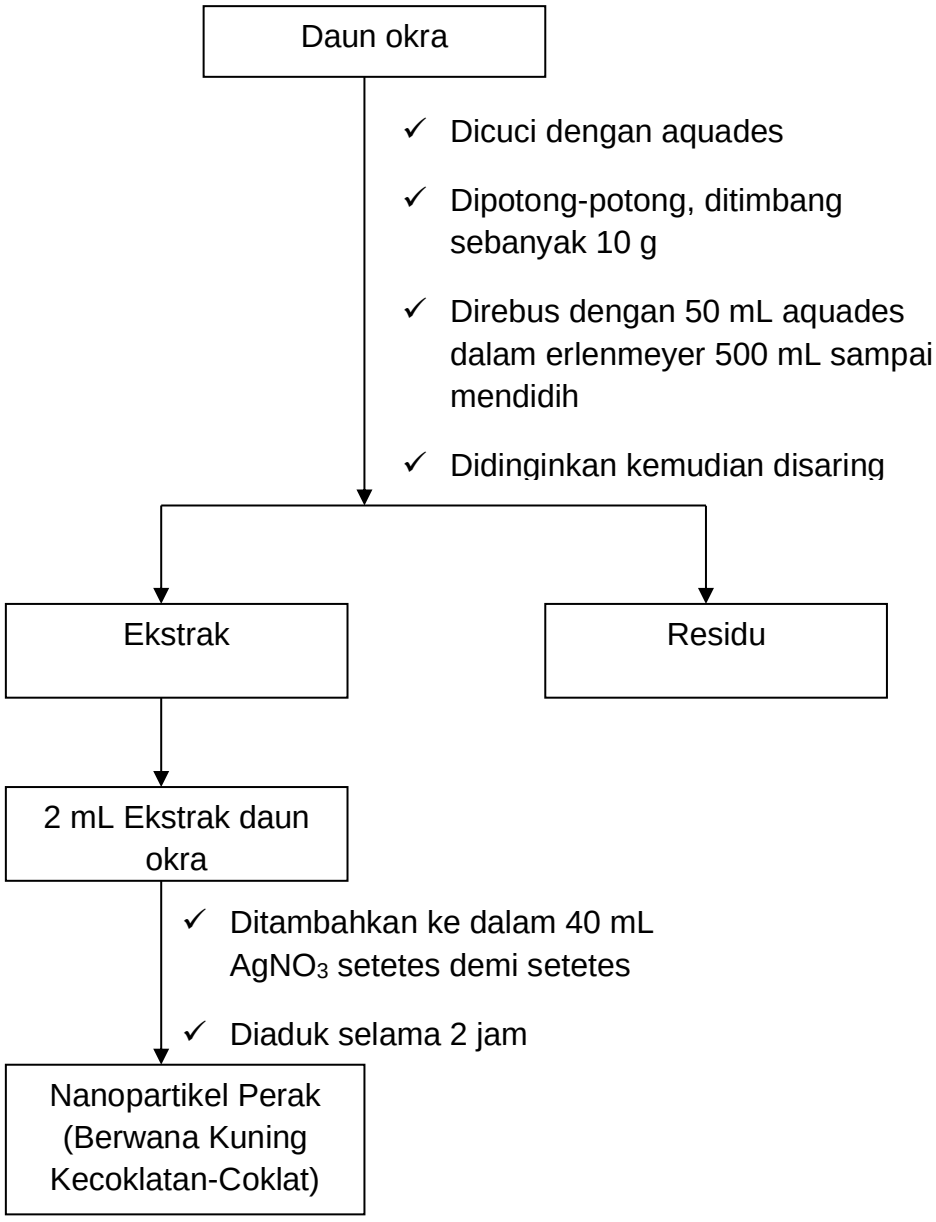
Lampiran 9. Bagan Kerja Pengujian Elektroda Emas Terhadap Larutan Gula Standar



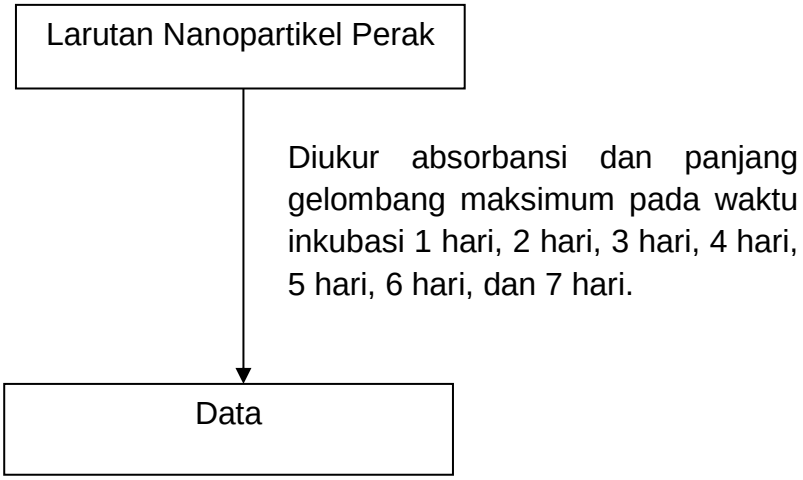
Lampiran 10. Bagan Pembuatan Larutan Perak Induk $AgNO_3$ 1 mM



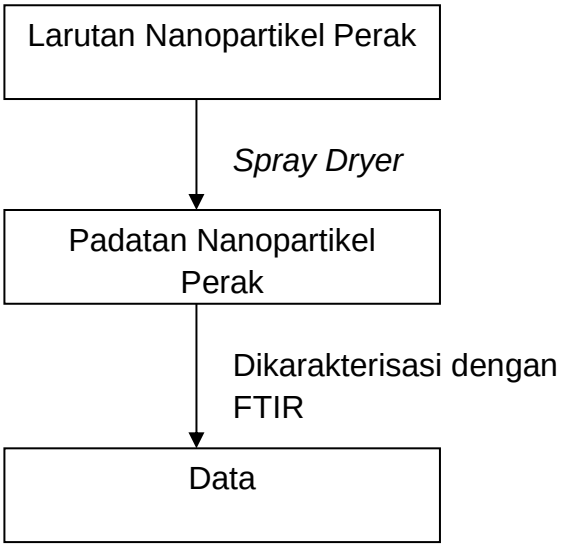
Lampiran 11. Bagan Kerja Sintesis Nanopartikel Perak dari Ekstrak Daun Okra (*Abelmoschus esculentus* (L.) Moench)



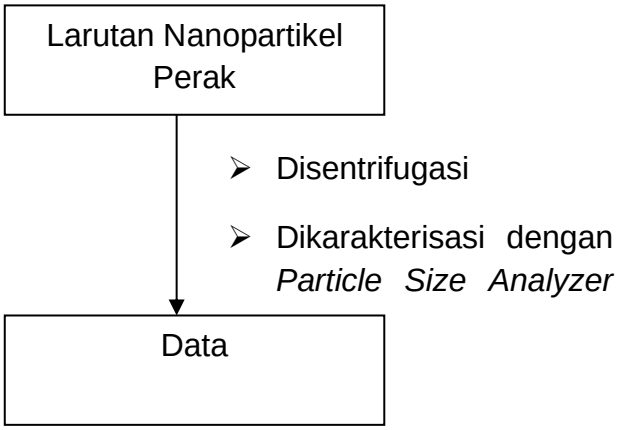
Lampiran 12. Karakterisasi Nanopartikel Perak dengan Spektroskopi UV-Vis



