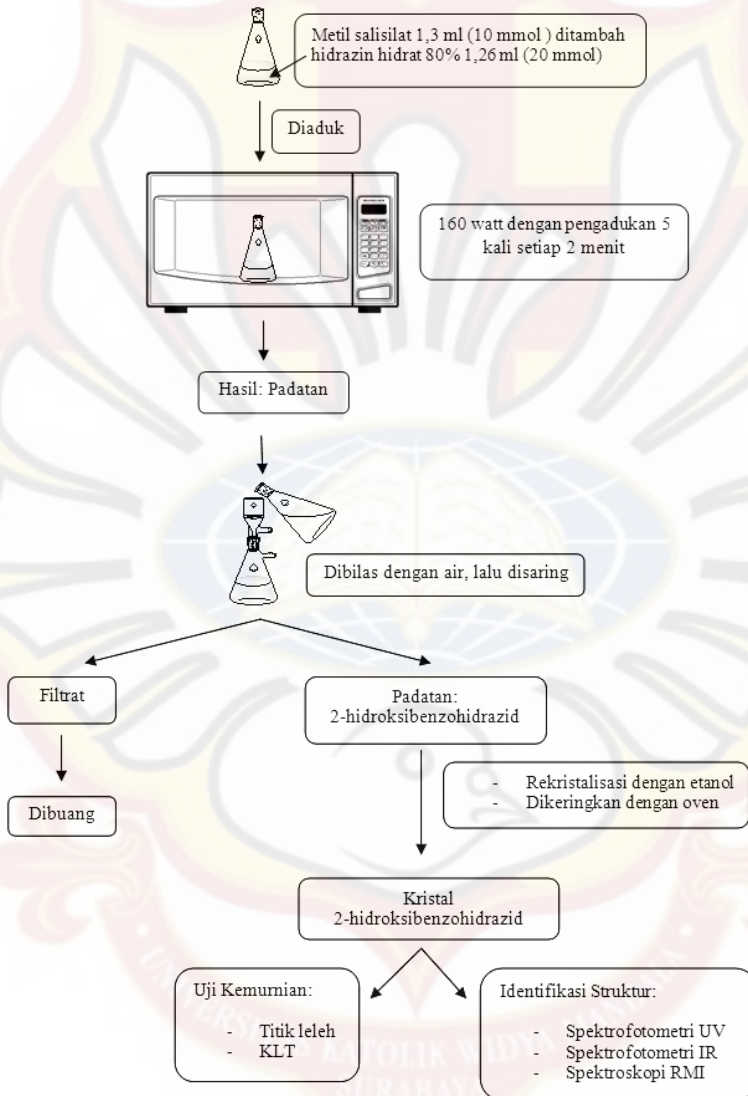
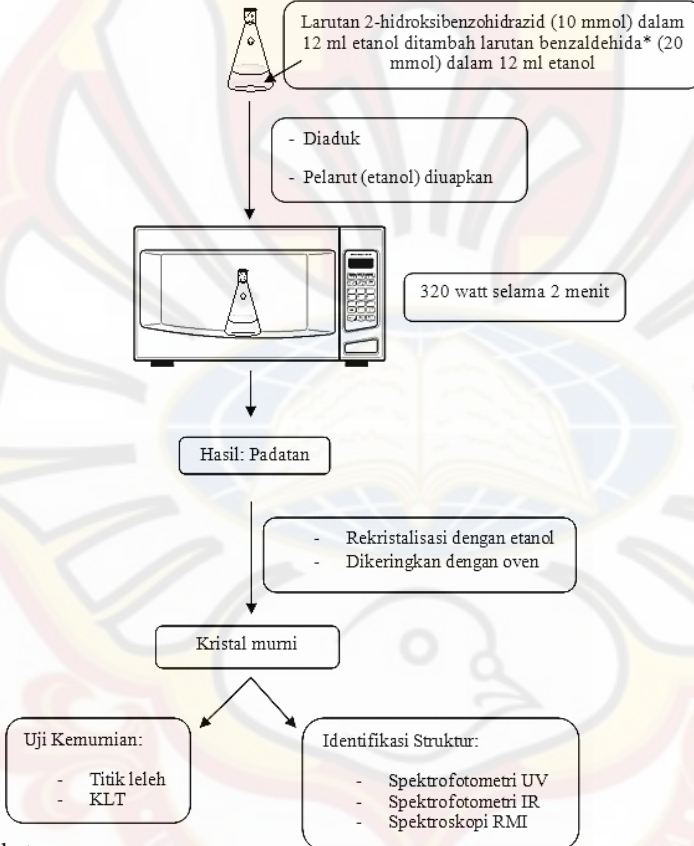


