

APPENDIX E

SEM/EDS RESULTS

This appendix presents SEM images obtained at 200×, 7,000×, and 11,500× magnifications, including EDS point results, for untreated and treated samples. The SEM images are presented first, in order of magnification, for the untreated and treated soils:

- Appendix E.1. SEM/EDS images of kaolinite
- Appendix E.2. SEM/EDS images of illite
- Appendix E.3. SEM/EDS images of sodium montmorillonite
- Appendix E.4. SEM/EDS images of Bryan soil
- Appendix E.5. SEM/EDS images of Mesquite soil

The EDS spectra, corresponding to the points identified in the SEM images, are presented in order in the subsequent subsections:

- Appendix E.6. SEM/EDS spectra of kaolinite
- Appendix E.7. SEM/EDS spectra of illite
- Appendix E.8. SEM/EDS spectra of sodium montmorillonite
- Appendix E.9. SEM/EDS spectra of Bryan soil
- Appendix E.10. SEM/EDS spectra of Mesquite soil

The first line of the caption beneath each SEM image designates the sample identifier corresponding to those listed in the top left corner of the EDS results. The EDS sample identifier includes one extra digit for locating EDS results when more than one point scan was obtained per SEM image. The EDS points are labeled on the SEM images. The key for the sample identification method is:

AAABBCCCCD

A = three-digit code the clay or soil type:

kao = kaolinite

il = illite

nam = sodium montmorillonite

bry = Bryan soil

mes = Mesquite soil

B = two-digit code type of treatment:

un = untreated

en = ionic stabilizer

bs = polymer stabilizer

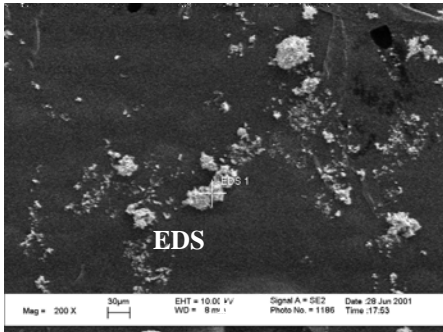
pz = enzyme stabilizer

hs = sulfuric acid

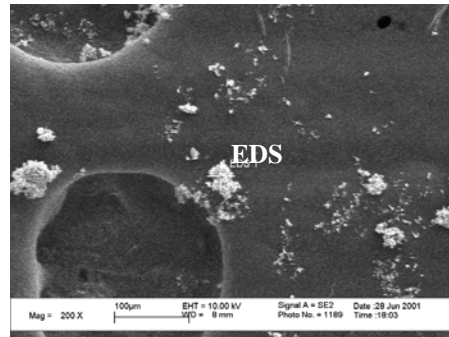
C = magnification (i.e., 200×, 7,000×, or 11,500×)

D = replicate (A, B, C, D)

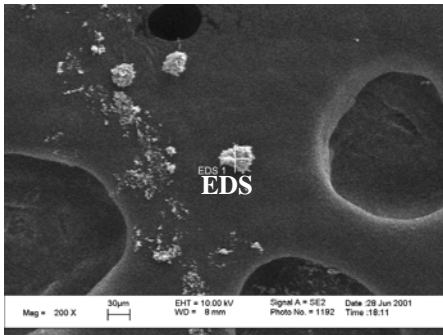
Appendix E.1. SEM/EDS images of kaolinite



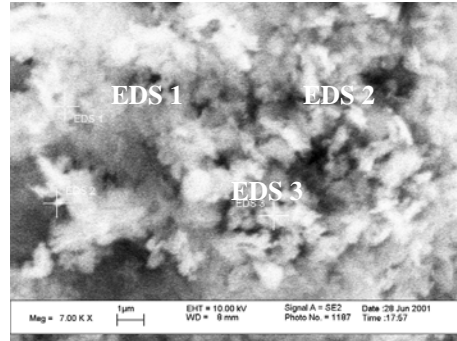
kaoun200a
Untreated
Kaolinite at 200x-A



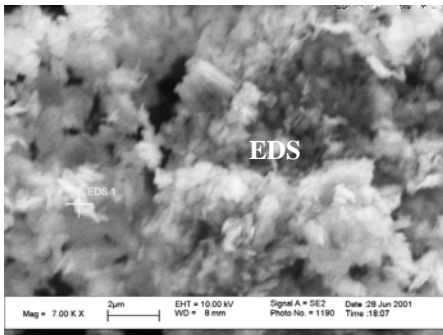
kaoun200b
Untreated
Kaolinite at 200x-B



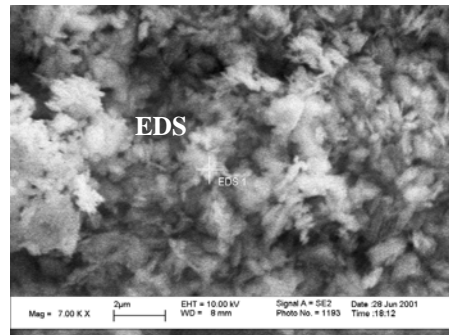
kaoun200c
Untreated
Kaolinite at 200x-C



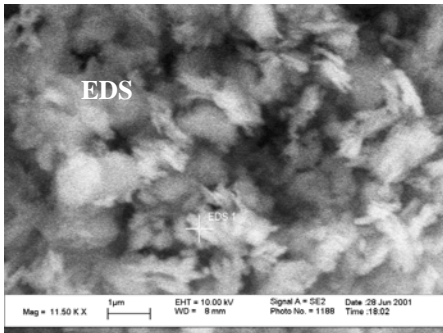
kaoun7000a
Untreated
Kaolinite at 7000x-A



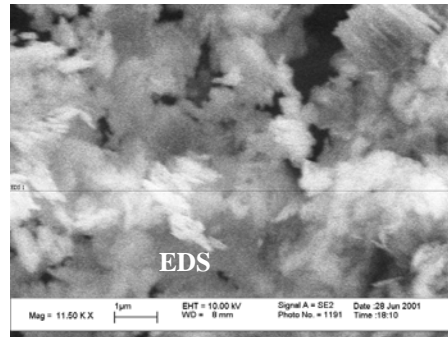
kaoun7000b
Untreated
Kaolinite at 7000x-B



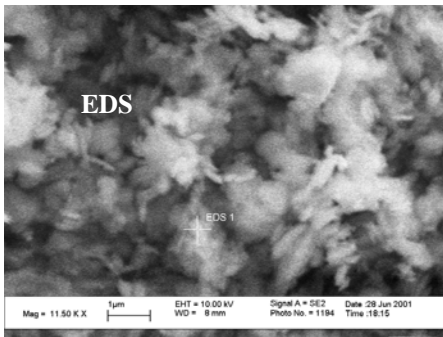
kaoun7000c
Untreated
Kaolinite at 7000x-C



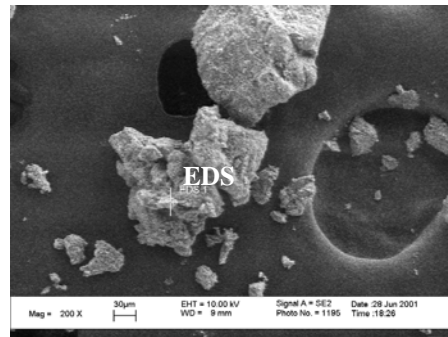
kaoun11500a
Untreated
Kaolinite at 11500x-A



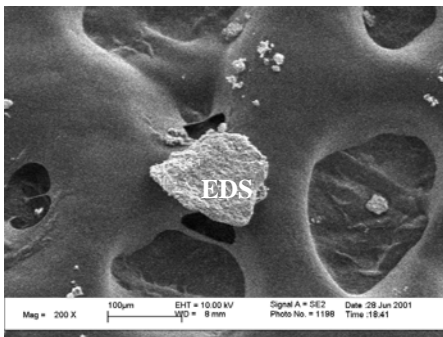
kaoun11500b
Untreated
Kaolinite at 11500x-B



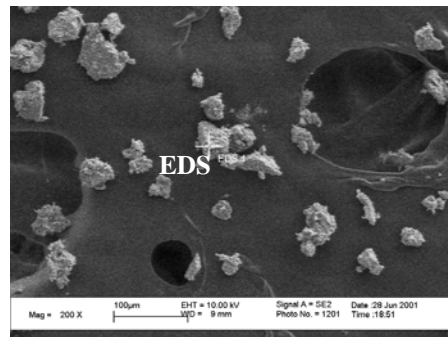
kaoun11500c
Untreated
Kaolinite at 11500x-C



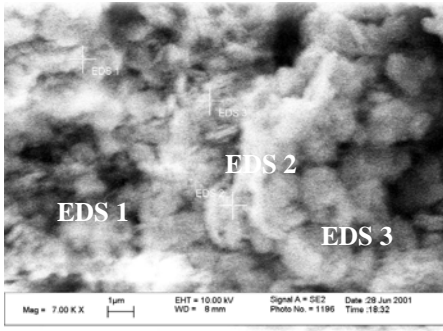
kaoen200a
Ionic Stabilizer Treated
Kaolinite at 200x-A



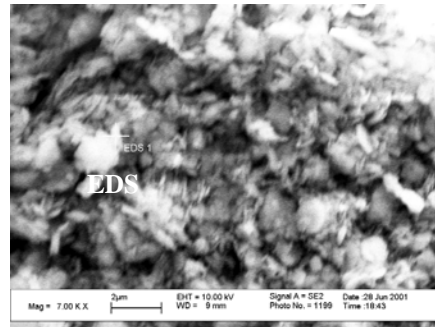
kaoen200b
Ionic Stabilizer Treated
Kaolinite at 200x-B



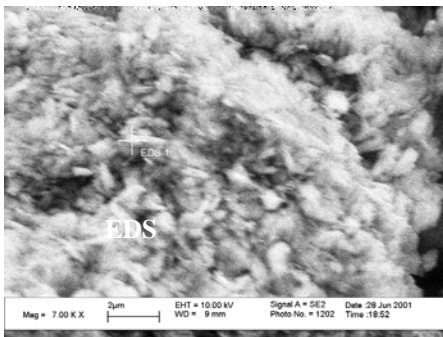
kaoen200c
Ionic Stabilizer Treated
Kaolinite at 200x-C



