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Lampiran 1. Alat yang digunakan dalam penelitian

Alat	Nama Alat	Kegunaan
	Neraca AnalitSik	Menimbang bahan baku dan eksipien
	Spektrofotometer UV-Vis	Membaca absorbansi, mencari lamda maksimum dan OT
	<i>Magnetic stirrer</i>	Menghomogenkan formula dengan pengadukan
	<i>Rotary Evaporator</i>	Menguapkan Pelarut

	<p>Sonikasi Probe</p>	<p>Menghomogenkan dan memperkecil ukuran partikel</p>
	<p><i>Particle size analyzer</i></p>	<p>Mengukur ukuran partikel dan zeta potensial</p>
	<p>Uji Daya Lekat</p>	<p>Mengukur lama sediaan dapat melekat</p>
	<p>Viskometer</p>	<p>Mengukur kekentalan sediaan</p>
	<p>Uji Daya Sebar</p>	<p>Mengukur kemampuan sediaan untuk menyebar</p>

Lampiran 2. Bahan yang digunakan dalam penelitian

Bahan	
a. Gambar Myricetin 	b. Gambar Fosfatidilkolin 
c. Gambar Kolesterol 	d. Gambar Kloroform 
e. Gambar etanol <i>p.a.</i> 	f. Gambar Karbopol 
g. Gambar HPMC 	h. Gambar TEA 

i. Gambar DMDM Hydantoin







j. Gambar Gliserin



Lampiran 3. Nanofitosom Myricetin, dan Freeze Dry.

Lampiran 4. Sediaan Gel Nanofitosom

<p>a. Formula 1</p> 	<p>b. Formula 2</p> 
<p>c. Formula 3</p> 	<p>d. Kontrol Negatif</p> 

Lampiran 5. Kurva Kalibrasi

a. Penetapan Panjang gelombang myricetin

Spectrum Data Print Report 10/10/2016 09:36:46

Wavelength (nm)	Fluorescence
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320.00	0.0000
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335.00	0.0000
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705.00	0.0000
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740.00	0.0000
745.00	0.0000
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755.00	0.0000
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770.00	0.0000
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960.00	0.0000
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970.00	0.0000
975.00	0.0000
980.00	0.0000
985.00	0.0000
990.00	0.0000
995.00	0.0000
1000.00	0.0000

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b. Penetapan Operating Time

Kinetics Data Print Report 1/20/2020 11:14:06 PM

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912.200	0.707
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990.600	0.707
993.400	0.707
996.200	0.707
999.000	0.707

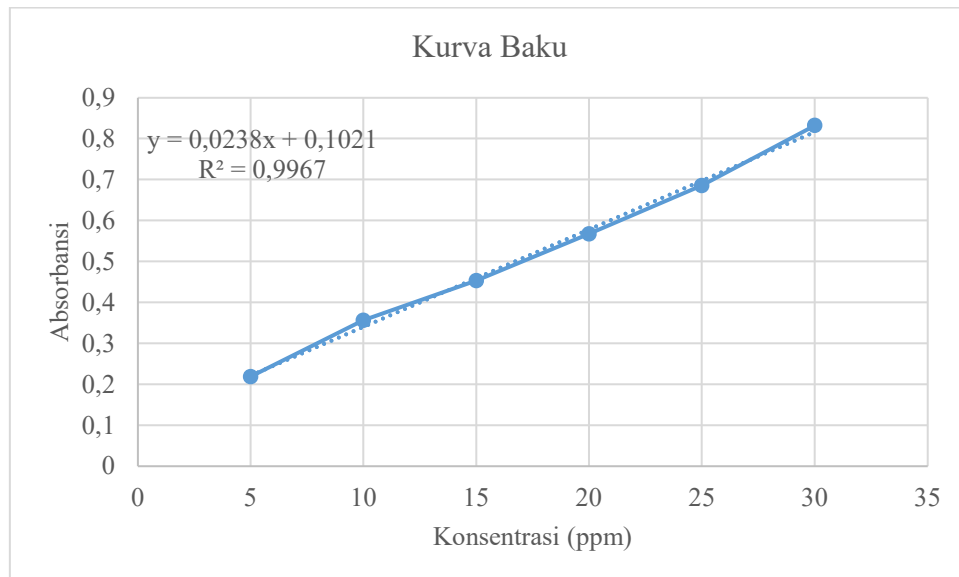
Page 1/1

c. Kurva Baku

**Larutan stok 100 ppm → 10 mg myricetin + 5 ml etanol *p.a.*
+ ad 100 ml aqua *p.i.***

Konsentrasi	Absorb
5	0,219
10	0,356
15	0,453
20	0,567
25	0,685
30	0,832

Persamaan regresi linier antara konsentrasi dan serapan diperoleh :



$$a = 0,1021$$

$$b = 0,0238$$

$$r = 0,998$$

$$y = a + bx$$

$$y = 0,1021 + 0,0492x$$

Lampiran 6. Efisiensi Penjerapan

$$y = 0,1021 + 0,0492x$$

	Efisiensi penjerapan
Replikasi 1	0,157
Replikasi 2	0,132
Replikasi 3	0,063
Rata-rata	0,117333
% EE	99,872

