

Lampiran 1. Surat Keterangan Hasil Penelitian

**KEMENTERIAN RISET, TEKNOLOGI DAN PENDIDIKAN TINGGI
UNIVERSITAS PADJADJARAN
FAKULTAS MATEMATIKA DAN ILMU PENGETAHUAN ALAM DEPARTEMEN
BIOLOGI**

LABORATORIUM MIKROBIOLOGI

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Sampel	ppm	Air			metanol			Etil asetat			n-heksan		
		1	2	3	1	2	3	1	2	3	1	2	3
Daun	300	5,9	5,8	6,3	6	6,2	5,8	6,3	5,8	5,9	8,9	9,4	9
	400	5,9	6	6,1	6,1	6	5,9	6,6	6,2	6,4	10,8	11,1	9,6
	500	6	6	6	6,2	5,8	6	5,9	5,2	6	5,9	6,1	6
	600	6,2	6,1	5,7	6	6	6	11,4	10,2	11,2	5,8	6,4	5,8
	700	6	5,9	6,1	5,8	6,1	6,1	10,9	9,9	10,4	5,9	5,9	6,2
Batang	300	5,9	5,9	6,2	5,9	5,9	6,2	6,8	6,3	6,4	7,9	8,1	7,4
	400	6,1	6,1	5,8	6	6	6	5,9	6,5	5,6	8,8	8,2	8,5
	500	6	6	6	5,8	6	6,2	17	17,2	16,4	6,2	6,9	6,4
	600	5,7	6,3	6	6	6	6	20,1	19	18,8	8,2	7,6	7,9
	700	6	6	6	5,9	6	6,1	19,7	18,1	18,9	5,9	6	6,1
Akar	300	7,9	7,8	7,5	15	15,8	14,2	15,5	14,9	14,9	8,5	8,7	7,6
	400	7,4	6,8	7,2	15	15	15	13,3	13,6	13,4	6,4	6	6,2
	500	5,9	6	6,1	10,4	9,6	10,3	16,8	16,2	15	6	6	6
	600	6,3	5,7	6	8,8	8,9	8,4	16,5	16,9	16,7	5,9	6,1	6
	700	6	6	6	5,8	6,2	6	20	19,1	18,8	6,8	5,8	6

LAMPIRAN

DESKRIPTIF

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Air	300ppm	3	6.1333	.20817	.12019	5.6162	6.6504	5.90	6.30
	400ppm	3	5.7667	.05774	.03333	5.6232	5.9101	5.70	5.80
	500ppm	3	5.9667	.05774	.03333	5.8232	6.1101	5.90	6.00
	600ppm	3	5.8000	.17321	.10000	5.3697	6.2303	5.70	6.00
	700ppm	3	6.1000	.00000	.00000	6.1000	6.1000	6.10	6.10
	Total	15	5.9533	.18848	.04866	5.8490	6.0577	5.70	6.30
Metanol	300ppm	3	6.1667	.05774	.03333	6.0232	6.3101	6.10	6.20
	400ppm	3	5.8333	.05774	.03333	5.6899	5.9768	5.80	5.90
	500ppm	3	6.0000	.20000	.11547	5.5032	6.4968	5.80	6.20
	600ppm	3	6.0000	.00000	.00000	6.0000	6.0000	6.00	6.00
	700ppm	3	6.0000	.00000	.00000	6.0000	6.0000	6.00	6.00
	Total	15	6.0000	.13628	.03519	5.9245	6.0755	5.80	6.20

NORMALITAS

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Air	.131	15	.200*	.840	15	.039
Metanol	.233	15	.027	.870	15	.033

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

a. Lilliefors Significance Correction

HOMOGENITAS**Test of Homogeneity of Variances**

		Levene Statistic	df1	df2	Sig.
Air	Based on Mean	5.867	4	10	.011
	Based on Median	.750	4	10	.580
	Based on Median and with adjusted df	.750	4	4.909	.599
	Based on trimmed mean	5.050	4	10	.017
Metanol	Based on Mean	3.158	4	10	.064
	Based on Median	2.250	4	10	.136
	Based on Median and with adjusted df	2.250	4	4.000	.226
	Based on trimmed mean	3.120	4	10	.066

