

LAMPIRAN

Lampiran 1 Tabel kekuatan asam dan basa berbagai jenis larutan

Acid and Base Strengths

	Acid	Base	pKa		
Strong acids in water	Perchloric acid	HClO_4	ClO_4^-	-10	Strong acids in ammonia
	Sulfuric acid	H_2SO_4	HSO_4^-	-10	
	Hydrogen iodide	HI	I^-	-9	
	Hydrogen bromide	HBr	Br^-	-8	
	Hydrogen chloride	HCl	Cl^-	-7	
	Nitric acid	HNO_3	NO_3^-	-2	
	Hydronium ion	H_3O^+	H_2O	-1.74	
Weak acids in water	Trichloroacetic acid	$\text{CCl}_3\text{CO}_2\text{H}$	$\text{CCl}_3\text{CO}_2^-$	0.52	Basicity of conjugate bases too weak to be measured in ammonia
	Hydrogensulfate ion	HSO_4^-	SO_4^{2-}	1.99	
	Phosphoric acid	H_3PO_4	H_2PO_4^-	2.12	
	Chloroacetic acid	$\text{CH}_2\text{ClCO}_2\text{H}$	$\text{CH}_2\text{ClCO}_2^-$	2.85	
	Hydrogen fluoride	HF	F^-	3.17	
	Nitrous acid	HNO_2	NO_2^-	3.3	
	Benzoic acid	$\text{C}_6\text{H}_5\text{CO}_2\text{H}$	$\text{C}_6\text{H}_5\text{CO}_2^-$	4.19	
	Acetic acid	$\text{CH}_3\text{CO}_2\text{H}$	CH_3CO_2^-	4.75	
	Pyridinium ion	$\text{C}_5\text{H}_5\text{NH}^+$	$\text{C}_5\text{H}_5\text{N}$	5.25	
	Carbonic acid	H_2CO_3	HCO_3^-	6.35	
	Hydrogen sulfide	H_2S	HS^-	7.00	
	Ammonium ion	NH_4^+	NH_3	9.24	
	Conjugate bases will act as weak bases in water	Phenol	$\text{C}_6\text{H}_5\text{OH}$	$\text{C}_6\text{H}_5\text{O}^-$	
Bicarbonate ion		HCO_3^-	CO_3^{2-}	10.33	
Methyl ammonium ion		CH_3NH_3^+	CH_3NH_2	10.56	
Acidity too weak to be measured in water	Water	H_2O	OH^-	15.74	Conjugate bases will act as weak bases in ammonia
	Ethanol	$\text{CH}_3\text{CH}_2\text{OH}$	$\text{CH}_3\text{CH}_2\text{O}^-$	15.9	
	Acetone	CH_3COCH_3	$\text{CH}_3\text{COCH}_2^-$	22	
	Acetylene	HCCH	HCC^-	25	
	Ammonia	NH_3	NH_2^-	34	
	Ethylene	CH_2CH_2	CH_2CH^-	36	
Conjugate bases will act as strong bases in water	Ethane	CH_3CH_3	CH_3CH_2^-	42	Acidity too weak to be measured in ammonia

SEMQuant results. Listed at 19:29:18 on 25/06/09
Operator: Baim
Client: Dept. Teknik Metalurgi dan Material Universitas Indonesia
Job: Energy Dispersive X-Ray Analysis
Spectrum label: AC 04-10

System resolution = 110 eV

Quantitative method: ZAF (2 iterations).
Analysed all elements and normalised results.