Perhitungan :

a. Kadar Myricetin yang terjerap :

$$y = 0,1021 + 0,0492x$$

$$0,1173 = 0,1021 + 0,0492x$$

$$0,0492x = 0,0152$$

$$X = 0,6413 \text{ ppm}$$

$$\begin{aligned} \text{b. } \sum \text{myricetin tidak terjerap} &= \frac{0,6413 \text{ ppm}}{500 \text{ ppm}} \times 10 \text{ mg} \\ &= 0,01283 \text{ mg} \end{aligned}$$

$$\begin{aligned} \text{c. } \% \text{ Efisiensi Penjerapan} &= \frac{TD - FD}{TD} \times 100\% \\ &= \frac{10 \text{ mg} - 0,01283 \text{ mg}}{10 \text{ mg}} \times 100\% \\ &= 99,872\% \end{aligned}$$

Lampiran 7. Hasil uji viskositas gel nanofitosom

	Data Uji Viskositas (d.Pas)							
	F1		F2		F3		K-	
	1	21	1	21	1	21	1	21
Replikasi 1	375	400	400	420	480	500	400	425
Replikasi 2	370	390	405	425	475	505	395	430
Replikasi 3	380	395	395	430	485	510	405	420
Rata2	375	395	400	425	480	505	400	425

Lampiran 8. Hasil Uji pH gel nanofitosom myricetin

Formula	Hari	pH
1	1	7
	21	7
2	1	6
	21	6
3	1	6
	21	6
K-	1	6
	21	6

Lampiran 9. Hasil uji daya sebar gel nanofitosom

Formula	Waktu	Beban (g)	Replikasi			Rata2	±SD
			1	2	3		
1	Hari ke-1	0	3.	3,1	3,5	3,30	0,28
		50	3,7	3,7	3,8	3,73	0,06
		100	4,2	4,1	4,2	4,17	0,06
		150	4,2	4,4	4,5	4,37	0,15
		200	5,1	4,9	4,9	4,97	0,12
	Hari ke-21	0	3,1	3	3,3	3,13	0,15
		50	3,5	3,4	3,5	3,47	0,06
		100	3,8	3,7	3,8	3,77	0,06
		150	4,2	4	4	4,07	0,12
		200	4,2	4,3	4,1	4,20	0,10
2	Hari ke-1	0	2,8	2,9	2,9	2,87	0,06
		50	3,3	3,3	3,2	3,27	0,06
		100	3,5	3,5	3,6	3,53	0,06
		150	3,7	3,8	3,7	3,73	0,06
		200	4	4	4	4,00	0,00
	Hari ke-21	0	2,5	2,6	2,5	2,53	0,06
		50	3	3	3	3,00	0,00
		100	3,2	3,2	3,1	3,17	0,06
		150	3,5	3,5	3,5	3,50	0,00
		200	3,8	3,7	3,6	3,70	0,10
3	Hari ke-1	0	2,5	2,6	2,5	2,53	0,06
		50	3	3	3	3,00	0,00
		100	3,3	3,5	3,3	3,37	0,12
		150	3,5	3,3	3,2	3,33	0,15
		200	3,7	3,8	3,7	3,73	0,06
	Hari ke-21	0	2,5	2,5	2,6	2,53	0,06
		50	2,9	3	2,5	2,80	0,26
		100	3,1	3	3	3,03	0,06
		150	3,5	3,6	3,5	3,53	0,06
		200	3,6	3,6	3,3	3,50	0,17
k-	Hari ke-1	0	3	2,9	3	2,97	0,06
		50	3,2	3,2	3	3,13	0,12

		100	3,2	3,7	3,5	3,47	0,25
		150	3,9	3,7	3,7	3,77	0,12
		200	4,3	4,2	4	4,17	0,15
	Hari ke-21	0	2,5	2,5	2,5	2,50	0,00
		50	3	3	2,9	2,97	0,06
		100	3,3	3,2	3,1	3,20	0,10
		150	3,5	3,5	3,4	3,47	0,06
		200	3,8	3,8	3,7	3,77	0,06

Lampiran 10. Ukuran partikel nanofitosom

Size Distribution Report by Number v2.2



Sample Details

Sample Name: Wira 1
SOP Name: mansettings.nano
General Notes:

File Name: Yuli Edi 2020.dts Dispersant Name: Water
Record Number: 68 Dispersant RI: 1,330
Material RI: 1,30 Viscosity (cP): 0,8872
Material Absorption: 0,100 Measurement Date and Time: 12 November 2020 14:59:03