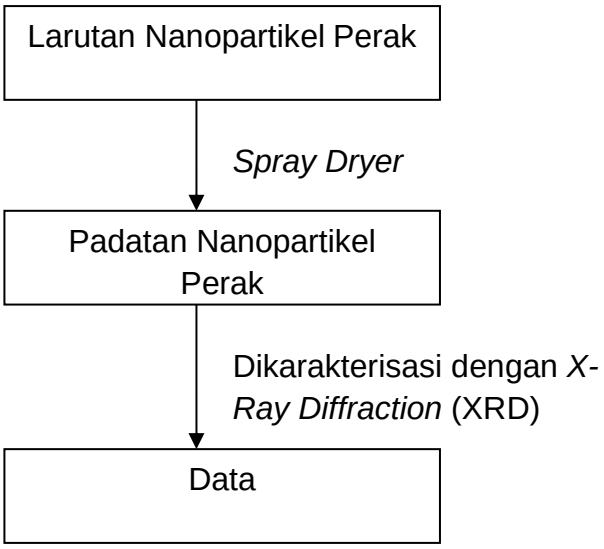
Lampiran 13. Karakterisasi Nanopartikel Perak dengan *FTIR*



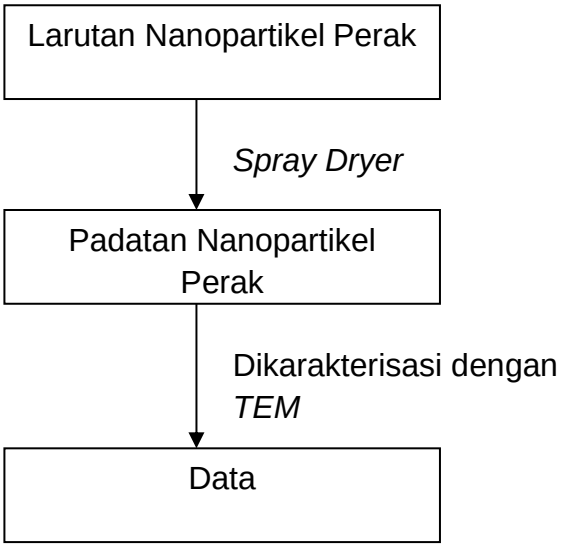
Lampiran 14. Karakterisasi Nanopartikel Perak dengan *Particle Size Analyzer* (PSA)



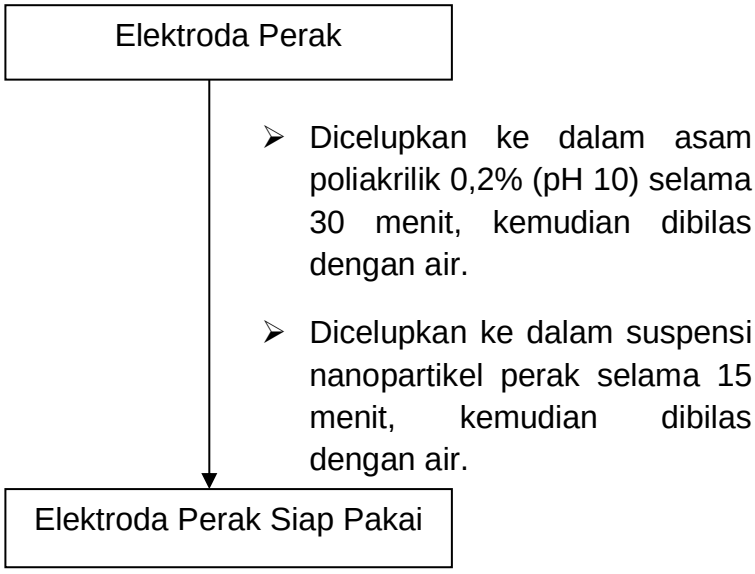
Lampiran 15. Karakterisasi Nanopartikel Perak dengan *X-Ray Diffraction* (XRD)



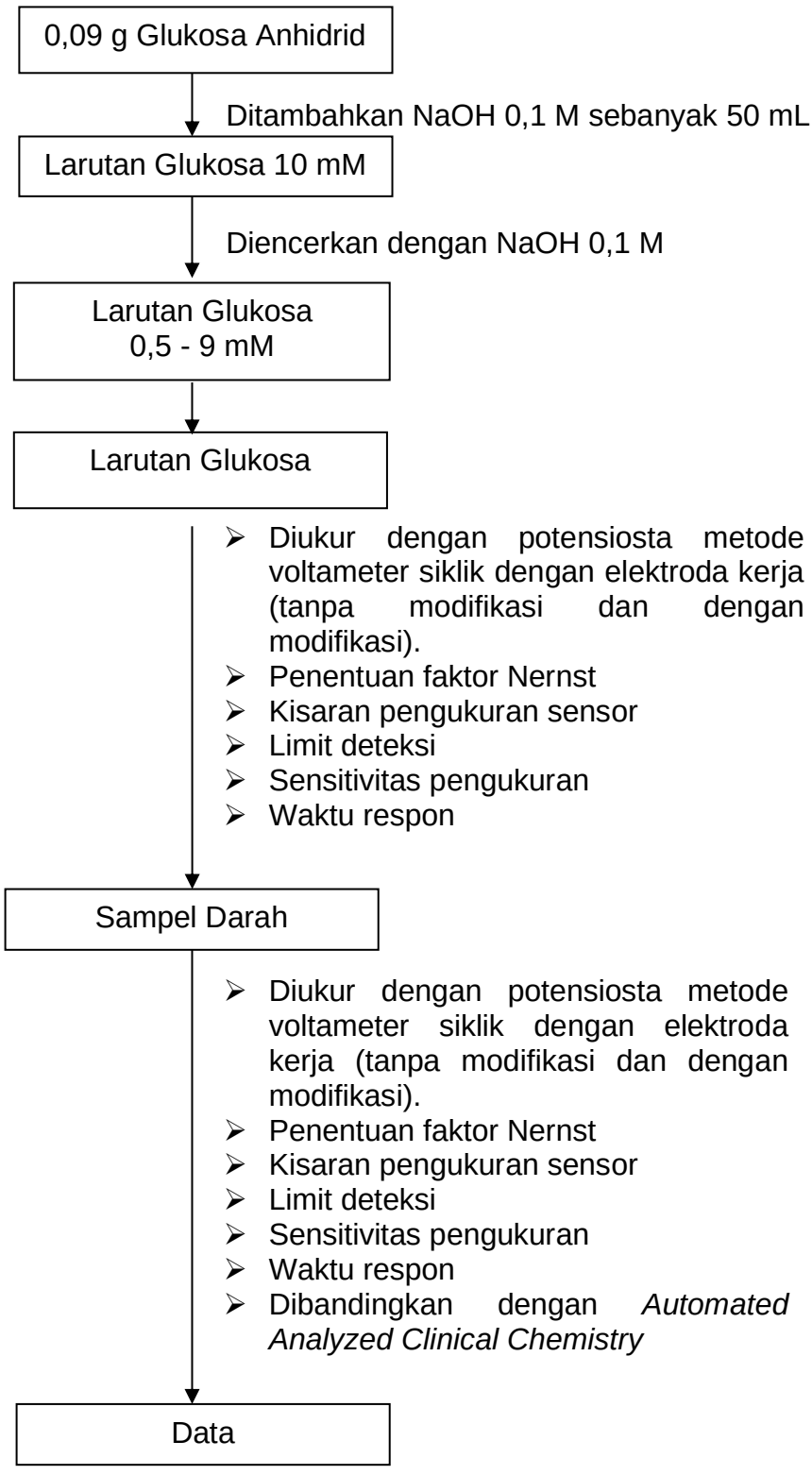
Lampiran 16. Karakterisasi Nanopartikel Perak dengan *TEM*