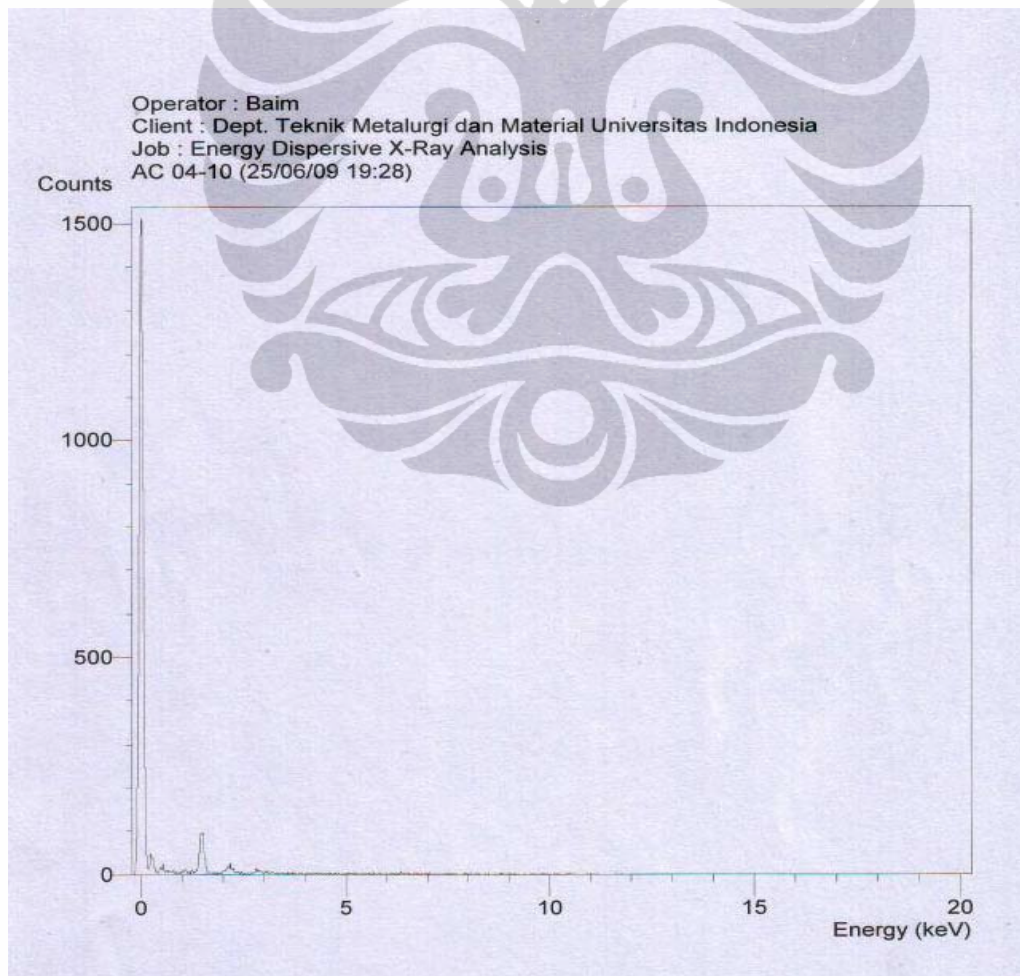
2 peaks possibly omitted: 0.00, 2.16 keV

Standards :

O K AL2O3 22/03/06
Al K CeAl2 03/03/07

Elmt	Spect. Type	Element %	Atomic %
O K	ED	20.58	30.42
Al K	ED	79.42	69.58
Total		100.00	100.00

* = <2 Sigma



SEMQuant results. Listed at 19:38:26 on 25/06/09
Operator: Baim
Client: Dept. Teknik Metalurgi dan Material Universitas Indonesia
Job: Energy Dispersive X-Ray Analysis
Spectrum label: AC 04-40

System resolution = 110 eV

Quantitative method: ZAF (1 iterations).
Analysed all elements and normalised results.

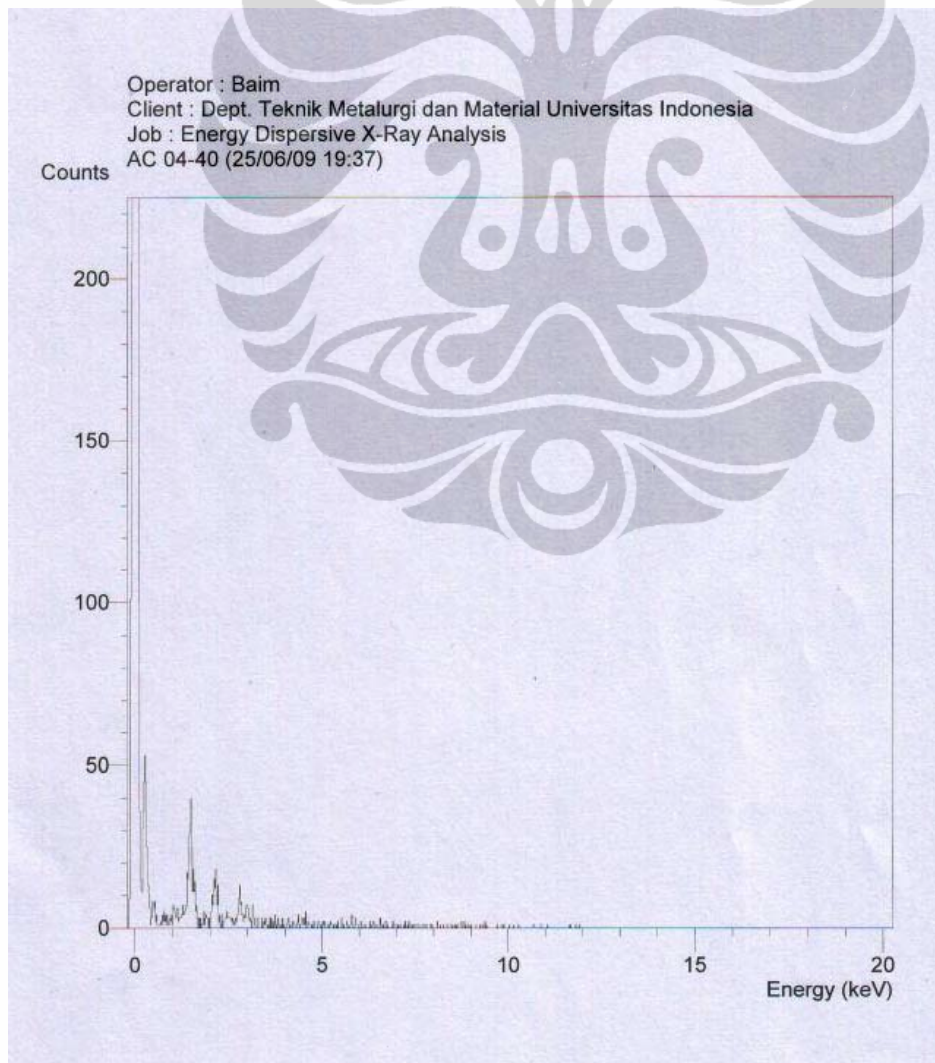
3 peaks possibly omitted: 0.00, 2.14, 2.80 keV

