LAMPIRAN

1. Perhitungan

- **Rendemen**

  Rumus massa minyak = densitas minyak x volume minyak

  Variabel 1 = 0,928 gr/ml x 184 ml = 170,75 gram

  Variabel 2 = 0,928 gr/ml x 187 ml = 173,53 gram

  Variabel 3 = 0,917 gr/ml x 195 ml = 178,81 gram

  Variabel 4 = 0,916 gr/ml x 184 ml = 179,53 gram

  % Rendemen = $\frac{massa\ minyak\ yang\ terekstrak\ (gr)}{massa\ sampel\ (gr)} \times 100\%$

  Variabel 1 = $\frac{170{,}75\ gr}{750\ gr} \times 100\%$ = 22,76 %

  Variabel 2 = $\frac{173{,}53\ gr}{750\ gr} \times 100\%$ = 23,13 %

  Variabel 3 = $\frac{178{,}81\ gr}{750\ gr} \times 100\%$ = 23,84 %

  Variabel 4 = $\frac{179{,}53\ gr}{750\ gr} \times 100\%$ = 23,93 %

- **Densitas Minyak Kacang Tanah**

  $$\rho = \frac{(massa\ pikno\ isi\ minyak - mass\ p\c{y}ikno\ kosong)\ gr}{volume\ pikno\ yang\ digunakan\ (ml)}$$

  Variabel 1 = $\frac{(39{,}12-15{,}92)gr}{25\ ml} = 0{,}928\ {}^{gr}/_{ml}$

  Variabel 2 = $\frac{(39{,}12-15{,}92)gr}{25\ ml} = 0{,}928\ {}^{gr}/_{ml}$

  Variabel 3 = $\frac{(38{,}85-15{,}92)gr}{25\ ml} = 0{,}917\ {}^{gr}/_{ml}$

  Variabel 4 = $\frac{(38{,}84-15{,}92)gr}{25\ ml} = 0{,}916\ {}^{gr}/_{ml}$

- **Viskositas Minyak Kacang Tanah**

$$\text{ì}_x = \frac{t_x d_x}{t_0 d_0} \cdot \text{ì}_0$$

Variabel 1 = $\frac{227\ s \times 0{,}928\ ^{gr}/_{ml}}{1{,}1\ s \times 1\ ^{gr}/_{ml}} \cdot 1{,}004\ cP$ = 192,27 cp

Variabel 2 = $\frac{226\ s \times 0{,}928\ ^{gr}/_{ml}}{1{,}1\ s \times 1\ ^{gr}/_{ml}} \cdot 1{,}004\ cP$ = 191,42 cp

Variabel 3 = $\frac{226\ s \times 0{,}917\ ^{gr}/_{ml}}{1{,}1\ s \times 1\ ^{gr}/_{ml}} \cdot 1{,}004\ cP$ = 189,15 cp

Variabel 4 = $\frac{226\ s \times 0{,}916\ ^{gr}/_{ml}}{1{,}1\ s \times 1\ ^{gr}/_{ml}} \cdot 1{,}004\ cP$ = 188,94 cp

- **Angka Asam Minyak Kacang Tanah**

Rumus = $\frac{56{,}1 \times ml\ KOH\ yang\ dibutuhkan \times normalitas\ KOH}{massa\ sampel\ (gr)}$

Massa sampel = densitas x volume minyak yang digunakan

Variabel 1 = $\frac{56{,}1 \times 0{,}17\ ml \times 0{,}1\ N}{9{,}28\ gr}$ = 0,10

Variabel 2 = $\frac{56{,}1 \times 0{,}2\ ml \times 0{,}1\ N}{9{,}28\ gr}$ = 0,12

Variabel 3 = $\frac{56{,}1 \times 0{,}25\ ml \times 0{,}1\ N}{9{,}17\ gr}$ = 0,15

Variabel 4 = $\frac{56{,}1 \times 0{,}3\ ml \times 0{,}1\ N}{9{,}16\ gr}$ = 0,18

- **Angka Penyabunan Minyak Kacang Tanah**

Rumus = $\frac{(titrasi\ blanko - titrasi\ sampel) ml \times N\ HCl\ X\ 56{,}1}{massa\ sampel\ (gr)}$

Variabel 1 = $\frac{(36{,}7 - 4{,}6)\ ml\ X\ 1\ N\ X\ 56{,}1}{9{,}28\ gr}$ = 194,05

Variabel 2 = $\frac{(36{,}7 - 4{,}8)\ ml\ X\ 1N\ X\ 56{,}1}{9{,}28\ gr}$ = 192,84

Variabel 3 = $\frac{(36{,}7 - 5{,}1)\ ml\ X\ 1\ N\ X\ 56{,}1}{9{,}17\ gr}$ = 193,32

Variabel 4 = $\frac{(36{,}7-5{,}6)\ ml\ X\ 1\ N\ X\ 56{,}1}{9{,}16\ gr}$ = 190,47

- **Bilangan Peroksida Minyak Kacang Tanah**

Rumus = $\frac{(ml\ Tio) \times N\ Tio\ X\ 0{,}008\ X\ 100}{massa\ sampel\ (gr)}$

ml Tio = titrasi sampel – titrasi blanko

Variabel 1 = $\frac{(15{,}7\ ml-0{,}4\ ml) \times 0{,}1N\ X\ 0{,}008\ X\ 100}{5\ gr}$ = 0,24

Variabel 2 = $\frac{(15{,}9\ ml-0{,}4\ ml) \times 0{,}1N\ X\ 0{,}008\ X\ 100}{5\ gr}$ = 0,25

Variabel 3 = $\frac{(17{,}5\ ml-0{,}4\ ml) \times 0{,}1N\ X\ 0{,}008\ X\ 100}{5\ gr}$ = 0,27

Variabel 4 = $\frac{(17{,}8\ ml-0{,}4\ ml) \times 0{,}1N\ X\ 0{,}008\ X\ 100}{5\ gr}$ = 0,28

2. Gambar Hasil Pengamatan

Gambar 1. Hasil minyak kacang tanah

Gambar 2. Angka asam sebelum titrasi

Gambar 3. Angka asam sesudah titrasi

Gambar 4. Blanko sebelum dan sesudah titrasi

Gambar 5. Angka penyabunan sebelum titrasi

Gambar 6. Angka penyabunan setelah titrasi

Gambar 7. Angka peroksida sebelum titrasi

Gambar 8. Angka peroksida sesudah titrasi