KRUSKAL WALLIS**Ranks**

	Konsentrasi (ppm)	N	Mean Rank
Air	300ppm	3	11.83
	400ppm	3	3.67
	500ppm	3	8.17
	600ppm	3	4.33
	700ppm	3	12.00
	Total	15	
Metanol	300ppm	3	13.33
	400ppm	3	2.67
	500ppm	3	8.00
	600ppm	3	8.00
	700ppm	3	8.00
	Total	15	

Test Statistics^{a,b}

	Air	Metanol
Kruskal-Wallis H	9.684	9.634
df	4	4
Asymp. Sig.	.046	.047

a. Kruskal Wallis Test

b. Grouping Variable: Konsentrasi (ppm)

MAN WHITNEY**Konsentrasi 300 – 400****Ranks**

	Konsentrasi (ppm)	N	Mean Rank	Sum of Ranks
Air	300ppm	3	5.00	15.00
	400ppm	3	2.00	6.00
	Total	6		
Metanol	300ppm	3	5.00	15.00
	400ppm	3	2.00	6.00
	Total	6		

Test Statistics^a

	Air	Metanol
Mann-Whitney U	.000	.000
Wilcoxon W	6.000	6.000
Z	-1.993	-2.023
Asymp. Sig. (2-tailed)	.046	.043
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b	.100 ^b

a. Grouping Variable: Konsentrasi (ppm)

b. Not corrected for ties.

Konsentrasi 300 – 500**Ranks**

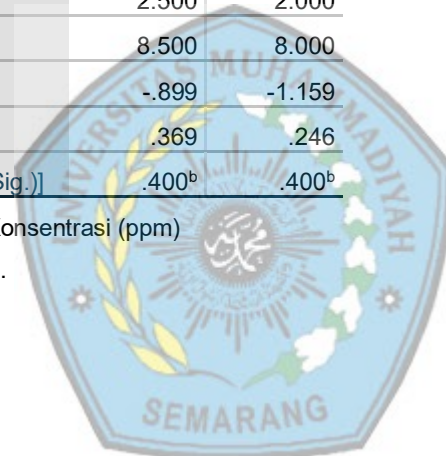
	Konsentrasi (ppm)	N	Mean Rank	Sum of Ranks
Air	300ppm	3	4.17	12.50
	500ppm	3	2.83	8.50
	Total	6		
Metanol	300ppm	3	4.33	13.00
	500ppm	3	2.67	8.00
	Total	6		

Test Statistics^a

	Air	Metanol
Mann-Whitney U	2.500	2.000
Wilcoxon W	8.500	8.000
Z	-.899	-1.159
Asymp. Sig. (2-tailed)	.369	.246
Exact Sig. [2*(1-tailed Sig.)]	.400 ^b	.400 ^b

a. Grouping Variable: Konsentrasi (ppm)

b. Not corrected for ties.



Konsentrasi 300 – 600**Ranks**

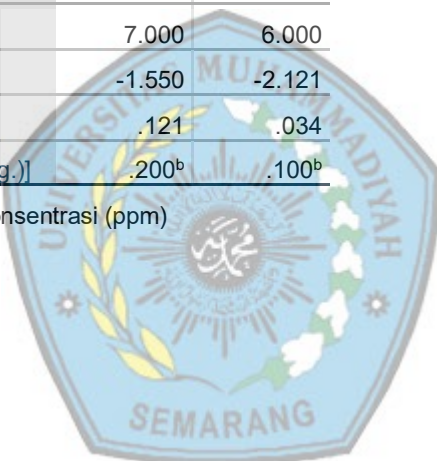
	Konsentrasi (ppm)	N	Mean Rank	Sum of Ranks
Air	300ppm	3	4.67	14.00
	600ppm	3	2.33	7.00
	Total	6		
Metanol	300ppm	3	5.00	15.00
	600ppm	3	2.00	6.00
	Total	6		

Test Statistics^a

	Air	Metanol
Mann-Whitney U	1.000	.000
Wilcoxon W	7.000	6.000
Z	-1.550	-2.121
Asymp. Sig. (2-tailed)	.121	.034
Exact Sig. [2*(1-tailed Sig.)]	.200 ^b	.100 ^b

a. Grouping Variable: Konsentrasi (ppm)

b. Not corrected for ties.