Standards :

O K AL2O3 22/03/06
Al K CeAl2 03/03/07

Elmt	Spect. Type	Element %	Atomic %
O K	ED	26.42	37.71
Al K	ED	73.58	62.29
Total		100.00	100.00

* = <2 Sigma



SEMQuant results. Listed at 18:05:07 on 25/06/09
Operator: Baim
Client: Dept. Teknik Metalurgi dan Material Universitas Indonesia
Job: Energy Dispersive X-Ray Analysis
Spectrum label: AC 04-90

System resolution = 110 eV

Quantitative method: ZAF (2 iterations).
Analysed all elements, and normalised results.

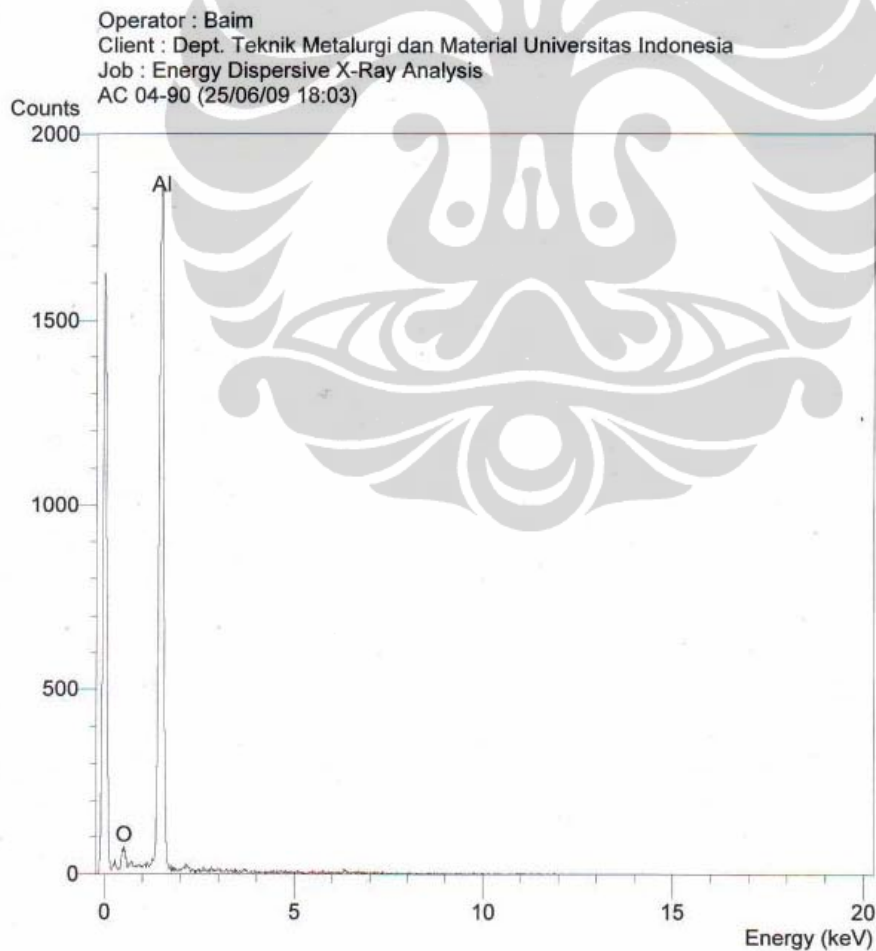
3 peaks possibly omitted: 0.00, 2.16, 6.36 keV

