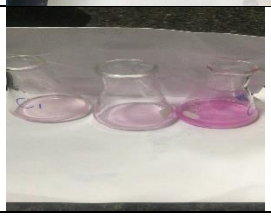
LAMPIRAN

1. Tabel pelaksanaan penelitian

No	Waktu	Kegiatan
1.	20-22 Desember 2019	Sampling sampel
2.	6-10 Februari 2020	Pengumpulan bahan penelitian
3.	17-28 Februari 2020	Peneltian

2. Uji Kuantitatif Kadar Natrium Benzoat Pada Saus Tomat dari setiap ulangan masing masing titrasi

No	Kontrol	Volume Titrasi NaOH			Rata Rata	Gambar	Keterangan
		Ulangan					
		1	2	3			
1	Kontrol Negatif	29,5	29,7	29	29,4		Berwarna merah muda
2	Sampel 1	28,3	26,8	27,2	27,43		Berwarna merah muda
3	Sampel 2	27,9	28,1	28	28		Berwarna merah muda
4	Sampel 3	26,9	27,5	27,6	27,3		Berwarna merah muda

Keterangan :  = berwarna merah muda perubahan volume titrasi

3. Kadar Natrium Benzoat pada sampel saus tomat

No	Kode Sampel	Berat Sampel	Volume NaOH (0,204 N) (ml)	Kadar Benzoat (mg/kg)	Kadar (gr/kg)
1.	A	50 gram	28,3 26,8 27,2	646,765 1.528,718 1.293,531	1,155
2.	B	50 gram	27,9 28,1 28	881,953 764,359 823,156	0,823
3.	C	50 gram	26,9 27,5 27,6	1.469,922 1.117,141 1.234,734	1,274

4. Perhitungan Standarisasi Larutan NaOH

Penimbangan Asam Oksalat

$$N = \frac{\text{gram}}{BE \times V}$$

$$\frac{0,2}{63 \times 0,1 \text{ liter}} = \text{gram}$$

Gram = 1,26

Keterangan :

N = Normalitas

BE = Berat Ekuivalen

Titrasi	Volume (ml)
1	24
2	24,5
3	25
Rata rata	24,5

Reaksi :

$2NaOH + H_2C_2O_4 \longrightarrow Na_2C_2O_4 + H_2O$

(V x N) NaOH = (V x N) Asam Oksalat

(24,5 x N) NaOH = (25 x 0,2)

$$N \text{ NaOH} = \frac{5}{24,5}$$

= 0,204

5. Perhitungan Kadar Natrium Benzoat

Kadar Natrium Benzoat (mg/kg) =

$$\frac{V \times N\ NaOH \times BM \times 1000}{W}$$

Keterangan:

V = Volume peniter sampel
N NaOH = Normalitas NaOH
BM = Berat Massa Natrium Benzoat
W = Bobot cuplikan (gram)

Sampel A1

$$\frac{V \times N\ NaOH \times BM \times 1000}{W}$$

$$= \frac{(29{,}4\text{-}28{,}3) \times 0{,}204 \times 144{,}11 \times 1000}{50}$$

$$= \frac{32.338{,}284}{50}$$

= 646,765 mg/kg atau 0,647 gr/kg

Sampel A2

$$\frac{V \times N\ NaOH \times BM \times 1000}{W}$$

$$= \frac{(29{,}4\text{-}26{,}8) \times 0{,}204 \times 144{,}11 \times 1000}{50}$$

$$= \frac{76.435{,}944}{50}$$

= 1.528,719 mg/kg atau 1,529 gr/kg

Sampel A3

$$\frac{V \times N\ NaOH \times BM \times 1000}{W}$$

$$= \frac{(29{,}4\text{-}27{,}2) \times 0{,}204 \times 144{,}11 \times 1000}{50}$$

$$= \frac{64.676{,}568}{50}$$

Sampel B1

$$\frac{V \times N\ NaOH \times BM \times 1000}{W}$$

$$= \frac{(29{,}4\text{-}27{,}9) \times 0{,}204 \times 144{,}11 \times 1000}{50}$$