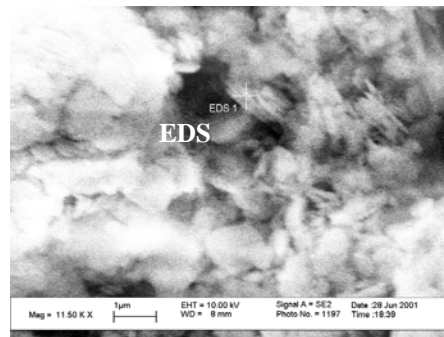
Kaoen7000a
Ionic Stabilizer Treated
Kaolinite at 7000x-A



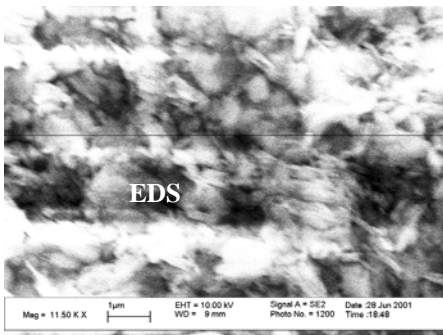
kaoen7000b
Ionic Stabilizer Treated
Kaolinite at 7000x-B



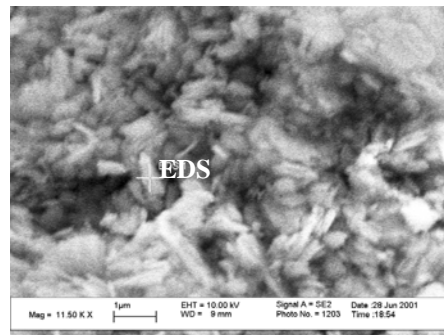
kaoen7000c
Ionic Stabilizer Treated
Kaolinite at 7000x-C



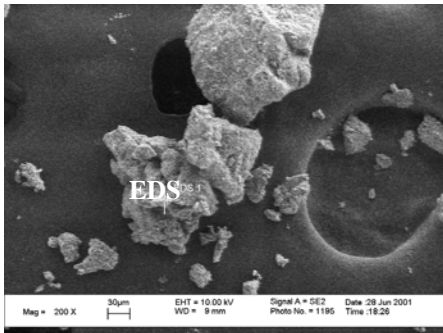
kaoen11500a
Ionic Stabilizer Treated
Kaolinite at 11500x-A



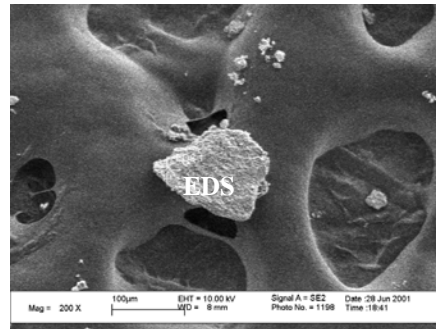
kaoen11500b
Ionic Stabilizer Treated
Kaolinite at 11500x-B



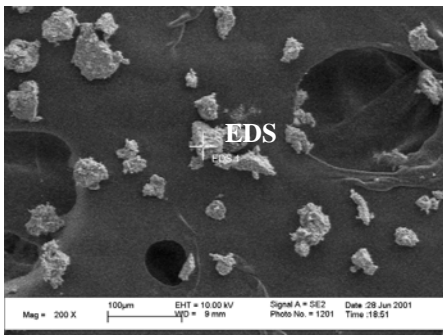
kaoen11500c
Ionic Stabilizer Treated
Kaolinite at 11500x-C



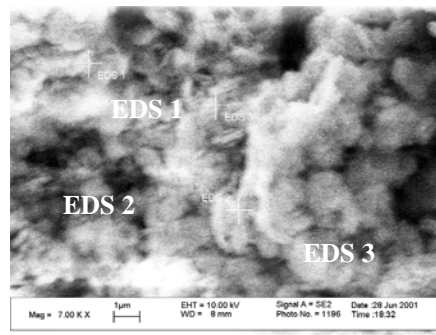
kaobs200a
 Polymer Stabilizer Treated
 Kaolinite at 200x-A



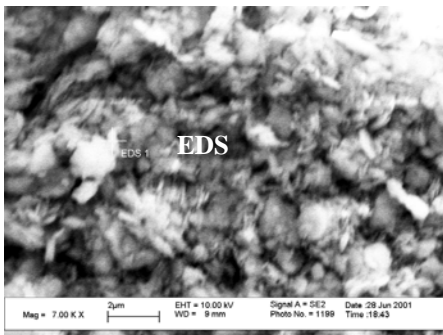
kaobs200b
 Polymer Stabilizer Treated
 Kaolinite at 200x-B



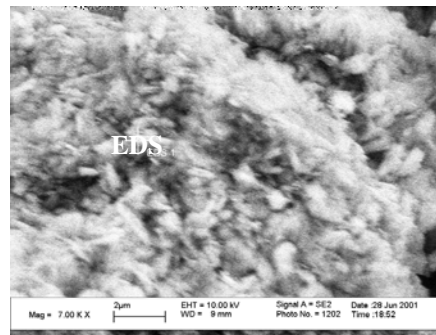
kaobs200c
 Polymer Stabilizer Treated
 Kaolinite at 200x-C



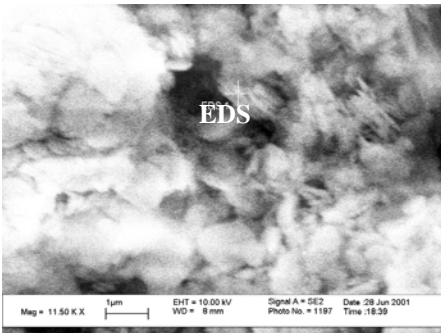
kaobs7000a
 Polymer Stabilizer Treated
 Kaolinite at 7000x-A



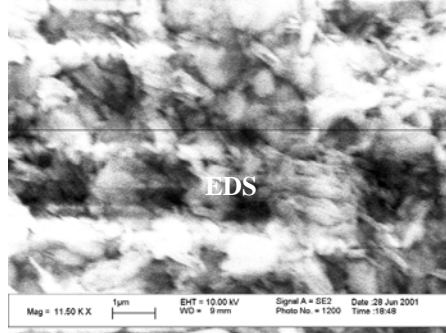
kaobs7000b
 Polymer Stabilizer Treated
 Kaolinite at 7000x-B



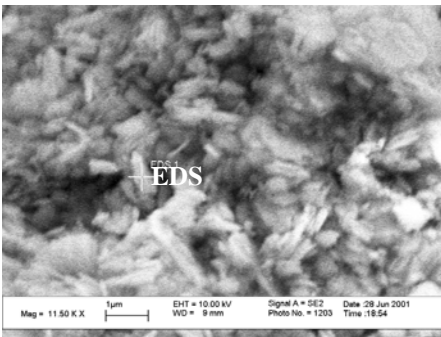
kaobs7000c
 Polymer Stabilizer Treated
 Kaolinite at 7000x-C



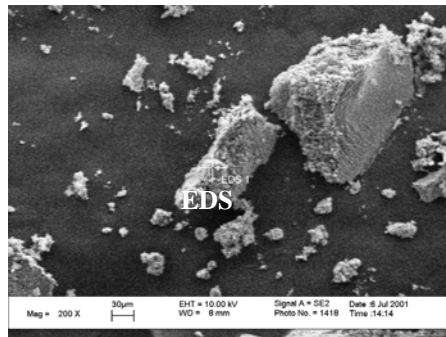
kaobs11500a
Polymer Stabilizer Treated
Kaolinite at 11500x-A



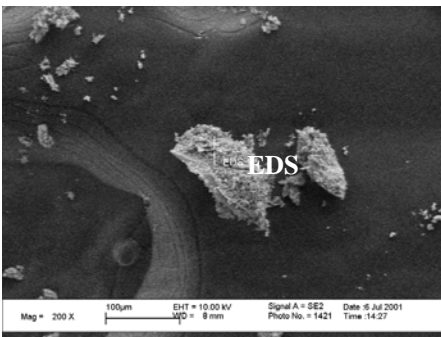
kaobs11500b
Polymer Stabilizer Treated
Kaolinite at 11500x-B



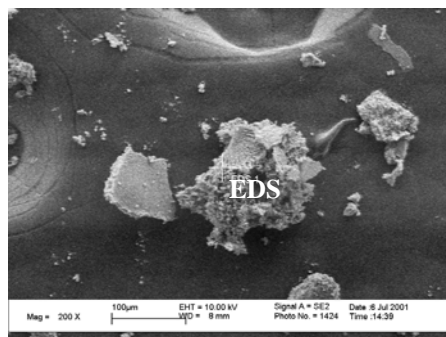
kaobs115000c
Polymer Stabilizer Treated
Kaolinite at 11500x-C



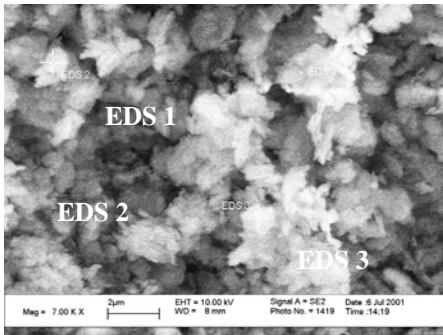
kaopz200a
Enzyme Stabilizer Treated
Kaolinite at 200x-A



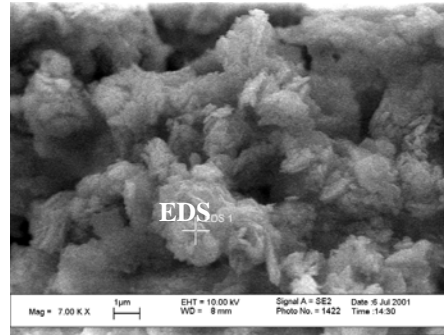
kaopz200b
Enzyme Stabilizer Treated
Kaolinite at 200x-B



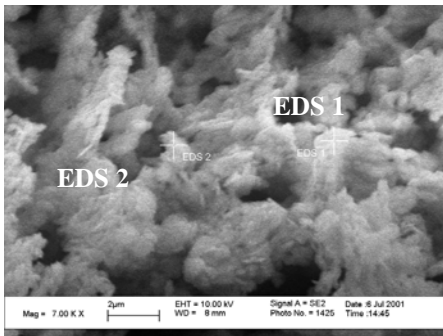
kaopz200c
Enzyme Stabilizer Treated
Kaolinite at 200x-C