Standards :

O K AL2O3 22/03/06
Al K CeAl2 03/03/07

Elmt	Spect.	Element	Atomic
	Type	%	%
O K	ED	6.80	10.96
Al K	ED	93.20	89.04
Total		100.00	100.00

* = <2 Sigma



SEMQuant results. Listed at 18:45:54 on 25/06/09
Operator: Baim
Client: Dept. Teknik Metalurgi dan Material Universitas Indonesia
Job: Energy Dispersive X-Ray Analysis
Spectrum label: AC 22-10

System resolution = 110 eV

Quantitative method: ZAF (1 iterations).
Analysed all elements and normalised results.

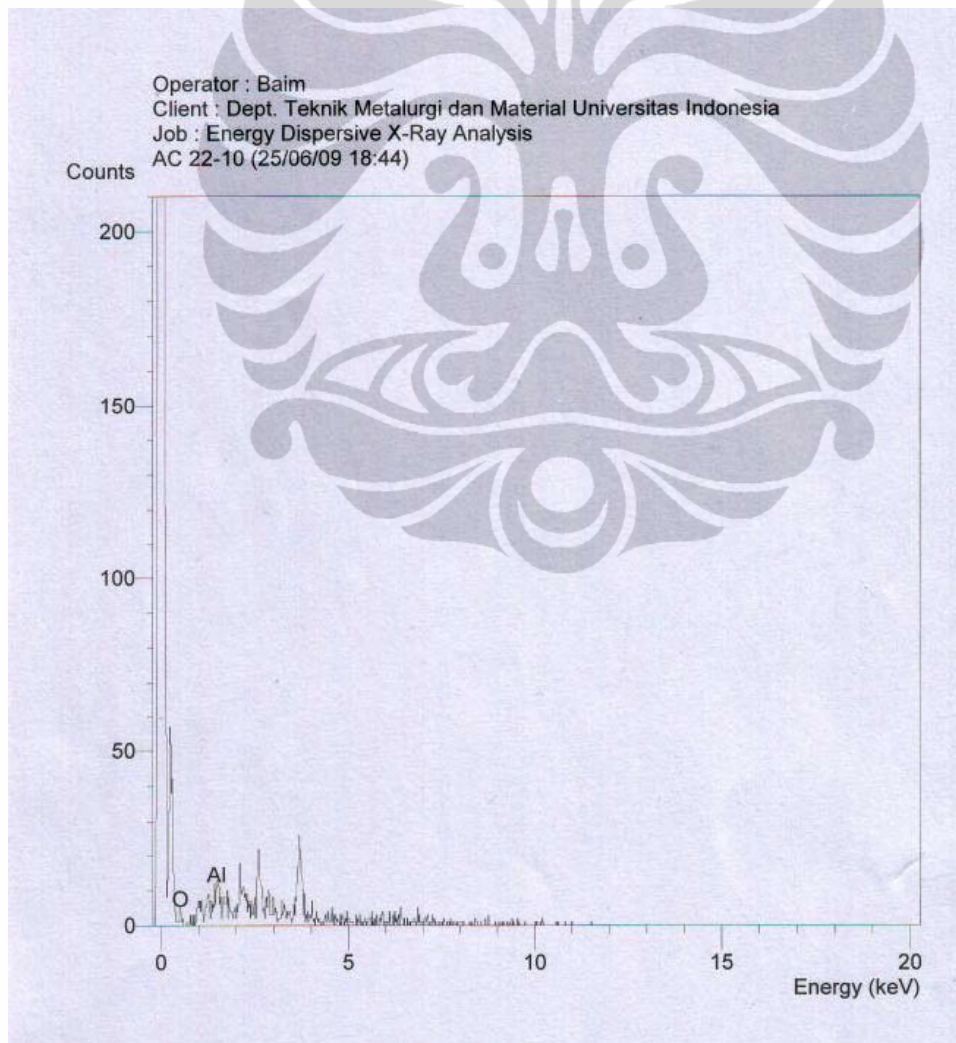
4 peaks possibly omitted: 0.00, 1.04, 2.62,
3.70 keV

Standards :

O K AL2O3 22/03/06
Al K CeAl2 03/03/07

Elmt	Spect. Type	Element %	Atomic %
O K	ED	49.09	61.92
Al K	ED	50.91	38.08
Total		100.00	100.00

* = <2 Sigma



SEMQuant results. Listed at 19:00:01 on 25/06/09
Operator: Baim
Client: Dept. Teknik Metalurgi dan Material Universitas Indonesia
Job: Energy Dispersive X-Ray Analysis
Spectrum label: AC 22-40

System resolution = 110 eV

Quantitative method: ZAF (2 iterations).
Analysed all elements and normalised results.

