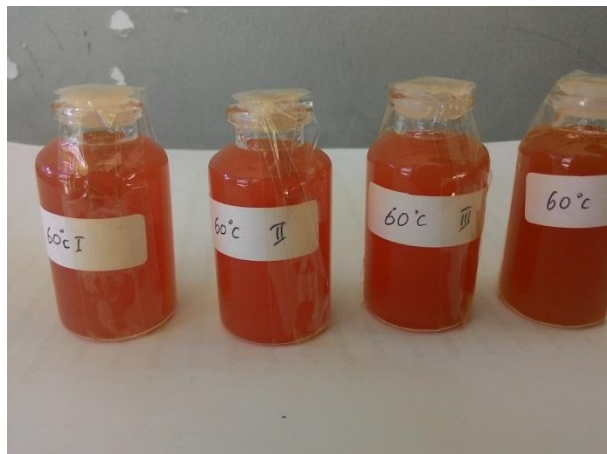
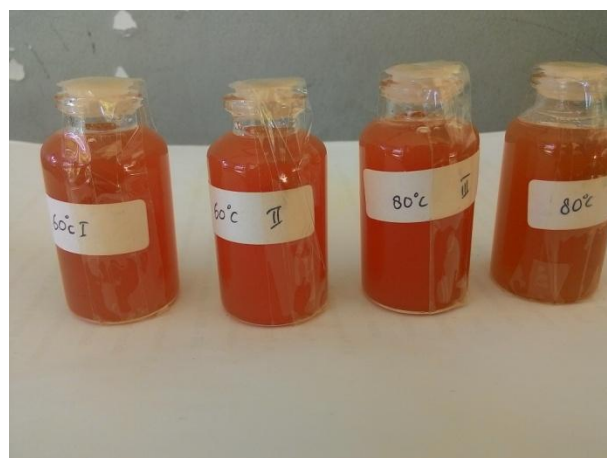


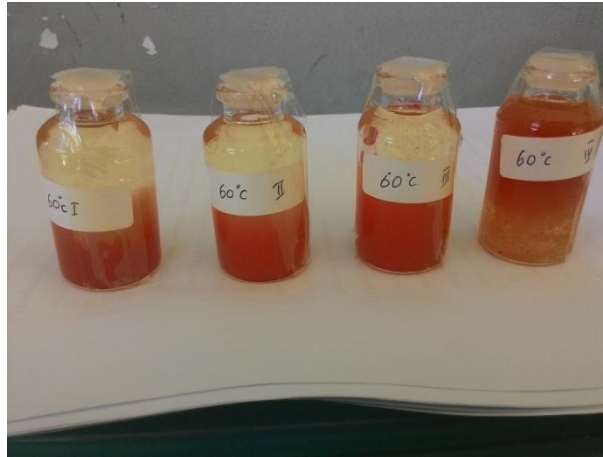
LAMPIRAN

LAMPIRAN I**GAMBAR**

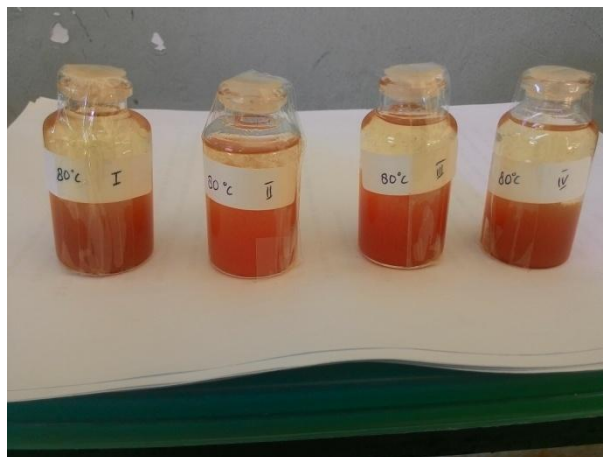
Gambar 11. Sampel pasta tomat variabel suhu 60 ° C