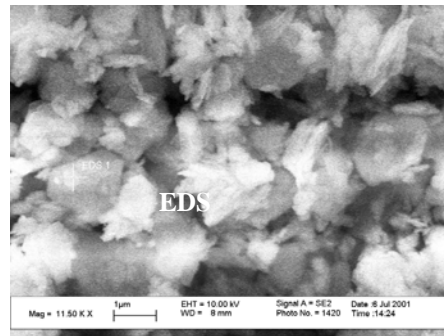
kaopz7000a
Enzyme Stabilizer Treated
Kaolinite at 7000x-A



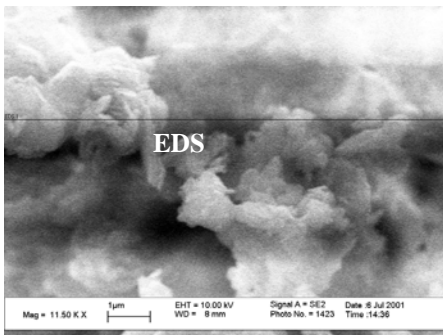
kaopz7000b
Enzyme Stabilizer Treated
Kaolinite at 7000x-B



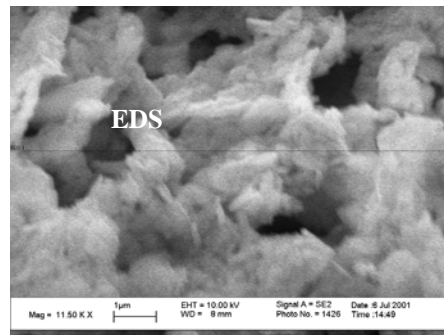
kaopz7000c
Enzyme Stabilizer Treated
Kaolinite at 7000x-C



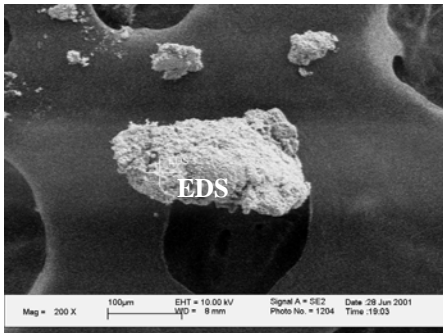
kaopz11500a
Enzyme Stabilizer Treated
Kaolinite at 11500x-A



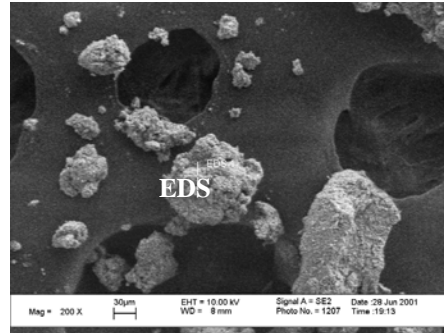
kaopz11500b
Enzyme Stabilizer Treated
Kaolinite at 11500x-B



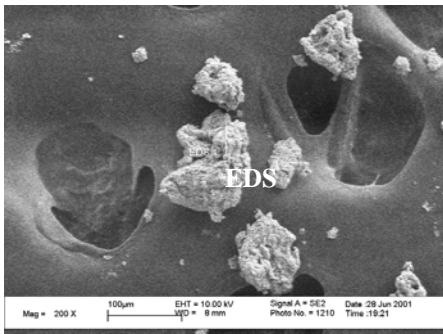
kaopz11500c
Enzyme Stabilizer Treated
Kaolinite at 11500x-C



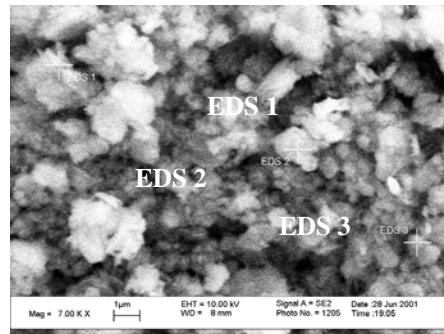
kaoh2SO4200a
Sulfuric Acid Treated
Kaolinite at 200x-A



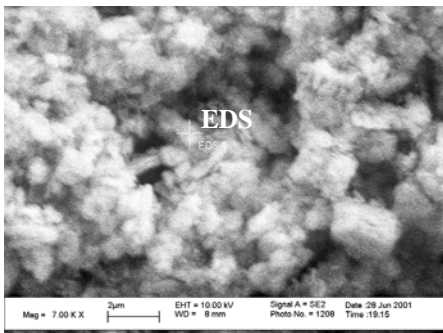
kaoh2SO4200b
Sulfuric Acid Treated
Kaolinite at 200x-B



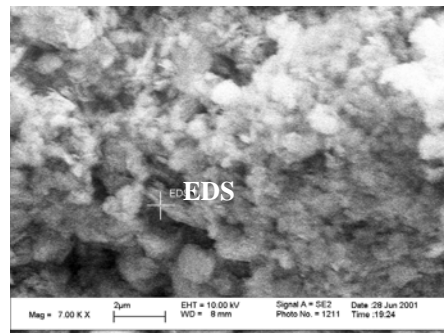
kaoh2SO4200c
Sulfuric Acid Treated
Kaolinite at 200x-C



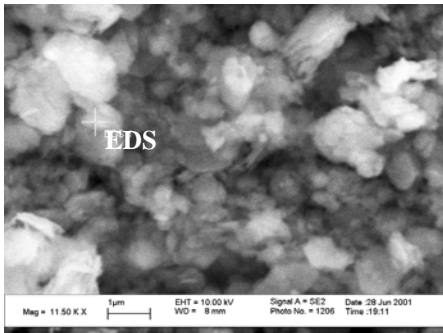
kaoh2SO47000a
Sulfuric Acid Treated
Kaolinite at 7000x-A



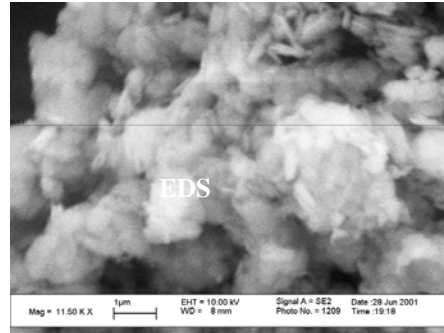
kaoh2SO47000b
Sulfuric Acid Treated
Kaolinite at 7000x-B



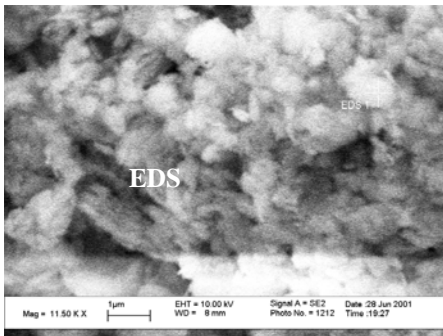
kaoh2SO47000c
Sulfuric Acid Treated
Kaolinite at 7000x-C



