

## LAMPIRAN 1

Tabel 7. Potensial Elektroda Standar ( $E^{\circ}$ )

Unsur	Reaksi	$E^{\circ}$ (v)
Mangan	$Mn^{2+} + 2e^{-} \rightleftharpoons Mn$	-1,18
Seng	$Zn^{2+} + 2e^{-} \rightleftharpoons Zn$	-0,76
Khrom	$Cr^{3+} + 3e^{-} \rightleftharpoons Cr$	-0,56
Besi	$Fe^{2+} + 2e^{-} \rightleftharpoons Fe$	-0,44
Kadmium	$Cd^{2+} + 2e^{-} \rightleftharpoons Cd$	-0,40
Indium	$In^{2+} + 2e^{-} \rightleftharpoons In$	-0,34
Kobalt	$Co^{2+} + 2e^{-} \rightleftharpoons Co$	-0,28
Nikel	$Ni^{2+} + 2e^{-} \rightleftharpoons Ni$	-0,25
Timah	$Sn^{2+} + 2e^{-} \rightleftharpoons Sn$	-0,14
Timbel	$Pb^{2+} + 2e^{-} \rightleftharpoons Pb$	-0,13
Tembaga	$Cu^{2+} + 2e^{-} \rightleftharpoons Cu$	+0,34
tembaga	$Cu^{+} + e^{-} \rightleftharpoons Cu$	+0,52
Perak	$Ag^{+} + e^{-} \rightleftharpoons Ag$	+0,80
Emas	$Au^{3+} + 3e^{-} \rightleftharpoons Au$	+1,50
Emas	$Au^{2+} + 2e^{-} \rightleftharpoons Au$	+1,68

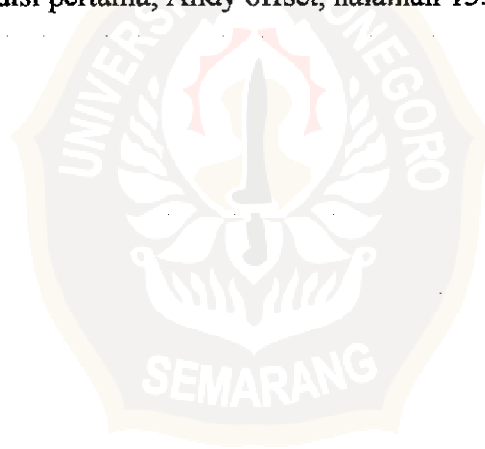
Sumber : W. Canning plc, 1982, " The Canning Handbook of Surface Finishing Tecknology," 23<sup>rd</sup> edition, W. Canning plc, halaman 271.

## LAMPIRAN 2

Tabel 6. Ekuivalen elektrokimia unsur-unsur

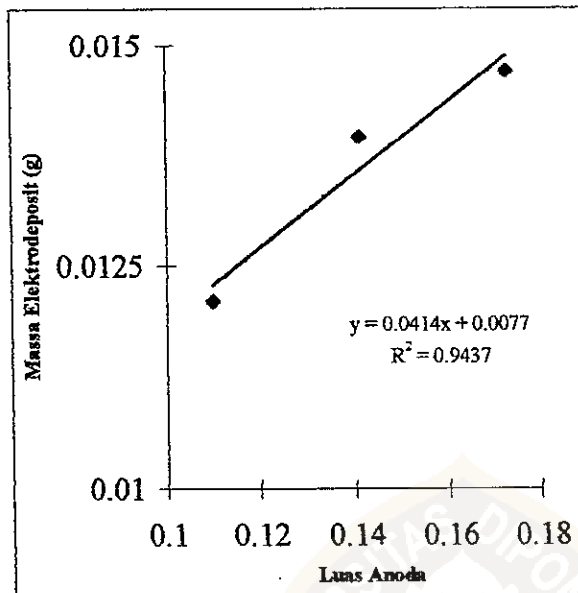
Unsur	Berat Atom	Perubahan Valensi	Ekuivalensi (mg/C)
Besi	55,84	3	0,19280
		2	0,28930
Emas	197,0	1	2,04100
		3	0,68050
Hidrogen	1,008	1	0,01045
Kadmium	112,4	2	0,58240
Nikel	58,71	2	0,30420
Oksigen	16,00	2	0,08290
Perak	107,5	1	1,118
Platina	195,1	4	0,5055
Seng	65,38	2	0,3388
Tembaga	63,55	1	0,6585
		2	0,3293
Timbel	207,2	2	1,074

Sumber : Hartomo, A. J dan Kaneko, T, 1982, " Mengenal Pelapisan Logam", edisi pertama, Andy offset, halaman 135.