LAMPIRAN A
SKEMA SINTESIS 2-HIDROKSIBENZOZHIDRAZIDA



LAMPIRAN B

SKEMA SINTESIS N'-BENZILIDEN-2-HIDROKSIBENZO HIDRAZIDA, N'-(3,4-METILENDIOKSIBENZILIDEN)-2- HIDROKSIBENZO HIDRAZIDA, N'-(3,4-DIMETOKSI BENZILIDEN)-2-HIDROKSIBENZO HIDRAZIDA



* keterangan:

- Untuk sintesis N'-benziliden-2-hidroksibenzohidrazid menggunakan benzaldehida sebanyak 2,0 ml (20 mmol)
- Untuk sintesis N'-(3,4-metilendioksibenziliden)-2-hidroksibenzohidrazida menggunakan 3,4-metilendioksibenzaldehida sebanyak 3,02 g (20 mmol)
- Untuk sintesis N'-(3,4-dimetoksibenziliden)-2-hidroksibenzohidrazida menggunakan 3,4-dimetoksibenzaldehida sebanyak 3,34 g (20 mmol)

LAMPIRAN C

PERHITUNGAN BERAT TEORITIS 2-HIDROKSIBENZOHIDRAZIDA

1. **Metil salisilat** (BM = 152,15; BJ = 1,184)

volume metil salisilat = 1,3 ml

$$\text{mmol metil salisilat} = \frac{1,3 \times 1,184}{152,15} \times 1000 = 10,12 \text{ mmol}$$

2. **Hidrazin Hidrat** (BM = 50,05; BJ = 1,03)

volume hidrazin hidrat = 1,2 ml

$$\text{mmol hidrazin hidrat} = \frac{1,2 \times 1,03}{50,05} \times 1000 = 24,70 \text{ mmol}$$

Metil salisilat	+	hidrazin hidrat	→	2-hidroksibenzohidrazida
10,12 mmol		24,70 mmol		-
10,12 mmol		10,12 mmol		10,12 mmol
<hr/>				
0 mmol		14,58 mmol		10,12 mmol

Jadi didapatkan mmol teoritis 2-hidroksibenzohidrazida = 10,12 mmol

3. **2-hidroksibenzohidrazida** (BM = 152,15)