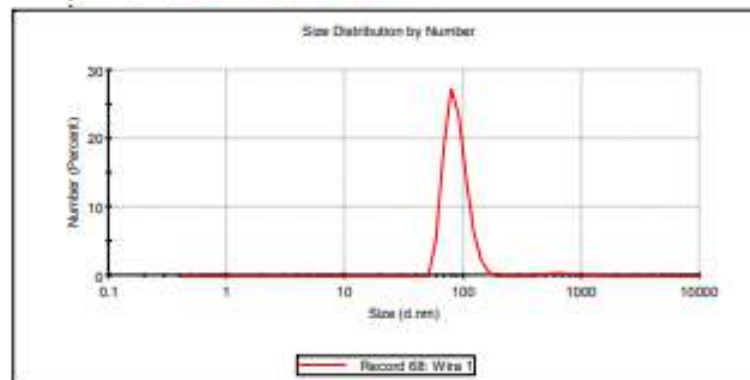
System

Temperature (°C): 25,0 Duration Used (s): 60
Count Rate (kcps): 447,1 Measurement Position (mm): 0,65
Cell Description: Disposable sizing cuvette Attenuator: 4

Results

	Size (d.n...	% Number:	St Dev (d.n...
Z-Average (d.nm): 749,0	Peak 1: 731,0	2,0	300,2
Pdi: 0,655	Peak 2: 4454	0,0	949,0
Intercept: 0,879	Peak 3: 87,44	98,0	19,42

Result quality **Refer to quality report**



Lampiran 11. Hasil uji zeta potensial nanofitosom

Zeta Potential Report

v2.3



Malvern Instruments Ltd - © Copyright 2008

Sample Details

Sample Name: Wira 1
 SOP Name: mansettings.nano
 General Notes:

File Name: Yuli Edi 2020.dts Dispersant Name: Water
 Record Number: 71 Dispersant RI: 1,330
 Date and Time: 12 Nopember 2020 15:04:03 Viscosity (cP): 0,8872
 Dispersant Dielectric Constant: 78,5

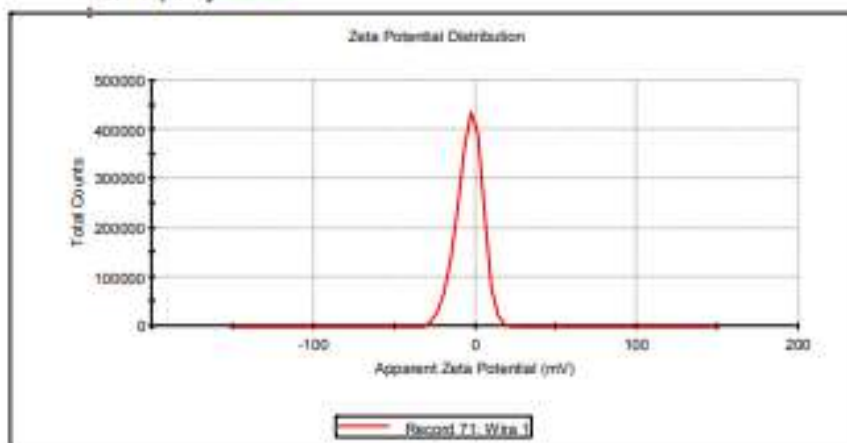
System

Temperature (°C): 25,0 Zeta Runs: 14
 Count Rate (kcps): 153,1 Measurement Position (mm): 4,50
 Cell Description: Zeta dip cell Attenuator: 10

Results

	Mean (mV)	Area (%)	St Dev (mV)
Zeta Potential (mV): -3,69	Peak 1: -3,69	100,0	7,86
Zeta Deviation (mV): 7,86	Peak 2: 0,00	0,0	0,00
Conductivity (mS/cm): 0,0661	Peak 3: 0,00	0,0	0,00

Result quality **Good**



Lampiran 12. Hasil analisis uji viskositas gel nanofitosom

Tests of Normality

	Formula	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Viskositas	Formula 1	.164	6	.200 [*]	.950	6	.739
	Formula 2	.199	6	.200 [*]	.917	6	.484
	Formula 3	.199	6	.200 [*]	.917	6	.484
	Kontrol Negatif	.199	6	.200 [*]	.917	6	.484

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Oneway

Test of Homogeneity of Variances

Viskositas

Levene Statistic	df1	df2	Sig.
.469	3	20	.707

ANOVA

Viskositas

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	38803.125	3	12934.375	67.852	.000
Within Groups	3812.500	20	190.625		
Total	42615.625	23			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Viskositas