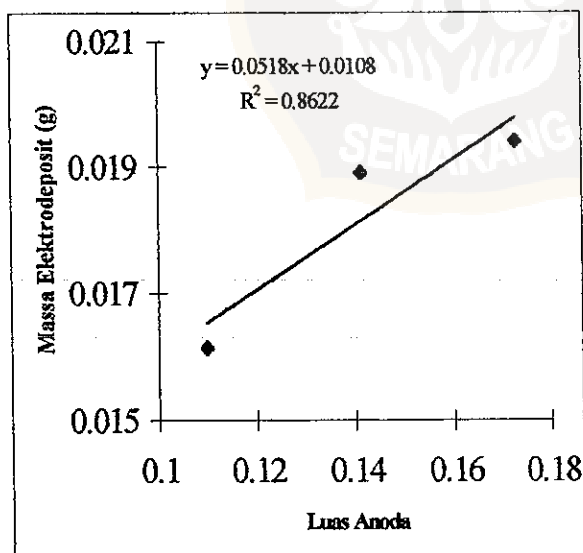


### LAMPIRAN 3

Grafik 5 . Pengaruh luas anoda terhadap massa elektrodeposit nikel pada konsentrasi nikel sulfat 0,258 M.

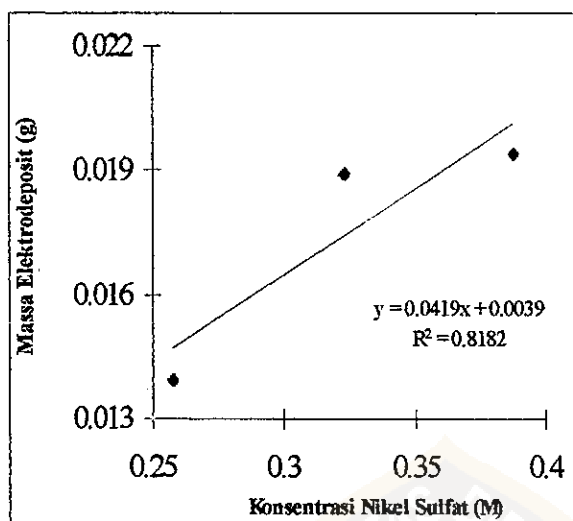


Grafik 6. Pengaruh luas anoda terhadap massa elektrodeposit nikel pada konsentrasi nikel sulfat 0,323 M.

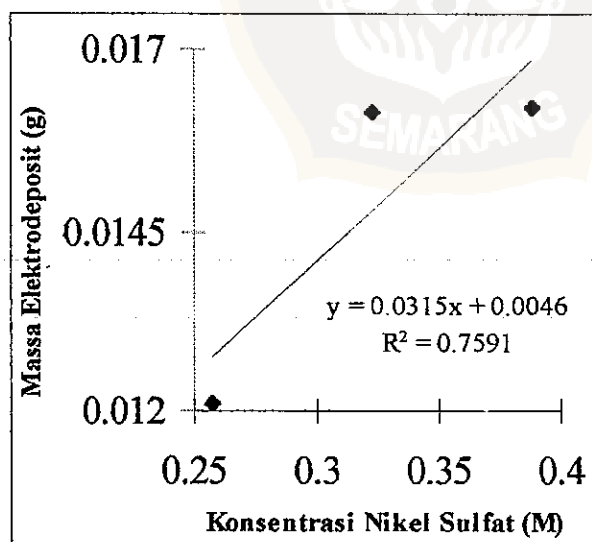


#### LAMPIRAN 4

Grafik 7. Pengaruh konsentrasi nikel sulfat terhadap massa elektrodeposit nikel pada luas anoda  $0,1099 \text{ dm}^2$



