

LAMPIRAN 1. ONE WAY ANOVA**Descriptives**

Konsentrasi Xylitol			Statistic	Std. Error	
Komposisi Kalsium	konsentrasi 20%	Mean	42,8020	1,95318	
		95% Confidence Interval for Mean	Lower Bound 37,3791 Upper Bound 48,2249		
		5% Trimmed Mean	42,7678		
		Median	43,7800		
		Variance	19,074		
		Std. Deviation	4,36743		
		Minimum	37,81		
		Maximum	48,41		
		Range	10,60		
		Interquartile Range	8,27		
		Skewness	,048	,913	
		Kurtosis	-1,692	2,000	
		konsentrasi 50%	Mean	41,2720	,68088
			95% Confidence Interval for Mean	Lower Bound 39,3816 Upper Bound 43,1624	
			5% Trimmed Mean	41,2561	
	Median		41,3700		
	Variance		2,318		
	Std. Deviation		1,52250		
	Minimum		39,32		
	Maximum		43,51		
	Range		4,19		
	Interquartile Range		2,53		
	Skewness		,419	,913	
	Kurtosis		1,249	2,000	
	kontrol konsentrasi 20%	Mean	30,0840	7,54171	
		95% Confidence Interval for Mean	Lower Bound 9,1449 Upper Bound 51,0231		
		5% Trimmed Mean	30,4939		
Median		33,0800			
Variance		284,387			
Std. Deviation		16,86377			
Minimum		3,15			
Maximum		49,64			
Range		46,49			
Interquartile Range		25,60			
Skewness		-1,037	,913		
Kurtosis		2,402	2,000		
kontrol konsentrasi 50%		Mean	20,0780	6,61153	
		95% Confidence Interval for Mean	Lower Bound 1,7214		

		Interval for Mean	Upper Bound	38,4346	
		5% Trimmed Mean		19,9672	
		Median		13,3100	
		Variance		218,562	
		Std. Deviation		14,78384	
		Minimum		5,18	
		Maximum		36,97	
		Range		31,79	
		Interquartile Range		28,34	
		Skewness		,445	,913
		Kurtosis		-2,991	2,000
Komposisi Fosfat	konsentrasi 20%	Mean		25,3280	,95337
		95% Confidence Interval for Mean	Lower Bound	22,6810	
			Upper Bound	27,9750	
		5% Trimmed Mean		25,3528	
		Median		25,1400	
		Variance		4,545	
		Std. Deviation		2,13180	
		Minimum		22,39	
		Maximum		27,82	
		Range		5,43	
		Interquartile Range		3,96	
		Skewness		-,296	,913
		Kurtosis		-,751	2,000
	konsentrasi 50%	Mean		24,8240	,37329
		95% Confidence Interval for Mean	Lower Bound	23,7876	
			Upper Bound	25,8604	
		5% Trimmed Mean		24,8128	
		Median		24,6900	
		Variance		,697	
		Std. Deviation		,83470	
		Minimum		23,95	
		Maximum		25,90	
		Range		1,95	
		Interquartile Range		1,63	
		Skewness		,351	,913
		Kurtosis		-2,111	2,000
	kontrol konsentrasi 20%	Mean		19,8740	3,17463
		95% Confidence Interval for Mean	Lower Bound	11,0598	
			Upper Bound	28,6882	
		5% Trimmed Mean		19,9872	
		Median		20,0700	
		Variance		50,391	
		Std. Deviation		7,09868	
		Minimum		9,00	
		Maximum		28,71	
		Range		19,71	

kontrol konsentrasi 50%	Interquartile Range		11,18	
	Skewness		-,681	,913
	Kurtosis		1,896	2,000
	Mean		11,6940	4,49966
	95% Confidence Interval for Mean	Lower Bound	-,7990	
		Upper Bound	24,1870	
	5% Trimmed Mean		11,7067	
	Median		7,4900	
	Variance		101,234	
	Std. Deviation		10,06153	
	Minimum		,00	
	Maximum		23,16	
	Range		23,16	
	Interquartile Range		18,97	
	Skewness		,238	,913
	Kurtosis		-2,447	2,000

Tests of Normality

	Kolmogorov-Smirnov(a)			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Komposisi Kalsium	,138	20	,200(*)	,918	20	,090
Komposisi Fosfor	,138	20	,200(*)	,937	20	,213

* This is a lower bound of the true significance.

a. Lilliefors Significance Correction

ONEWAY ANOVA

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Komposisi Kalsium	2,454	3	16	,101
Komposisi Fosfor	2,201	3	16	,128

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Komposisi Kalsium	Between Groups	5060409	3	1686803,140	4,956	,013
	Within Groups	5446092	16	340380,777		
	Total	10506502	19			
Komposisi Fosfor	Between Groups	4,5E+008	3	149931976,4	4,763	,015
	Within Groups	5,0E+008	16	31479894,53		
	Total	9,5E+008	19			

POST HOC

Multiple Comparisons

Bonferroni

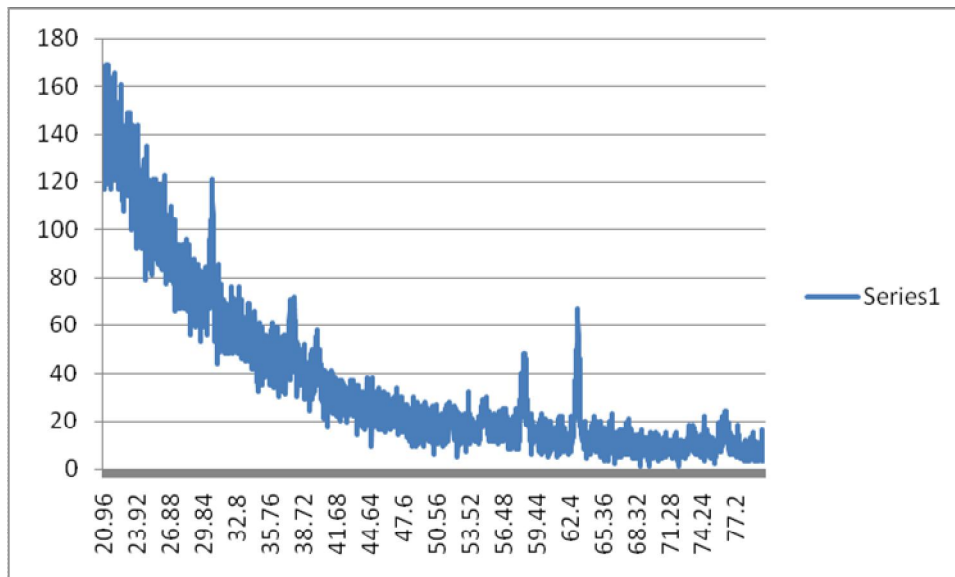
Dependent Variable	(I) Konsentrasi Xylitol	(J) Konsentrasi Xylitol	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Komposisi Kalsium	konsentrasi 20%	konsentrasi 50%	142,03838	368,98823	1,000	-968,0014	1252,0782
		kontrol konsentrasi 20%	714,71442	368,98823	,424	-395,3254	1824,7542
		kontrol konsentrasi 50%	1269,29520*	368,98823	,020	159,2554	2379,3350
	konsentrasi 50%	konsentrasi 20%	-142,03838	368,98823	1,000	-1252,0782	968,0014
		kontrol konsentrasi 20%	572,67604	368,98823	,841	-537,3637	1682,7158
		kontrol konsentrasi 50%	1127,25682*	368,98823	,045	17,2170	2237,2966
	kontrol konsentrasi 20%	konsentrasi 20%	-714,71442	368,98823	,424	-1824,7542	395,3254
		konsentrasi 50%	-572,67604	368,98823	,841	-1682,7158	537,3637
		kontrol konsentrasi 50%	554,58078	368,98823	,914	-555,4590	1664,6206
	kontrol konsentrasi 50%	konsentrasi 20%	-1269,2952*	368,98823	,020	-2379,3350	-159,2554
		konsentrasi 50%	-1127,2568*	368,98823	,045	-2237,2966	-17,2170
		kontrol konsentrasi 20%	-554,58078	368,98823	,914	-1664,6206	555,4590
Komposisi Fosfor	konsentrasi 20%	konsentrasi 50%	1184,05470	3548,515	1,000	-9491,0627	11859,1721
		kontrol konsentrasi 20%	6386,61706	3548,515	,545	-4288,5004	17061,7345
		kontrol konsentrasi 50%	11966,251*	3548,515	,023	1291,1334	22641,3682
	konsentrasi 50%	konsentrasi 20%	-1184,0547	3548,515	1,000	-11859,1721	9491,0627
		kontrol konsentrasi 20%	5202,56236	3548,515	,972	-5472,5551	15877,6798
		kontrol konsentrasi 50%	10782,196*	3548,515	,047	107,0787	21457,3135
	kontrol konsentrasi 20%	konsentrasi 20%	-6386,6171	3548,515	,545	-17061,7345	4288,5004
		konsentrasi 50%	-5202,5624	3548,515	,972	-15877,6798	5472,5551
		kontrol konsentrasi 50%	5579,63377	3548,515	,813	-5095,4836	16254,7512
	kontrol konsentrasi 50%	konsentrasi 20%	-11966,251*	3548,515	,023	-22641,3682	-1291,1334
		konsentrasi 50%	-10782,196*	3548,515	,047	-21457,3135	-107,0787
		kontrol konsentrasi 20%	-5579,6338	3548,515	,813	-16254,7512	5095,4836

*. The mean difference is significant at the .05 level.



LAMPIRAN 2. HASIL XRD

Kelompok S1 Sampel Kontrol Positif



```

Sample identification: kontrolpo
Data measured at: 6-aug-2008 13:21:00

Diffractometer type: PW3710 BASED
Tube anode: Co
Generator tension [kV]: 40
Generator current [mA]: 30
Wavelength Alpha1 [Å]: 1.78896
Wavelength Alpha2 [Å]: 1.79285
Intensity ratio (alpha2/alpha1): 0.500
Divergence slit: 1/4°
Receiving slit: 0.2
Monochromator used: NO

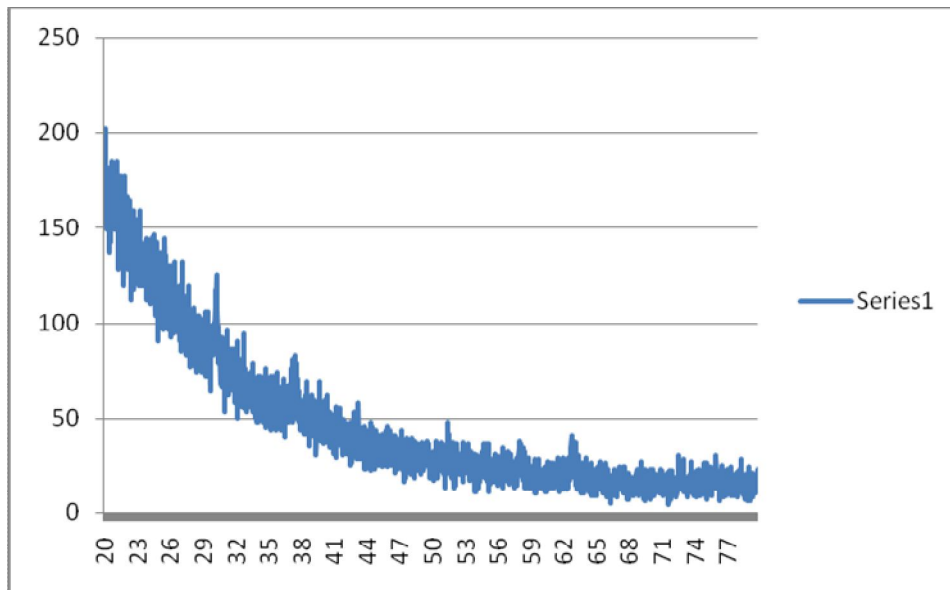
Start angle [°2θ]: 20.010
End angle [°2θ]: 79.970
Step size [°2θ]: 0.020
Maximum intensity: 56.2500
Time per step [s]: 1.000
Type of scan: CONTINUOUS

Minimum peak tip width: 0.00
Maximum peak tip width: 3.00
Peak base width: 2.00
Minimum significance: 0.75
Number of peaks: 9

```

Angle [°2θ]	d-value α1 [Å]	d-value α2 [Å]	Peak width [°2θ]	Peak int [counts]	Back. int [counts]	Rel. int [%]	Signif.
30.665	3.3828	3.3902	0.120	46	67	62.2	0.98
37.790	2.7621	2.7682	0.640	19	40	34.4	1.92
39.925	2.6200	2.6257	0.480	10	35	17.1	1.17
51.970	2.0416	2.0460	0.440	5	15	8.6	0.86
54.855	1.9419	1.9461	0.640	8	14	13.9	1.47
58.510	1.8303	1.8343	0.560	24	14	42.7	3.48
63.185	1.7074	1.7111	0.160	56	12	100.0	1.11
67.795	1.6038	1.6073	0.400	3	8	5.6	0.92
76.290	1.4482	1.4513	0.400	11	7	19.4	0.95