Gambar 12. Sampel pasta tomat variabel suhu 80 ° C



Gambar 13. Sampel maserasi pasta tomat variabel suhu 60 ° C



Gambar 14. Sampel maserasi pasta tomat variabel suhu 80 ° C



Gambar 15. Sampel maserasi variabel suhu 60 ° C



Gambar 16. Sampel maserasi variabel suhu 80 ° C



Gambar 17. Alat Spektrofotometri Spectronic Genesys 20 Visible



Gambar 18. Buah Tomat

LAMPIRAN II

TABEL HASIL PENGAMATAN

Tabel 5. Hasil Pengamatan Pasta Tomat pada Suhu 60 °C

Percobaan	Panjang Gelombang	Konsentras (ppm)	Transmitasi (%)	Absorbansi (A)	Konsentrasi likopen
I	450	2,392	0,4	1,293	3,748
	460	2,391	0,4	2,378	6,893
	470	2,377	0,4	2,679	7,765
	480	2,354	0,4	2,355	6,826
	490	2,345	0,5	2,144	6,214
	500	2,315	0,5	2,123	6,154
					37,603
II	450	2,301	0,5	1,301	3,771
	460	2,291	0,5	2,291	6,640
	470	2,263	0,5	2,663	7,718
	480	2,224	0,6	2,426	7,302
	490	2,169	0,7	2,269	6,577
	500	2,134	0,7	2,132	6,153
					37,891
III	450	2,618	0,2	0,617	1,788
	460	2,587	0,3	2,587	7,267
	470	2,610	0,2	2,804	8,127
	480	2,596	0,3	2,598	7,530
	490	2,541	0,3	2,578	7,472
	500	2,492	0,3	2,391	6,930
					39,114
IV	450	2,493	0,3	1,491	4,322
	460	2,498	0,3	2,498	7,240
	470	2,505	0,3	2,806	8,133
	480	2,499	0,3	2,501	7,249
	490	2,428	0,4	2,429	7,040
	500	2,367	0,4	2,366	6,858
					40,842

Tabel 6. Hasil Pengamatan Pasta Tomat pada Suhu 80 °C

Percobaan	Panjang Gelombang	Konsentrasi (ppm)	Transmitansi (%)	Absorbansi (A)	Konsentrasi Likopen
I	450	2,616	0,2	1,616	4,684
	460	2,580	0,3	2,181	6,322
	470	2,554	0,3	2,679	7,765
	480	2,544	0,3	2,442	7,078
	490	2,449	0,4	2,448	7,095
	500	2,390	0,4	2,397	6,948
					40,522
II	450	2,673	0,5	1,673	4,849
	460	2,637	0,2	2,136	6,191
	470	2,590	0,3	2,593	7,516
	480	2,269	0,2	2,630	7,623
	490	2,519	0,3	2,515	7,289
	500	2,466	0,3	2,467	7,151
					40,619
III	450	2,821	0,2	1,821	5,278
	460	2,734	0,2	2,335	6,768
	470	2,701	0,2	2,812	8,151
	480	2,641	0,2	2,541	7,365
	490	2,577	0,3	2,578	7,472
	500	2,543	0,3	2,443	7,081
					42,115
IV	450	2,888	1,3	1,891	5,481
	460	2,674	1,0	2,479	7,185
	470	2,667	1,0	2,816	8,162
	480	2,024	0,9	2,601	7,539
	490	2,126	0,7	2,529	7,330
	500	2,152	0,7	2,678	7,762
					43,459

LAMPIRAN III

PERHITUNGAN

Dari hasil data pengamatan dapat dihitung nilai konsentrasi likopen dalam pasta tomat sebagai berikut :

Persamaan konsentrasinya adalah

$$C = \frac{A}{E_{1cm}^{1\%} \cdot b}$$

Dimana: C = Konsentrasi (g/100 ml)

A = Absorban

b = Tebalkuvet (cm)

E = 3,450

Sehingga :

Suhu pemanasan 60 °C

Percobaan I

Panjang Gelombang 450 $C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{1,293}{3,450_{1cm}^{1\%} \cdot 1cm} = 3,748 \text{ gr} / 100ml$

Panjang Gelombang 460 $C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{2,378}{3,450_{1cm}^{1\%} \cdot 1cm} = 6,893 \text{ gr} / 100ml$

Panjang Gelombang 470 $C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{2,679}{3,450_{1cm}^{1\%} \cdot 1cm} = 7,765 \text{ gr} / 100ml$

Panjang Gelombang 480 $C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{2,355}{3,450_{1cm}^{1\%} \cdot 1cm} = 6,826 \text{ gr} / 100ml$

Panjang Gelombang 490 $C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{2,144}{3,450_{1cm}^{1\%} \cdot 1cm} = 6,214 \text{ gr} / 100ml$

$$\text{Panjang Gelombang } 500 \quad C = \frac{A}{E_{1cm}^{1\%} \cdot xb} = \frac{2,123}{3,450_{1cm}^{1\%} \cdot x1cm} = 6,154 \text{ gr} / 100 \text{ ml}$$