	(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Bonferroni	Formula 1	Formula 2	-27.50000*	7.97130	.015	-50.8330	-4.1670
		Formula 3	-107.50000*	7.97130	.000	-130.8330	-84.1670
		Kontrol Negatif	-27.50000*	7.97130	.015	-50.8330	-4.1670
	Formula 2	Formula 1	27.50000*	7.97130	.015	4.1670	50.8330
		Formula 3	-80.00000*	7.97130	.000	-103.3330	-56.6670
		Kontrol Negatif	.00000	7.97130	1.000	-23.3330	23.3330
	Formula 3	Formula 1	107.50000*	7.97130	.000	84.1670	130.8330
		Formula 2	80.00000*	7.97130	.000	56.6670	103.3330
		Kontrol Negatif	80.00000*	7.97130	.000	56.6670	103.3330
	Kontrol Negatif	Formula 1	27.50000*	7.97130	.015	4.1670	50.8330
		Formula 2	.00000	7.97130	1.000	-23.3330	23.3330
		Formula 3	-80.00000*	7.97130	.000	-103.3330	-56.6670
Games-Howell	Formula 1	Formula 2	-27.50000*	7.61030	.022	-50.9425	-4.0575
		Formula 3	-107.50000*	7.61030	.000	-130.9425	-84.0575
		Kontrol Negatif	-27.50000*	7.61030	.022	-50.9425	-4.0575
	Formula 2	Formula 1	27.50000*	7.61030	.022	4.0575	50.9425
		Formula 3	-80.00000*	8.31665	.000	-105.4436	-54.5564
		Kontrol Negatif	.00000	8.31665	1.000	-25.4436	25.4436
	Formula 3	Formula 1	107.50000*	7.61030	.000	84.0575	130.9425
		Formula 2	80.00000*	8.31665	.000	54.5564	105.4436
		Kontrol Negatif	80.00000*	8.31665	.000	54.5564	105.4436
	Kontrol Negatif	Formula 1	27.50000*	7.61030	.022	4.0575	50.9425
		Formula 2	.00000	8.31665	1.000	-25.4436	25.4436
		Formula 3	-80.00000*	8.31665	.000	-105.4436	-54.5564

*. The mean difference is significant at the 0.05 level.

NPar Tests

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Viskositas	8	425.63	44.836	375	505

One-Sample Kolmogorov-Smirnov Test

		Viskositas
N		8
Normal Parameters ^{a,b}	Mean	425.63
	Std. Deviation	44.836
Most Extreme Differences	Absolute	.256
	Positive	.256
	Negatif	-.137
Test Statistic		.256
Asymp. Sig. (2-tailed)		.133

a. Test distribution is Normal.

b. Calculated from data.

T-Test

Group Statistics

	Hari	N	Mean	Std. Deviation	Std. Error Mean
Viskositas	Hari ke 1	4	413.75	45.712	22.856
	Hari ke 21	4	437.50	47.170	23.585

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Viskositas	Equal variances assumed	.001	.974	-.723	6	.497	-23.750	32.843	-104.113	56.613
	Equal variances not assumed			-.723	5.994	.497	-23.750	32.843	-104.132	56.632

Lampiran 13. Hasil analisis uji daya sebar gel nanofitosom

NPar Tests

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Daya Sebar	120	3.431	.5495	2.5	5.1

One-Sample Kolmogorov-Smirnov Test

		Daya Sebar
N		120
Normal Parameters ^{a,b}	Mean	3.431
	Std. Deviation	.5495
Most Extreme Differences	Absolute	.068
	Positive	.068
	Negatif	-.067
Test Statistic		.068
Asymp. Sig. (2-tailed)		.200

a. Test distribution is Normal.

b. Calculated from data.

Test of Homogeneity of Variances

Daya Sebar

Levene Statistic	df1	df2	Sig.
.622	3	116	.602

ANOVA

Daya Sebar

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	10.230	3	3.410	15.387	.000
Within Groups	25.706	116	.222		
Total	35.936	119			

Multiple Comparisons

Dependent Variable: Daya Sebar

	(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Bonferroni	Formula 1	Formula 2	.7800*	.1215	.000	.454	1.106
		Formula 3	.5867*	.1215	.000	.260	.913
		Kontrol Negatif	.5767*	.1215	.000	.250	.903
	Formula 2	Formula 1	-.7800*	.1215	.000	-1.106	-.454
		Formula 3	-.1933	.1215	.687	-.520	.133
		Kontrol Negatif	-.2033	.1215	.582	-.530	.123
	Formula 3	Formula 1	-.5867*	.1215	.000	-.913	-.260
		Formula 2	.1933	.1215	.687	-.133	.520
		Kontrol Negatif	-.0100	.1215	1.000	-.336	.316
	Kontrol Negatif	Formula 1	-.5767*	.1215	.000	-.903	-.250
		Formula 2	.2033	.1215	.582	-.123	.530
		Formula 3	.0100	.1215	1.000	-.316	.336
Games-Howell	Formula 1	Formula 2	.7800*	.1249	.000	.449	1.111
		Formula 3	.5867*	.1265	.000	.252	.922
		Kontrol Negatif	.5767*	.1317	.000	.228	.925
	Formula 2	Formula 1	-.7800*	.1249	.000	-1.111	-.449
		Formula 3	-.1933	.1104	.308	-.485	.099
		Kontrol Negatif	-.2033	.1164	.309	-.511	.105
	Formula 3	Formula 1	-.5867*	.1265	.000	-.922	-.252
		Formula 2	.1933	.1104	.308	-.099	.485
		Kontrol Negatif	-.0100	.1181	1.000	-.322	.302
	Kontrol Negatif	Formula 1	-.5767*	.1317	.000	-.925	-.228
		Formula 2	.2033	.1164	.309	-.105	.511
		Formula 3	.0100	.1181	1.000	-.302	.322