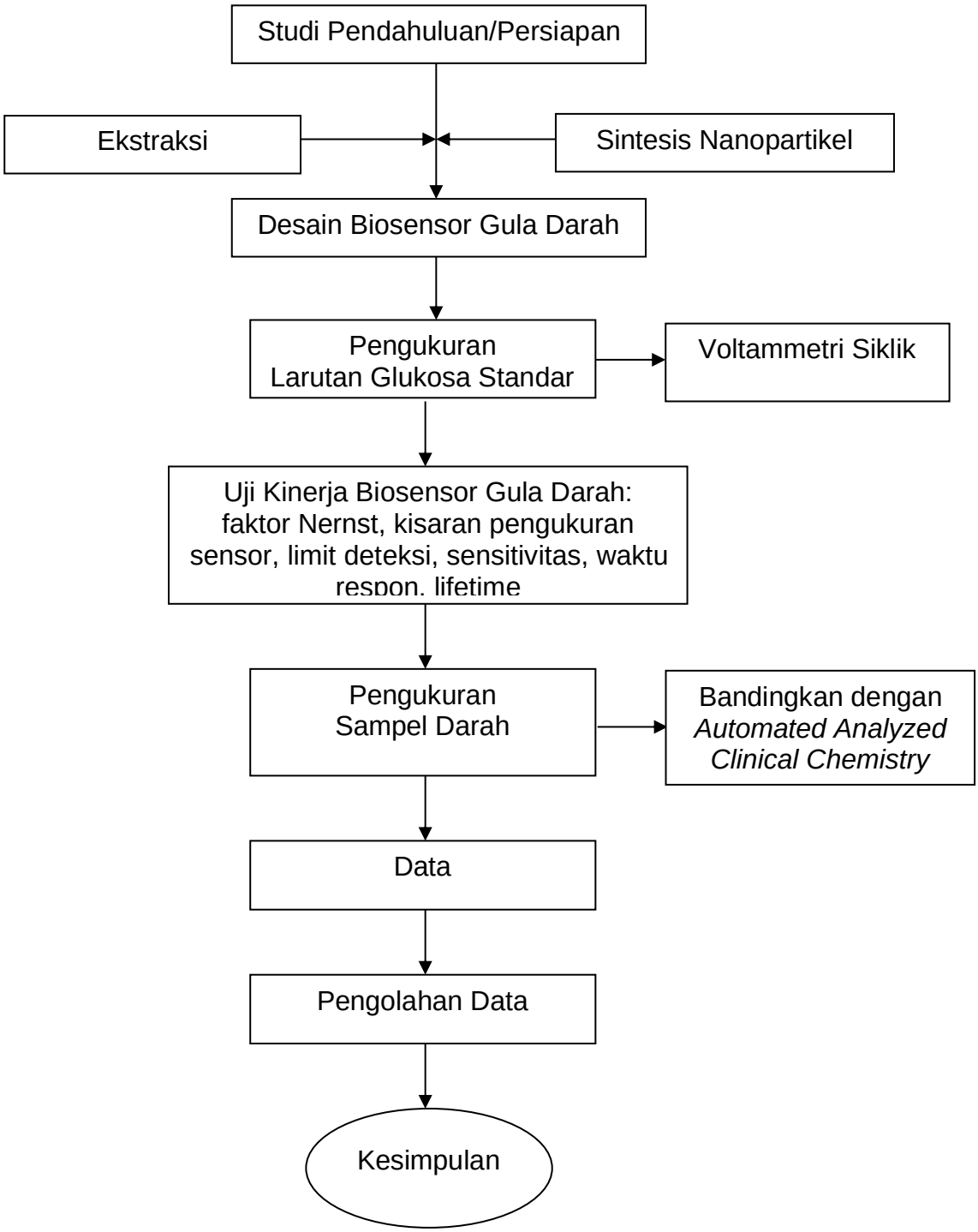
Lampiran 17. Persiapan Elektroda Perak dan Pengendapan Nanopartikel



Lampirran 18. Bagan Kerja Pengujian Elektroda Perak Terhadap Larutan Glukosa Standar



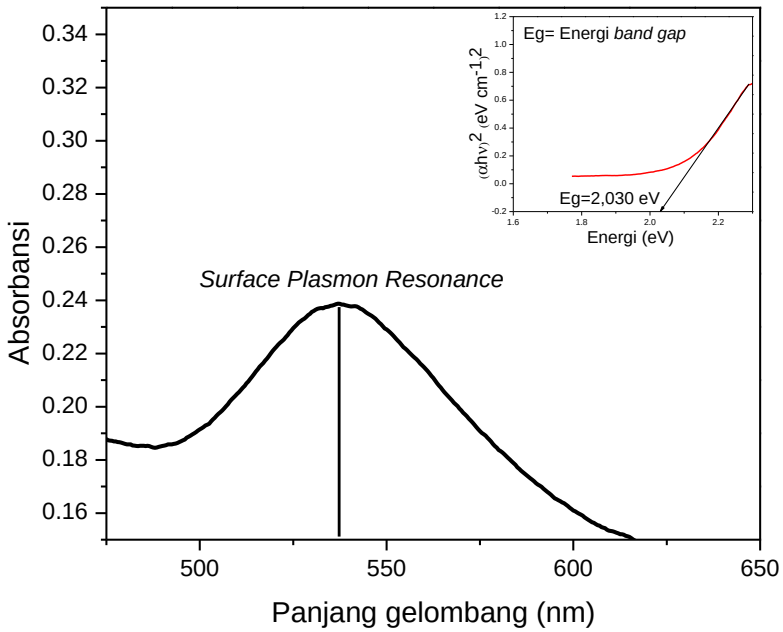
Lampiran 19. Diagram Alir Metode Penelitian



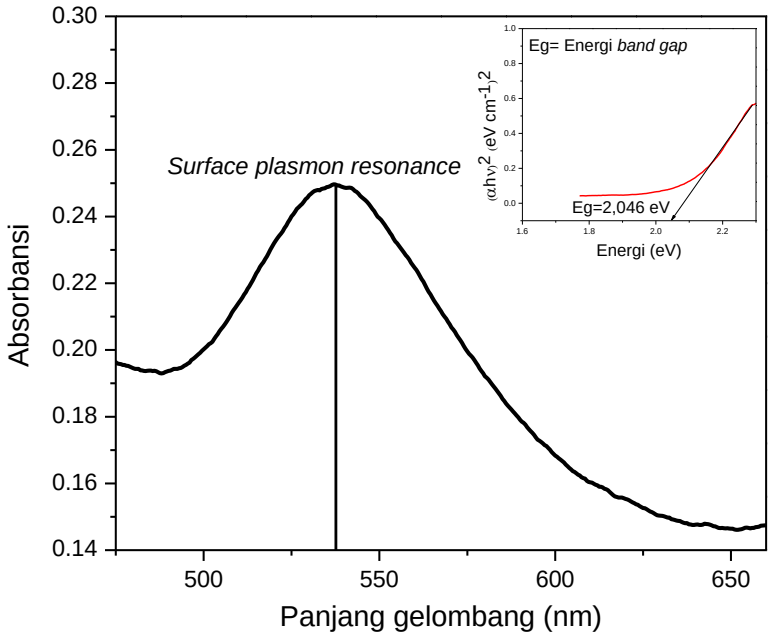
Lampiran 20**.** Tanaman Okra (*Abelmoschus esculentus* (L.) Moench*)*

Lampiran 21. Hasil Analisis Energi Celah Pita Nanopartikel Emas

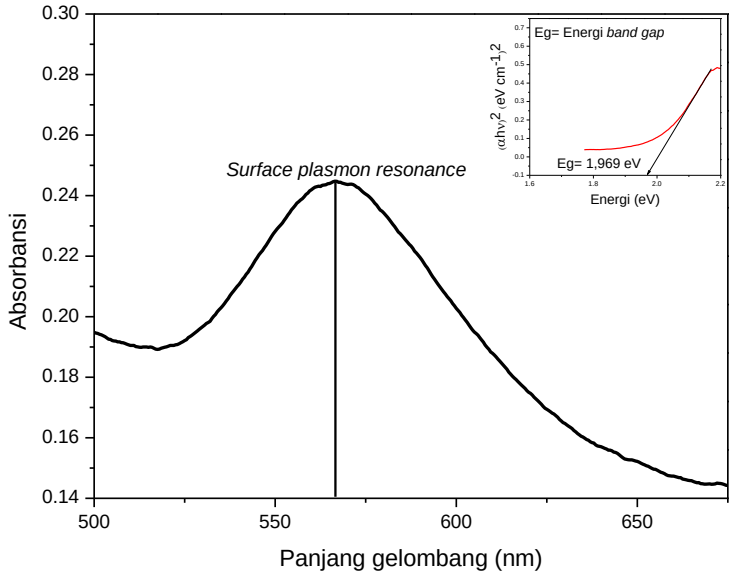
a. Energi celah pita waktu inkubasi satu hari