kaol H2SO411500a
Sulfuric Acid Treated
Kaolinite at 11500x-A

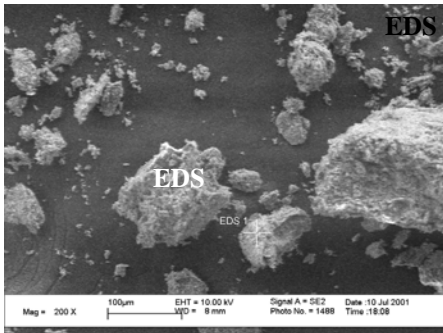


kaol H2SO411500b
Sulfuric Acid Treated
Kaolinite at 11500x-B

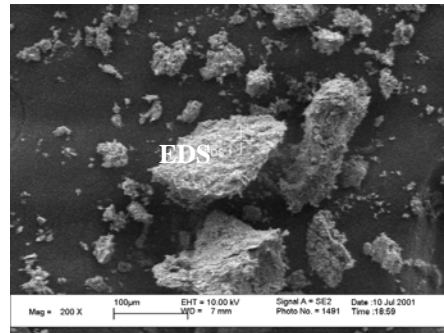


kaol H2SO411500c
Sulfuric Acid Treated
Kaolinite at 11500x-C

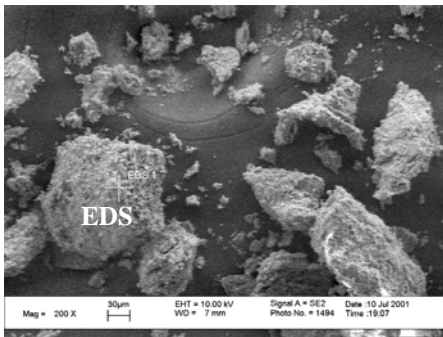
Appendix E.2. SEM/EDS images of illite



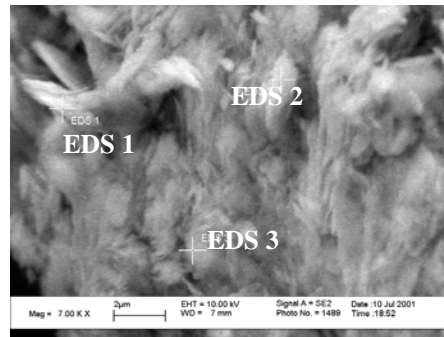
illun200a
Untreated
Illite at 200x-A



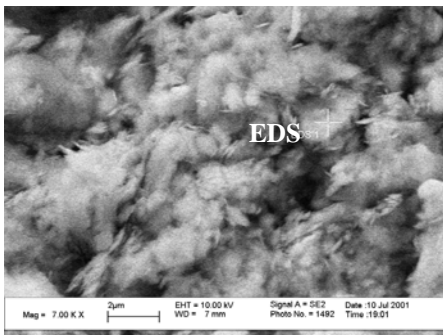
illun200b
Untreated
Illite at 200x-B



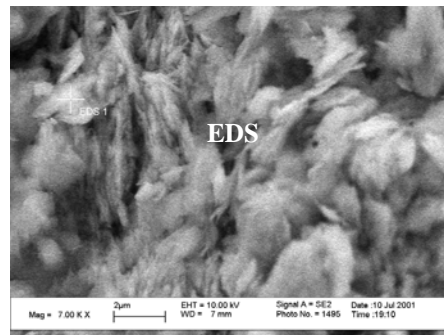
illun200c
Untreated
Illite at 200x-C



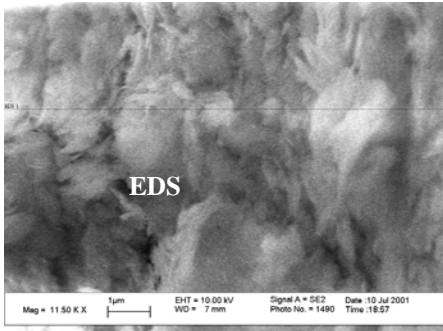
illun7000a
Untreated
Illite at 7000x-A



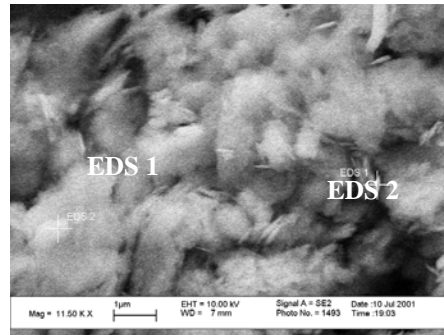
illun7000b
Untreated
Illite at 7000x-B



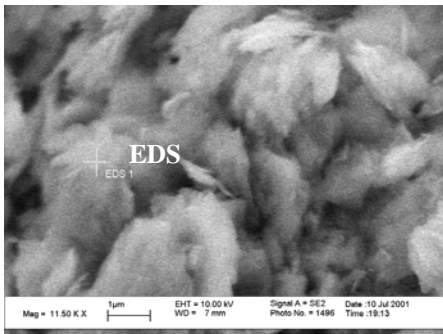
illun7000c
Untreated
Illite at 7000x-C



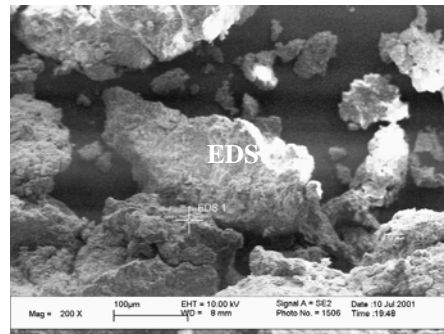
illun11500a
Untreated
Illite at 11500x-A



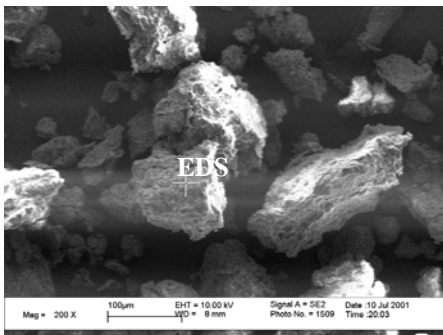
illun11500b
Untreated
Illite at 11500x-B



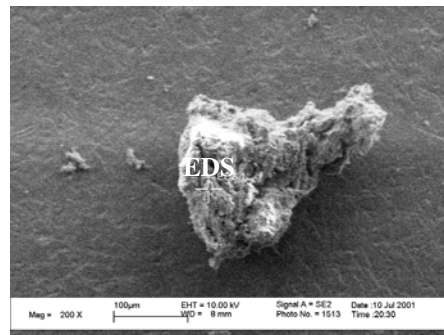
illun11500c
Untreated
Illite at 11500x-C



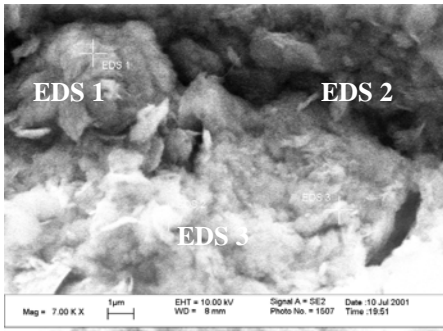
illen200a
Ionic Stabilizer Treated
Illite at 200x-A



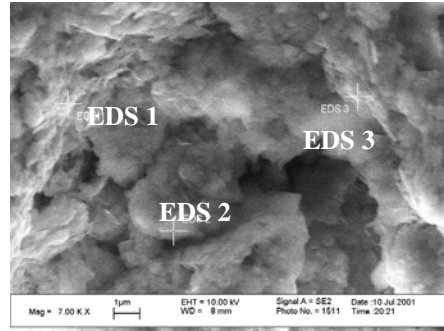
illen200b
Ionic Stabilizer Treated
Illite at 200x-B



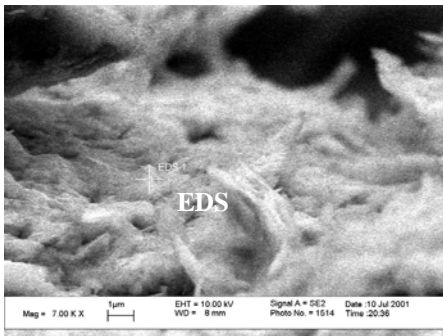
illen200c
Ionic Stabilizer Treated
Illite at 200x-C



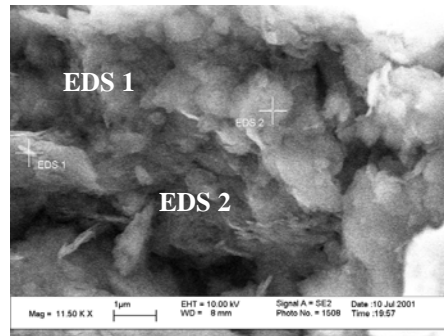
illen7000a
Ionic Stabilizer Treated
Illite at 7000x-A



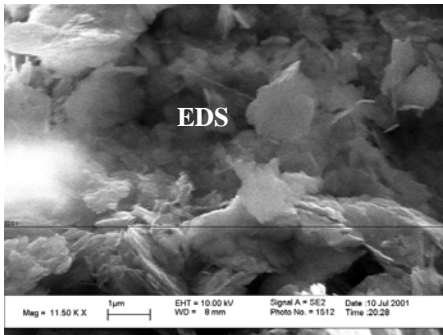
illen7000b
Ionic Stabilizer Treated
Illite at 7000x-B



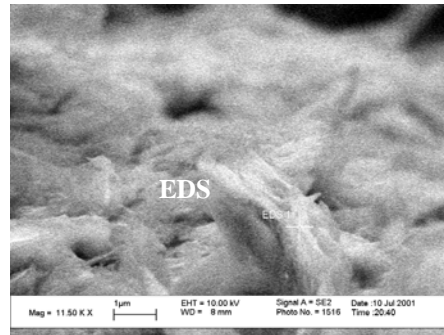
illen7000c
Ionic Stabilizer Treated
Illite at 7000x-C



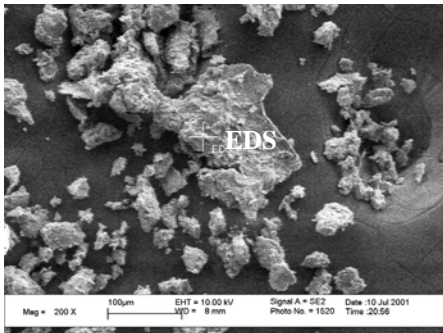
illen11500a
Ionic Stabilizer Treated
Illite at 11500x-A



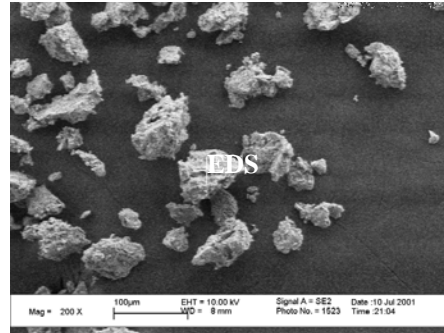
illen11500b
Ionic Stabilizer Treated
Illite at 11500x-B



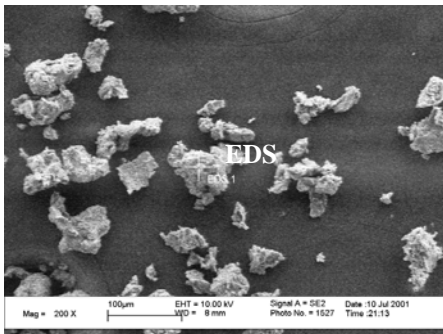
illen11500c
Ionic Stabilizer Treated
Illite at 11500x-C



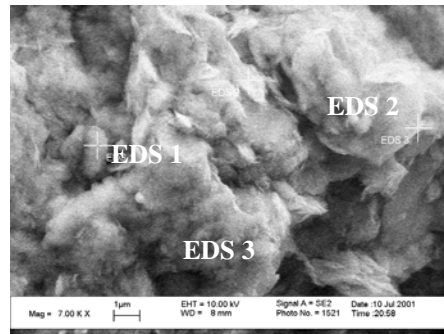
illbs200a
 Polymer Stabilizer Treated
 Illite at 200x-A



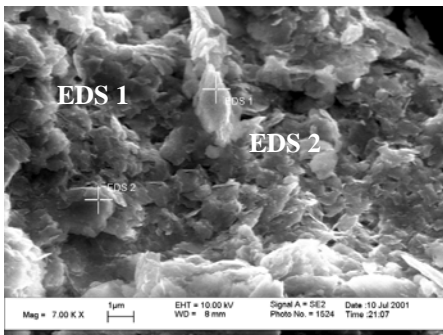
illbs200b
 Polymer Stabilizer Treated
 Illite at 200x-B



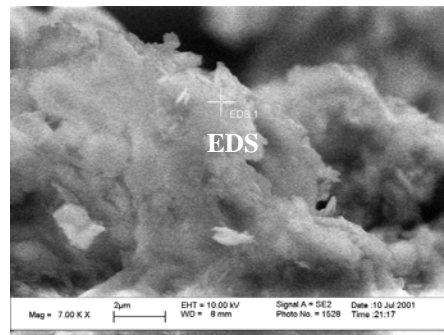
illbs200c
 Polymer Stabilizer Treated
 Illite at 200x-C



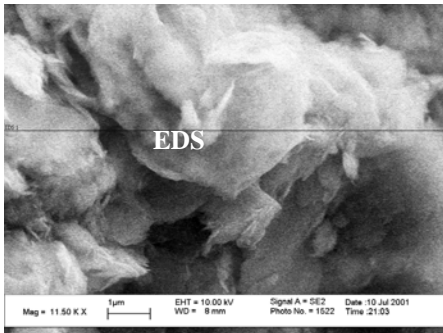
illbs7000a
 Polymer Stabilizer Treated
 Illite at 7000x-A



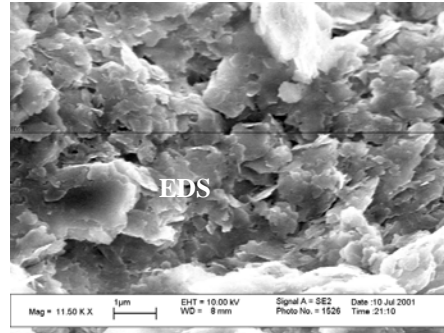
illbs7000b
 Polymer Stabilizer Treated
 Illite at 7000x-B