Kelompok S1 Sampel Kontrol Negatif



```

File: COKMERKO.D1                               10-sep-2008 12:54
-----
PC-APD, Diffraction software

Sample identification: Cokmerko
Data measured at: 6-aug-2008 14:11:00

Diffractometer type: PW3710 RABED
  Tube anode: Co
Generator tension [kV]: 40
Generator current [mA]: 30
Wavelength Alpha1 [Å]: 1.78896
Wavelength Alpha2 [Å]: 1.79285
Intensity ratio (alpha2/alpha1): 0.900
Divergence slit: 1/4°
Receiving slit: 0.2
Monochromator used: ND

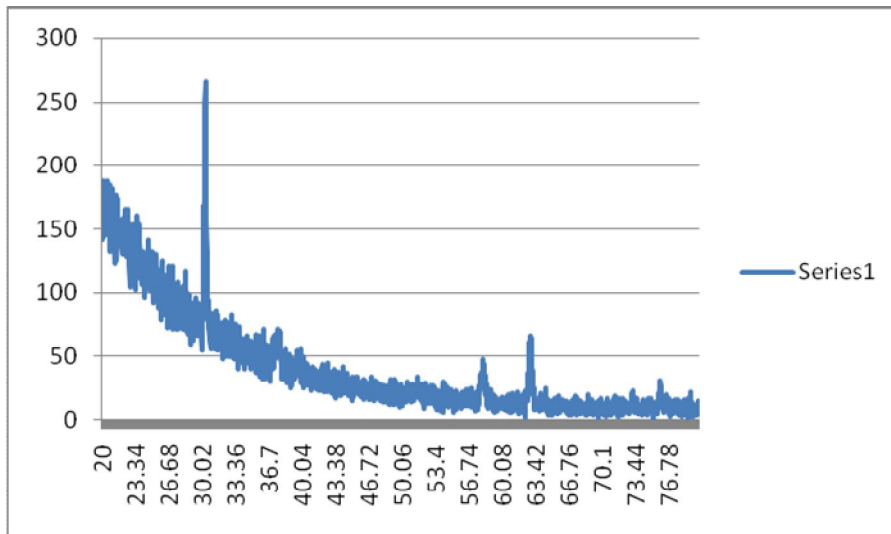
Start angle [°2θ]: 20.010
End angle [°2θ]: 79.970
Step size [°2θ]: 0.020
Maximum intensity: 37.2100
Time per step [s]: 1.000
Type of scan: CONTINUOUS

Minimum peak tip width: 0.30
Maximum peak tip width: 1.00
Peak base width: 2.00
Minimum significance: 0.75
Number of peaks: 8

  Angle [°2θ]  d-value q1 [Å]  d-value q2 [Å]  Peak width [°2θ]  Peak int [counts]  Back. int [counts]  Rel. int [%]  Signif.
-----
30.275      3.4253      3.4328      0.240             37                79                100.0         1.55
37.540      2.7799      2.7859      0.480             12                52                32.9          1.54
41.635      2.5169      2.5224      0.200              6                40                15.5          0.83
51.455      2.0606      2.0651      0.240              6                25                16.8          0.77
54.760      1.9450      1.9492      0.480              6                21                16.8          0.87
58.065      1.8431      1.8471      0.320             11                20                29.3          1.00
62.920      1.7139      1.7176      0.280             18                18                47.4          1.25
75.925      1.4541      1.4573      0.960              5                14                13.0          0.83

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Kelompok S1 Sampel Perlakuan Xylitol 20%



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File: COKMERPR.DI                               10-sep-2008 12:55
=====
PC-APD, Diffraction software

Sample identification: Cokmerpr
Data measured at: 6-aug-2008 11:05:00

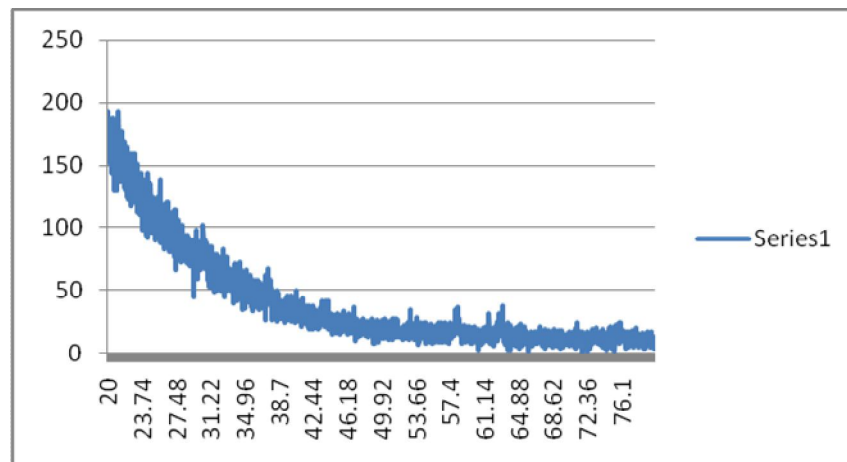
Diffractometer type: PW3710 BASED
Tube anode: Co
Generator tension [kV]: 40
Generator current [mA]: 30
Wavelength Alpha1 [Å]: 1.78896
Wavelength Alpha2 [Å]: 1.79285
Intensity ratio (alpha2/alpha1): 0.500
Divergence slit: 1/4°
Receiving slit: 0.2
Monochromator used: NO

Start angle [°2θ]: 20.010
End angle [°2θ]: 79.970
Step size [°2θ]: 0.020
Maximum intensity: 169.0000
Time per step [s]: 1.000
Type of scan: CONTINUOUS

Minimum peak tip width: 0.00
Maximum peak tip width: 1.00
Peak base width: 2.00
Minimum significance: 0.75
Number of peaks: 9

Angle [°2θ] d-value d-value Peak width Peak int Back. int Rel. int Signif.
[°2θ] d1 [Å] d2 [Å] [°2θ] [counts] [counts] [%]
30.365 3.4154 3.4228 0.100 169 71 100.0 1.79
32.875 3.1611 3.1679 0.480 11 39 6.4 2.77
37.695 2.7689 2.7749 0.400 25 42 14.8 1.87
39.745 2.6314 2.6371 0.480 10 36 5.7 1.28
51.940 2.0574 2.0619 0.240 10 18 6.1 0.78
58.205 1.8391 1.8431 0.560 23 14 13.6 4.77
62.835 1.7160 1.7197 0.200 45 12 26.6 1.75
73.140 1.5013 1.5046 0.240 6 8 3.7 1.09
75.865 1.4351 1.4382 0.500 12 9 7.2 0.50
    
```

Kelompok S2 Sampel Kontrol Positif



```

File: UOKPOS.DI                                     10-sep-2008 12:57
-----
PC-APD, Diffraction software

Sample identification: uokpos
Data measured at: 6-aug-2008 13:10:00

Diffractometer type: PW3710 BASED
Tube anode: Co
Generator tension [kV]: 40
Generator current [mA]: 30
Wavelength Alpha1 [Å]: 1.78896
Wavelength Alpha2 [Å]: 1.79285
Intensity ratio (alpha2/alpha1): 0.500
Divergence slit: 1/4°
Receiving slit: 0.2
Monochromator used: ND

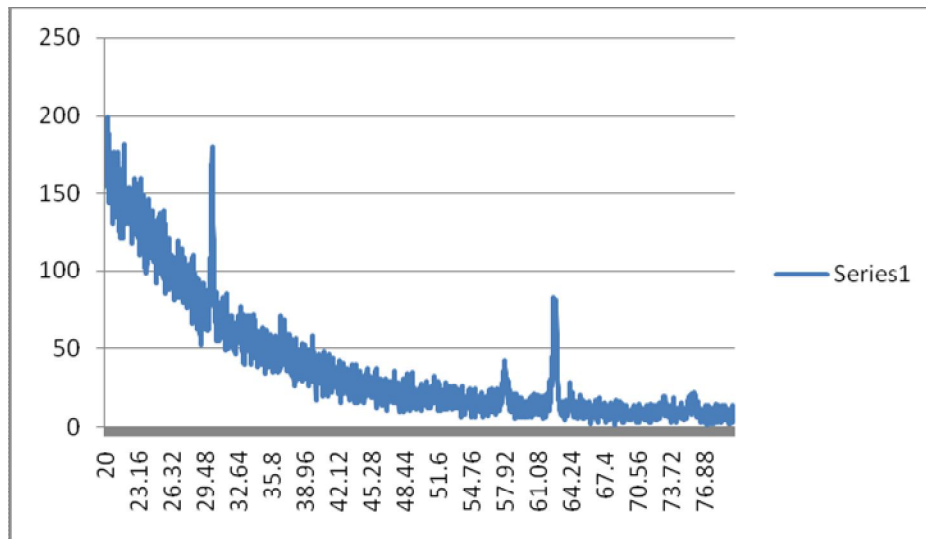
Start angle [°2θ]: 20.010
End angle [°2θ]: 79.970
Step size [°2θ]: 0.020
Maximum intensity: 17.6400
Time per step [s]: 1.000
Type of scan: CONTINUOUS

Minimum peak tip width: 0.00
Maximum peak tip width: 1.00
Peak base width: 2.00
Minimum significance: 0.75
Number of peaks: 7

Angle  d-value  d-value  Peak width  Peak int  Back. int  Rel. int  Signif.
[°2θ]  d1 [Å]    d2 [Å]    [°2θ]      [counts] [counts]   [%]
-----
26.390  3.9186    3.9271    0.400      11        98         61.7    1.02
30.355  3.4165    3.4239    0.480      18        71         100.0   0.78
37.660  2.7713    2.7774    0.480      10        41         54.5    1.18
58.315  1.8359    1.8399    0.320      12        14         69.4    1.39
62.885  1.7147    1.7185    0.480      14        12         77.6    0.91
73.085  1.5023    1.5058    0.640      4         9          20.5    0.78
75.895  1.4546    1.4577    0.800      8         9          47.7    2.27

```


Kelompok S2 Sampel Perlakuan Xylitol 50%



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=====
Date: (P:\CORONA\J)                               10-sep-2008 12:56
PC-APD, Diffraction software

Sample identification: ungorang
Data measured at: 9-aug-2008 14:58:00

Diffractometer type: PW3710 BASED
Tube anode: Co
Generator tension [kV]: 40
Generator current [mA]: 30
Wavelength Alpha1 [Å]: 1.78896
Wavelength Alpha2 [Å]: 1.79285
Intensity ratio (alpha2/alpha1): 0.500
Divergence slit: 1/4°
Receiving slit: 0.2
Monochromator used: NO

Start angle [°2θ]: 20.010
End angle [°2θ]: 79.970
Step size [°2θ]: 0.020
Maximum intensity: 94.0900
Time per step [s]: 1.000
Type of scan: CONTINUOUS

Minimum peak tip width: 0.00
Maximum peak tip width: 1.00
Peak base width: 2.00
Minimum significance: 0.75
Number of peaks: 9