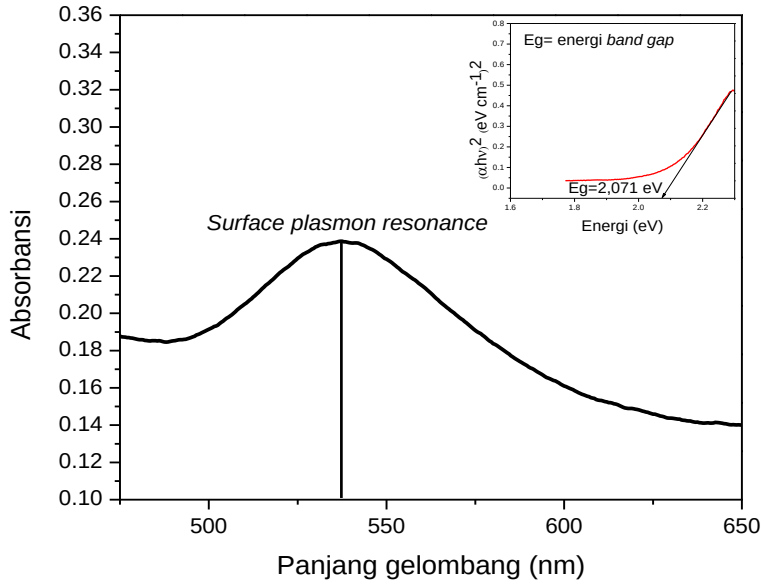
b. Energi celah pita waktu inkubasi dua hari



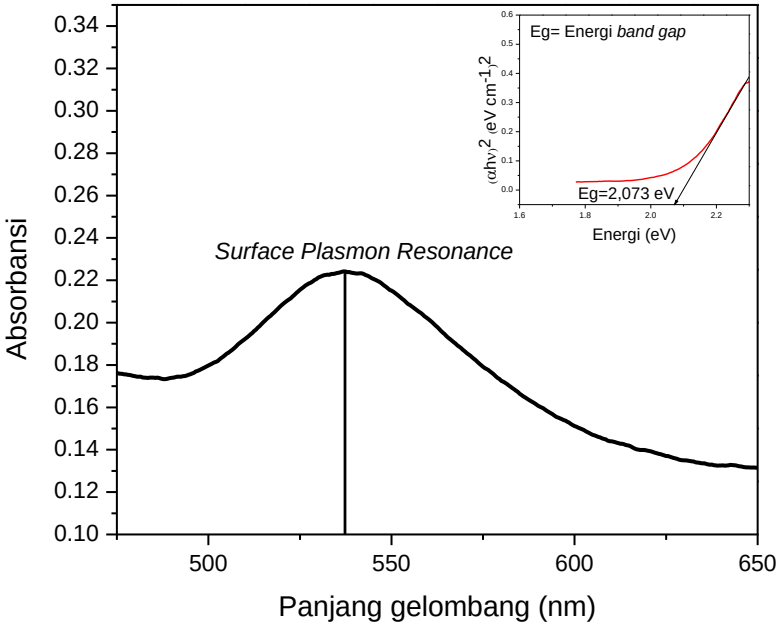
c. Energi celah pita waktu inkubasi tiga hari



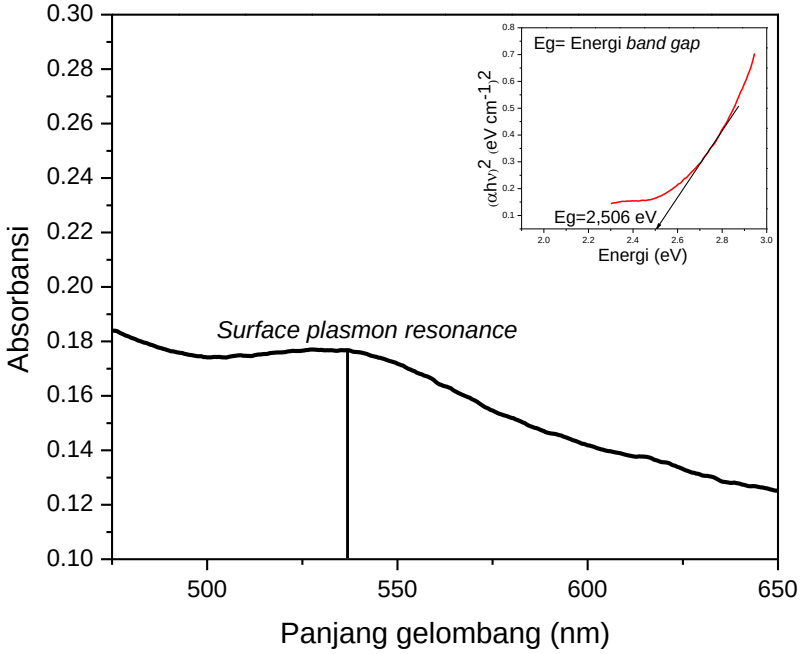
d. Energi celah pita waktu inkubasi empat hari



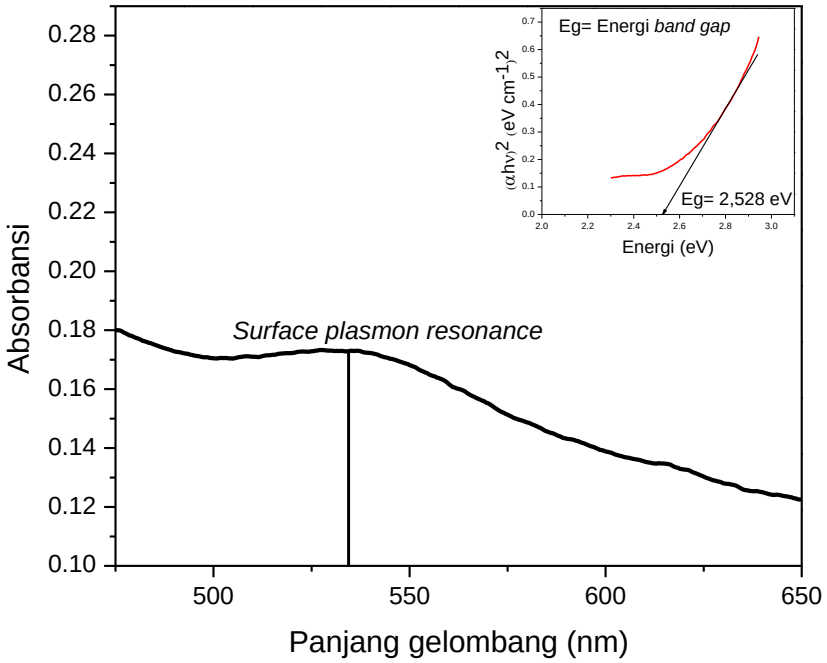
e. Energi celah pita waktu inkubasi lima hari