Konsentrasi 300 – 700**Ranks**

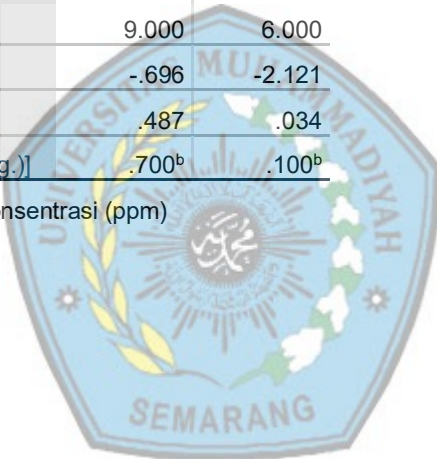
	Konsentrasi (ppm)	N	Mean Rank	Sum of Ranks
Air	300ppm	3	4.00	12.00
	700ppm	3	3.00	9.00
	Total	6		
Metanol	300ppm	3	5.00	15.00
	700ppm	3	2.00	6.00
	Total	6		

Test Statistics^a

	Air	Metanol
Mann-Whitney U	3.000	.000
Wilcoxon W	9.000	6.000
Z	-.696	-2.121
Asymp. Sig. (2-tailed)	.487	.034
Exact Sig. [2*(1-tailed Sig.)]	.700 ^b	.100 ^b

a. Grouping Variable: Konsentrasi (ppm)

b. Not corrected for ties.



Konsentrasi 400 – 500**Ranks**

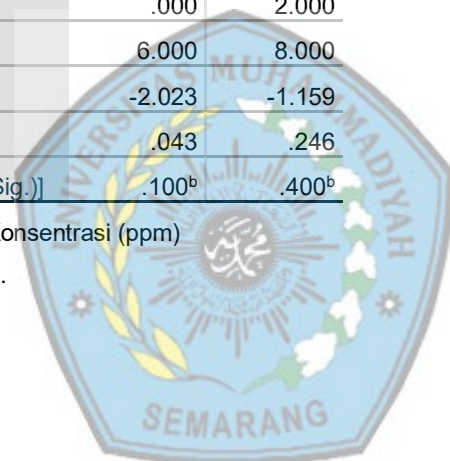
	Konsentrasi (ppm)	N	Mean Rank	Sum of Ranks
Air	400ppm	3	2.00	6.00
	500ppm	3	5.00	15.00
	Total	6		
Metanol	400ppm	3	2.67	8.00
	500ppm	3	4.33	13.00
	Total	6		

Test Statistics^a

	Air	Metanol
Mann-Whitney U	.000	2.000
Wilcoxon W	6.000	8.000
Z	-2.023	-1.159
Asymp. Sig. (2-tailed)	.043	.246
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b	.400 ^b

a. Grouping Variable: Konsentrasi (ppm)

b. Not corrected for ties.



Konsentrasi 400-600**Ranks**

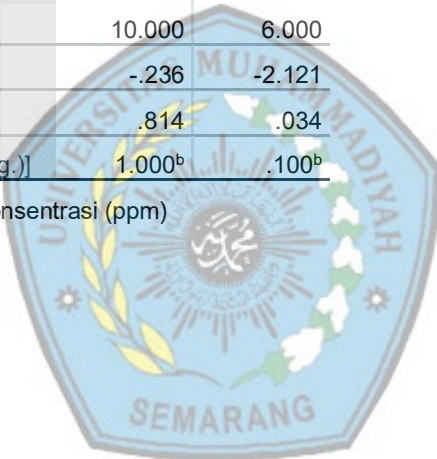
	Konsentrasi (ppm)	N	Mean Rank	Sum of Ranks
Air	400ppm	3	3.67	11.00
	600ppm	3	3.33	10.00
	Total	6		
Metanol	400ppm	3	2.00	6.00
	600ppm	3	5.00	15.00
	Total	6		