Angle  d-value  d-value  Peak width  Peak int  Back. int  Rel. int  Signif.
[°2θ]  d1 [Å]    d2 [Å]    [°2θ]      [counts] [counts]  [%]
-----
20.445  5.0401    5.0311    0.960      22        144       23.5     1.18
30.150  3.4392    3.4467    0.100      94        72        100.0    0.57
37.245  2.8011    2.8072    0.640      6         44        6.6      1.16
39.665  2.6365    2.6422    0.240      10        36        10.2     1.02
57.945  1.8466    1.8504    0.560      20        12        21.5     3.55
62.640  1.7208    1.7245    0.360      55        11        58.2     5.46
64.240  1.6823    1.6860    0.400      5         10        5.1      1.34
73.110  1.5018    1.5051    0.480      6         7         6.6      1.05
76.250  1.4488    1.4520    0.560      4         7         4.3      1.35

```

LAMPIRAN. 3 SURAT KELAIKAN ETIK

**UNIVERSITAS INDONESIA
FAKULTAS KEDOKTERAN GIGI**

JLN. SALEMBA RAYA NO. 4 JAKARTA PUSAT 10430
TELP. (62-21) 31930270, 3151035
FAX. (62-21) 31931412

SURAT KETERANGAN LOLOS ETIK

Nomor: 04/Etichal Clearance/FKGUI/VIII/2008

Setelah membaca dan mempelajari usulan penelitian atas nama:

- | | |
|-------------------|--------------|
| 1. Aryo Megantoro | (0205000109) |
| 2. Fiona Verisqa | (0205000338) |
| 3. Fitriafnida | (0205000346) |

Judul : "Efek xylitol terhadap jaringan keras gigi ditinjau dari microhardness, Analisa Sem dan EDX".

Dengan ini Komisi Etik Penelitian Fakultas Kedokteran Gigi Universitas Indonesia menerangkan bahwa penelitian tersebut di atas dinyatakan lolos etik.

Jakarta, 22 Agustus 2008

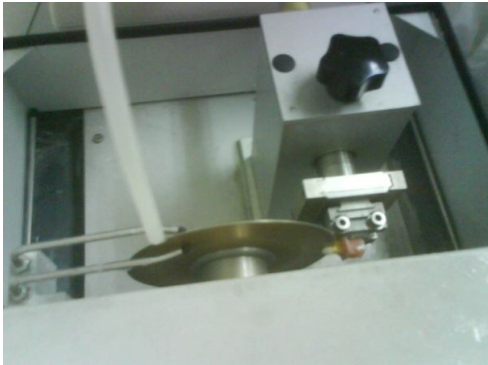
Ketua Komisi Etik Penelitian FKGUI,



Mengetahui:
Dekan FKGUI,

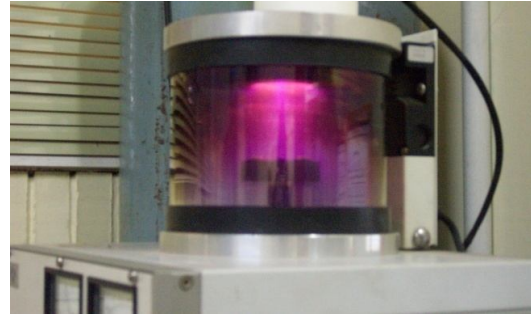
Prof. drg. Bambang Irawan, PhD.
NIP. 130 870 092

drg. Anton Rahardjo, MKM, PhD
NIP. 131 289 206

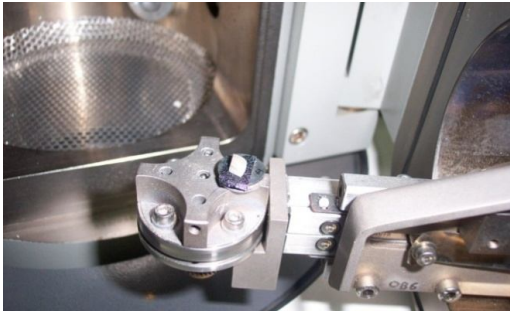
LAMPIRAN 4. DOKUMENTASI**Preparasi Sampel Email****Pembuatan Larutan Remineralisasi****Perendaman Spesimen dalam Larutan
Remineralisasi dengan Xylitol**



Sampel email untuk analisis EDX



Proses *Vacuuming* Sampel Email



Instrumen *Energy Dispersive X-Ray* (EDX)



Perangkat Instrumen EDX



Perangkat Instrumen XRD



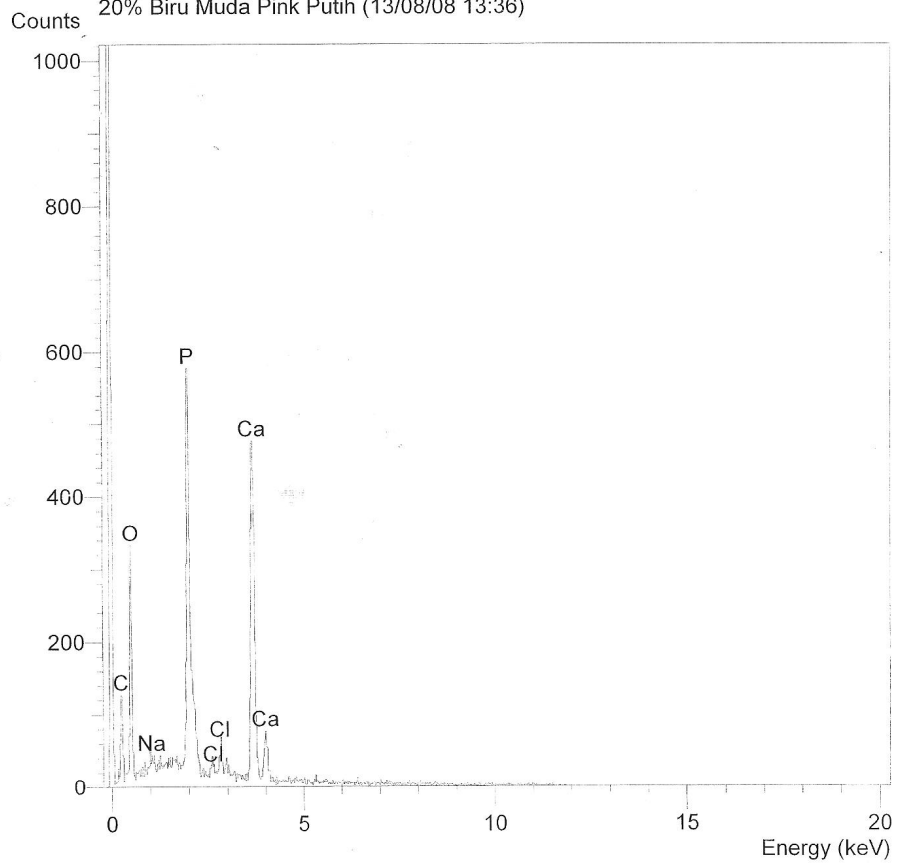
Diffractometer



Tim Peneliti dan Dosen Pembimbing



Operator : jaya
Client : Dept. Metalurgi dan Material Universitas Indonesia
Job : Energy Dispersive X-Ray Analysis
20% Biru Muda Pink Putih (13/08/08 13:36)



SEMQuant results. Listed at 13:38:57 on 13/08/08
Operator: jaya
Client: Dept. Metalurgi dan Material Universitas Indonesia
Job: Energy Dispersive X-Ray Analysis
Spectrum label: 20% Biru Muda Pink Putih

System resolution = 60 eV

Quantitative method: ZAF (3 iterations).
Analysed all elements and normalised results.

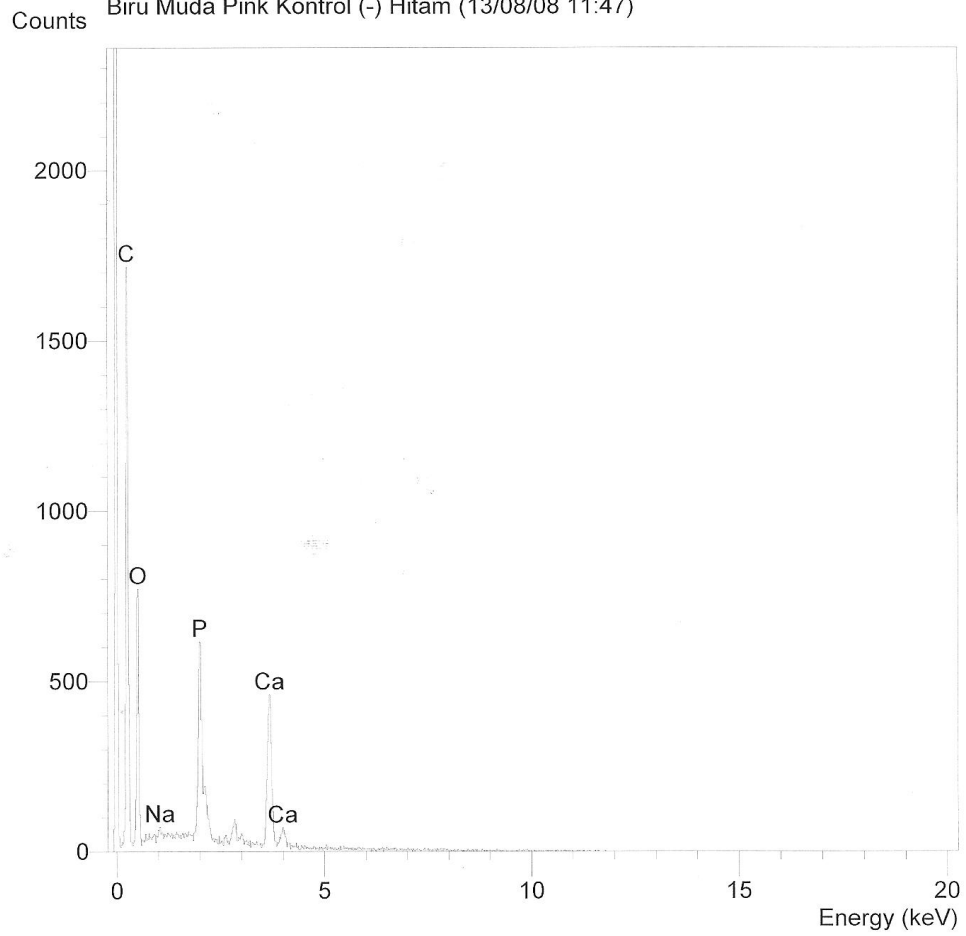
Standards :

C K	Carbon Low 13/09/06
O K	AL2O3 22/03/06
Na K	Orthoclase 22/03/06
P K	GaP 22/03/06
Cl K	KCl 15/02/94
Ca K	Orthoclase 22/03/06

Elmt	Spect.	Element	Atomic
	Type	%	%
C K	ED	1.31	2.88
O K	ED	26.61	44.02
Na K	ED	0.90	1.03
P K	ED	25.14	21.48
Cl K	ED	2.26	1.69
Ca K	ED	43.78	28.90
Total		100.00	100.00

* = <2 Sigma