f. Energi celah pita waktu inkubasi enam hari

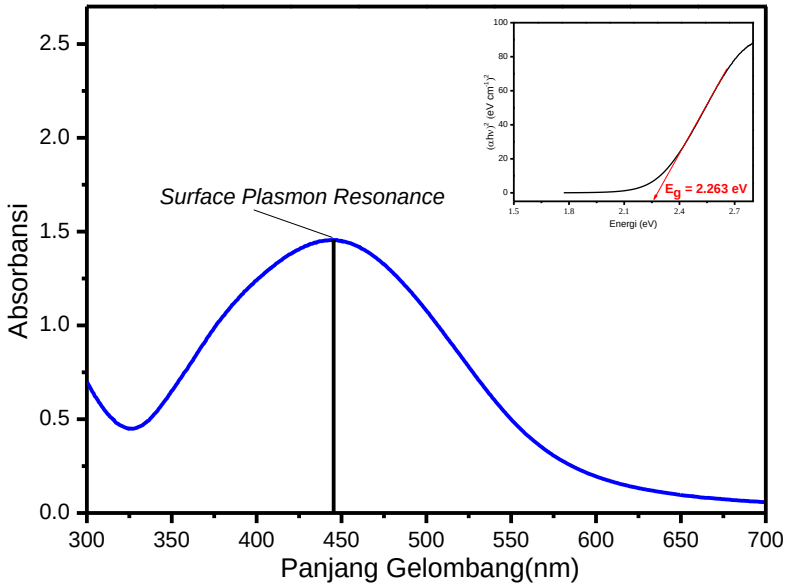


g. Energi celah pita waktu inkubasi tujuh hari

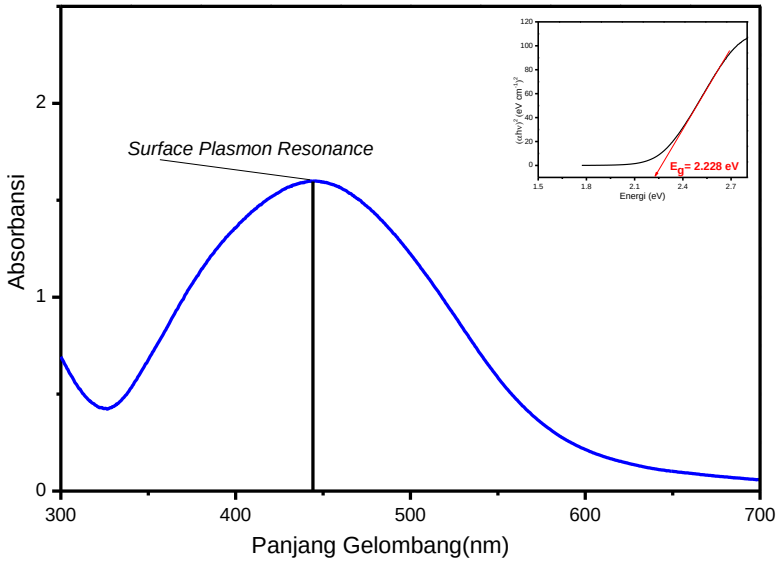


Lampiran 22**.** Hasil Analisis Energi Celah pita Nanopartikel Perak

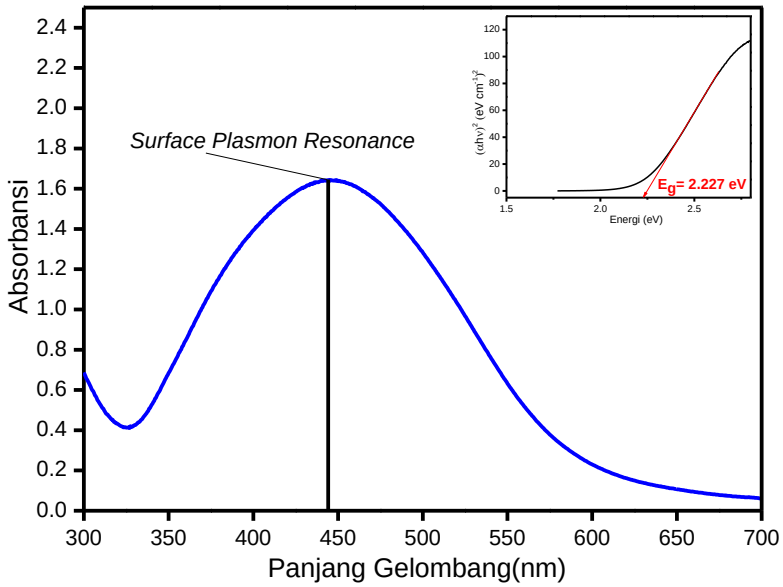
a. Energi celah pita waktu inkubasi satu hari



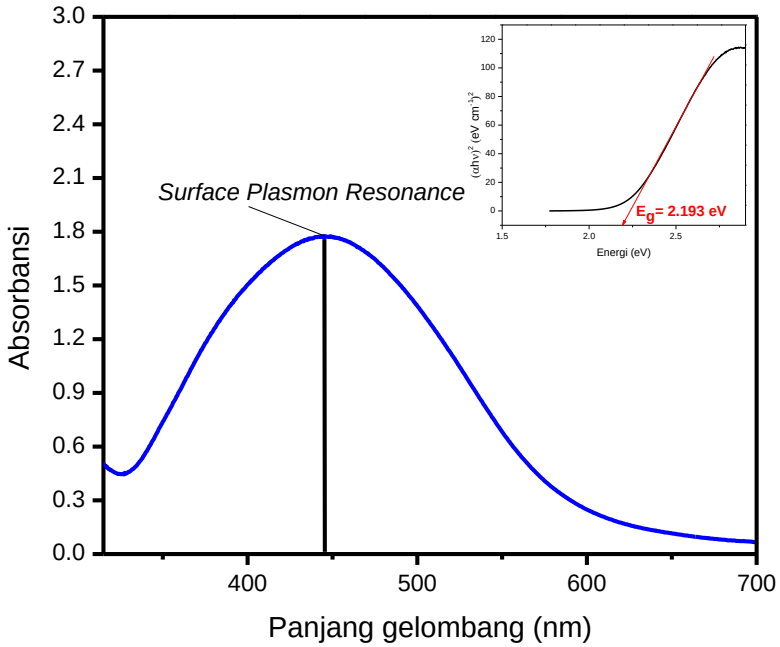
b. Energi celah pita waktu inkubasi dua hari



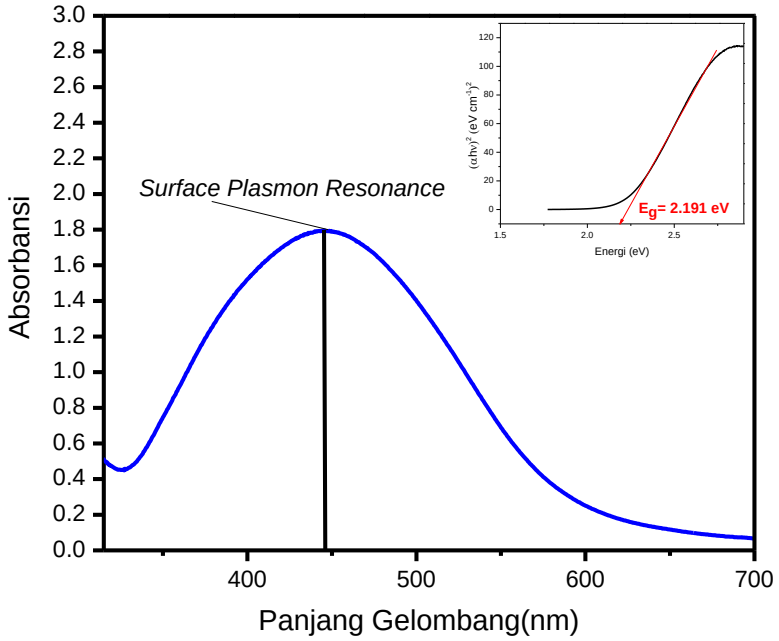
c. Energi celah pita waktu inkubasi tiga hari