Test Statistics^a

	Air	Metanol
Mann-Whitney U	4.000	.000
Wilcoxon W	10.000	6.000
Z	-.236	-2.121
Asymp. Sig. (2-tailed)	.814	.034
Exact Sig. [2*(1-tailed Sig.)]	1.000 ^b	.100 ^b

a. Grouping Variable: Konsentrasi (ppm)

b. Not corrected for ties.



Konsentrasi 400-700**Ranks**

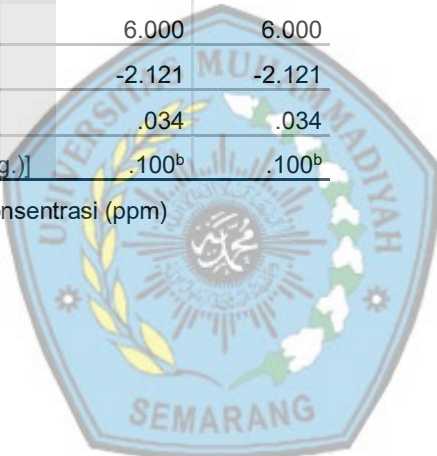
	Konsentrasi (ppm)	N	Mean Rank	Sum of Ranks
Air	400ppm	3	2.00	6.00
	700ppm	3	5.00	15.00
	Total	6		
Metanol	400ppm	3	2.00	6.00
	700ppm	3	5.00	15.00
	Total	6		

Test Statistics^a

	Air	Metanol
Mann-Whitney U	.000	.000
Wilcoxon W	6.000	6.000
Z	-2.121	-2.121
Asymp. Sig. (2-tailed)	.034	.034
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b	.100 ^b

a. Grouping Variable: Konsentrasi (ppm)

b. Not corrected for ties.



Konsentrasi 500 – 600**Ranks**

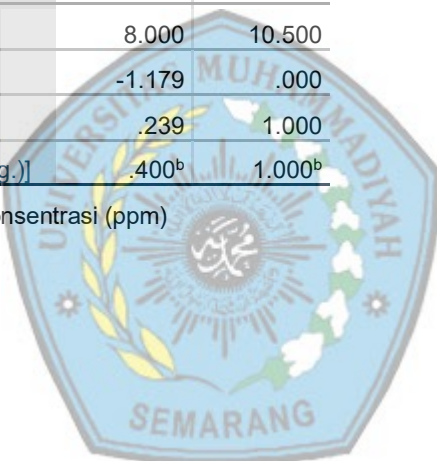
	Konsentrasi (ppm)	N	Mean Rank	Sum of Ranks
Air	500ppm	3	4.33	13.00
	600ppm	3	2.67	8.00
	Total	6		
Metanol	500ppm	3	3.50	10.50
	600ppm	3	3.50	10.50
	Total	6		

Test Statistics^a

	Air	Metanol
Mann-Whitney U	2.000	4.500
Wilcoxon W	8.000	10.500
Z	-1.179	.000
Asymp. Sig. (2-tailed)	.239	1.000
Exact Sig. [2*(1-tailed Sig.)]	.400 ^b	1.000 ^b

a. Grouping Variable: Konsentrasi (ppm)

b. Not corrected for ties.



Konsentrasi 500 – 700**Ranks**

	Konsentrasi (ppm)	N	Mean Rank	Sum of Ranks
Air	500ppm	3	2.00	6.00
	700ppm	3	5.00	15.00
	Total	6		
Metanol	500ppm	3	3.50	10.50
	700ppm	3	3.50	10.50
	Total	6		

Test Statistics^a

	Air	Metanol
Mann-Whitney U	.000	4.500
Wilcoxon W	6.000	10.500
Z	-2.121	.000
Asymp. Sig. (2-tailed)	.034	1.000
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b	1.000 ^b

a. Grouping Variable: Konsentrasi (ppm)

b. Not corrected for ties.