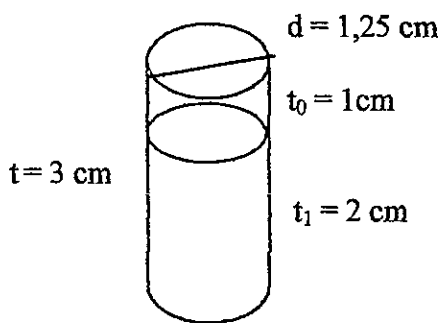
Grafik 8. Pengaruh konsentrasi nikel sulfat terhadap massa elektrodeposit nikel pada luas anoda  $0,1413 \text{ dm}^2$



## LAMPIRAN 5

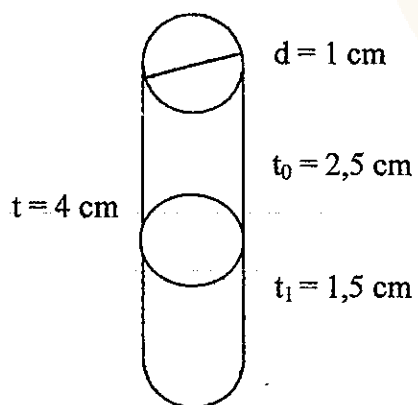
Gambar 3. Gambar elektroda.

Gambar Katoda



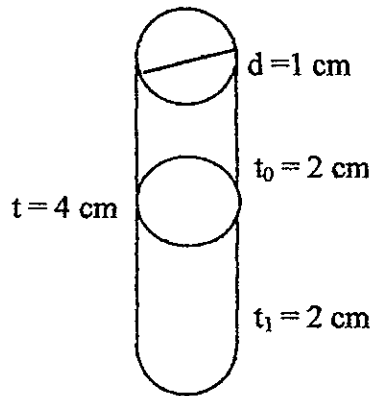
$$\begin{aligned} L_K &= \sigma r^2 + \sigma dt_1 \\ &= (3,14 \cdot 0,625^2 + 3,14 \cdot 1,25 \cdot 2) \text{ cm}^2 \\ &= 9,077 \text{ cm}^2 \\ &= 9,077 \cdot 10^{-2} \text{ dm}^2 \end{aligned}$$

Gambar Anoda 1



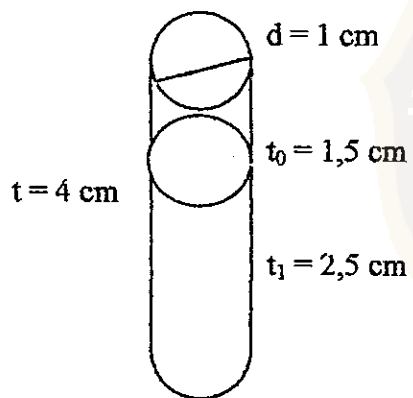
$$\begin{aligned} L_{A1} &= \sigma r^2 + \sigma dt_1 \\ &= (3,14 \cdot 0,5^2 + 3,14 \cdot 1 \cdot 1,5) \text{ cm}^2 \\ &= 10,99 \text{ cm}^2 \\ &= 0,1099 \text{ dm}^2 \end{aligned}$$

**Gambar Anoda 2**



$$\begin{aligned}L_{A1} &= \sigma r^2 + \sigma dt_1 \\ &= (3,14 \cdot 0,5^2 + 3,14 \cdot 1 \cdot 2) \text{ cm}^2 \\ &= 14,13 \text{ cm}^2 \\ &= 0,1413 \text{ dm}^2\end{aligned}$$

**Gambar Anoda 3**



$$\begin{aligned}L_{A3} &= \sigma r^2 + \sigma dt_1 \\ &= (3,14 \cdot 0,5^2 + 3,14 \cdot 1 \cdot 2,5) \text{ cm}^2 \\ &= 17,27 \text{ cm}^2 \\ &= 0,1727 \text{ dm}^2\end{aligned}$$