*. The mean difference is significant at the 0.05 level.

NPar Tests

One-Sample Kolmogorov-Smirnov Test

		Daya Sebar
N		8
Normal Parameters ^{a,b}	Mean	3.4313
	Std. Deviation	.34211
Most Extreme Differences	Absolute	.269
	Positive	.269
	Negatif	-.189
Test Statistic		.269
Asymp. Sig. (2-tailed)		.092

a. Test distribution is Normal.

b. Calculated from data.

T-Test

Group Statistics

	Hari	N	Mean	Std. Deviation	Std. Error Mean
Daya Sebar	Hari ke 1	4	3.5500	.38201	.19101
	Hari ke 21	4	3.3125	.29926	.14963

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Daya Sebar	Equal variances assumed	.067	.805	.979	6	.365	.23750	.24264	-.35621	.83121
	Equal variances not assumed			.979	5.675	.368	.23750	.24264	-.36456	.83956

Lampiran 14. Hasil analisis uji daya lekat gel nanofitosom

NPar Tests

One-Sample Kolmogorov-Smirnov Test

		Daya Lekat
N		24
Normal Parameters ^{a,b}	Mean	2.1238
	Std. Deviation	.76427
Most Extreme Differences	Absolute	.164
	Positive	.164
	Negatif	-.077
Test Statistic		.164
Asymp. Sig. (2-tailed)		.094 ^c

a. Test distribution is Normal.

b. Calculated from data.

Test of Homogeneity of Variances

Daya Lekat

Levene Statistic	df1	df2	Sig.
1.345	3	20	.288

ANOVA

Daya Lekat

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	9.665	3	3.222	17.090	.000
Within Groups	3.770	20	.189		
Total	13.435	23			

Multiple Comparisons

Dependent Variable: Daya Lekat

	(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Bonferroni	Formula 1	Formula 2	-.62500	.25067	.129	-1.3587	.1087
		Formula 3	-1.76667*	.25067	.000	-2.5004	-1.0329
		Kontrol Negatif	-.71000	.25067	.062	-1.4437	.0237
	Formula 2	Formula 1	.62500	.25067	.129	-.1087	1.3587
		Formula 3	-1.14167*	.25067	.001	-1.8754	-.4079
		Kontrol Negatif	-.08500	.25067	1.000	-.8187	.6487
	Formula 3	Formula 1	1.76667*	.25067	.000	1.0329	2.5004
		Formula 2	1.14167*	.25067	.001	.4079	1.8754
		Kontrol Negatif	1.05667*	.25067	.003	.3229	1.7904
	Kontrol Negatif	Formula 1	.71000	.25067	.062	-.0237	1.4437
		Formula 2	.08500	.25067	1.000	-.6487	.8187
		Formula 3	-1.05667*	.25067	.003	-1.7904	-.3229
Games- Howell	Formula 1	Formula 2	-.62500	.22991	.086	-1.3299	.0799
		Formula 3	-1.76667*	.23545	.000	-2.4874	-1.0459
		Kontrol Negatif	-.71000	.27564	.110	-1.5613	.1413
	Formula 2	Formula 1	.62500	.22991	.086	-.0799	1.3299
		Formula 3	-1.14167*	.22291	.002	-1.8240	-.4594
		Kontrol Negatif	-.08500	.26502	.988	-.9119	.7419
	Formula 3	Formula 1	1.76667*	.23545	.000	1.0459	2.4874
		Formula 2	1.14167*	.22291	.002	.4594	1.8240
		Kontrol Negatif	1.05667*	.26983	.015	.2191	1.8942
	Kontrol Negatif	Formula 1	.71000	.27564	.110	-.1413	1.5613
		Formula 2	.08500	.26502	.988	-.7419	.9119
		Formula 3	-1.05667*	.26983	.015	-1.8942	-.2191

*. The mean difference is significant at the 0.05 level.

NPar Tests

One-Sample Kolmogorov-Smirnov Test

		Daya Lekat
N		8
Normal Parameters ^{a,b}	Mean	2.1238
	Std. Deviation	.78269
Most Extreme Differences	Absolute	.193
	Positive	.193
	Negatif	-.127
Test Statistic		.193
Asymp. Sig. (2-tailed)		.200

a. Test distribution is Normal.

b. Calculated from data.