Operator : jaya
Client : Dept. Metalurgi dan Material Universitas Indonesia
Job : Energy Dispersive X-Ray Analysis
Biru Muda Pink Kontrol (-) Hitam (13/08/08 11:47)



SEMQuant results. Listed at 11:48:12 on 13/08/08
Operator: jaya
Client: Dept. Metalurgi dan Material Universitas Indonesia
Job: Energy Dispersive X-Ray Analysis
Spectrum label: Biru Muda Pink Kontrol (-) Hitam

System resolution = 60 eV

Quantitative method: ZAF (4 iterations).
Analysed all elements and normalised results.

1 peak possibly omitted: 2.82 keV

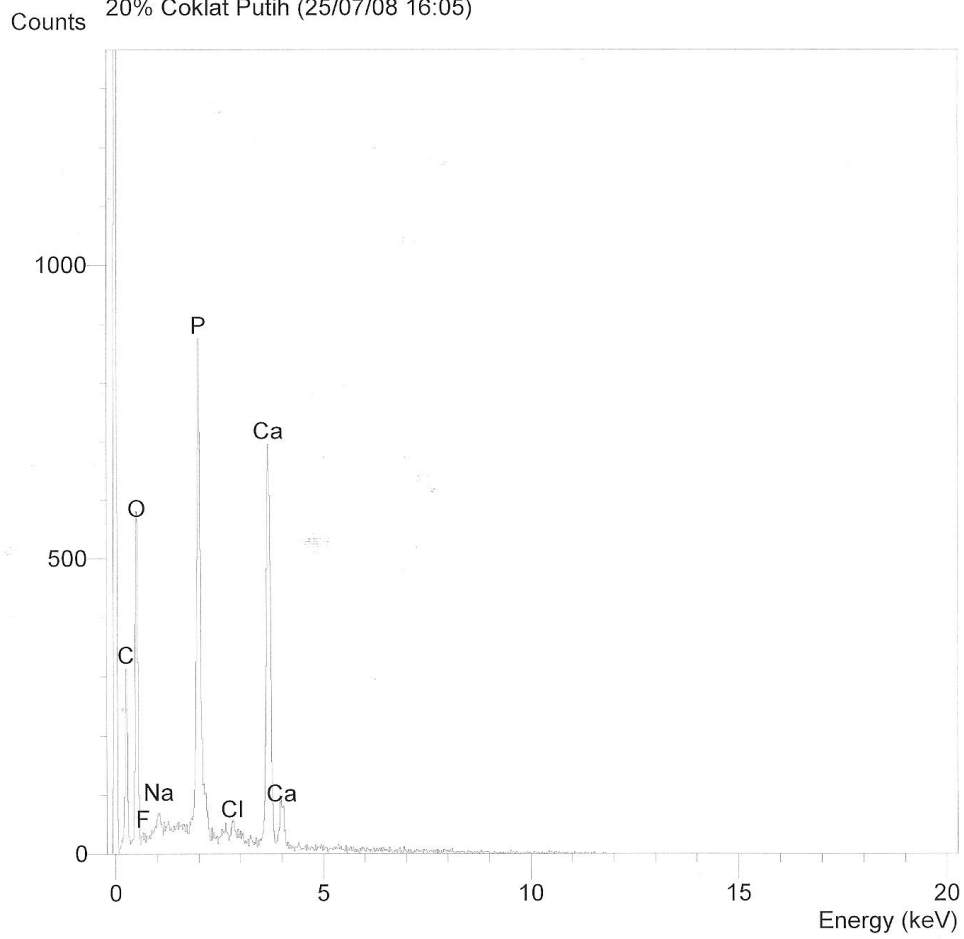
Standards :

C K	Carbon Low	13/09/06
O K	AL2O3	22/03/06
Na K	Orthoclase	22/03/06
P K	GaP	22/03/06
Ca K	Orthoclase	22/03/06

Elmt	Spect.	Element	Atomic
	Type	%	%
C K	ED	10.18	17.97
O K	ED	39.06	51.76
Na K	ED	0.77	0.71
P K	ED	20.07	13.74
Ca K	ED	29.92	15.83
Total		100.00	100.00

* = <2 Sigma

Operator : jaya
Client : Dept. Metalurgi dan Material Universitas Indonesia
Job : Energy Dispersive X-Ray Analysis
20% Coklat Putih (25/07/08 16:05)



SEMQuant results. Listed at 16:06:53 on 25/07/08
Operator: jaya
Client: Dept. Metalurgi dan Material Universitas Indonesia
Job: Energy Dispersive X-Ray Analysis
Spectrum label: 20% Coklat Putih

System resolution = 60 eV

Quantitative method: ZAF (4 iterations).
Analysed all elements and normalised results.

Standards :

C K Carbon Low 13/09/06
O K AL2O3 22/03/06
F K BaF2 03/03/07
Na K Orthoclase 22/03/06
P K GaP 22/03/06
Cl K KCl 15/02/94
Ca K Orthoclase 22/03/06

Elmt	Spect.	Element	Atomic
	Type	%	%
C K	ED	2.06	4.29
O K	ED	30.38	47.40
F K	ED	1.84	2.41
Na K	ED	0.85	0.92
P K	ED	24.40	19.66
Cl K	ED	1.44	1.02
Ca K	ED	39.03	24.31
Total		100.00	100.00

* = <2 Sigma

SEMQuant results. Listed at 16:06:53 on 25/07/08
Operator: jaya
Client: Dept. Metalurgi dan Material Universitas Indonesia
Job: Energy Dispersive X-Ray Analysis
Spectrum label: 20% Coklat Putih

System resolution = 60 eV

Quantitative method: ZAF (4 iterations).
Analysed all elements and normalised results.

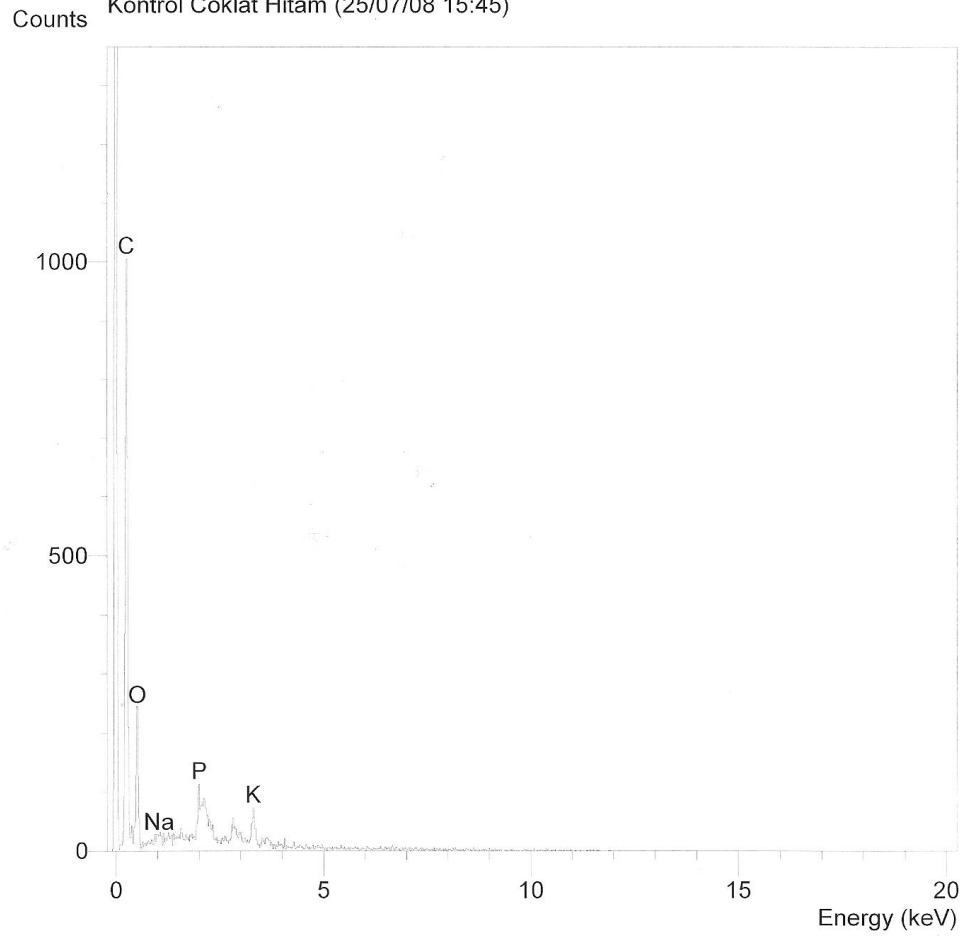
Standards :

C K	Carbon Low	13/09/06
O K	AL2O3	22/03/06
F K	BaF2	03/03/07
Na K	Orthoclase	22/03/06
P K	GaP	22/03/06
Cl K	KCl	15/02/94
Ca K	Orthoclase	22/03/06

Elmt	Spect.	Element	Atomic
	Type	%	%
C K	ED	2.06	4.29
O K	ED	30.38	47.40
F K	ED	1.84	2.41
Na K	ED	0.85	0.92
P K	ED	24.40	19.66
Cl K	ED	1.44	1.02
Ca K	ED	39.03	24.31
Total		100.00	100.00

* = <2 Sigma

Operator : jaya
Client : Dept. Metalurgi dan Material Universitas Indonesia
Job : Energy Dispersive X-Ray Analysis
Kontrol Coklat Hitam (25/07/08 15:45)



SEMQuant results. Listed at 15:48:16 on 25/07/08
Operator: jaya
Client: Dept. Metalurgi dan Material Universitas Indonesia
Job: Energy Dispersive X-Ray Analysis
Spectrum label: Kontrol Coklat Hitam

System resolution = 60 eV

Quantitative method: ZAF (3 iterations).
Analysed all elements and normalised results.

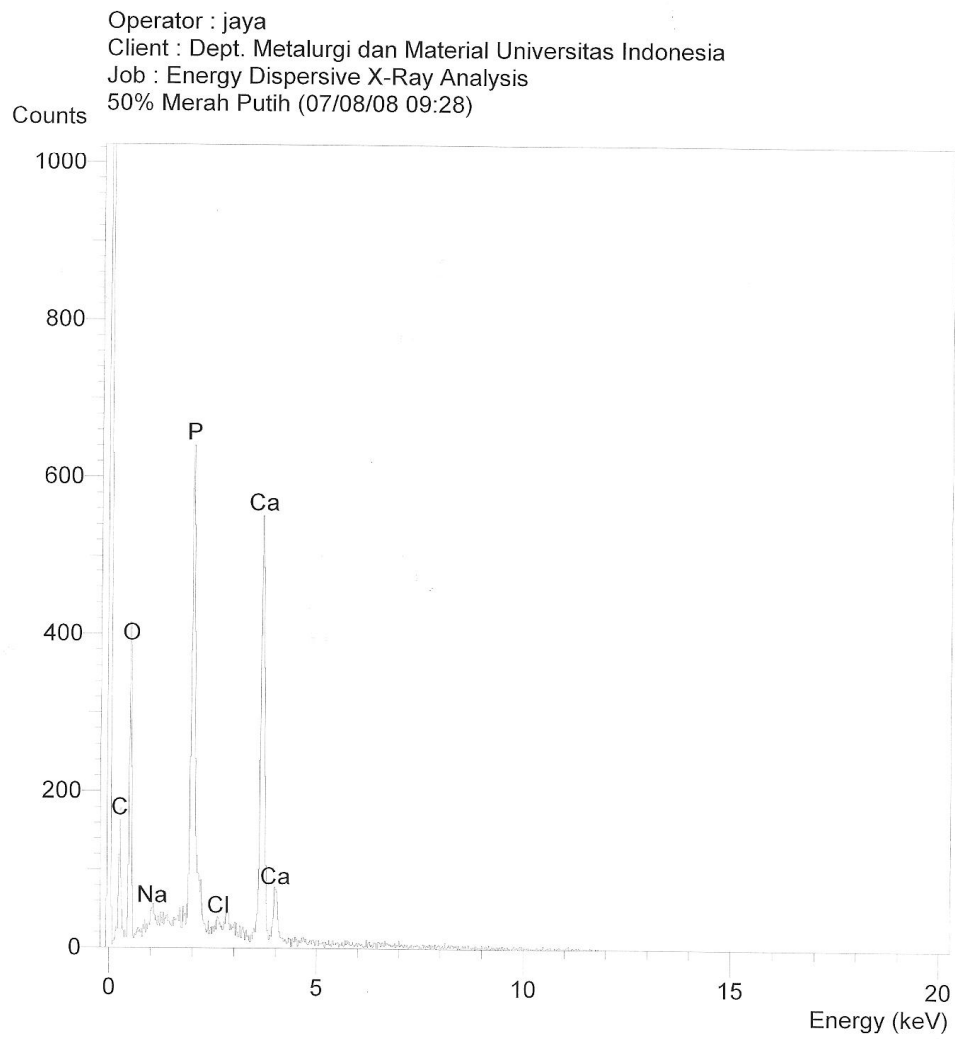
1 peak possibly omitted: 2.84 keV

Standards :

C K Carbon Low 13/09/06
O K AL2O3 22/03/06
Na K Orthoclase 22/03/06
P K GaP 22/03/06
K K Orthoclase 22/03/06
Ca K Orthoclase 22/03/06

Elmt	Spect.	Element	Atomic