Percobaan II

$$\text{Panjang Gelombang } 450 \quad C = \frac{A}{E_{1cm}^{1\%} \cdot xb} = \frac{1,301}{3,450_{1cm}^{1\%} \cdot x1cm} = 3,771 \text{ gr} / 100 \text{ ml}$$

$$\text{Panjang Gelombang } 460 \quad C = \frac{A}{E_{1cm}^{1\%} \cdot xb} = \frac{2,291}{3,450_{1cm}^{1\%} \cdot x1cm} = 6,640 \text{ gr} / 100 \text{ ml}$$

$$\text{Panjang Gelombang } 470 \quad C = \frac{A}{E_{1cm}^{1\%} \cdot xb} = \frac{2,663}{3,450_{1cm}^{1\%} \cdot x1cm} = 7,718 \text{ gr} / 100 \text{ ml}$$

$$\text{Panjang Gelombang } 480 \quad C = \frac{A}{E_{1cm}^{1\%} \cdot xb} = \frac{2,426}{3,450_{1cm}^{1\%} \cdot x1cm} = 7,032 \text{ gr} / 100 \text{ ml}$$

$$\text{Panjang Gelombang } 490 \quad C = \frac{A}{E_{1cm}^{1\%} \cdot xb} = \frac{2,269}{3,450_{1cm}^{1\%} \cdot x1cm} = 6,577 \text{ gr} / 100 \text{ ml}$$

$$\text{Panjang Gelombang } 500 \quad C = \frac{A}{E_{1cm}^{1\%} \cdot xb} = \frac{2,132}{3,450_{1cm}^{1\%} \cdot x1cm} = 6,153 \text{ gr} / 100 \text{ ml}$$

Percobaan III

$$\text{Panjang Gelombang } 450 \quad C = \frac{A}{E_{1cm}^{1\%} \cdot xb} = \frac{0,617}{3,450_{1cm}^{1\%} \cdot x1cm} = 1,788 \text{ gr} / 100 \text{ ml}$$

$$\text{Panjang Gelombang } 460 \quad C = \frac{A}{E_{1cm}^{1\%} \cdot xb} = \frac{2,587}{3,450_{1cm}^{1\%} \cdot x1cm} = 7,267 \text{ gr} / 100 \text{ ml}$$

$$\text{Panjang Gelombang } 470 \quad C = \frac{A}{E_{1cm}^{1\%} \cdot xb} = \frac{2,804}{3,450_{1cm}^{1\%} \cdot x1cm} = 8,127 \text{ gr} / 100 \text{ ml}$$

$$\text{Panjang Gelombang } 480 \quad C = \frac{A}{E_{1cm}^{1\%} \cdot xb} = \frac{2,598}{3,450_{1cm}^{1\%} \cdot x1cm} = 7,530 \text{ gr} / 100 \text{ ml}$$

$$\text{Panjang Gelombang } 490 \quad C = \frac{A}{E_{1cm}^{1\%} \cdot xb} = \frac{2,578}{3,450_{1cm}^{1\%} \cdot x1cm} = 7,472 \text{ gr} / 100 \text{ ml}$$

$$\text{Panjang Gelombang } 500 \quad C = \frac{A}{E_{1cm}^{1\%} \cdot xb} = \frac{2,391}{3,450_{1cm}^{1\%} \cdot x1cm} = 6,930 \text{ gr} / 100 \text{ ml}$$

Percobaan IV

$$\text{Panjang Gelombang 450} \quad C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{1,491}{3,450_{1cm}^{1\%} \cdot 1cm} = 4,322 \text{ gr} / 100ml$$

$$\text{Panjang Gelombang 460} \quad C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{2,498}{3,450_{1cm}^{1\%} \cdot 1cm} = 7,240 \text{ gr} / 100ml$$

$$\text{Panjang Gelombang 470} \quad C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{2,806}{3,450_{1cm}^{1\%} \cdot 1cm} = 8,133 \text{ gr} / 100ml$$

$$\text{Panjang Gelombang 480} \quad C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{2,501}{3,450_{1cm}^{1\%} \cdot 1cm} = 7,249 \text{ gr} / 100ml$$

$$\text{Panjang Gelombang 490} \quad C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{2,429}{3,450_{1cm}^{1\%} \cdot 1cm} = 7,040 \text{ gr} / 100ml$$

$$\text{Panjang Gelombang 500} \quad C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{2,366}{3,450_{1cm}^{1\%} \cdot 1cm} = 6,858 \text{ gr} / 100ml$$