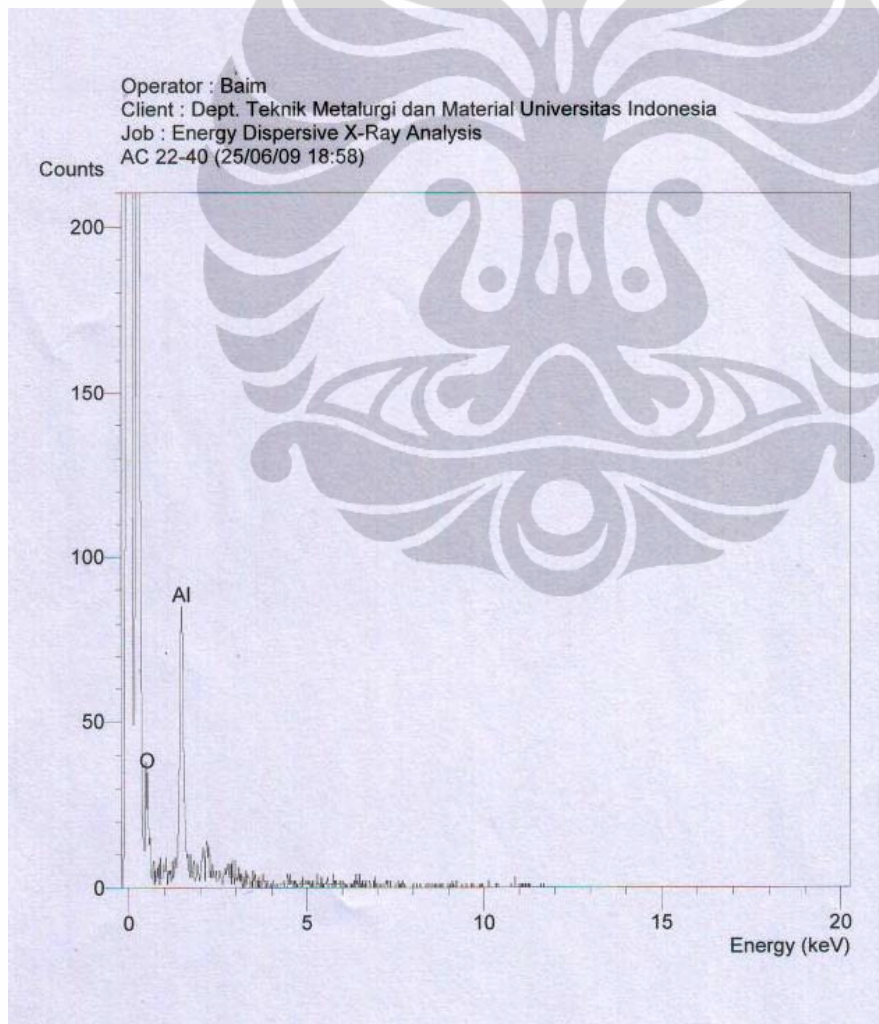
1 peak possibly omitted: 0.00 keV

Standards :

O K AL2O3 22/03/06
Al K CeAl2 03/03/07

Elmt	Spect.	Element	Atomic
	Type	%	%
O K	ED	30.95	43.05
Al K	ED	69.05	56.95
Total		100.00	100.00

* = <2 Sigma



SEMQuant results. Listed at 18:30:22 on 25/06/09
Operator: Baim
Client: Dept. Teknik Metalurgi dan Material Universitas Indonesia
Job: Energy Dispersive X-Ray Analysis
Spectrum label: AC 40-10

System resolution = 110 eV

Quantitative method: ZAF (1 iterations).
Analysed all elements and normalised results.

2 peaks possibly omitted: 0.00, 4.52 keV

Standards :

O K AL2O3 22/03/06
Al K CeAl2 03/03/07

Elmt	Spect.	Element	Atomic
	Type	%	%
O K	ED	30.05	42.02
Al K	ED	69.95	57.98
Total		100.00	100.00

* = <2 Sigma