	Type	%	%
C K	ED	20.51	30.49
O K	ED	47.71	53.25
Na K	ED	2.18	1.69
P K	ED	9.00	5.19
K K	ED	17.46	7.97
Ca K	ED	3.15	1.40
Total		100.00	100.00

* = <2 Sigma



SEMQuant results. Listed at 09:30:33 on 07/08/08
Operator: jaya
Client: Dept. Metalurgi dan Material Universitas Indonesia
Job: Energy Dispersive X-Ray Analysis
Spectrum label: 50% Merah Putih

System resolution = 60 eV

Quantitative method: ZAF (3 iterations).
Analysed all elements and normalised results.

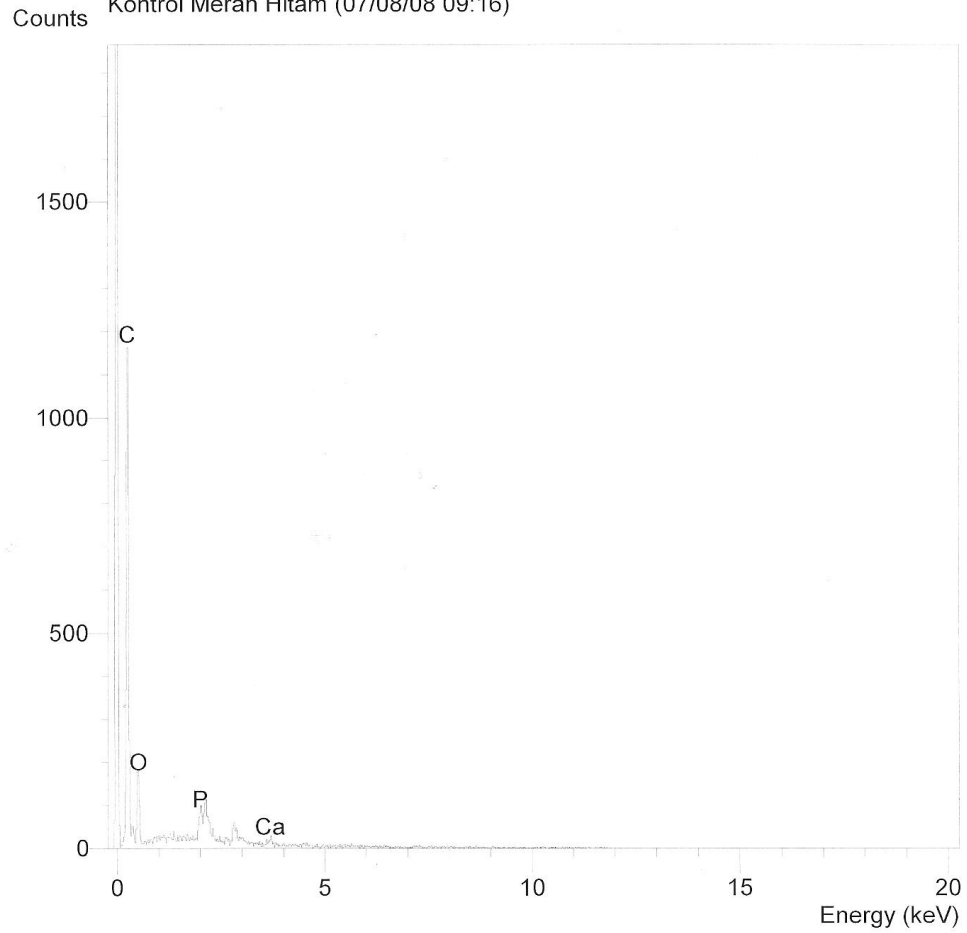
Standards :

C K	Carbon Low 13/09/06
O K	AL2O3 22/03/06
Na K	Orthoclase 22/03/06
P K	GaP 22/03/06
Cl K	KCl 15/02/94
Ca K	Orthoclase 22/03/06

Elmt	Spect.	Element	Atomic
	Type	%	%
C K	ED	1.44	3.08
O K	ED	29.05	46.80
Na K	ED	1.02	1.15
P K	ED	25.44	21.16
Cl K	ED	1.54	1.12
Ca K	ED	41.51	26.69
Total		100.00	100.00

* = <2 Sigma

Operator : jaya
Client : Dept. Metalurgi dan Material Universitas Indonesia
Job : Energy Dispersive X-Ray Analysis
Kontrol Merah Hitam (07/08/08 09:16)



SEMQuant results. Listed at 09:18:12 on 07/08/08
Operator: jaya
Client: Dept. Metalurgi dan Material Universitas Indonesia
Job: Energy Dispersive X-Ray Analysis
Spectrum label: Kontrol Merah Hitam

System resolution = 60 eV

Quantitative method: ZAF (4 iterations).
Analysed all elements and normalised results.

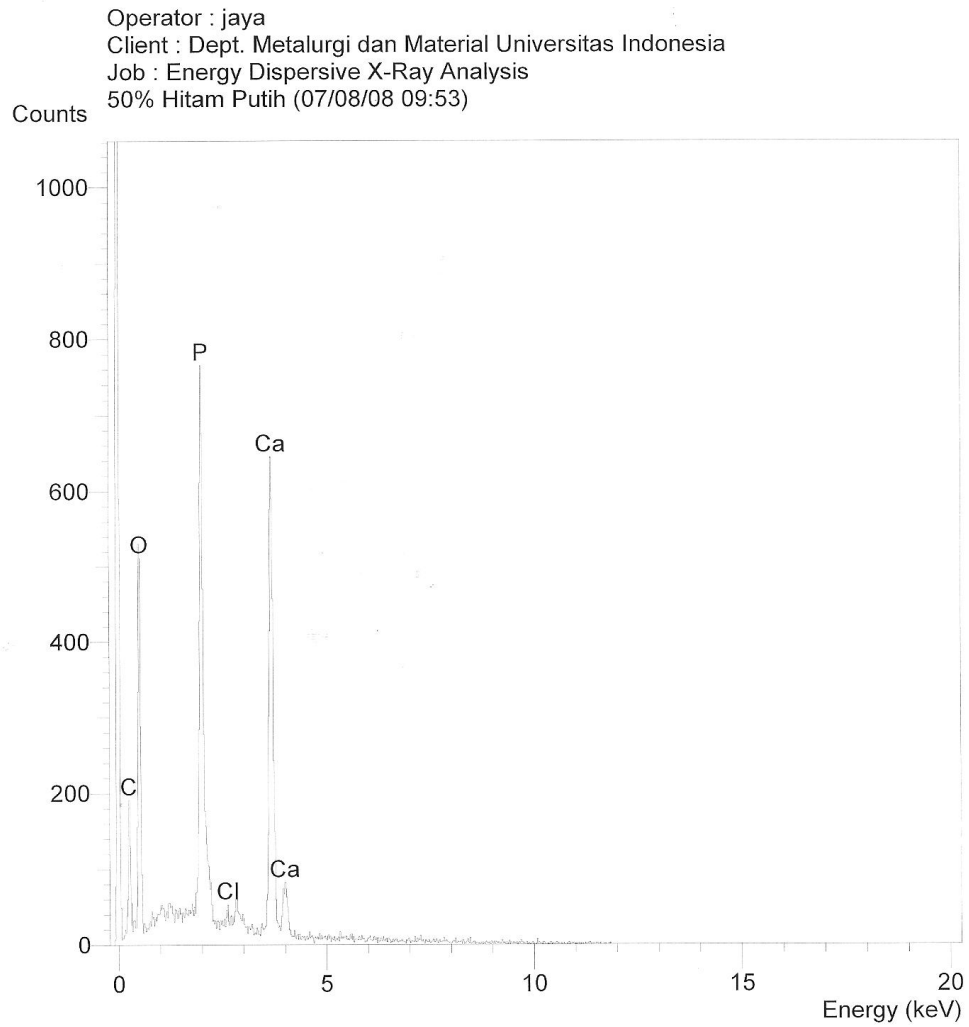
1 peak possibly omitted: 2.84 keV

Standards :

C K Carbon Low 13/09/06
O K AL2O3 22/03/06
P K GaP 22/03/06
Ca K Orthoclase 22/03/06

Elmt	Spect.	Element	Atomic
	Type	%	%
C K	ED	53.68	66.09
O K	ED	28.81	26.63
P K	ED	7.49	3.58
Ca K	ED	10.02	3.70
Total		100.00	100.00

* = <2 Sigma



SEMQuant results. Listed at 09:57:11 on 07/08/08
Operator: jaya
Client: Dept. Metalurgi dan Material Universitas Indonesia
Job: Energy Dispersive X-Ray Analysis
Spectrum label: 50% Hitam Putih

System resolution = 60 eV

Quantitative method: ZAF (3 iterations).
Analysed all elements and normalised results.

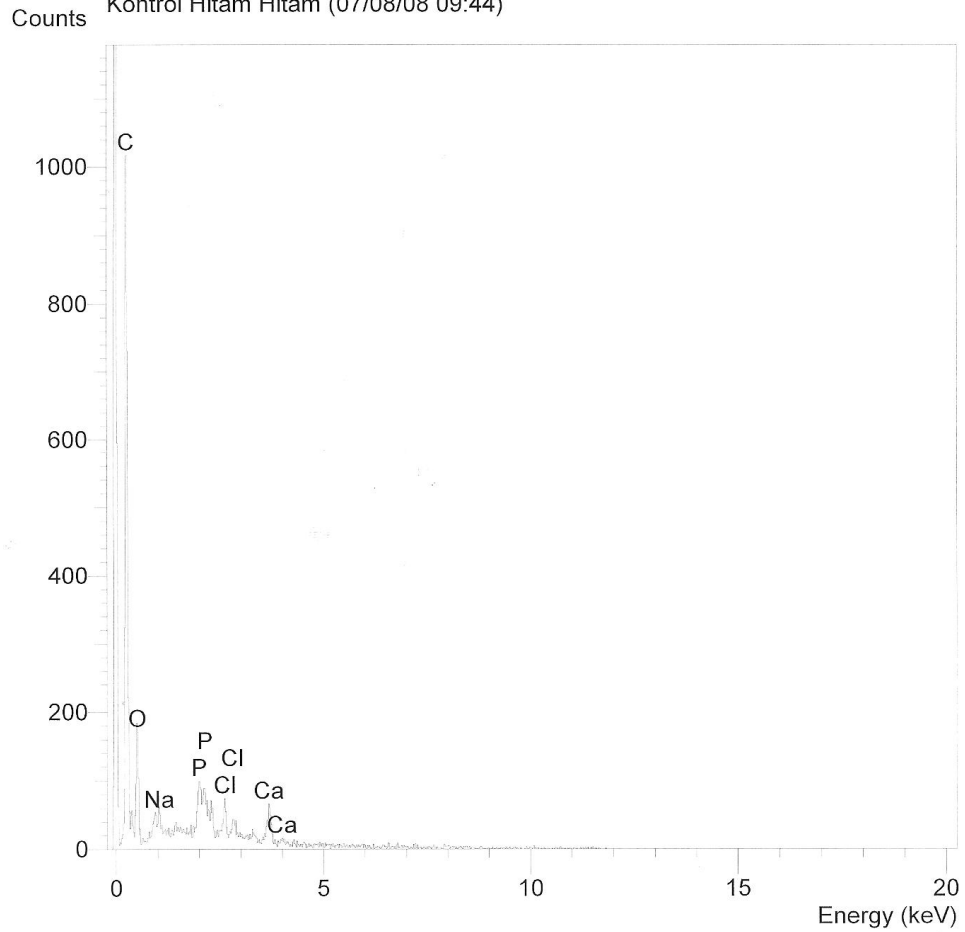
Standards :

C K	Carbon Low 13/09/06
O K	AL2O3 22/03/06
P K	GaP 22/03/06
Cl K	KCl 15/02/94
Ca K	Orthoclase 22/03/06

Elmt	Spect.	Element	Atomic
	Type	%	%
C K	ED	1.43	3.01
O K	ED	31.76	50.17
P K	ED	24.69	20.15
Cl K	ED	1.47	1.05
Ca K	ED	40.65	25.63
Total		100.00	100.00

* = <2 Sigma

Operator : jaya
Client : Dept. Metalurgi dan Material Universitas Indonesia
Job : Energy Dispersive X-Ray Analysis
Kontrol Hitam Hitam (07/08/08 09:44)



SEMQuant results. Listed at 09:47:05 on 07/08/08
Operator: jaya
Client: Dept. Metalurgi dan Material Universitas Indonesia
Job: Energy Dispersive X-Ray Analysis
Spectrum label: Kontrol Hitam Hitam

System resolution = 60 eV

Quantitative method: ZAF (4 iterations).
Analysed all elements and normalised results.

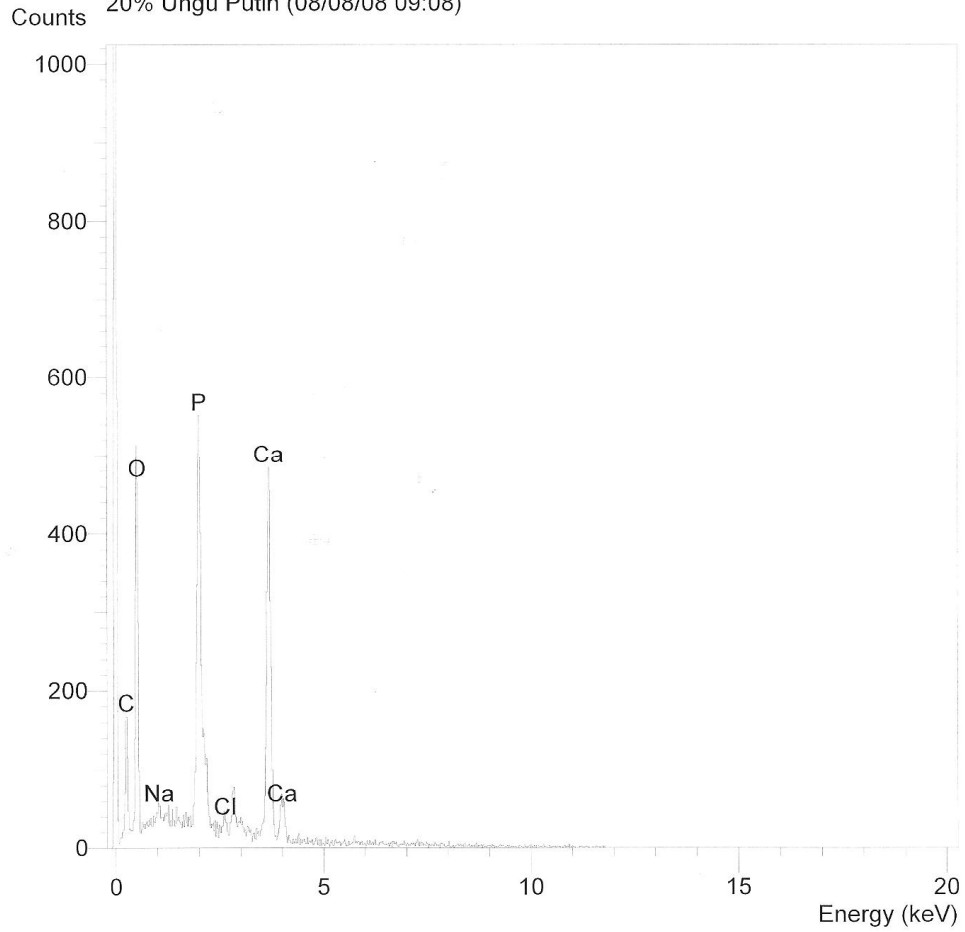
Standards :

C	K	Carbon Low	13/09/06
O	K	AL2O3	22/03/06
Na	K	Orthoclase	22/03/06
P	K	GaP	22/03/06
Cl	K	KCl	15/02/94
Ca	K	Orthoclase	22/03/06

Elmt	Spect.	Element	Atomic
	Type	%	%
C	K	ED	31.96 47.18
O	K	ED	30.37 33.66
Na	K	ED	2.29 1.77
P	K	ED	6.52 3.73
Cl	K	ED	15.55 7.78
Ca	K	ED	13.31 5.89
Total		100.00	100.00

* = <2 Sigma

Operator : jaya