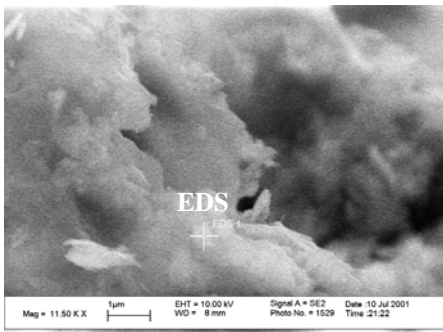
illbs7000c
 Polymer Stabilizer Treated
 Illite at 7000x-C



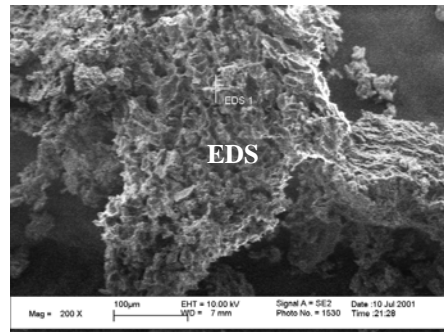
illbs11500a
 Polymer Stabilizer Treated
 Illite at 11500x-A



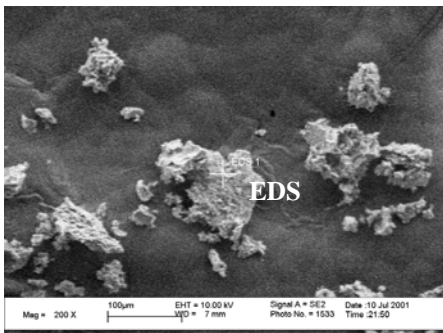
illbs11500b
 Polymer Stabilizer Treated
 Illite at 11500x-B



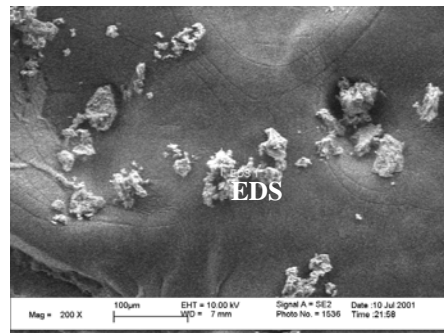
illbs115000c
 Polymer Stabilizer Treated
 Illite at 11500x-C



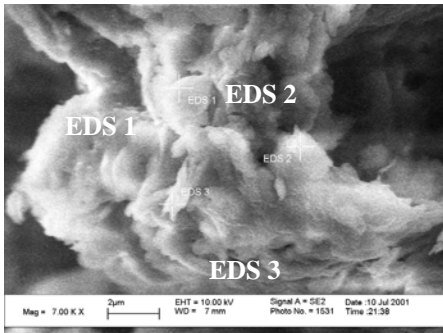
illpz200a
 Enzyme Stabilizer Treated
 Illite at 200x-A



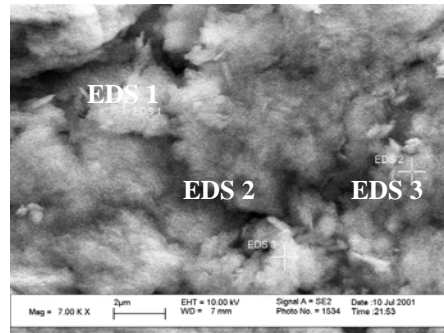
illpz200b
 Enzyme Stabilizer Treated
 Illite at 200x-B



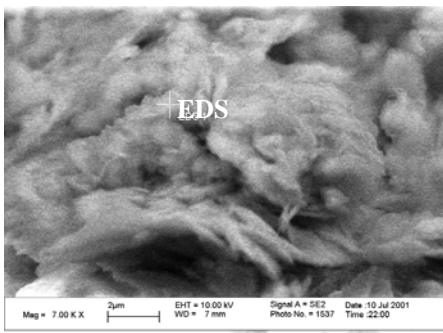
illpz200c
 Enzyme Stabilizer Treated
 Illite at 200x-C



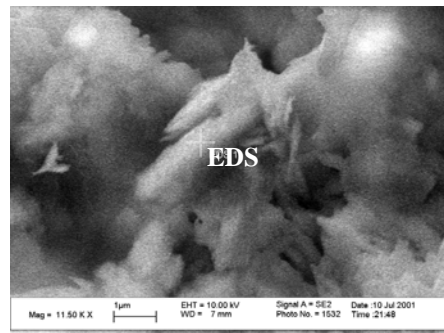
illpz7000a
Enzyme Stabilizer Treated
Illite at 7000x-A



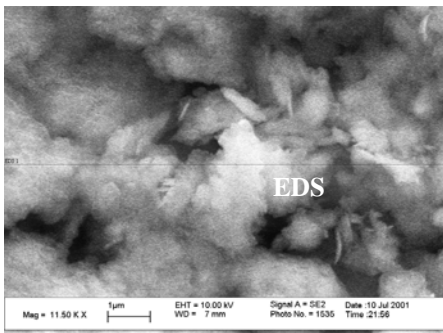
illpz7000b
Enzyme Stabilizer Treated
Illite at 7000x-B



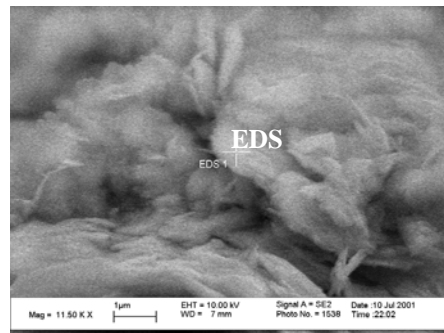
illpz7000c
Enzyme Stabilizer Treated
Illite at 7000x-C



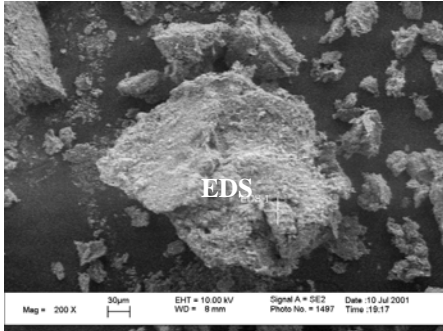
illpz11500a
Enzyme Stabilizer Treated
Illite at 11500x-A



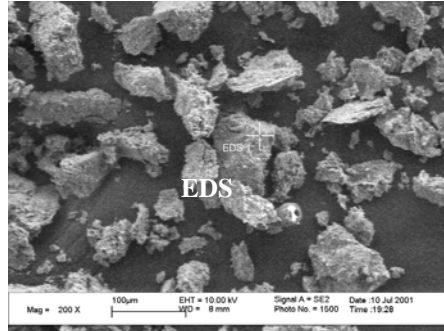
illpz11500b
Enzyme Stabilizer Treated
Illite at 11500x-B



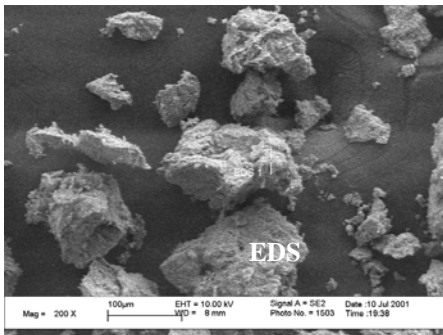
illpz11500c
Enzyme Stabilizer Treated
Illite at 11500x-C



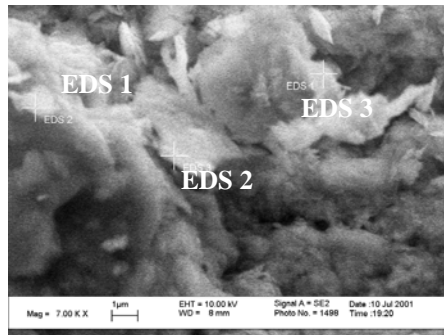
illhs200a
Sulfuric Acid Treated
Illite at 200x-A



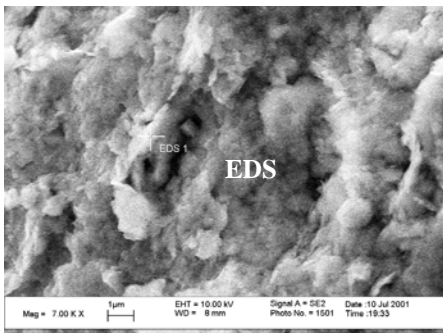
illhs200b
Sulfuric Acid Treated
Illite at 200x-B



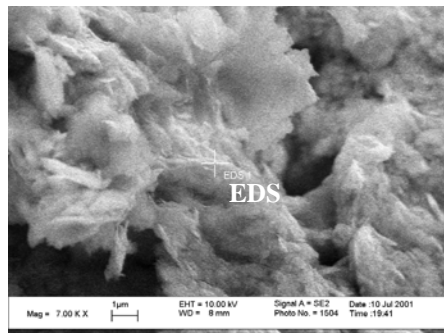
illhs200c
Sulfuric Acid Treated
Illite at 200x-C



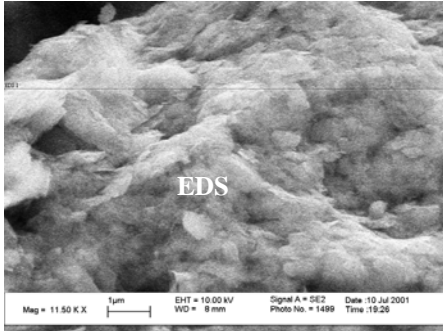
illhs7000a
Sulfuric Acid Treated
Illite at 7000x-A



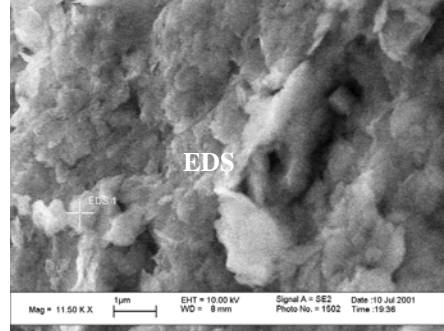
illhs7000b
Sulfuric Acid Treated
Illite at 7000x-B