T-Test

Group Statistics

	Hari	N	Mean	Std. Deviation	Std. Error Mean
Daya Lekat	Hari ke 1	4	1.7650	.78573	.39286
	Hari ke 21	4	2.4825	.68471	.34235

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Daya Lekat	Equal variances assumed	.056	.821	-1.377	6	.218	-.71750	.52110	-1.99259	.55759
	Equal variances not assumed			-1.377	5.890	.219	-.71750	.52110	-1.99839	.56339

Lampiran 15. Uji DPPH

a. Penetapan Panjang gelombang

Spectrum Data Print Report

11/17/2020 11:42:32 AM

Wavelength nm.	RawData ...
500.00	0.7056
501.00	0.7136
502.00	0.7212
503.00	0.7281
504.00	0.7348
505.00	0.7410
506.00	0.7466
507.00	0.7518
508.00	0.7567
509.00	0.7600
510.00	0.7644
511.00	0.7675
512.00	0.7701
513.00	0.7720
514.00	0.7733
515.00	0.7741
516.00	0.7742
517.00	0.7740
518.00	0.7730
519.00	0.7713
520.00	0.7690
521.00	0.7663
522.00	0.7630
523.00	0.7590
524.00	0.7546
525.00	0.7495
526.00	0.7439
527.00	0.7380
528.00	0.7317
529.00	0.7254
530.00	0.7188
531.00	0.7117
532.00	0.7044
533.00	0.6971
534.00	0.6895
535.00	0.6818
536.00	0.6744
537.00	0.6660
538.00	0.6581
539.00	0.6503
540.00	0.6422
541.00	0.6341
542.00	0.6259
543.00	0.6177
544.00	0.6098
545.00	0.6021
546.00	0.5944
547.00	0.5865
548.00	0.5788
549.00	0.5714
550.00	0.5681

b. Penetapan *operating time***Kinetics Data Print Report**

11/20/2020 12:49:36 PM

Time (Minute)	RawData ...
0.000	0.722
1.000	0.722
2.000	0.722
3.000	0.723
4.000	0.722
5.000	0.722
6.000	0.722
7.000	0.722
8.000	0.722
9.000	0.722
10.000	0.723
11.000	0.723
12.000	0.723
13.000	0.723
14.000	0.723
15.000	0.723
16.000	0.723
17.000	0.723
18.000	0.723
19.000	0.723
20.000	0.723
21.000	0.723
22.000	0.723
23.000	0.723
24.000	0.724
25.000	0.723
26.000	0.723
27.000	0.724
28.000	0.723
29.000	0.724
30.000	0.724
31.000	0.724
32.000	0.724
33.000	0.724
34.000	0.724
35.000	0.724
36.000	0.724
37.000	0.724
38.000	0.725
39.000	0.725
40.000	0.725
41.000	0.725
42.000	0.725
43.000	0.726
44.000	0.725
45.000	0.726
46.000	0.725
47.000	0.726
48.000	0.726
49.000	0.726
50.000	0.726

Kinetics Data Print Report

11/29/2020 12:49:35 PM

Time (Weeks)	RadData
67,000	0.726
67,000	0.726
67,000	0.726
67,000	0.726
67,000	0.726
67,000	0.726
67,000	0.727
67,000	0.727
67,000	0.727
67,000	0.727
67,000	0.727

c. Uji DPPH Myricetin

Absorpsi DPPH = 0,746

Lamda maksimal = 516 nm

Operating Time = 29-27 menit

Larutan stok 100 ppm → 10 mgmyricetin + ad 100 ml etanol *p.a.*

Konsentrasi (ppm)	Serapan 1	Serapan 2	Serapan 3	Rata-rata
5	0,525	0,545	0,589	0,553
10	0,407	0,409	0,408	0,408
15	0,371	0,385	0,396	0,384
20	0,318	0,35	0,373	0,347
25	0,293	0,31	0,309	0,304

Nilai IC₅₀

Konsentrasi (ppm) x	Absorbansi	% Peredaman y
5	0,553	25,87%
10	0,408	45,31%
15	0,384	48,53%
20	0,347	53,49%
25	0,304	59,25%

a = 24,0080

b = 1,499

r = 0,93

$$\bullet \text{ Peredaman} = \frac{\text{Absorbansi blanko} - \text{Absorbansi sampel}}{\text{Absorbansi blanko}} \times 100\%$$

1. 5 ppm

$$\begin{aligned} \% \text{ peredaman} &= \frac{0,746 - 0,553}{0,746} \times 100\% \\ &= 25,87\% \end{aligned}$$

2. 10 ppm

$$\begin{aligned}\% \text{ peredaman} &= \frac{0,746-0,408}{0,746} \times 100\% \\ &= 45,31\%\end{aligned}$$