Client : Dept. Metalurgi dan Material Universitas Indonesia
Job : Energy Dispersive X-Ray Analysis
20% Ungu Putih (08/08/08 09:08)



SEMQuant results. Listed at 09:11:06 on 08/08/08
Operator: jaya
Client: Dept. Metalurgi dan Material Universitas Indonesia
Job: Energy Dispersive X-Ray Analysis
Spectrum label: 20% Ungu Putih

System resolution = 60 eV

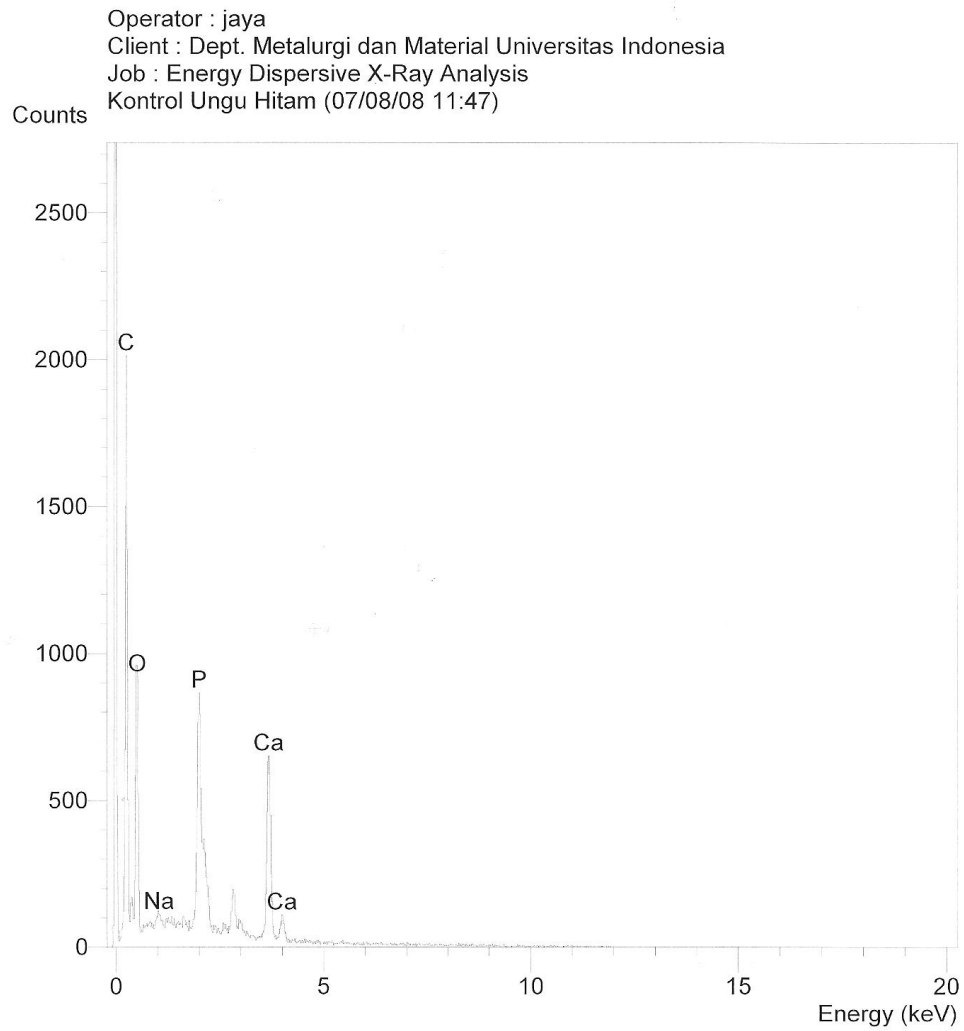
Quantitative method: ZAF (3 iterations).
Analysed all elements and normalised results.

Standards :

C K	Carbon Low	13/09/06
O K	AL2O3	22/03/06
Na K	Orthoclase	22/03/06
P K	GaP	22/03/06
Cl K	KCl	15/02/94
Ca K	Orthoclase	22/03/06

Elmt	Spect.	Element	Atomic
	Type	%	%
C K	ED	1.69	3.43
O K	ED	35.08	53.53
Na K	ED	0.77	0.81
P K	ED	22.39	17.65
Cl K	ED	2.26	1.56
Ca K	ED	37.81	23.03
Total		100.00	100.00

* = <2 Sigma



SEMQuant results. Listed at 11:49:21 on 07/08/08
Operator: jaya
Client: Dept. Metalurgi dan Material Universitas Indonesia
Job: Energy Dispersive X-Ray Analysis
Spectrum label: Kontrol Ungu Hitam

System resolution = 60 eV

Quantitative method: ZAF (4 iterations).
Analysed all elements and normalised results.

1 peak possibly omitted: 2.82 keV

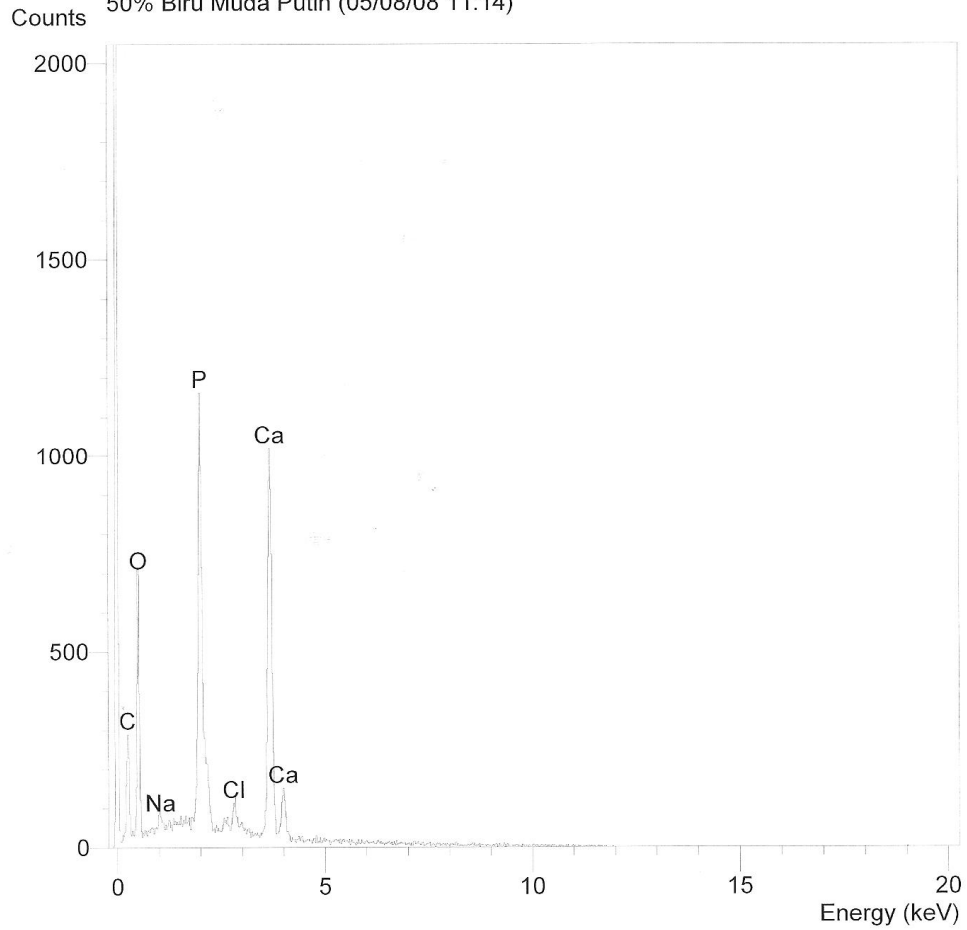
Standards :

C K	Carbon Low	13/09/06
O K	AL2O3	22/03/06
Na K	Orthoclase	22/03/06
P K	GaP	22/03/06
Ca K	Orthoclase	22/03/06

Elmt	Spect.	Element	Atomic
	Type	%	%
C K	ED	8.71	15.86
O K	ED	37.29	50.97
Na K	ED	1.44	1.37
P K	ED	19.47	13.75
Ca K	ED	33.08	18.05
Total		100.00	100.00

* = <2 Sigma

Operator : jaya
Client : Dept. Metalurgi dan Material Universitas Indonesia
Job : Energy Dispersive X-Ray Analysis
50% Biru Muda Putih (05/08/08 11:14)



SEMQuant results. Listed at 11:17:08 on 05/08/08
Operator: jaya
Client: Dept. Metalurgi dan Material Universitas Indonesia
Job: Energy Dispersive X-Ray Analysis
Spectrum label: 50% Biru Muda Putih

System resolution = 60 eV

Quantitative method: ZAF (4 iterations).
Analysed all elements and normalised results.

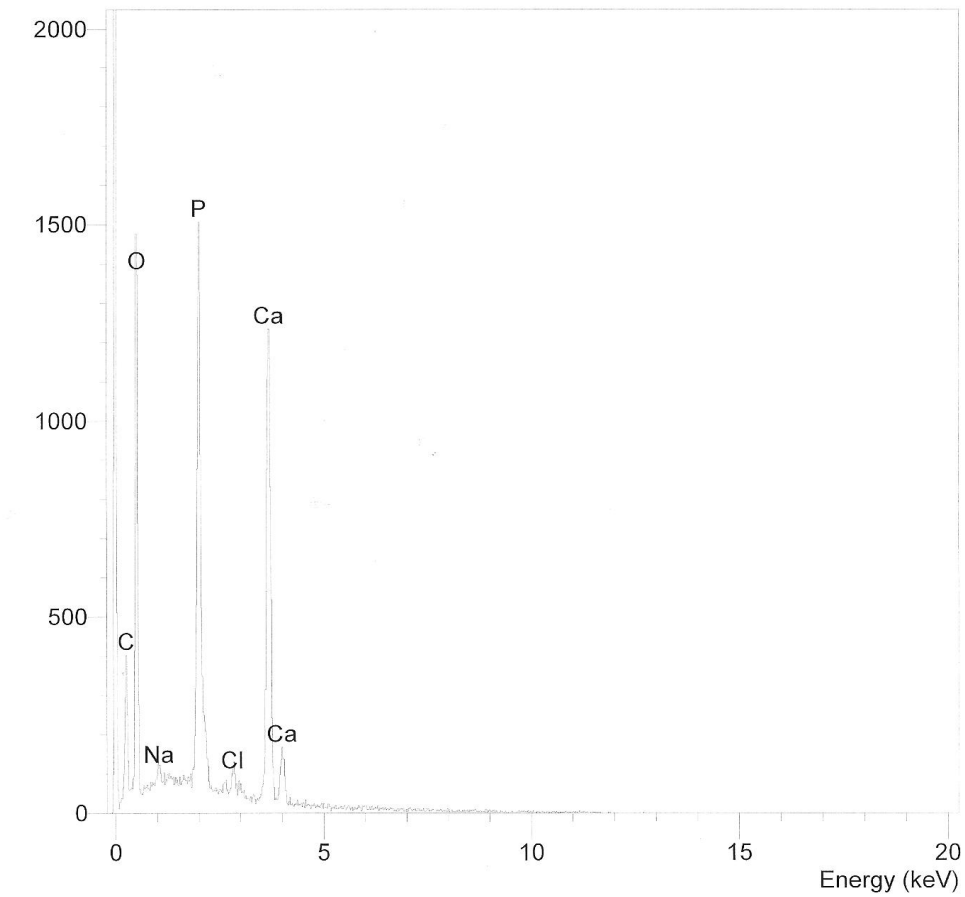
Standards :

C K	Carbon Low 13/09/06
O K	AL2O3 22/03/06
Na K	Orthoclase 22/03/06
P K	GaP 22/03/06
Cl K	KCl 15/02/94
Ca K	Orthoclase 22/03/06

Elmt	Spect.	Element	Atomic
	Type	%	%
C K	ED	1.50	3.24
O K	ED	28.72	46.52
Na K	ED	0.96	1.08
P K	ED	23.95	20.03
Cl K	ED	1.36	0.99
Ca K	ED	43.51	28.13
Total		100.00	100.00

* = <2 Sigma

Operator : jaya
Client : Dept. Metalurgi dan Material Universitas Indonesia
Job : Energy Dispersive X-Ray Analysis
Kontrol Biru Muda Putih (05/08/08 11:00)



SEMQuant results. Listed at 11:04:08 on 05/08/08
Operator: jaya
Client: Dept. Metalurgi dan Material Universitas Indonesia
Job: Energy Dispersive X-Ray Analysis
Spectrum label: Kontrol Biru Muda Putih

System resolution = 60 eV

Quantitative method: ZAF (4 iterations).
Analysed all elements and normalised results.

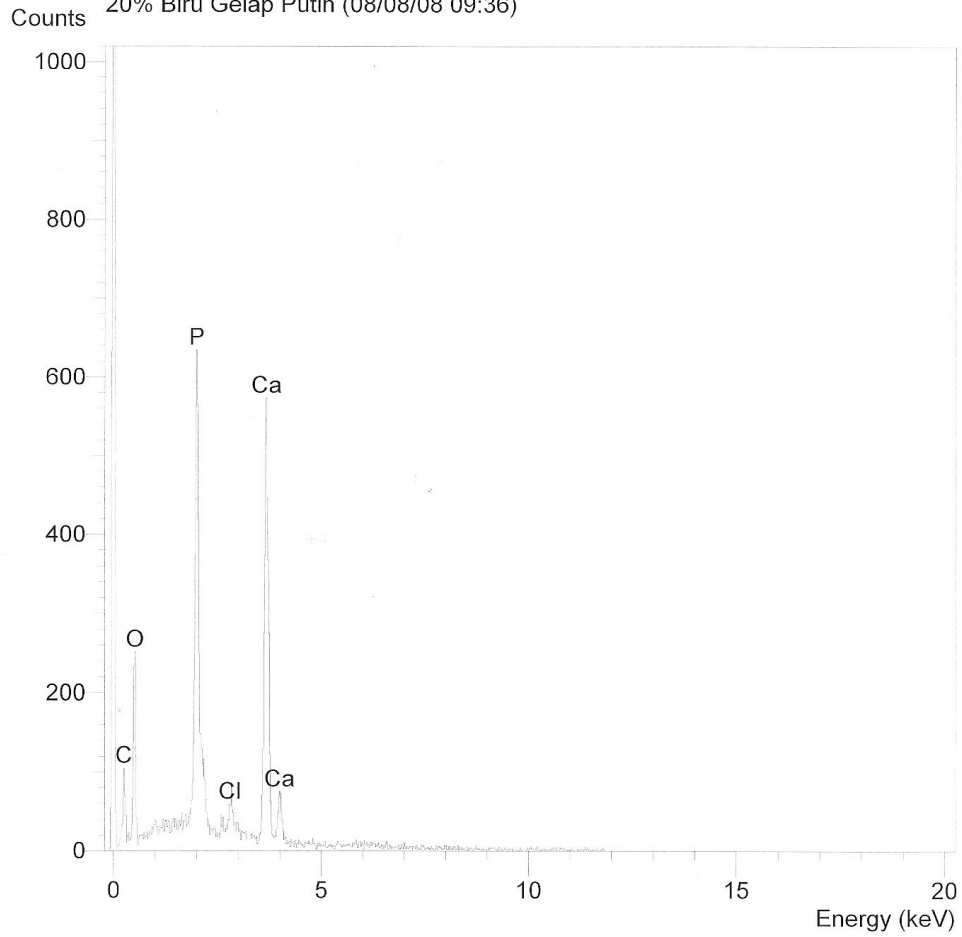
Standards :

C K	Carbon Low	13/09/06
O K	AL2O3	22/03/06
Na K	Orthoclase	22/03/06
P K	GaP	22/03/06
Cl K	KCl	15/02/94
Ca K	Orthoclase	22/03/06

Elmt	Spect.	Element	Atomic
	Type	%	%
C K	ED	1.32	2.65
O K	ED	36.89	55.64
Na K	ED	0.73	0.76
P K	ED	23.16	18.05
Cl K	ED	0.93	0.63