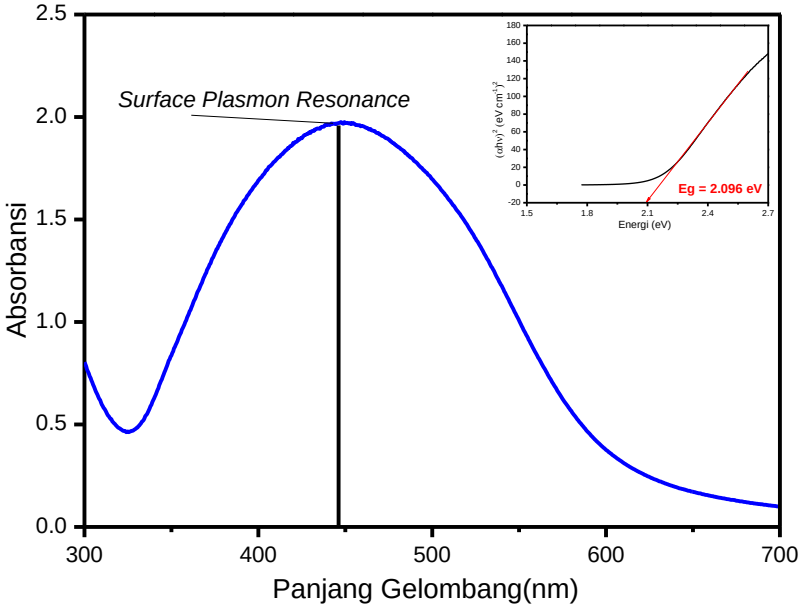
d. Energi celah pita waktu inkubasi empat hari



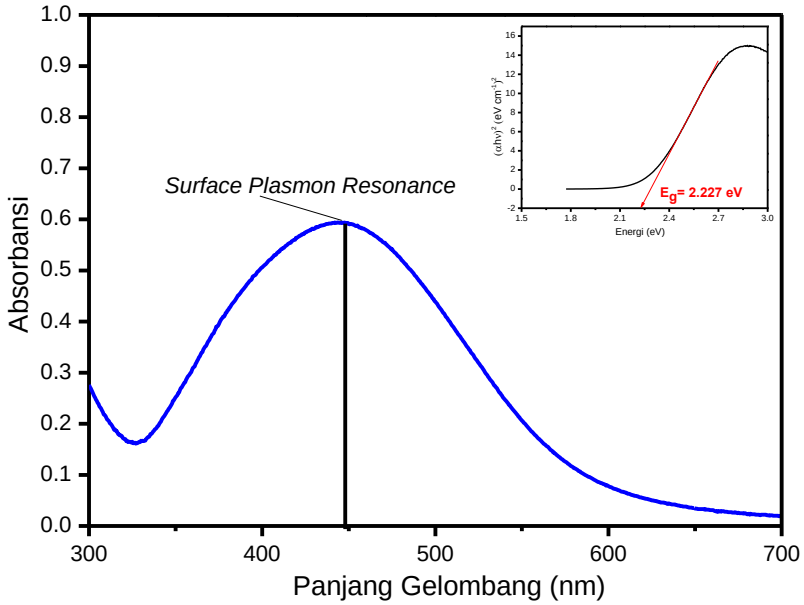
e. Energi celah pita waktu inkubasi lima hari