Suhu pemanasan 80 °C*Percobaan I*

$$\text{Panjang Gelombang 450} \quad C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{1,616}{3,450_{1cm}^{1\%} \cdot 1cm} = 4,684 \text{ gr} / 100ml$$

$$\text{Panjang Gelombang 460} \quad C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{2,181}{3,450_{1cm}^{1\%} \cdot 1cm} = 6,322 \text{ gr} / 100ml$$

$$\text{Panjang Gelombang 470} \quad C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{2,679}{3,450_{1cm}^{1\%} \cdot 1cm} = 7,765 \text{ gr} / 100ml$$

$$\text{Panjang Gelombang 480} \quad C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{2,442}{3,450_{1cm}^{1\%} \cdot 1cm} = 7,078 \text{ gr} / 100ml$$

$$\text{Panjang Gelombang 490} \quad C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{2,448}{3,450_{1cm}^{1\%} \cdot 1cm} = 7,095 \text{ gr} / 100ml$$

$$\text{Panjang Gelombang 500} \quad C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{2,397}{3,450_{1cm}^{1\%} \cdot 1cm} = 6,948 \text{ gr} / 100ml$$

Percobaan II

$$\text{Panjang Gelombang 450} \quad C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{1,673}{3,450_{1cm}^{1\%} \cdot 1cm} = 4,849 \text{ gr} / 100ml$$

$$\text{Panjang Gelombang 460} \quad C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{2,136}{3,450_{1cm}^{1\%} \cdot 1cm} = 6,191 \text{ gr} / 100ml$$

$$\text{Panjang Gelombang 470} \quad C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{2,593}{3,450_{1cm}^{1\%} \cdot 1cm} = 7,516 \text{ gr} / 100ml$$

$$\text{Panjang Gelombang 480} \quad C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{2,630}{3,450_{1cm}^{1\%} \cdot 1cm} = 7,623 \text{ gr} / 100ml$$

$$\text{Panjang Gelombang 490} \quad C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{2,515}{3,450_{1cm}^{1\%} \cdot 1cm} = 7,289 \text{ gr} / 100ml$$

$$\text{Panjang Gelombang 500} \quad C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{2,467}{3,450_{1cm}^{1\%} \cdot 1cm} = 7,151 \text{ gr} / 100ml$$

Percobaan III

$$\text{Panjang Gelombang 450} \quad C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{1,821}{3,450_{1cm}^{1\%} \cdot 1cm} = 5,278 \text{ gr} / 100ml$$

$$\text{Panjang Gelombang 460} \quad C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{2,335}{3,450_{1cm}^{1\%} \cdot 1cm} = 6,768 \text{ gr} / 100ml$$

$$\text{Panjang Gelombang 470} \quad C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{2,812}{3,450_{1cm}^{1\%} \cdot 1cm} = 8,151 \text{ gr} / 100ml$$

$$\text{Panjang Gelombang 480} \quad C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{2,541}{3,450_{1cm}^{1\%} \cdot 1cm} = 7,365 \text{ gr} / 100ml$$

$$\text{Panjang Gelombang 490} \quad C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{2,578}{3,450_{1cm}^{1\%} \cdot 1cm} = 7,472 \text{ gr} / 100ml$$

$$\text{Panjang Gelombang 500} \quad C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{2,443}{3,450_{1cm}^{1\%} \cdot 1cm} = 7,081 \text{ gr} / 100ml$$

Percobaan IV

$$\text{Panjang Gelombang 450} \quad C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{1,891}{3,450_{1cm}^{1\%} \cdot 1cm} = 5,481 \text{ gr} / 100ml$$

$$\text{Panjang Gelombang 460} \quad C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{2,479}{3,450_{1cm}^{1\%} \cdot 1cm} = 7,185 \text{ gr} / 100ml$$

$$\text{Panjang Gelombang 470} \quad C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{2,816}{3,450_{1cm}^{1\%} \cdot 1cm} = 8,162 \text{ gr} / 100ml$$

$$\text{Panjang Gelombang 480} \quad C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{2,601}{3,450_{1cm}^{1\%} \cdot 1cm} = 7,539 \text{ gr} / 100ml$$

$$\text{Panjang Gelombang 490} \quad C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{2,529}{3,450_{1cm}^{1\%} \cdot 1cm} = 7,330 \text{ gr} / 100ml$$

$$\text{Panjang Gelombang 500} \quad C = \frac{A}{E_{1cm}^{1\%} \cdot b} = \frac{2,678}{3,450_{1cm}^{1\%} \cdot 1cm} = 7,762 \text{ gr} / 100ml$$