Ca K	ED	36.97	22.26
Total		100.00	100.00

* = <2 Sigma

Operator : jaya
Client : Dept. Metalurgi dan Material Universitas Indonesia
Job : Energy Dispersive X-Ray Analysis
20% Biru Gelap Putih (08/08/08 09:36)



SEMQuant results. Listed at 09:38:13 on 08/08/08
Operator: jaya
Client: Dept. Metalurgi dan Material Universitas Indonesia
Job: Energy Dispersive X-Ray Analysis
Spectrum label: 20% Biru Gelap Putih

System resolution = 60 eV

Quantitative method: ZAF (3 iterations).
Analysed all elements and normalised results.

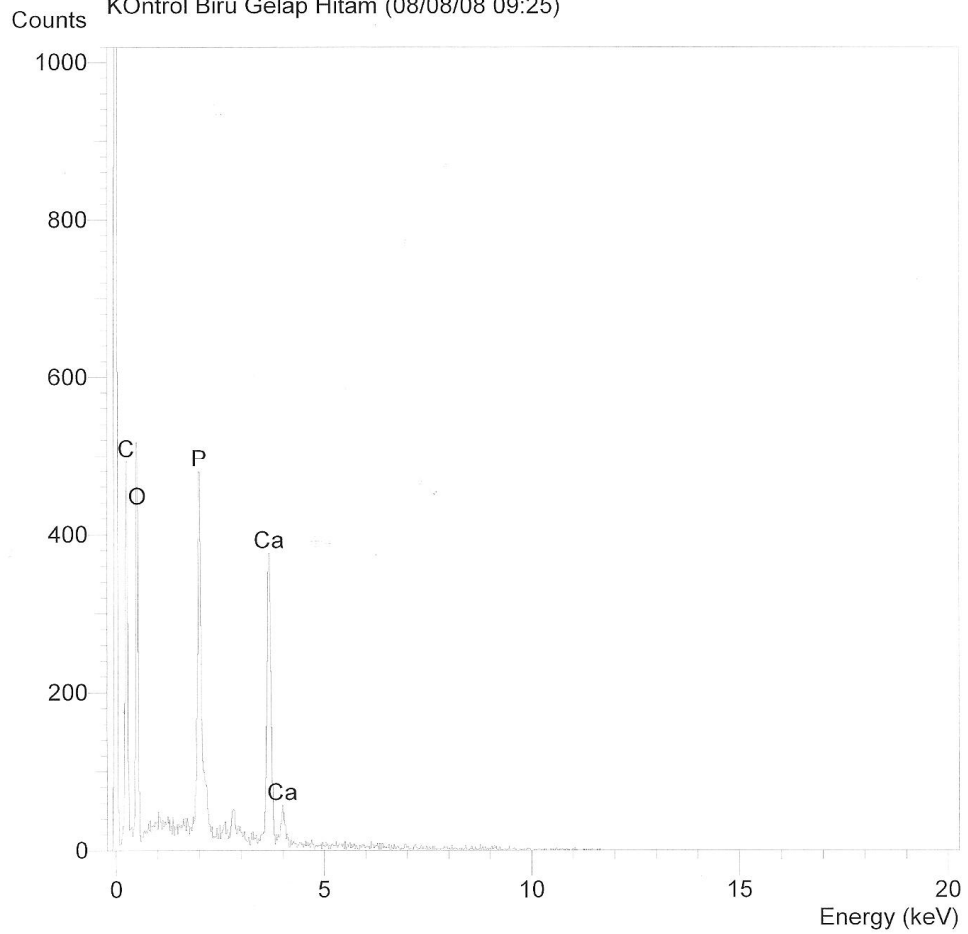
Standards :

C K	Carbon Low	13/09/06
O K	AL203	22/03/06
P K	GaP	22/03/06
Cl K	KCl	15/02/94
Ca K	Orthoclase	22/03/06

Elmt	Spect.	Element	Atomic
	Type	%	%
C K	ED	1.12	2.62
O K	ED	21.05	36.96
P K	ED	27.82	25.23
Cl K	ED	1.60	1.27
Ca K	ED	48.41	33.93
Total		100.00	100.00

* = <2 Sigma

Operator : jaya
Client : Dept. Metalurgi dan Material Universitas Indonesia
Job : Energy Dispersive X-Ray Analysis
Kontrol Biru Gelap Hitam (08/08/08 09:25)



SEMQuant results. Listed at 09:26:02 on 08/08/08
Operator: jaya
Client: Dept. Metalurgi dan Material Universitas Indonesia
Job: Energy Dispersive X-Ray Analysis
Spectrum label: KOnترول Biru Gelap Hitam

System resolution = 60 eV

Quantitative method: ZAF (3 iterations).
Analysed all elements and normalised results.

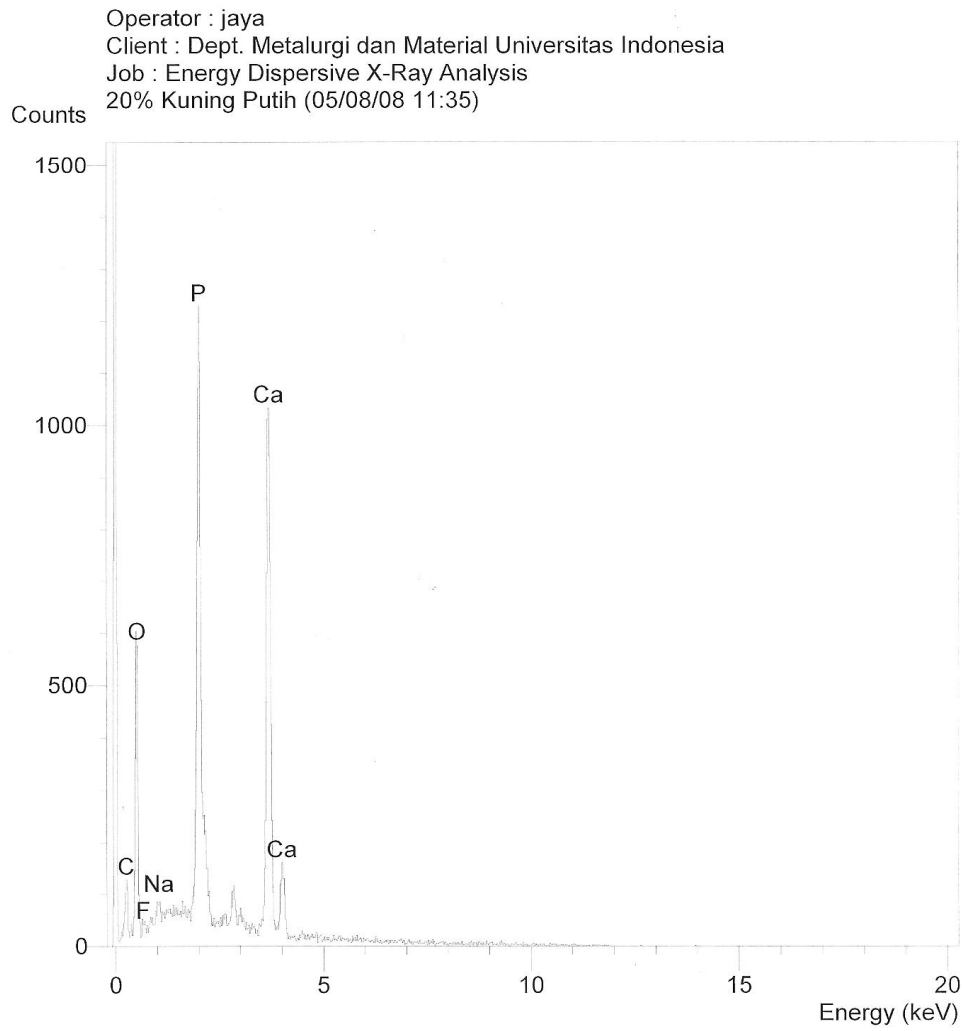
1 peak possibly omitted: 2.82 keV

Standards :

C K Carbon Low 13/09/06
O K AL2O3 22/03/06
P K GaP 22/03/06
Ca K Orthoclase 22/03/06

Elmt	Spect.	Element	Atomic
	Type	%	%
C K	ED	4.89	9.29
O K	ED	38.36	54.71
P K	ED	22.12	16.29
Ca K	ED	34.63	19.71
Total		100.00	100.00

* = <2 Sigma



SEMQuant results. Listed at 11:39:59 on 05/08/08
Operator: jaya
Client: Dept. Metalurgi dan Material Universitas Indonesia
Job: Energy Dispersive X-Ray Analysis
Spectrum label: 20% Kuning Putih

System resolution = 60 eV

Quantitative method: ZAF (4 iterations).
Analysed all elements and normalised results.

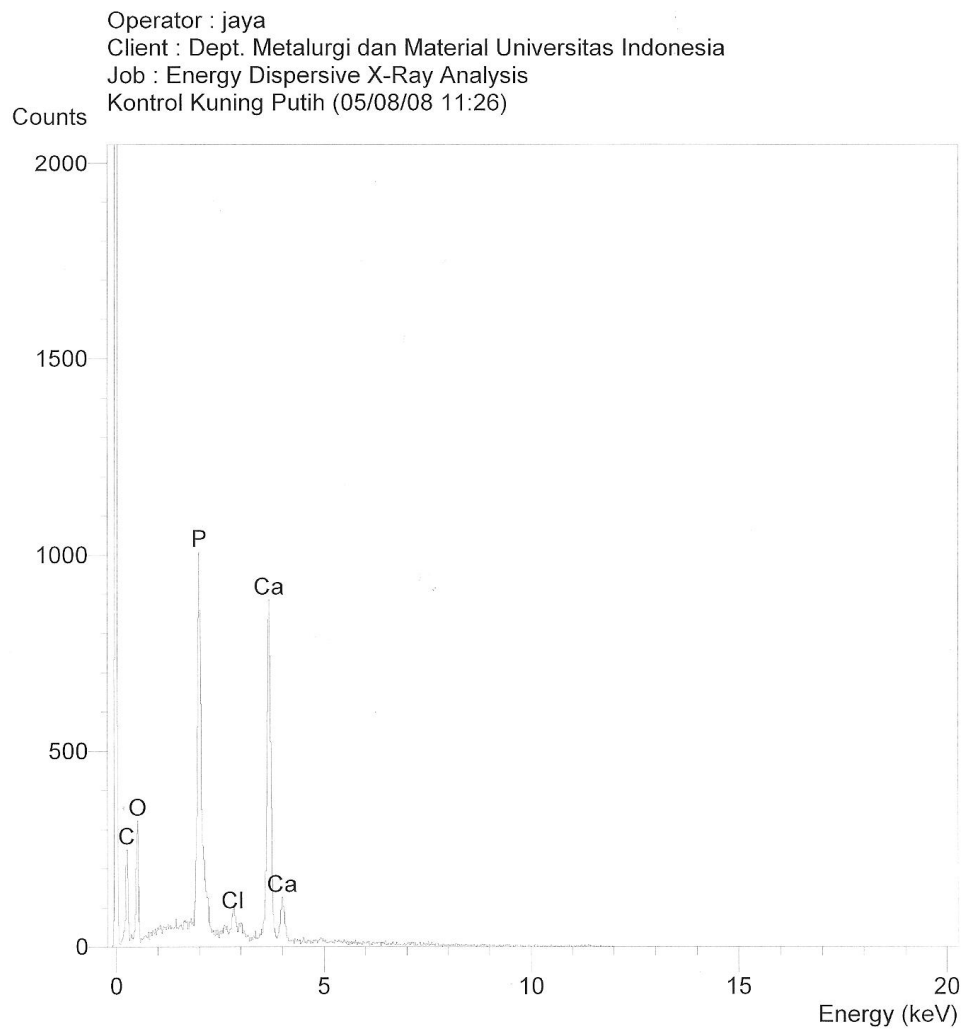
1 peak possibly omitted: 2.82 keV

Standards :

C K	Carbon Low 13/09/06
O K	AL2O3 22/03/06
F K	BaF2 03/03/07
Na K	Orthoclase 22/03/06
P K	GaP 22/03/06
Ca K	Orthoclase 22/03/06

Elmt	Spect.	Element	Atomic
	Type	%	%
C K	ED	0.64	1.43
O K	ED	25.28	42.32
F K	ED	1.43	2.02
Na K	ED	0.78	0.90
P K	ED	26.89	23.26
Ca K	ED	44.98	30.06
Total		100.00	100.00

* = <2 Sigma



SEMQuant results. Listed at 11:27:39 on 05/08/08
Operator: jaya
Client: Dept. Metalurgi dan Material Universitas Indonesia
Job: Energy Dispersive X-Ray Analysis
Spectrum label: Kontrol Kuning Putih

System resolution = 60 eV

Quantitative method: ZAF (3 iterations).
Analysed all elements and normalised results.

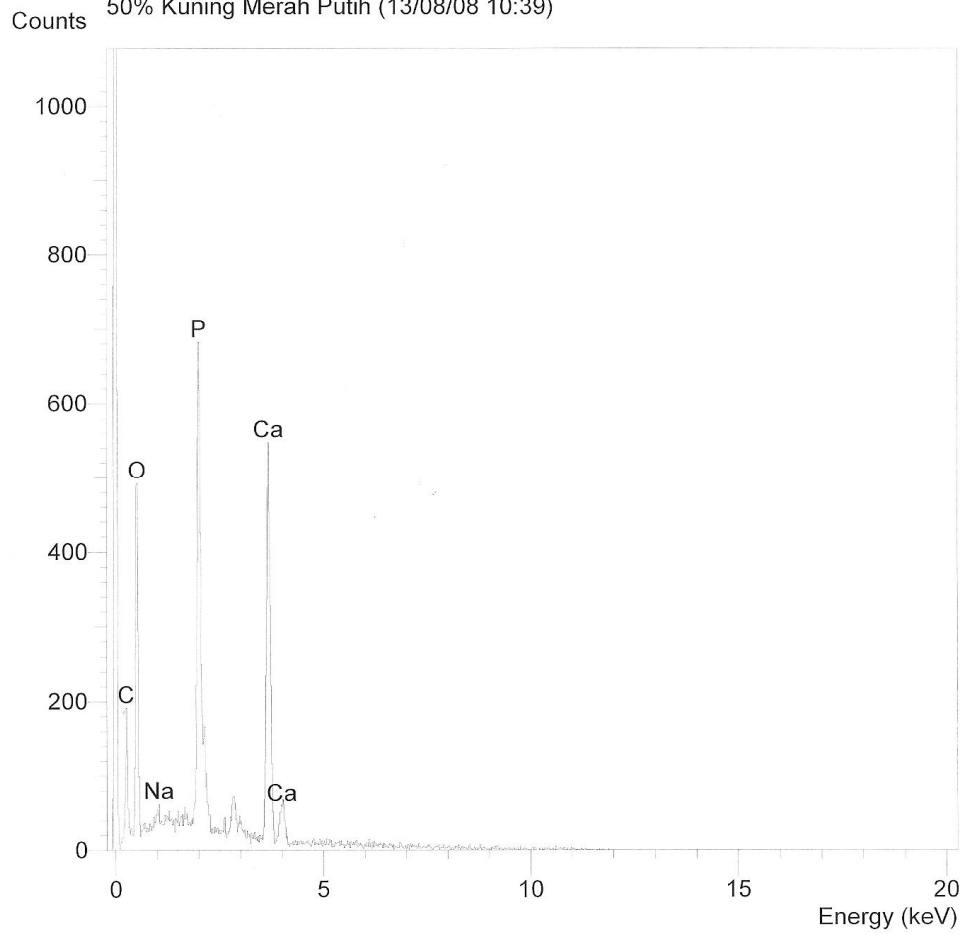
Standards :

C K	Carbon Low 13/09/06
O K	AL2O3 22/03/06
P K	GaP 22/03/06
Cl K	KCl 15/02/94
Ca K	Orthoclase 22/03/06

Elmt	Spect.	Element	Atomic
	Type	%	%
C K	ED	1.76	4.18
O K	ED	18.66	33.20
P K	ED	28.71	26.38
Cl K	ED	1.23	0.99
Ca K	ED	49.64	35.25
Total		100.00	100.00

* = <2 Sigma

Operator : jaya
Client : Dept. Metalurgi dan Material Universitas Indonesia
Job : Energy Dispersive X-Ray Analysis