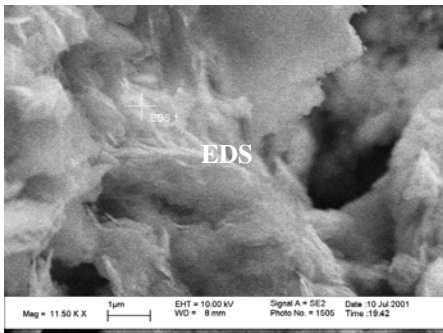
illhs7000c
Sulfuric Acid Treated
Illite at 7000x-C



illhs11500a
Sulfuric Acid Treated
Illite at 11500x-A

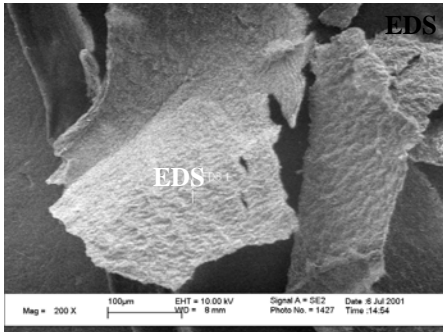


illhs11500b
Sulfuric Acid Treated
Illite at 11500x-B

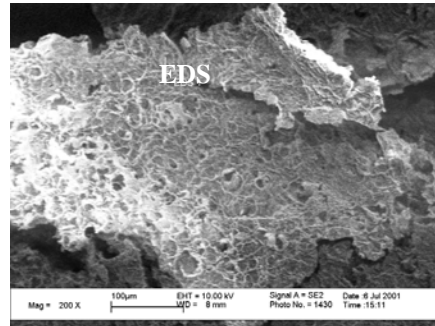


illhs11500c
Sulfuric Acid Treated
Illite at 11500x-C

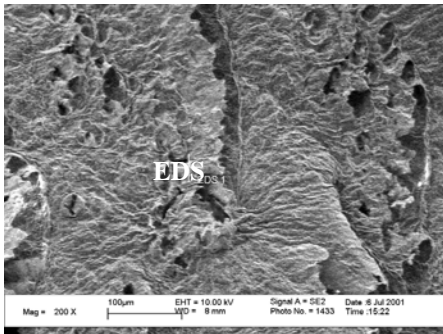
Appendix E.3. SEM/EDS images of sodium montmorillonite



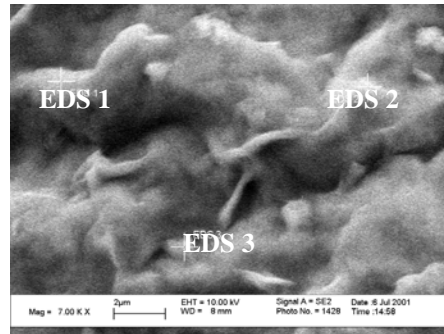
namtun200a
Untreated
Sodium Montmorillonite at 200x-A



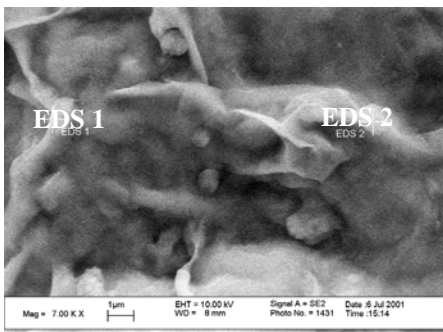
namtun200b
Untreated
Sodium Montmorillonite at 200x-B



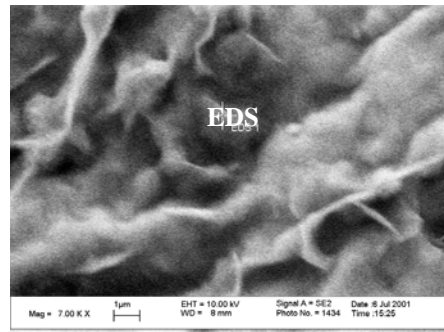
namtun200c
Untreated
Sodium Montmorillonite at 200x-C



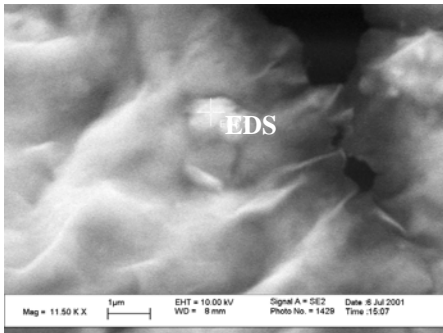
namtun7000a
Untreated
Sodium Montmorillonite at 7000x-A



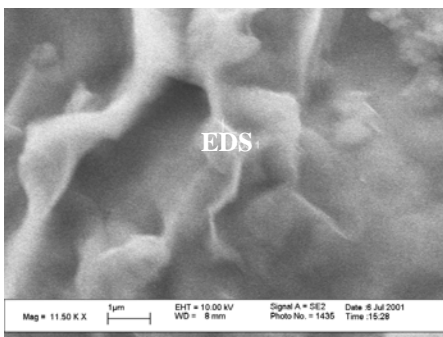
namtun7000b
Untreated
Sodium Montmorillonite at 7000x-B



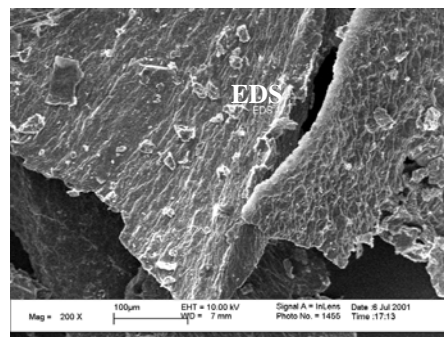
namtun7000c
Untreated
Sodium Montmorillonite at 7000x-C



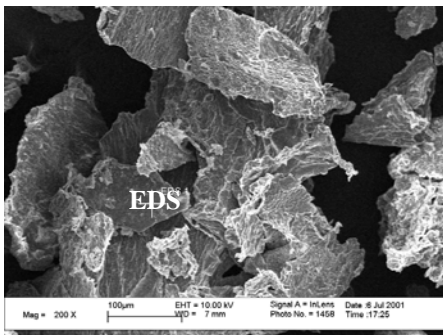
namtun11500a
 Untreated
 Sodium Montmorillonite at 11500x-A



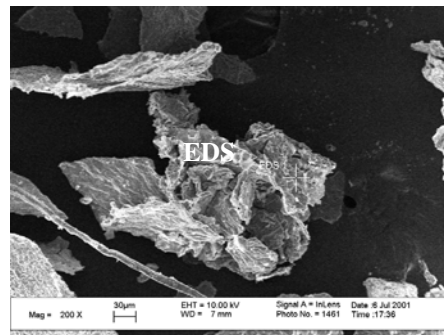
namtun11500c
 Untreated
 Sodium Montmorillonite at 11500x-C



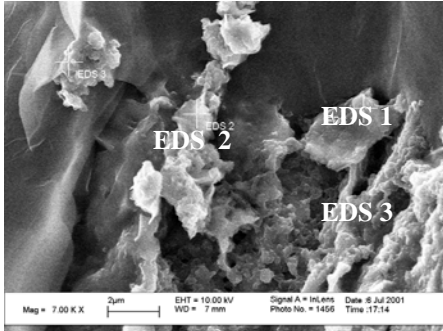
namtEN200a
 Ionic Stabilizer Treated
 Sodium Montmorillonite at 200x-A



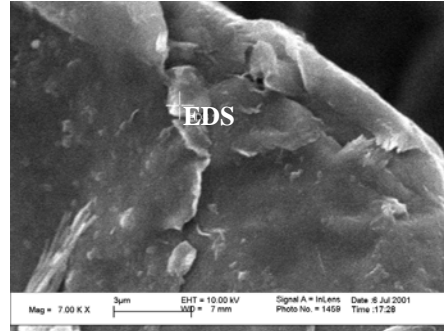
NamtEN200b
 Ionic Stabilizer Treated
 Sodium Montmorillonite at 200x-B



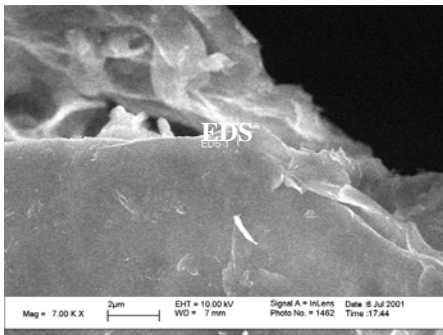
namtEN200c
 Ionic Stabilizer Treated
 Sodium Montmorillonite at 200x-C



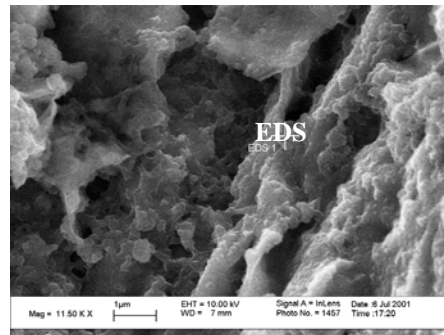
NamtEN7000a
Ionic Stabilizer Treated
Sodium Montmorillonite at 7000x-A



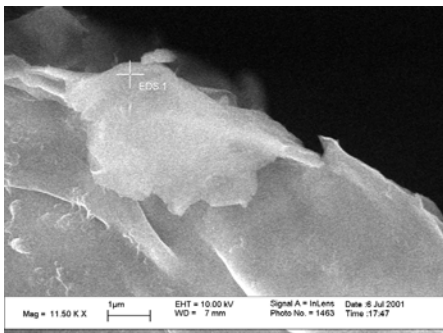
namtEN7000b
Ionic Stabilizer Treated
Sodium Montmorillonite at 7000x-B



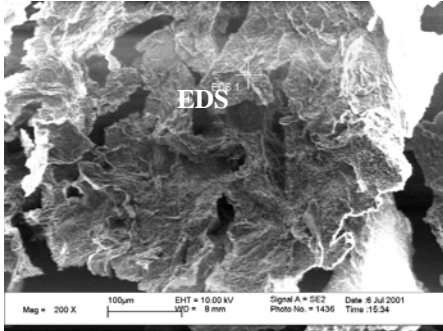
namtEN7000c
Ionic Stabilizer Treated
Sodium Montmorillonite at 7000x-C



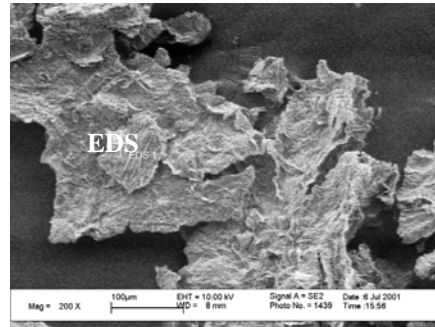
namtEN11500a
Ionic Stabilizer Treated
Sodium Montmorillonite at 11500x-A