3. 15 ppm

$$\begin{aligned}\% \text{ peredaman} &= \frac{0,746-0,384}{0,746} \times 100\% \\ &= 48,53\%\end{aligned}$$

4. 20 ppm

$$\begin{aligned}\% \text{ peredaman} &= \frac{0,746-0,347}{0,746} \times 100\% \\ &= 53,49\%\end{aligned}$$

5. 25 ppm

$$\begin{aligned}\% \text{ peredaman} &= \frac{0,746-0,304}{0,746} \times 100\% \\ &= 59,25\%\end{aligned}$$

- IC_{50}

$$y = a + b.x$$

$$50 = 24,0080 + 1,499x$$

$$X = \frac{50-24,0080}{1,499}$$

$$IC_{50} = 17,34 \text{ ppm}$$

Nilai IC_{50} myricetin sebesar 17,34 ppm, memiliki aktivitas antioksidan sangat kuat karena senyawa dinyatakan memiliki aktivitas antioksidan yang sangat kuat jika nilai IC_{50} kurang dari 50 ppm ($IC_{50} < 50$ ppm)

d. Uji DPPH nanofitosom

Absorpsi DPPH = 0,746

Lamda maksimal = 516 nm

Operating Time = 29-27 menit

Konsentrasi = 10 mg/20 ml = 500 mg/1000 ml = 500 ppm

Larutan stok 100 ppm → 10 ml nanofitosom + ad 50 ml etanol *p.a.*

Konsentrasi (ppm)	Serapan 1	Serapan 2	Serapan 3	Rata-rata
2	0,525	0,593	0,508	0,542
4	0,519	0,591	0,471	0,527
6	0,486	0,567	0,443	0,499
8	0,451	0,52	0,438	0,470
10	0,377	0,518	0,398	0,431

Nilai IC₅₀

Konsentrasi (ppm) x	Absorbansi	% Peredaman y
2	0,542	27,35%
4	0,527	29,36%
6	0,499	33,15%
8	0,470	37,04%
10	0,431	42,23%

a = 22,592

b = 1,872

r = 0,99

$$\bullet \text{ Peredaman} = \frac{\text{Absorbansi blanko} - \text{Absorbansi sampel}}{\text{Absorbansi blanko}} \times 100\%$$

1. 2 ppm

$$\begin{aligned} \% \text{ peredaman} &= \frac{0,746 - 0,542}{0,746} \times 100\% \\ &= 27,35\% \end{aligned}$$

2. 4 ppm

$$\begin{aligned}\% \text{ peredaman} &= \frac{0,746-0,527}{0,746} \times 100\% \\ &= 29,36\%\end{aligned}$$

3. 6 ppm

$$\begin{aligned}\% \text{ peredaman} &= \frac{0,746-0,499}{0,746} \times 100\% \\ &= 33,15\%\end{aligned}$$

4. 8 ppm

$$\begin{aligned}\% \text{ peredaman} &= \frac{0,746-0,47}{0,746} \times 100\% \\ &= 37,04\%\end{aligned}$$

5. 10 ppm

$$\begin{aligned}\% \text{ peredaman} &= \frac{0,746-0,431}{0,746} \times 100\% \\ &= 42,23\%\end{aligned}$$

- IC_{50}

$$y = a + b \cdot x$$

$$50 = 22,592 + 1,872x$$

$$X = \frac{50-22,592}{1,872}$$

$$IC_{50} = 14,64 \text{ ppm}$$

Nilai IC_{50} myricetin sebesar 14,64 ppm, memiliki aktivitas antioksidan sangat kuat karena senyawa dinyatakan memiliki aktivitas antioksidan yang sangat kuat jika nilai IC_{50} kurang dari 50 ppm ($IC_{50} < 50$ ppm)

e. Uji DPPH sediaan gel nanofitosom myricetin (Formula 3)

Absorpsi DPPH = 0,746

Lamda maksimal = 516 nm

Operating Time = 29-27 menit

Konsentrasi nanofitosom = 10 mg/20 ml = 500 mg/1000 ml = 500 ppm

Konsentrasi gel nanofitosom = $\frac{10 \text{ gram}}{100 \text{ gram}} \times 500 \text{ ppm} = 50 \text{ ppm}$

Larutan stok 10 ppm → 10 gram gel nanofitosom + ad 100 ml etanol

p.a.