50% Kuning Merah Putih (13/08/08 10:39)



SEMQuant results. Listed at 10:41:50 on 13/08/08
Operator: jaya
Client: Dept. Metalurgi dan Material Universitas Indonesia
Job: Energy Dispersive X-Ray Analysis
Spectrum label: 50% Kuning Merah Putih

System resolution = 60 eV

Quantitative method: ZAF (3 iterations).
Analysed all elements and normalised results.

1 peak possibly omitted: 2.82 keV

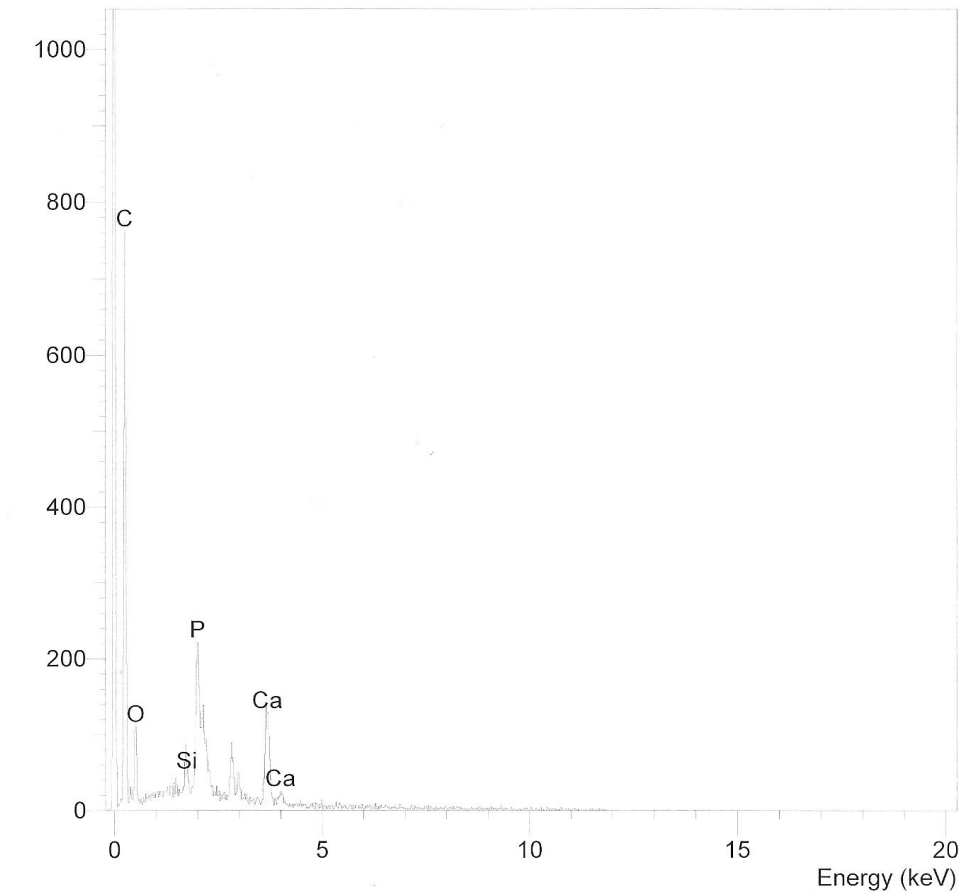
Standards :

C K	Carbon Low 13/09/06
O K	AL2O3 22/03/06
Na K	Orthoclase 22/03/06
P K	GaP 22/03/06
Ca K	Orthoclase 22/03/06

Elmt	Spect.	Element	Atomic
	Type	%	%
C K	ED	1.62	3.37
O K	ED	32.49	50.62
Na K	ED	0.66	0.72
P K	ED	25.90	20.84
Ca K	ED	39.32	24.45
Total		100.00	100.00

* = <2 Sigma

Operator : jaya
Client : Dept. Metalurgi dan Material Universitas Indonesia
Job : Energy Dispersive X-Ray Analysis
Kuning Merah Kontrol (-) Hitam (13/08/08 10:11)



SEMQuant results. Listed at 10:12:54 on 13/08/08
Operator: jaya
Client: Dept. Metalurgi dan Material Universitas Indonesia
Job: Energy Dispersive X-Ray Analysis
Spectrum label: Kuning Merah Kontrol (-) Hitam

System resolution = 60 eV

Quantitative method: ZAF (3 iterations).
Analysed all elements and normalised results.

1 peak possibly omitted: 2.82 keV

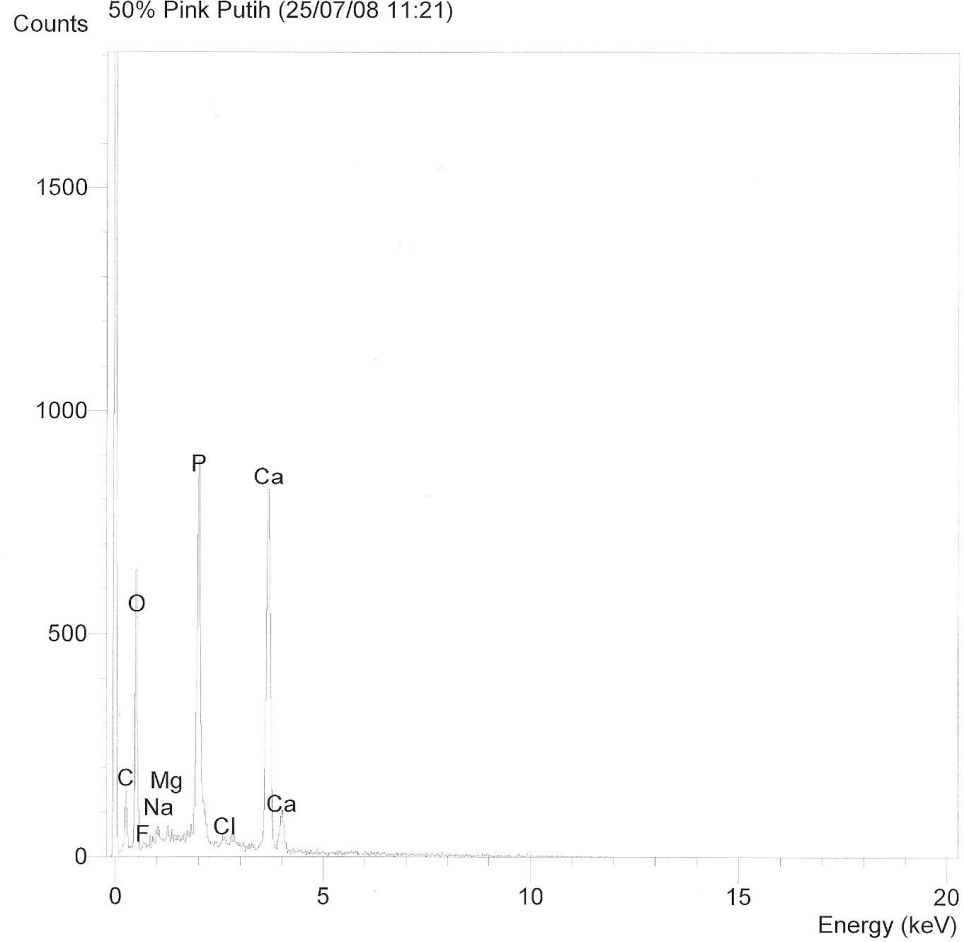
Standards :

C K Carbon Low 13/09/06
O K AL2O3 22/03/06
Si K Low Carbon Steel 13/09/06
P K GaP 22/03/06
Ca K Orthoclase 22/03/06

Elmt	Spect.	Element	Atomic
	Type	%	%
C K	ED	18.34	33.02
O K	ED	23.47	31.73
Si K	ED	1.99	1.53
P K	ED	21.30	14.87
Ca K	ED	34.91	18.84
Total		100.00	100.00

* = <2 Sigma

Operator : jaya
Client : Dept. Metalurgi dan Material Universitas Indonesia
Job : Energy Dispersive X-Ray Analysis
50% Pink Putih (25/07/08 11:21)



SEMQuant results. Listed at 11:24:16 on 25/07/08
 Operator: jaya
 Client: Dept. Metalurgi dan Material Universitas Indonesia
 Job: Energy Dispersive X-Ray Analysis
 Spectrum label: 50% Pink Putih

System resolution = 60 eV

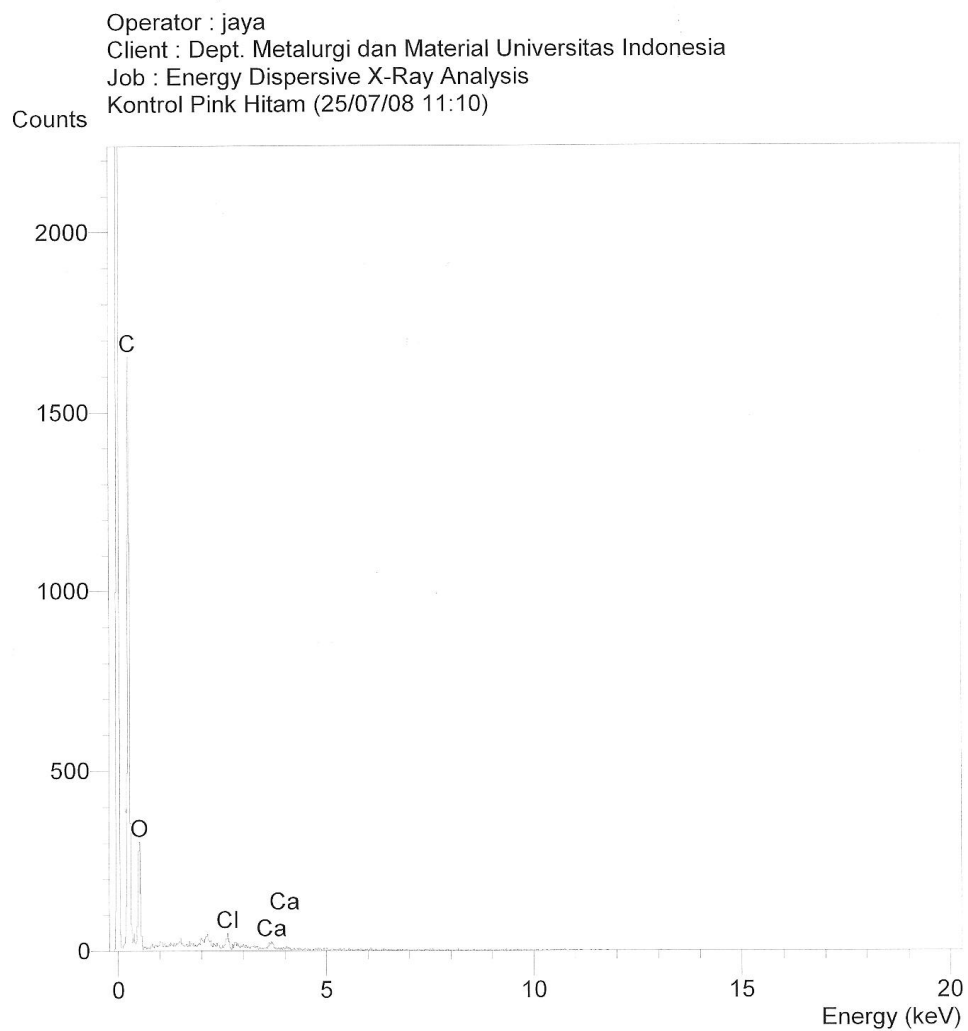
Quantitative method: ZAF (4 iterations).
 Analysed all elements and normalised results.

Standards :

C K Carbon Low 13/09/06
 O K AL2O3 22/03/06
 F K BaF2 03/03/07
 Na K Orthoclase 22/03/06
 Mg K MagOxide 22/03/06
 P K GaP 22/03/06
 Cl K KCl 15/02/94
 Ca K Orthoclase 22/03/06

Elmt	Spect.	Element	Atomic
	Type	%	%
C K	ED	0.89	1.91
O K	ED	29.55	47.35
F K	ED	1.68	2.26
Na K	ED	0.71	0.79
Mg K	ED	0.18	0.19
P K	ED	24.14	19.97
Cl K	ED	1.47	1.07
Ca K	ED	41.37	26.46
Total		100.00	100.00

* = <2 Sigma



SEMQuant results. Listed at 11:12:29 on 25/07/08
Operator: jaya
Client: Dept. Metalurgi dan Material Universitas Indonesia
Job: Energy Dispersive X-Ray Analysis
Spectrum label: Kontrol Pink Hitam

System resolution = 60 eV

Quantitative method: ZAF (5 iterations).
Analysed all elements and normalised results.

1 peak possibly omitted: 2.14 keV

Standards :

C K Carbon Low 13/09/06
O K AL2O3 22/03/06
Cl K KCl 15/02/94
Ca K Orthoclase 22/03/06

Elmt	Spect.	Element	Atomic
	Type	%	%
C K	ED	45.73	57.98
O K	ED	36.31	34.56
Cl K	ED	12.78	5.49
Ca K	ED	5.18	1.97
Total		100.00	100.00

* = <2 Sigma