mmol teoritis = 10,12 mmol

berat teoritis = 10,12 x 152,15 = 1539,76 mg = 1,54 gram

LAMPIRAN D
PERHITUNGAN PERSENTASE HASIL SINTESIS
2-HIDROKSIBENZOHIDRAZIDA

Berat molekul 2-hidroksibenzohidrazida = 152,15

1. Sintesis I

berat praktis = 1,19 gram

$$\text{mmol praktis} = \frac{1,19}{152,15} \times 1000 = 7,82 \text{ mmol}$$

mmol teoritis = 10,12 mmol

$$\text{persentase hasil} = \frac{7,82}{10,12} \times 100\% = 77,27\%$$

2. Sintesis II

berat praktis = 1,21 gram

$$\text{mmol praktis} = \frac{1,21}{152,15} \times 1000 = 7,95 \text{ mmol}$$

mmol teoritis = 10,12 mmol

$$\text{persentase hasil} = \frac{7,95}{10,12} \times 100\% = 78,55\%$$

3. Sintesis III

berat praktis = 1,15 gram

$$\text{mmol praktis} = \frac{1,15}{152,15} \times 1000 = 7,56 \text{ mmol}$$

mmol teoritis = 10,12 mmol

$$\text{persentase hasil} = \frac{7,56}{10,12} \times 100\% = 74,70\%$$

$$\text{Persentase hasil rata-rata} = \frac{77,27\% + 78,55\% + 74,70\%}{3} = 76,84\% \approx 77\%$$

LAMPIRAN E

PERHITUNGAN BERAT TEORITIS N'-BENZILIDEN-2-HIDROKSIBENZOHIDRAZIDA

1. **2-hidroksibenzohidrazida**
mmol teoritis = 10,12 mmol

2. **Benzaldehida** (BM = 106,12, BJ = 1,046)
volume benzaldehida = 2,0 ml
mmol benzaldehida = $\frac{2,0 \times 1,046}{106,12} \times 1000 = 19,71$ mmol

2-hidroksibenzohidrazida + benzaldehida		→	N'-benziliden-2-hidroksibenzohidrazida
10,12 mmol	19,71 mmol		-
10,12 mmol	10,12 mmol		10,12 mmol
<hr/>			
0 mmol	9,59 mmol		10,12 mmol

Jadi didapatkan mmol teoritis N'-benziliden-2-hidroksibenzohidrazida = 10,12 mmol

3. **N'-benziliden-2-hidroksibenzohidrazida** (BM = 240,26)
mmol teoritis = 10,12 mmol
berat teoritis = 10,12 x 240,26 = 2431,43 mg = 2,43 gram

LAMPIRAN F

PERHITUNGAN PERSENTASE HASIL SINTESIS N^o-BENZILIDEN-2-HIDROKSIBENZOHIDRAZIDA

Berat molekul N^o-benziliden-2-hidroksibenzohidrazida = 240,26

1. Sintesis I

berat praktis = 1,71 gram

$$\text{mmol praktis} = \frac{1,71}{240,26} \times 1000 = 7,12 \text{ mmol}$$

mmol teoritis = 10,12 mmol

$$\text{persentase hasil} = \frac{7,12}{10,12} \times 100\% = 70,36\%$$

2. Sintesis II

berat praktis = 1,78 gram

$$\text{mmol praktis} = \frac{1,78}{240,26} \times 1000 = 7,41 \text{ mmol}$$

mmol teoritis = 10,12 mmol

$$\text{persentase hasil} = \frac{7,41}{10,12} \times 100\% = 73,22\%$$

3. Sintesis III

berat praktis = 1,73 gram

$$\text{mmol praktis} = \frac{1,73}{240,26} \times 1000 = 7,20 \text{ mmol}$$

mmol teoritis = 10,12 mmol

$$\text{persentase hasil} = \frac{7,20}{10,12} \times 100\% = 71,15\%$$

$$\text{Persentase hasil rata-rata} = \frac{70,36\% + 73,22\% + 71,15\%}{3} = 71,58\% \approx 72\%$$

