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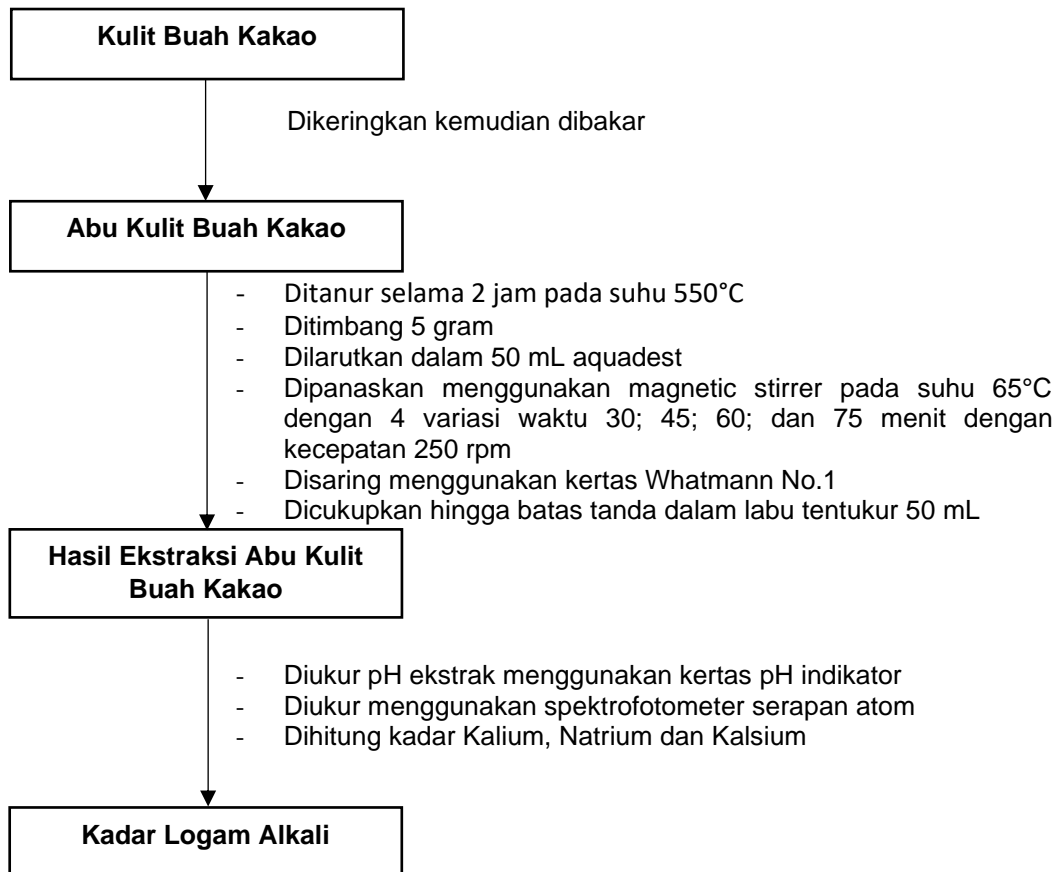
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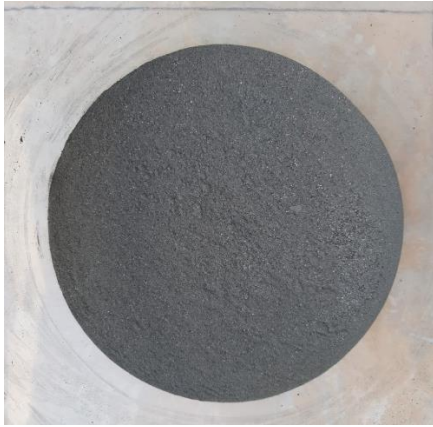
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LAMPIRAN

Lampiran 1. Skema Kerja Penelitian



Lampiran 2. Gambar Penelitian



Gambar 10. Abu Kulit Buah Kakao



Gambar 11. Destruksi Sampel



Gambar 12. Penimbangan Abu Kulit Buah Kakao



Gambar 13. Pembuatan Larutan Abu Kulit Buah Kakao



Gambar 14. Proses ekstraksi



Gambar 15. Penyaringan Hasil Ekstraksi



Gambar 16. Hasil Akhir Ekstraksi



Gambar 17. Pengukuran pH Larutan



Gambar 18. Hasil Pengukuran pH Larutan



Gambar 19. Pengukuran Sampel

Lampiran 3. Tabel Kurva Baku

Lampiran 3.1 Tabel Kurva Baku Kalium

Tabel 1. Kurva Baku Kalium

Nama Sampel	Konsentrasi (ppm)	Serapan
Standard 1	3	0,5174
Standard 2	6	0,8551
Standard 3	9	1,2358
Standard 4	12	1,5317
Standard 5	15	1,9821

