

LAMPIRAN

1. Tabel Pengamatan

Tabel 1. Percobaan Sampel Sebelum Masuk Ion Exchanger

No	Sampel	Volume Sampel (ml)	pH	Volume AgNO ₃ (ml)	Perubahan warna (TAT)	Kadar Cl ⁻
1.	Air Polder Tawang	25	7	73	Merah bata	1375,6868

Tabel 2. Percobaan Sampel Sesudah Masuk Ion Exchanger

No	Bukaan Valve	Volume Sampel (ml)	pH	Volume AgNO ₃ (ml)			Perubahan Warna (TAT)	Kadar Cl ⁻		
				kation	Anion	Karbon aktif		Kation	Anion	Karbon Aktif
1	1/3	25	7	71,4	70,7	72,6	Merah bata	1345,28	1331,98	1368,08
2	2/3	25	7	72,6	71	72,3	Merah bata	1368,08	1337,68	1362,38
3	3/3	25	7	72,8	71,5	72,2	Merah bata	1371,88	1347,18	1360,48

2. Perhitungan

2.1 Bahan yang Digunakan

a. NaCl 0,0141 N

$$N = \frac{\text{massa}}{Mr} \times \frac{1000}{v}$$

$$0,0141 = \frac{\text{massa}}{58,5} \times \frac{1000}{1000}$$

Massa = 0,82485 gram

b. AgNO₃ 0,0141 N

$$N = \frac{\text{massa}}{Mr} \times \frac{1000}{v}$$

$$0,0141 = \frac{\text{massa}}{169} \times \frac{1000}{1000}$$

Massa =2,3829 gram

2.2 Normalitas AgNO₃

$$V_{\text{NaCl}} \cdot N_{\text{NaCl}} = V_{\text{AgNO}_3} \cdot N_{\text{AgNO}_3}$$

$$25,0,0141 = 26,2 \cdot N_{\text{AgNO}_3}$$

$$N_{\text{AgNO}_3} = 0,0134$$

2.3 Kadar Cl⁻

$$\text{Kadar Cl}^- = \frac{(A-B) \times N \times 35,45 \times 1000}{\text{mL sampel}}$$

Dimana : A = volume larutan baku AgNO₃ untuk titrasi sampel
B = volume larutan baku AgNO₃ untuk titrasi blanko
N = Normalitas larutan baku AgNO₃

a. Sampel

$$\text{Kadar Cl}^- = \frac{(73-0,6) \times 0,0134 \times 35,45 \times 1000}{25} = 1375,68$$

b. Buka Valve 1/3

$$\text{Kation} = \frac{(71,4-0,6) \times 0,0134 \times 35,45 \times 1000}{25} = 1345,28$$

$$\text{Anion} = \frac{(70,7-0,6) \times 0,0134 \times 35,45 \times 1000}{25} = 1331,98$$

$$\text{Karbon Aktif} = \frac{(72,6-0,6) \times 0,0134 \times 35,45 \times 1000}{25} = 1368,08$$

c. Buka Valve 2/3

$$\text{Kation} = \frac{(72,6-0,6) \times 0,0134 \times 35,45 \times 1000}{25} = 1368,08$$

$$\text{Anion} = \frac{(71-0,6) \times 0,0134 \times 35,45 \times 1000}{25} = 1337,68$$

$$\text{Karbon Aktif} = \frac{(72,3-0,6) \times 0,0134 \times 35,45 \times 1000}{25} = 1362,08$$

d. Buka Valve 3/3

$$\text{Kation} = \frac{(72,8-0,6) \times 0,0134 \times 35,45 \times 1000}{25} = 1371,88$$





$$\text{Anion} = \frac{(71,5-0,6) \times 0,0134 \times 35,45 \times 1000}{25} = 1347,18$$

$$\text{Karbon Aktif} = \frac{(72,2-0,6) \times 0,0134 \times 35,45 \times 1000}{25} = 1360,48$$

3. Foto
3.1 Ion Exchanger



3.2 Analisa

Variable	Sebelum titrasi	Sesudah titrasi
1/3		
2/3		
3/3	