Konsentrasi (ppm)	Serapan 1	Serapan 2	Serapan 3	Rata-rata
2	0,595	0,681	0,608	0,628
4	0,61	0,591	0,59	0,597
6	0,589	0,567	0,551	0,569
8	0,49	0,52	0,556	0,522
10	0,477	0,479	0,52	0,492

Nilai IC₅₀

Konsentrasi (ppm) x	Absorbansi	% Peredaman y
2	0,628	15,82%
4	0,597	19,97%
6	0,569	23,73%
8	0,522	30,03%
10	0,492	34,05%

a = 10,764

b = 2,326

r = 1,00

- Peredaman = $\frac{\text{Absorbansi blangko} - \text{Absorbansi sampel}}{\text{Absorbansi blangko}} \times 100\%$

1. 2 ppm

$$\begin{aligned}\% \text{ peredaman} &= \frac{0,746-0,628}{0,746} \times 100\% \\ &= 15,82\%\end{aligned}$$

2. 4 ppm

$$\begin{aligned}\% \text{ peredaman} &= \frac{0,746-0,597}{0,746} \times 100\% \\ &= 19,97\%\end{aligned}$$

3. 6 ppm

$$\begin{aligned}\% \text{ peredaman} &= \frac{0,746-0,569}{0,746} \times 100\% \\ &= 23,73\%\end{aligned}$$

4. 8 ppm

$$\begin{aligned}\% \text{ peredaman} &= \frac{0,746-0,522}{0,746} \times 100\% \\ &= 30,03\%\end{aligned}$$

5. 10 ppm

$$\begin{aligned}\% \text{ peredaman} &= \frac{0,746-0,492}{0,746} \times 100\% \\ &= 34,05\%\end{aligned}$$

- IC_{50}

$$y = a + b \cdot x$$

$$50 = 10,764 + 2,326x$$

$$X = \frac{50-10,764}{2,326}$$

$$IC_{50} = 16,87 \text{ ppm}$$

Nilai IC_{50} myricetin sebesar 16,87 ppm, memiliki aktivitas antioksidan sangat kuat karena senyawa dinyatakan memiliki aktivitas antioksidan yang sangat kuat jika nilai IC_{50} kurang dari 50 ppm ($IC_{50} < 50$ ppm)

Lampiran 16. Hasil uji aktivitas antioksidan

NPar Tests

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
IC50	12	52.1317	79.47309	14.64	232.67
Hari	12	1.50	.522	1	2

T-Test

Group Statistics

	Hari	N	Mean	Std. Deviation	Std. Error Mean
IC50	Hari ke 1	6	49.5417	79.22470	32.34335
	Hari ke 21	6	54.7217	87.19224	35.59608

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means							
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
								Lower	Upper	
IC50	Equal variances assumed	.029	.869	-.108	10	.916	-5.18000	48.09546	-112.34337	101.98337
	Equal variances not assumed			-.108	9.910	.916	-5.18000	48.09546	-112.47609	102.11609

NPar Tests

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
IC50	12	52.1317	79.47309	14.64	232.67
Formula	12	3.50	1.784	1	6

Kruskal-Wallis Test

Ranks

	Formula	N	Mean Rank
IC50	Formula 1	2	9.00
	Formula 2	2	7.25
	Formula 3	2	5.00
	Kontrol Negatif	2	11.50
	Myricetin	2	4.75
	Nanofitosom Myricetin	2	1.50
	Total	12	

Test Statistics^{a,b}

	IC50
Chi-Square	9.591
df	5
Asymp. Sig.	.088

a. Kruskal Wallis Test

b. Grouping Variable:

Formula

Lampiran 17. Kuisoner Uji Iritasi Gel Nanofitosom Myricetin

Nama Sukarelawan :

Umur :

Jenis Kelamin : Laki-laki / Perempuan

Lingkarilah Jawaban Dibawah ini sesuai hasil!

Formula	Tanda-Tanda Iritasi		
	Apakah terjadi kemerahan pada area kulit yang dioles?	Apakah timbul rasa gatal pada area kulit yang dioles?	Apakah terjadi bengkak pada area kulit yang dioles?
1	1. Ya 2. Tidak	1. Ya 2. Tidak	1. Ya 2. Tidak
2	1. Ya 2. Tidak	1. Ya 2. Tidak	1. Ya 2. Tidak
3	1. Ya 2. Tidak	1. Ya 2. Tidak	1. Ya 2. Tidak
4	1. Ya 2. Tidak	1. Ya 2. Tidak	1. Ya 2. Tidak
5	1. Ya 2. Tidak	1. Ya 2. Tidak	1. Ya 2. Tidak
6	1. Ya 2. Tidak	1. Ya 2. Tidak	1. Ya 2. Tidak

Cara Pemakaian gel:

1. Oleskan gel masing-masing formula pada lengan bagian bawah. Oleskan secukupnya sebanyak 3 kali sehari berturut-turut. Biarkan
2. Jangan langsung mencuci gel yang dioleskan. Jika timbul reaksi segera tandai formula yang menimbulkan reaksi pada lembar kuisoner ini.

Lampiran 18. Hasil Uji Iritasi Gel Terhadap Responden

Respon	Uji Iritasi Formula																	
	Kemerahan						Gatal						Bengkak					
	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
7	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
8	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
9	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
10	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
11	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
12	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
13	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
14	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
15	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

Keterangan : 1 = Ya

2 = Tidak