f. Energi celah pita waktu inkubasi enam hari

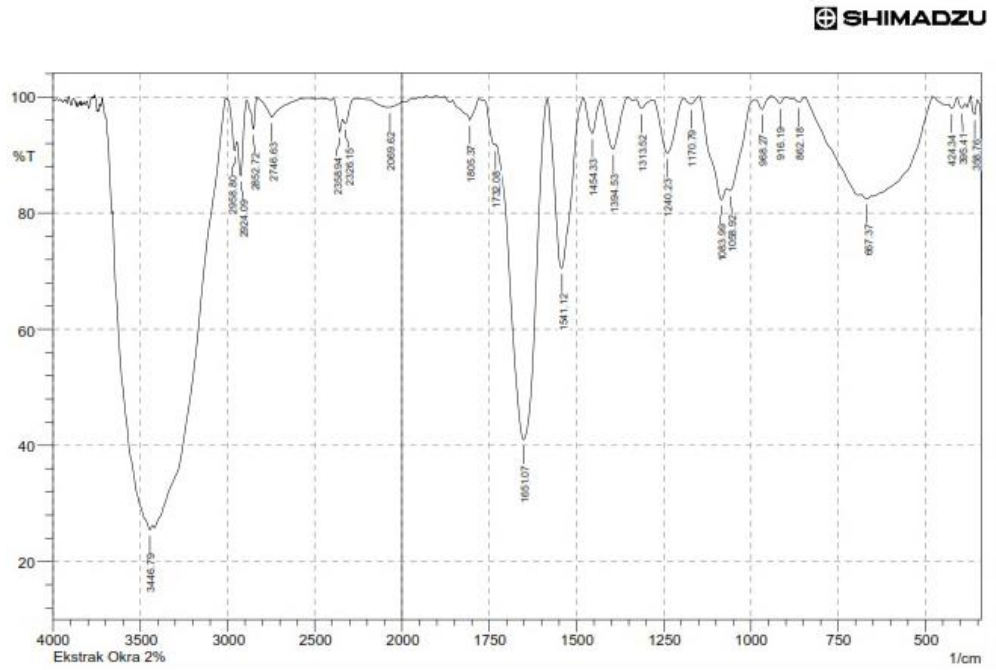


g. Energi celah pita waktu inkubasi tujuh hari



Lampiran 23. Data Hasil Karakterisasi menggunakan FTIR

a. Ekstrak okra 2%

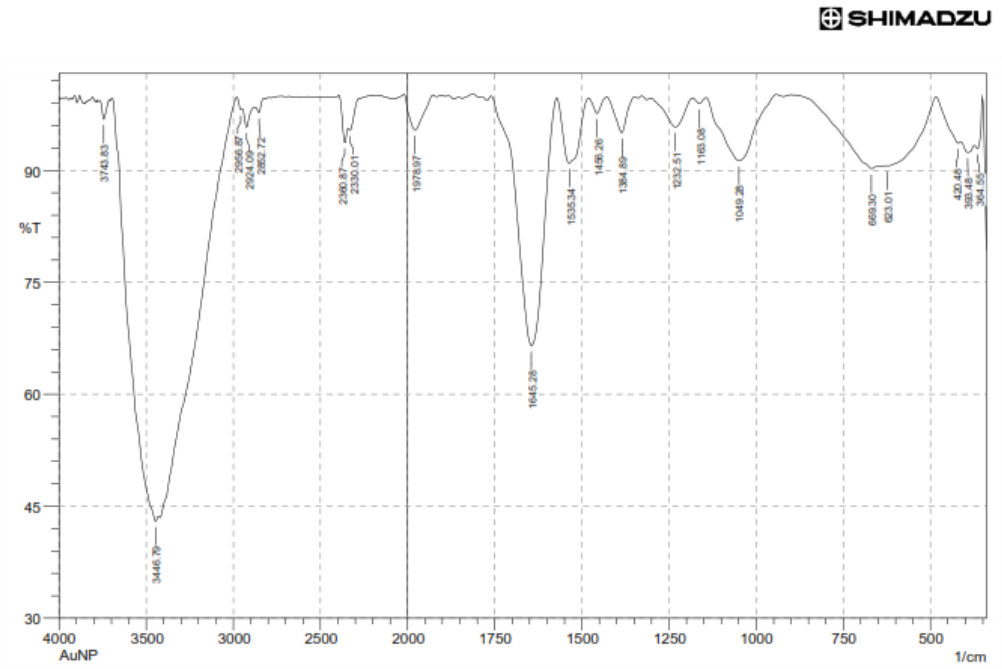


No.	Peak	Intensity	Corr. Intensity	Base (H)	Base (L)	Area	Corr. Area
1	358.76	97.008	2.801	370.33	351.04	0.154	0.144
2	395.41	98.154	1.102	408.91	385.76	0.134	0.068
3	424.34	98.09	1.031	432.05	408.91	0.134	0.064
4	667.37	82.468	0.603	680.87	655.8	2.071	0.052
5	862.18	99.123	0.732	881.47	846.75	0.076	0.052
6	916.19	98.953	1.059	941.26	902.69	0.076	0.084
7	968.27	97.914	1.763	989.48	950.91	0.193	0.138
8	1058.92	83.9	2.209	1068.56	989.48	3.162	0.375
9	1083.99	82.271	4.719	1147.65	1070.49	4.017	1.09
10	1170.79	98.758	1.204	1192.01	1147.65	0.127	0.121
11	1240.23	90.325	9.331	1280.73	1192.01	1.984	1.858
12	1313.52	98.023	1.543	1328.95	1280.73	0.238	0.144
13	1394.53	91.046	8.726	1429.25	1354.03	1.599	1.531
14	1454.33	93.714	6.023	1481.33	1429.25	0.745	0.687
15	1541.12	70.532	29.212	1581.63	1483.26	7.401	7.294
16	1651.07	40.954	54.99	1728.22	1583.56	27.644	24.85
17	1732.08	91.702	0.131	1735.93	1730.15	0.214	0.001
18	1805.37	96.051	1.691	1815.02	1778.37	0.396	0.134
19	2069.62	98.248	0.08	2075.41	2050.33	0.185	0.007
20	2326.15	95.434	1.533	2341.58	2274.07	0.785	0.165
21	2358.94	93.987	3.361	2393.66	2341.58	0.792	0.318
22	2746.63	96.493	3.414	2831.5	2540.25	1.671	1.526
23	2852.72	94.48	5.297	2889.37	2833.43	0.649	0.575
24	2924.09	86.463	8.573	2945.3	2891.3	1.972	0.984
25	2958.8	90.744	3.163	2999.31	2947.23	1.247	0.289
26	3446.79	25.5	4.781	3697.54	3431.36	96.937	16.974

Comment;
Ekstrak Okra 2%

Date/Time; 2/7/2019 10:09:40 AM
No. of Scans;
Resolution;
Apodization;

b. Nanopartikel emas



No.	Peak	Intensity	Corr. Intensity	Base (H)	Base (L)	Area	Corr. Area
1	364.55	92.919	3.134	374.19	351.04	0.594	0.24
2	393.48	92.43	1.162	412.77	374.19	1.231	0.119
3	420.48	93.662	0.679	482.2	414.7	1.168	0.185
4	623.01	90.623	0.386	628.79	484.13	4.173	1.085
5	669.3	90.216	0.955	885.33	653.87	4.787	0.256
6	1049.28	91.314	8.65	1143.79	943.19	4.064	4.044
7	1163.08	98.974	0.763	1182.36	1143.79	0.109	0.065
8	1232.51	95.821	3.859	1300.02	1184.29	1.15	0.988
9	1384.89	95.049	4.813	1427.32	1348.24	0.806	0.758
10	1456.26	97.637	2.124	1479.4	1427.32	0.27	0.218
11	1535.34	90.989	8.67	1570.06	1481.33	2.124	1.993
12	1645.28	66.512	33.306	1759.08	1571.99	13.855	13.726
13	1978.97	95.428	4.737	2021.4	1928.82	0.909	0.973
14	2330.01	95.374	0.952	2341.58	2276	0.752	0.067
15	2360.87	93.729	3.475	2395.59	2341.58	0.858	0.341
16	2852.72	97.751	1.065	2873.94	2796.78	0.348	0.048
17	2924.09	95.785	2.54	2949.16	2873.94	0.854	0.313
18	2956.87	98.142	0.509	2980.02	2949.16	0.162	0.033
19	3446.79	42.98	3.913	3695.61	3431.36	56.585	8.821
20	3743.83	96.866	2.521	3765.05	3712.97	0.414	0.276

Comment;
AuNP

Date/Time; 2/7/2019 9:55:28 AM
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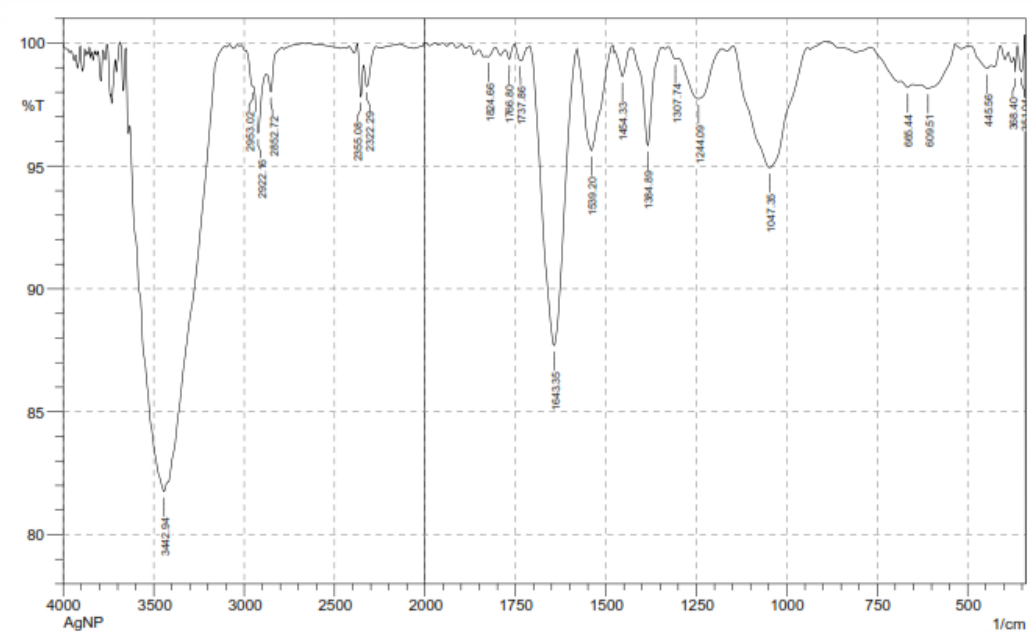
Resolution;
Apodization;

c. Nanopartikel perak

SHIMADZU



No.	Peak	Intensity	Corr. Intensity	Base (H)	Base (L)	Area	Corr. Area
1	351.04	98.834	1.307	362.62	341.4	0.062	0.073
2	368.4	98.818	0.783	372.26	362.62	0.026	0.011
3	445.56	98.97	0.259	487.99	435.91	0.165	0.045
4	609.51	98.162	0.489	628.79	536.21	0.567	0.214
5	665.44	98.198	0.176	684.73	651.94	0.244	0.012
6	1047.35	94.935	4.909	1147.65	943.19	2.584	2.445
7	1244.09	97.742	1.825	1300.02	1178.51	0.731	0.51
8	1307.74	99.361	0.16	1327.03	1300.02	0.055	0.011
9	1384.89	95.833	3.975	1425.4	1344.38	0.572	0.504
10	1454.33	98.64	1.098	1475.54	1431.18	0.147	0.097
11	1539.2	95.623	4.204	1579.7	1481.33	1.006	0.938
12	1643.35	87.696	12.065	1708.93	1581.63	3.669	3.538
13	1737.86	99.305	0.099	1751.36	1735.93	0.03	0.006
14	1766.8	99.343	0.487	1778.37	1751.36	0.041	0.023
15	1824.66	99.444	0.111	1830.45	1805.37	0.044	0.006
16	2322.29	98.237	1.055	2339.65	2270.22	0.293	0.136
17	2355.08	97.827	1.661	2374.37	2339.65	0.19	0.12
18	2852.72	98.027	1.011	2877.79	2789.07	0.343	0.061
19	2922.16	96.338	2.1	2951.09	2877.79	0.743	0.259
20	2953.02	98.244	0.072	2991.59	2951.09	0.176	-0.005
21	3442.94	81.758	1.719	3631.96	3423.65	13.24	2.721

Comment;
AgNP

Date/Time; 2/7/2019 9:30:39 AM
No. of Scans;
Resolution;
Apodization;