Lampiran 3.2 Kurva Baku Natrium

Tabel 2. Kurva Baku Natrium

Nama Sampel	Konsentrasi (ppm)	Serapan
Standard 1	2	0,4542
Standard 2	4	0,9127
Standard 3	6	1,3378
Standard 4	8	1,7427
Standard 5	10	2,0827

Lampiran 3.3 Kurva Baku Kalsium

Tabel 3. Kurva Baku Kalsium

Nama Sampel	Konsentrasi (ppm)	Serapan
Standard 1	1	0,0093
Standard 2	2	0,0165
Standard 3	3	0,0232
Standard 4	4	0,0314
Standard 5	5	0,0388

Lampiran 4. Tabel Hasil Pengukuran

Lampiran 4.1 Tabel Kadar Kalium

Tabel 1. Kadar Kalium

Waktu	Absorbansi	Konsentrasi (mg/L)	Faktor Pengenceran	Berat Sampel (g)	Volume (mL)	Kadar (mg/L)	Kadar (%b/b)
30'	1,3104	9,4866	2000	5,0002	50	188.082,8	18,01
45'	1,7184	12,4614	2000	5,0004	50	239.566,8	23,95
60'	1,5832	11,4756	2000	5	50	219.870	21,99
75'	1,1572	8,3696	2000	5,0007	50	157.727,9	15,77

Lampiran 4.2 Tabel Kadar Natrium

Tabel 2. Kadar Natrium

Waktu	Absorbansi	Konsentrasi (mg/L)	Faktor Pengenceran	Berat Sampel (g)	Volume (mL)	Kadar (mg/L)	Kadar (%b/b)
30'	1,6352	7,1368	-	5,0002	50	71,371	0,0071
45'	1,6514	7,2077	-	5,0004	50	72,077	0,0072
60'	1,6569	7,2314	-	5	50	72,32	0,0072
75'	1,5352	7,1412	-	5,0007	50	71,408	0,0071

Lampiran 4.3. Tabel Kadar Kalsium**Tabel 3. Kadar Kalsium**

Waktu	Absorbansi	Konsentrasi (mg/L)	Faktor Pengenceran	Berat Sampel (g)	Volume (mL)	Kadar (mg/L)	Kadar (%b/b)
30'	0,0123	1,5101	-	5,0002	50	0,058	0,0009
45'	0,0178	2,2229	-	5,0004	50	17,085	0,0017
60'	0,0127	1,553	-	5	50	10,338	0,001
75'	0,0118	1,4417	-	5,0007	50	9,273	0,0009

Lampiran 4. Perhitungan

Lampiran 4.1 Kadar Kalium

a. 30 menit

$$\text{Kadar Alkali } (\mu\text{g/mL}) = \frac{\text{konsentrasi } (\mu\text{g/mL}) \times \text{volume (mL)} \times \text{faktor pengenceran}}{\text{berat sampel (g)}}$$

$$= \frac{(9,4866 - 0,4821) \times 50 \times 2000}{5,0002}$$

$$= 180.082,8$$

$$\text{Kadar Kalium (\%)} = \frac{180.082,8}{10.000} = 18,01\%$$

b. 45 menit

$$\text{Kadar Alkali } (\mu\text{g/mL}) = \frac{\text{konsentrasi } (\mu\text{g/mL}) \times \text{volume (mL)} \times \text{faktor pengenceran}}{\text{berat sampel (g)}}$$

$$= \frac{(12,4614 - 0,4821) \times 50 \times 2000}{5,0004}$$

$$= 239.566,8$$

$$\text{Kadar Kalium (\%)} = \frac{239.566,8}{10.000} = 23,95\%$$

c. 60 menit

$$\text{Kadar Alkali } (\mu\text{g/mL}) = \frac{\text{konsentrasi } (\mu\text{g/mL}) \times \text{volume (mL)} \times \text{faktor pengenceran}}{\text{berat sampel (g)}}$$

$$= \frac{(11,4756 - 0,4821) \times 50 \times 2000}{5}$$

$$= 219.870$$

$$\text{Kadar Kalium (\%)} = \frac{219.870}{10.000} = 21,99\%$$

d. 75 menit

$$\text{Kadar Alkali } (\mu\text{g/mL}) = \frac{\text{konsentrasi } (\mu\text{g/mL}) \times \text{volume (mL)} \times \text{faktor pengenceran}}{\text{berat sampel (g)}}$$