LAMPIRAN G

PERHITUNGAN PERSENTASE HASIL SINTESIS N'-(3,4-METILEN-DIOKSIBENZILIDEN)-2- HIDROKSIBENZOHIDRAZIDA

Berat molekul N'-(3,4-metilendioksibenziliden)-2-hidroksibenzohidrazida = 277,48

1. Sintesis I

berat praktis = 2,07 gram

$$\text{mmol praktis} = \frac{2,07}{277,48} \times 1000 = 7,46 \text{ mmol}$$

mmol teoritis = 10,12 mmol

$$\text{persentase hasil} = \frac{7,46}{10,12} \times 100\% = 73,71\%$$

2. Sintesis II

berat praktis = 2,13 gram

$$\text{mmol praktis} = \frac{2,13}{277,48} \times 1000 = 7,68 \text{ mmol}$$

mmol teoritis = 10,12 mmol

$$\text{persentase hasil} = \frac{7,69}{10,12} \times 100\% = 75,89\%$$

3. Sintesis III

berat praktis = 2,13 gram

$$\text{mmol praktis} = \frac{2,13}{277,48} \times 1000 = 7,68 \text{ mmol}$$

mmol teoritis = 10,12 mmol

$$\text{persentase hasil} = \frac{7,69}{10,12} \times 100\% = 75,89\%$$

$$\text{Persentase hasil rata-rata} = \frac{73,71\% + 75,89\% + 75,89\%}{3} = 75,1633\% \approx 75\%$$

LAMPIRAN H

PERHITUNGAN PERSENTASE HASIL SINTESIS N'-(3,4-DIMETOKSIBENZILIDEN)-2- HIDROKSIBENZO HIDRAZIDA

Berat molekul N'-(3,4-dimetoksibenziliden)-2-hidroksibenzo hidrazida = 295,87

1. Sintesis I

berat praktis = 2,3 gram

$$\text{mmol praktis} = \frac{2,3}{277,48} \times 1000 = 7,68 \text{ mmol}$$

mmol teoritis = 10,12 mmol

$$\text{persentase hasil} = \frac{7,77}{10,12} \times 100\% = 76,78\%$$

2. Sintesis II

berat praktis = 2,2 gram

$$\text{mmol praktis} = \frac{2,2}{295,87} \times 1000 = 7,43 \text{ mmol}$$

mmol teoritis = 10,12 mmol

$$\text{persentase hasil} = \frac{7,43}{10,12} \times 100\% = 73,42\%$$

3. Sintesis III

berat praktis = 2,13 gram

$$\text{mmol praktis} = \frac{2,3}{277,48} \times 1000 = 7,68 \text{ mmol}$$

mmol teoritis = 10,12 mmol

$$\text{persentase hasil} = \frac{7,77}{10,12} \times 100\% = 76,78\%$$

$$\text{Persentase hasil rata-rata} = \frac{76,78\% + 73,42\% + 76,78\%}{3} = 75,66\% \approx 76\%$$

LAMPIRAN I

UJI STATISTIK PERSENTASE HASIL SINTESIS

- Uji *independent samples t-test* terhadap persentase hasil sintesis N'-benziliden-2-hidroksibenzohidrazida dan N'-(3,4-metilendioksibenziliden)-2-hidroksibenzohidrazida.**

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
VAR00002	Equal variances assumed Equal variances not assumed	,295	,653	-3,618	4	,022	-4,00000	1,10554	-7,06948	-,93052
				-3,618	3,723	,025	-4,00000	1,10554	-7,16165	-,83835

- Uji *independent samples t-test* terhadap persentase hasil sintesis N'-benziliden-2-hidroksibenzohidrazida dan N'-(3,4-dimetoksibenziliden)-2-hidroksibenzohidrazida.**

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
VAR00005	Equal variances assumed Equal variances not assumed	1,241	,328	-2,711	4	,053	-4,33333	1,59861	-8,77179	-,10512
				-2,711	3,469	,062	-4,33333	1,59861	-9,05310	,38643

- Uji *independent samples t-test* terhadap persentase hasil sintesis N'-(3,4-metilendioksibenziliden)-2-hidroksibenzohidrazida dan N'-(3,4-dimetoksibenziliden)-2-hidroksibenzohidrazida.**

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
VAR00008	Equal variances assumed Equal variances not assumed	3,200	,148	-,224	4	,834	-,33333	1,49071	-4,47221	3,80555
				-,224	2,941	,838	-,33333	1,49071	-5,13158	4,46491