$$= \frac{44.097{,}66}{50}$$

= 1.293,531 mg/kg atau 1,294 gr/kg

= 881,953 mg/kg atau 0,882 gr/kg

Sampel B2

$$\frac{V \times N\ NaOH \times BM \times 1000}{W}$$

$$= \frac{(29,4-28,1) \times 0,204 \times 144,11 \times 1000}{50}$$

$$= 38.217,972$$

$$\frac{V \times N\ NaOH \times BM \times 1000}{W}$$

$$= \frac{(29,4-26,9) \times 0,204 \times 144,11 \times 1000}{50}$$

$$= \frac{73.496,1}{50}$$

= 1.469,922 mg/kg atau 1,470 gr/kg

Sampel B3

$$\frac{V \times N\ NaOH \times BM \times 1000}{W}$$

$$= \frac{(29,4-28) \times 0,204 \times 144,11 \times 1000}{50}$$

$$= 41.157,816$$

$$\frac{V \times N\ NaOH \times BM \times 1000}{W}$$

$$= \frac{(29,4-27,5) \times 0,204 \times 144,11 \times 1000}{50}$$

$$= \frac{55.857,036}{50}$$

= 1.117,141 mg/kg atau 1,117g/kg

Sampel C3

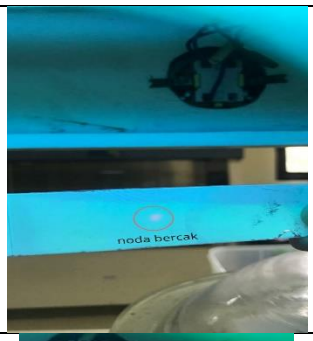
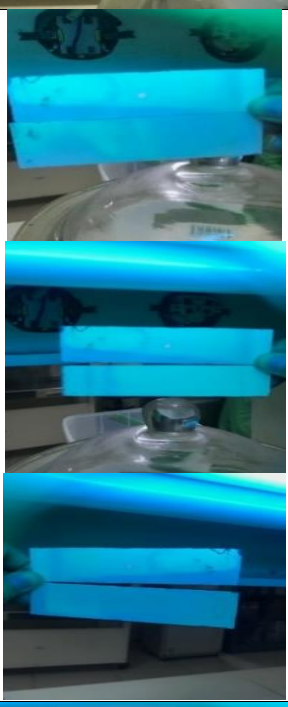
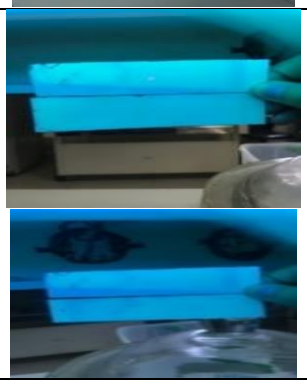
$$\frac{V \times N\ NaOH \times BM \times 1000}{W}$$

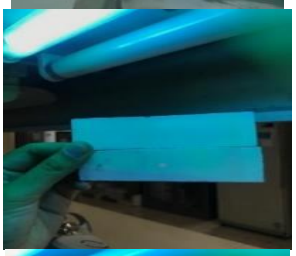
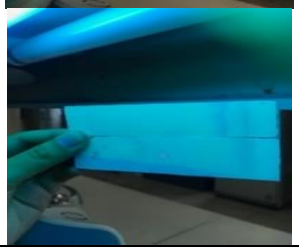
$$= \frac{(29,4-27,3) \times 0,204 \times 144,11 \times 1000}{50}$$

$$= \frac{61.736,724}{50}$$

= 1.234,734 mg/kg atau 1,235 gr/kg

6. Hasil sinar UV dan Nilai Rf Uji Kualitatif Rodhamin B pada saus tomat

No	Kontrol	Warna	Rf	Gambar	Keterangan
1	Rodhamin B	Pink	0,48		+
2	Sampel 1	Tidak ada warna	0		-
3	Sampel 2	Tidak ada warna	0		-

					
4	Sampel 3	Tidak ada warna	0	  	-

Keterangan :

- = Negatif mengandung Rodhamin B
+= Positif Mengandung Rodhamin B

7. Hasil rata rata Nilai Rf Rodhamin B

No.	Sampel	Rata” Nilai Rf Rodhamin B	Visual	Nilai Rf sampel	Hasil Uji
1.	A1	0.48	Tidak ada noda	0	Negatif
2.	A2	0.48	Tidak ada noda	0	Negatif
3.	A3	0.48	Tidak ada noda	0	Negatif
4.	B1	0.48	Tidak ada noda	0	Negatif
5.	B2	0.48	Tidak ada noda	0	Negatif
6.	B3	0.48	Tidak ada noda	0	Negatif
7.	C1	0.48	Tidak ada noda	0	Negatif

8.	C2	0.48	Tidak ada noda	0	Negatif
9.	C3	0.48	Tidak ada noda	0	Negatif

8. Perhitungan Rf Rodhamin B

Larutan Standart Rodhamin B

$$R_f = \frac{jarak\ tempuh\ komponen}{jarak\ tempuh\ eluen}$$

$$= \frac{3,6}{7,5}$$

$$= 0,48$$

Sampel A

$$R_f = \frac{jarak\ tempuh\ komponen}{jarak\ tempuh\ eluen}$$

$$= \frac{0}{7,5}$$

$$= 0$$

Sampel B

$$R_f = \frac{jarak\ tempuh\ komponen}{jarak\ tempuh\ eluen}$$

$$= \frac{0}{7,5}$$

$$= 0$$

Sampel C

$$R_f = \frac{jarak\ tempuh\ komponen}{jarak\ tempuh\ eluen}$$

$$= \frac{0}{7,5}$$

$$= 0$$

9. Perhitungan Volume Larutan Reagen

Larutan Ammonia 2%

$M_1 \times V_1 = M_2 \times V_2$

$2\% \times 100ml = 100\% \times V_2$

$V_2 = \frac{2\% \times 100ml}{100\%}$

$= 2\ ml$

Larutan Ammonia 10 %

$M_1 \times V_1 = M_2 \times V_2$

$10\% \times 100ml = 100\% \times V_2$

$$V_2 = \frac{10\% \times 100ml}{100\%}$$

$= 10$ ml

Larutan Etanol 70%

$M_1 \times V_1 = M_2 \times V_2$

$70\% \times 100ml = 100\% \times V_2$

$$V_2 = \frac{70\% \times 100ml}{100\%}$$

$= 70$ ml

Larutan Asam Asetat 10%

$M_1 \times V_1 = M_2 \times V_2$

$10\% \times 100ml = 100\% \times V_2$

$$V_2 = \frac{10\% \times 100ml}{100\%}$$

$= 10$ ml