Konsentrasi 600 – 700**Ranks**

	Konsentrasi (ppm)	N	Mean Rank	Sum of Ranks
Air	600ppm	3	2.00	6.00
	700ppm	3	5.00	15.00
	Total	6		
Metanol	600ppm	3	3.50	10.50
	700ppm	3	3.50	10.50
	Total	6		

Test Statistics^a

	Air	Metanol
Mann-Whitney U	.000	4.500
Wilcoxon W	6.000	10.500
Z	-2.121	.000
Asymp. Sig. (2-tailed)	.034	1.000
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b	1.000 ^b

a. Grouping Variable: Konsentrasi (ppm)

b. Not corrected for ties.



Lampiran 4. Dokumentasi Penelitian

Gambar 1. Simplisia kulit batang *Sonneratia alba*

Gambar 2. Proses penguapan pelarut ekstrak dengan rotari evaporator

Gambar 3. Ekstrak kulit batang *Sonneratia alba*



Gambar 4. Standarisasi bakteri menggunakan alat pengukur Mc Farland

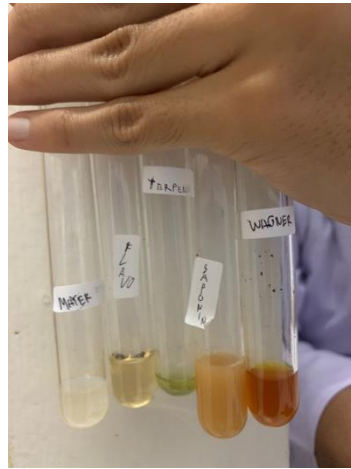


Gambar 5. Proses Penggoresan bakteri

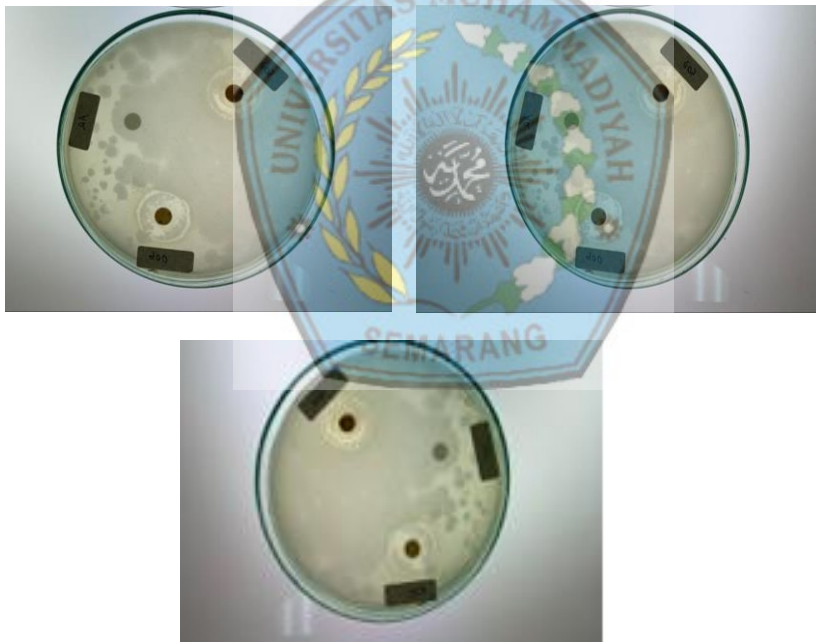


Gambar 6. Memasukkan ekstrak 100 μ l dengan mikropipet, beri *paper disk* lalu di inkubasi dengan suhu 37°C selama 24 jam.

Lampiran Foto



Uji fitokimia



Uji Antibakteri