$$= \frac{(8,3696 - 0,4821) \times 50 \times 2000}{5,0007}$$

$$= 157.727,9$$

$$\text{Kadar Kalium (\%)} = \frac{157.727,9}{10.000} = 15,77\%$$

$$= 151.569,9$$

Lampiran 4.2 Kadar Natrium

a. 30 menit

$$\begin{aligned} \text{Kadar Alkali } (\mu\text{g/mL}) &= \frac{\text{konsentrasi } (\mu\text{g/mL}) \times \text{volume (mL)} \times \text{faktor pengenceran}}{\text{berat sampel (g)}} \\ &= \frac{(7.1368+0,0006) \times 50}{5,0002} \\ &= 71,371 \end{aligned}$$

$$\text{Kadar Natrium (\%)} = \frac{71,371}{10.000} = 0,0071\%$$

b. 45 menit

$$\begin{aligned} \text{Kadar Alkali } (\mu\text{g/mL}) &= \frac{\text{konsentrasi } (\mu\text{g/mL}) \times \text{volume (mL)} \times \text{faktor pengenceran}}{\text{berat sampel (g)}} \\ &= \frac{(7.2007+0,0006) \times 50}{5,0004} \\ &= 72,007 \end{aligned}$$

$$\text{Kadar Natrium (\%)} = \frac{72,077}{10.000} = 0,0072\%$$

c. 60 menit

$$\begin{aligned} \text{Kadar Alkali } (\mu\text{g/mL}) &= \frac{\text{konsentrasi } (\mu\text{g/mL}) \times \text{volume (mL)} \times \text{faktor pengenceran}}{\text{berat sampel (g)}} \\ &= \frac{(7.2314+0,0006) \times 50}{5} \\ &= 72,32 \end{aligned}$$

$$\text{Kadar Natrium (\%)} = \frac{72,32}{10.000} = 0,0072\%$$

d. 75 menit

$$\begin{aligned} \text{Kadar Alkali } (\mu\text{g/mL}) &= \frac{\text{konsentrasi } (\mu\text{g/mL}) \times \text{volume (mL)} \times \text{faktor pengenceran}}{\text{berat sampel (g)}} \\ &= \frac{(7.1412+0,0006) \times 50}{5,0007} \\ &= 71,408 \end{aligned}$$

$$\text{Kadar Natrium (\%)} = \frac{71,408}{10.000} = 0,0071\%$$

Lampiran 4.3 Kadar Kalsium

a. 30 menit

$$\begin{aligned} \text{Kadar Alkali } (\mu\text{g/mL}) &= \frac{\text{konsentrasi } (\mu\text{g/mL}) \times \text{volume (mL)} \times \text{faktor pengenceran}}{\text{berat sampel (g)}} \\ &= \frac{(1,5101 - 0,5142) \times 50}{5,0002} \\ &= 9,959 \end{aligned}$$

$$\text{Kadar Kalsium (\%)} = \frac{9,959}{10.000} = 0,0009\%$$

b. 45 menit

$$\begin{aligned} \text{Kadar Alkali } (\mu\text{g/mL}) &= \frac{\text{konsentrasi } (\mu\text{g/mL}) \times \text{volume (mL)} \times \text{faktor pengenceran}}{\text{berat sampel (g)}} \\ &= \frac{(2,2229 - 0,5142) \times 50}{5,0004} \\ &= 17,085 \end{aligned}$$

$$\text{Kadar Kalsium (\%)} = \frac{17,085}{10.000} = 0,00017\%$$

c. 60 menit

$$\begin{aligned} \text{Kadar Alkali } (\mu\text{g/mL}) &= \frac{\text{konsentrasi } (\mu\text{g/mL}) \times \text{volume (mL)} \times \text{faktor pengenceran}}{\text{berat sampel (g)}} \\ &= \frac{(1,553 - 0,5142) \times 50}{5} \\ &= 10,388 \end{aligned}$$

$$\text{Kadar Kalsium (\%)} = \frac{10,388}{10.000} = 0,001\%$$

d. 75 menit

$$\begin{aligned} \text{Kadar Alkali } (\mu\text{g/mL}) &= \frac{\text{konsentrasi } (\mu\text{g/mL}) \times \text{volume (mL)} \times \text{faktor pengenceran}}{\text{berat sampel (g)}} \\ &= \frac{(1,4417 - 0,5142) \times 50}{5,0007} \\ &= 9,273 \end{aligned}$$

$$\text{Kadar Kalsium (\%)} = \frac{9,273}{10.000} = 0,0009\%$$