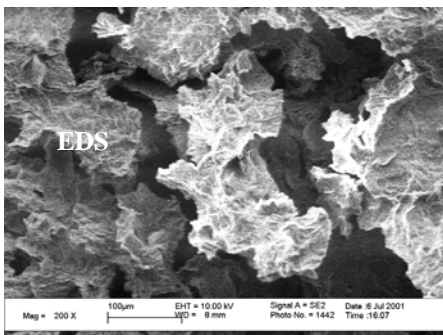
namtEN11500c
Ionic Stabilizer Treated
Sodium Montmorillonite at 11500x-C



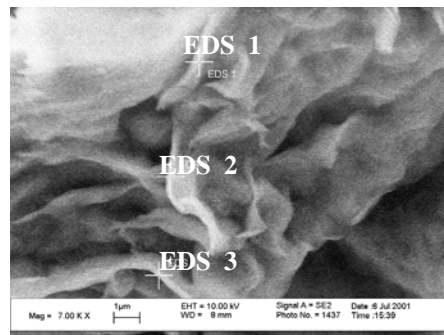
namtbs200a
 Polymer Stabilizer Treated
 Sodium Montmorillonite at 200x-A



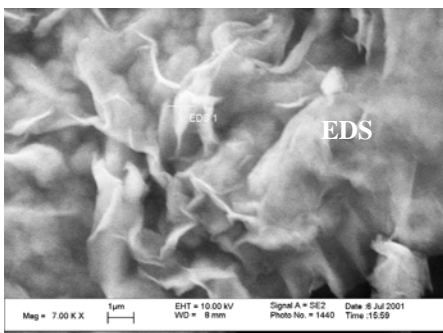
namtbs200b
 Polymer Stabilizer Treated
 Sodium Montmorillonite at 200x-B



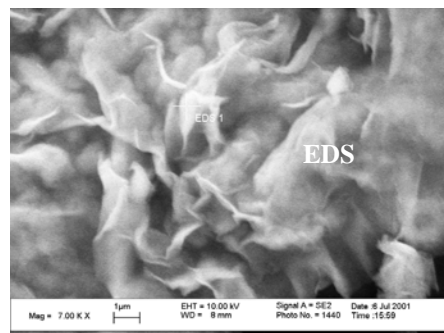
namtbs200c
 Polymer Stabilizer Treated
 Sodium Montmorillonite at 200x-C



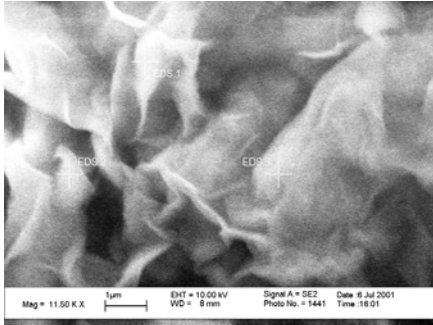
namtbs7000a
 Polymer Stabilizer Treated
 Sodium Montmorillonite at 7000x-A



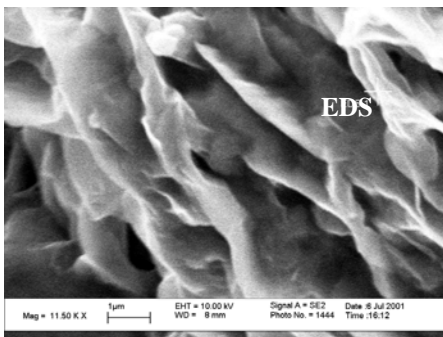
namtbs7000b
 Polymer Stabilizer Treated
 Sodium Montmorillonite at 7000x-B



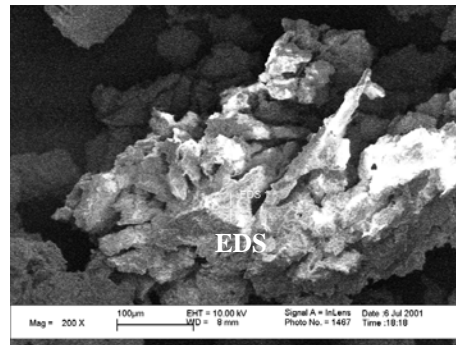
namtbs7000c
 Polymer Stabilizer Treated
 Sodium Montmorillonite at 7000x-C



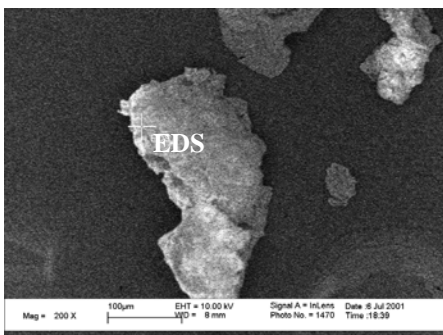
namtbs11500b
 Polymer Stabilizer Treated
 Sodium Montmorillonite at 11500x-B



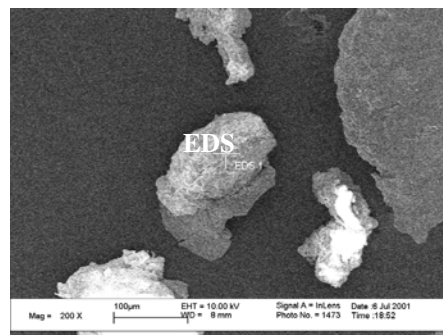
namtbs11500c
 Polymer Stabilizer Treated
 Sodium Montmorillonite at 11500x-C



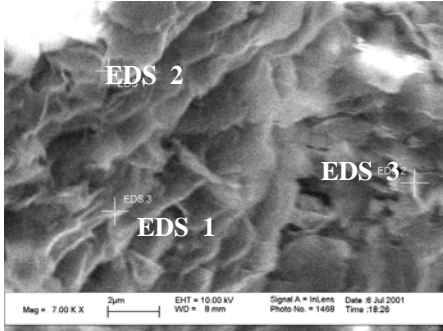
namtpz200a
 Enzyme Stabilizer Treated
 Sodium Montmorillonite at 200x-A



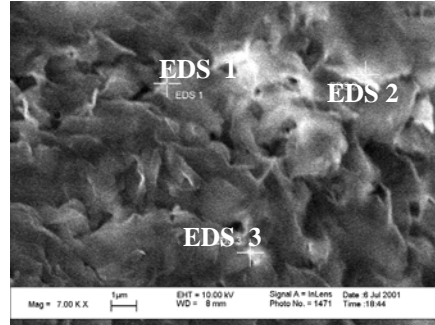
namtpz200b
 Enzyme Stabilizer Treated
 Sodium Montmorillonite at 200x-B



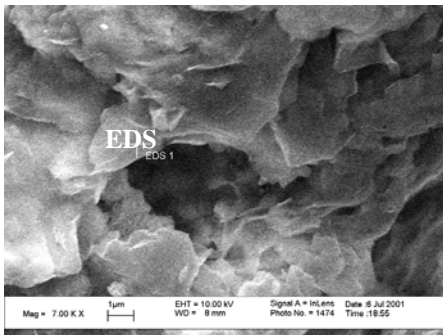
namtpz200c
 Enzyme Stabilizer Treated
 Sodium Montmorillonite at 200x-C



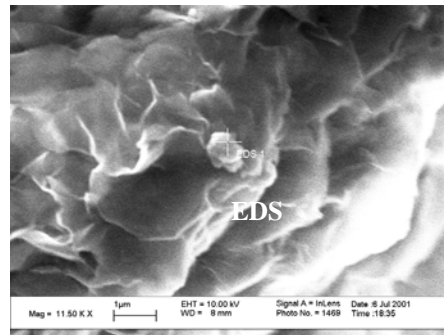
namtpz7000a
Enzyme Stabilizer Treated
Sodium Montmorillonite at 7000x-A



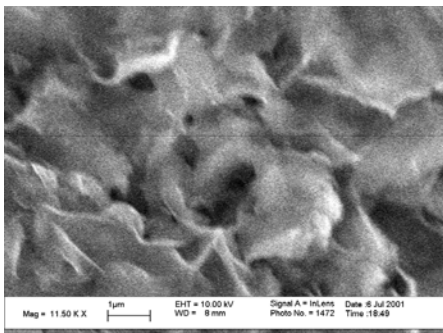
namtpz7000b
Enzyme Stabilizer Treated
Sodium Montmorillonite at 7000x-B



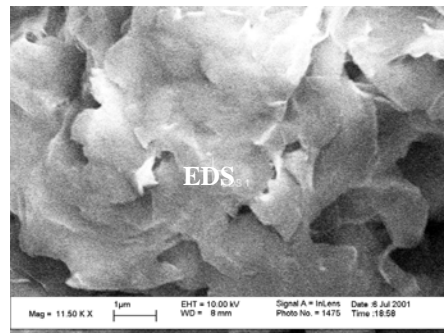
namtpz7000c
Enzyme Stabilizer Treated
Sodium Montmorillonite at 7000x-C



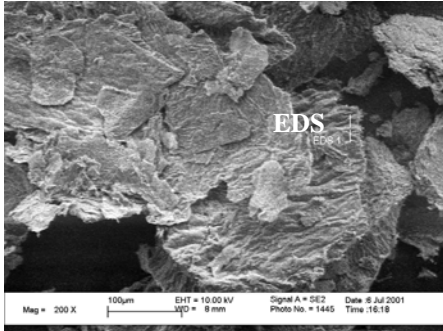
namtpz11500a
Enzyme Stabilizer Treated
Sodium Montmorillonite at 11500x-A



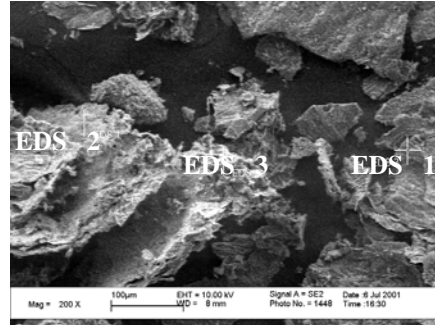
namtpz11500b
Enzyme Stabilizer Treated
Sodium Montmorillonite at 11500x-B