Lampiran 24. Data Hasil Karakterisasi menggunakan PSA

a. Nanopartikel Emas

BECKMAN COULTER

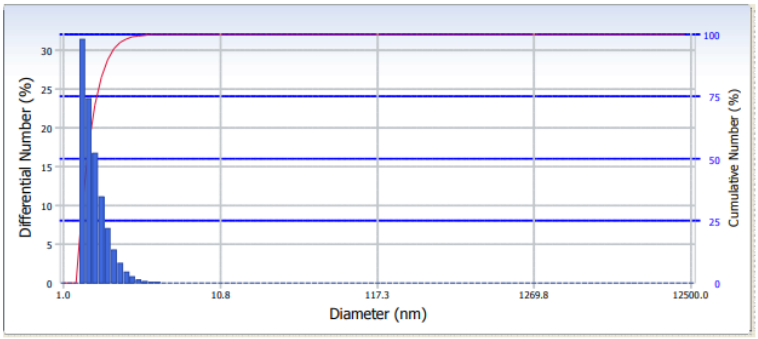
Delsa™ Nano
Common

Number Distribution S/N : 123909

User	: Common	Group	:	Repetition	: 1/1
Date	: 1/11/2019	File Name	: Au Np 2_20190111_162256		
Time	: 16:22:56	Sample Information	:		
SOP Name	: Sampel Uji PSA			Security	: No Security

Version 2.31 / 2.03

Number Distribution



Distribution Results (Contin)

Peak	Diameter (nm)	Std. Dev.
1	1.6	0.4
2	150.3	43.3
3	0.0	0.0
4	0.0	0.0
5	0.0	0.0
Average	1.6	0.4

Residual : 2.004e-002 (N.G)

Cumulants Results

Diameter	(d)	: 491.7	(nm)
Polydispersity Index	(P.I.)	: 0.493	
Diffusion Const.	(D)	: 1.001e-008	(cm²/sec)

Measurement Condition

Temperature	: 25.0	(°C)
Diluent Name	: WATER	
Refractive Index	: 1.3328	
Viscosity	: 0.8878	(cP)
Scattering Intensity	: 6486	(cps)

b. Nanopartikel Perak

BECKMAN COULTER

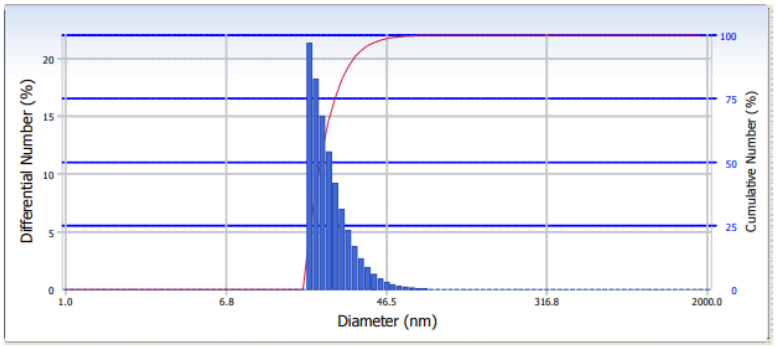
Delsa™ Nano
Common

Number Distribution S/N : 123909

User	: Common	Group	:	Repetition	: 1/1
Date	: 1/11/2019	File Name	: AgNP-4_20190111_161926		
Time	: 16:19:26	Sample Information	:		
SOP Name	: Sampel Uji PSA			Security	: No Security

Version 2.31 / 2.03

Number Distribution



Distribution Results (Contin)

Peak	Diameter (nm)	Std. Dev.
1	24.0	6.9
2	0.0	0.0
3	0.0	0.0
4	0.0	0.0
5	0.0	0.0
Average	24.0	6.9
Residual :	1.130e-002	(O.K)

Cumulants Results

Diameter	(d)	: 89.5	(nm)
Polydispersity Index	(P.I.)	: 0.381	
Diffusion Const.	(D)	: 5.455e-008	(cm²/sec)

Measurement Condition

Temperature	: 24.7	(°C)
Diluent Name	: WATER	
Refractive Index	: 1.3328	
Viscosity	: 0.8939	(cP)
Scattering Intensity	: 6707	(cps)

Lampiran 25. Hasil Konversi Konsentrasi Kadar Glukosa Darah

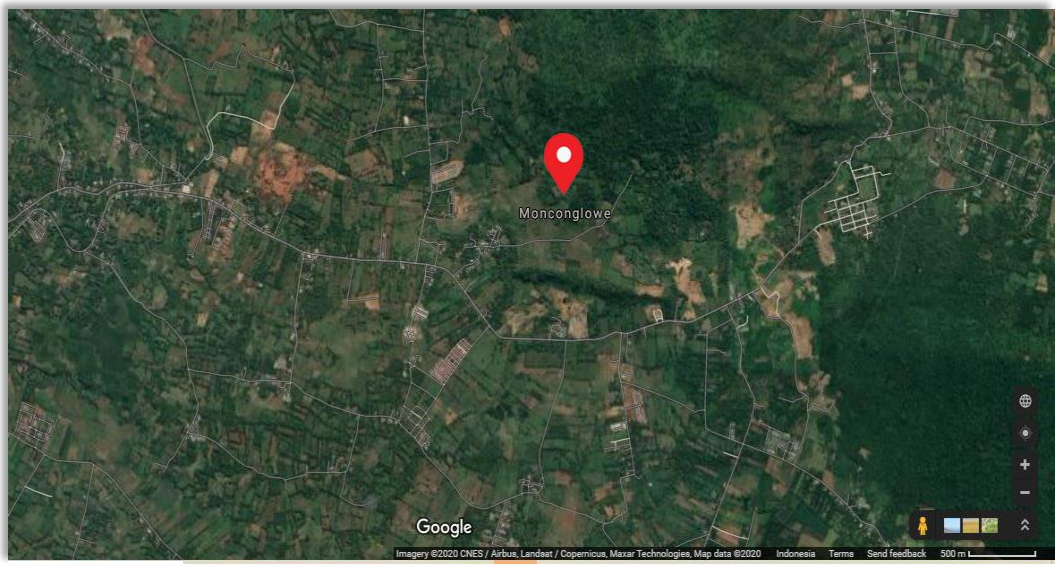
a. Nanopartikel Emas

Konsentrasi Glukosa Darah (mM)	Konsentrasi Glukosa Darah (mmol / L)	Konsentrasi Glukosa Darah (mg /dL)
1	1	18
4,421	4,421	79,58
4,532	4,532	81,59
4,443	4,443	79,99

b. Nanopartikel Perak

Konsentrasi Glukosa Darah (mM)	Konsentrasi Glukosa Darah (mmol / L)	Konsentrasi Glukosa Darah (mg /dL)
1	1	18
5,189	5,189	93,41
5,130	5,130	92,34
5,169	5,169	93,40

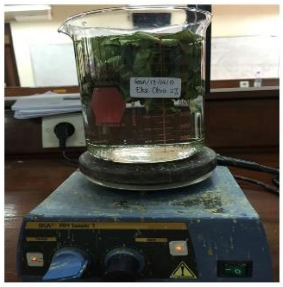
Lampiran 26. Lokasi Pengambilan Sampel

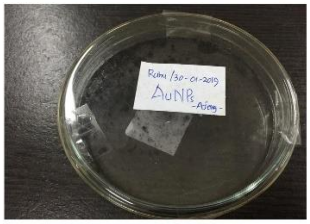


Lampiran 27. Dokumentasi Hasil Penelitian

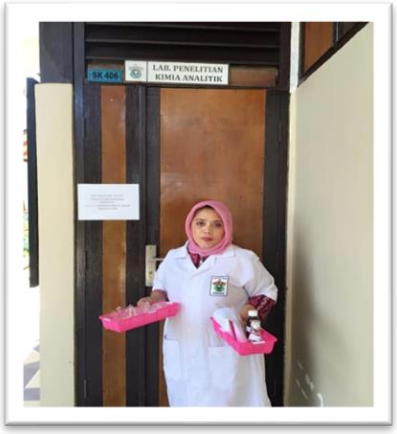
a. Nanopartikel Emas







b. Nanopartikel Perak