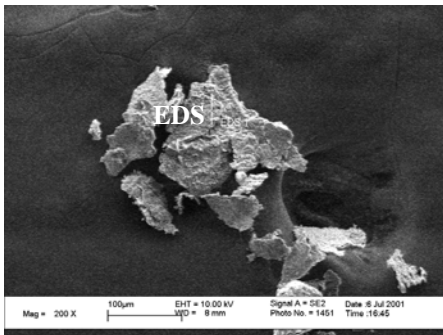
namtpz11500c
Enzyme Stabilizer Treated
Sodium Montmorillonite at 11500x-C



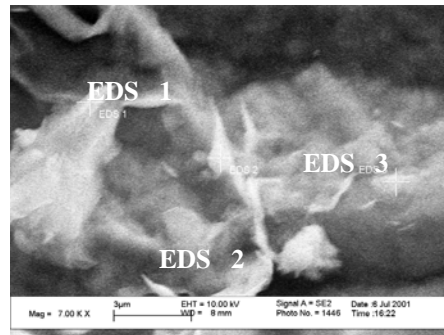
namtH2S200a
Sulfuric Acid Treated
Sodium Montmorillonite at 200x-A



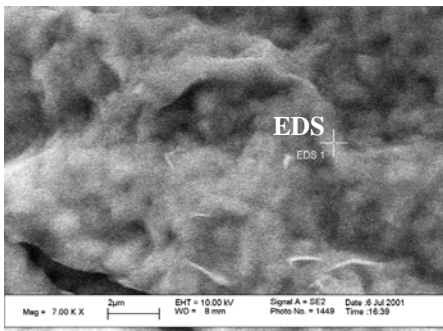
namtH2S200b
Sulfuric Acid Treated
Sodium Montmorillonite at 200x-B



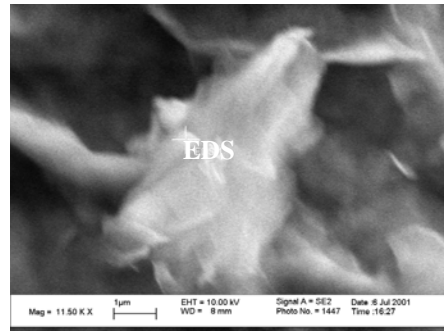
namtH2S200c
Sulfuric Acid Treated
Sodium Montmorillonite at 200x-C



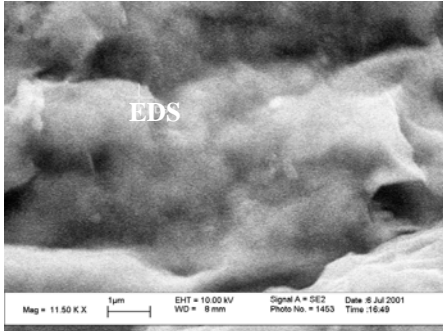
namtH2S7000a
Sulfuric Acid Treated
Sodium Montmorillonite at 7000x-A



namtH2S7000b
Sulfuric Acid Treated
Sodium Montmorillonite at 7000x-B

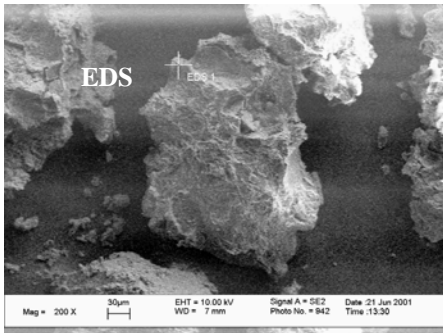


namtH2S11500a
Sulfuric Acid Treated
Sodium Montmorillonite at 11500x-A

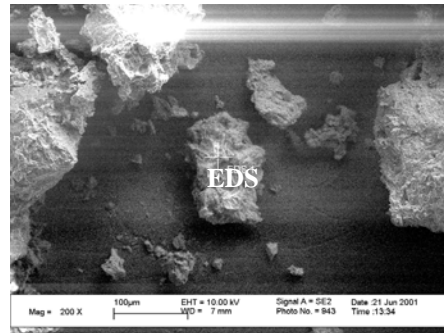


namtH2S11500c
Sulfuric Acid Treated
Sodium Montmorillonite at 11500x-C

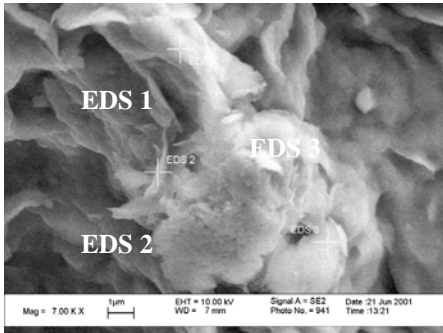
Appendix E.4. SEM/EDS images of Bryan soil



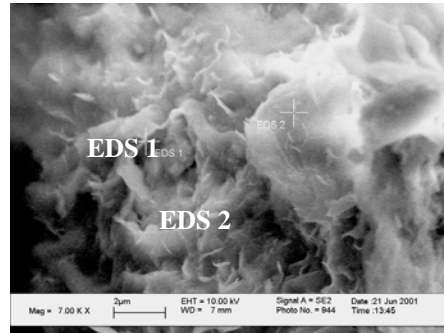
bryun200a
Untreated
Bryan at 200x-A



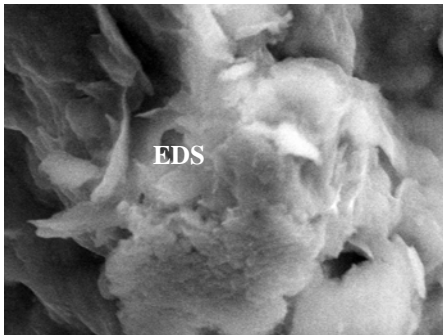
bryun200b
Untreated
Bryan at 200x-B



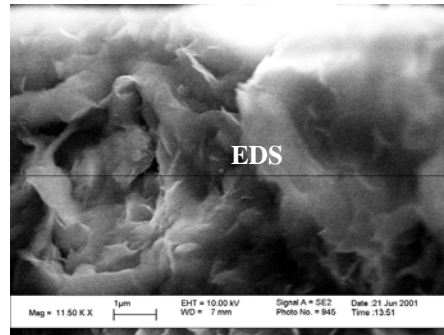
bryun7000a
Untreated
Bryan at 7000x-A



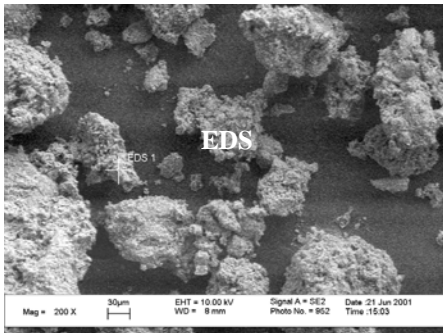
bryun7000b
Untreated
Bryan at 7000x-B



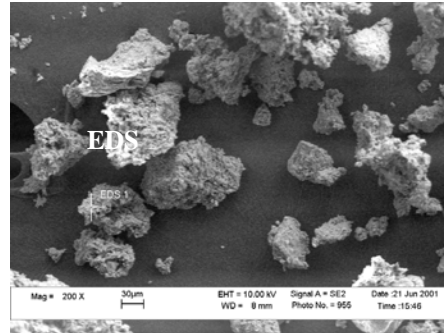
bryun11500a
Untreated
Bryan at 11500x-A



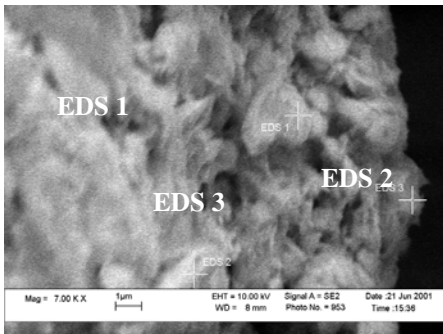
bryun11500b
Untreated
Bryan at 11500x-B



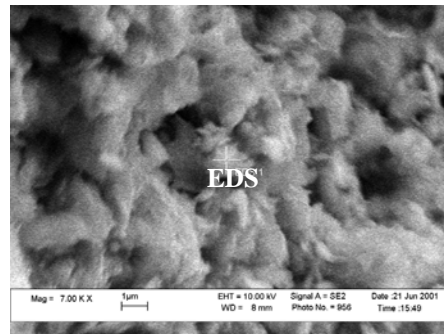
bryen200a
Ionic Stabilizer Treated
Bryan at 200x-A



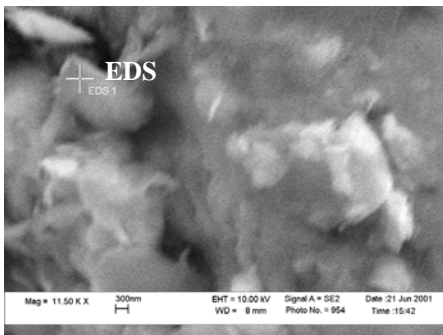
bryen200b
Ionic Stabilizer Treated
Bryan at 200B



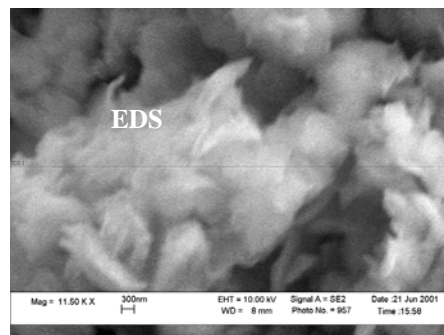
bryen7000a
Ionic Stabilizer Treated
Bryan at 7000x-A



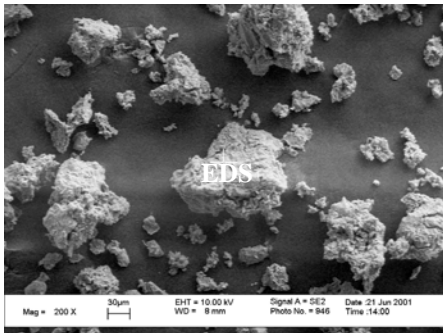
bryen7000b
Ionic Stabilizer Treated
Bryan at 7000x-B



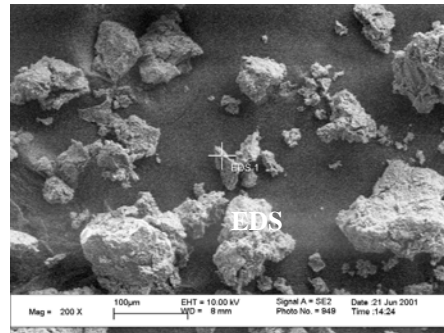
bryen11500a
Ionic Stabilizer Treated
Bryan at 11500x-A



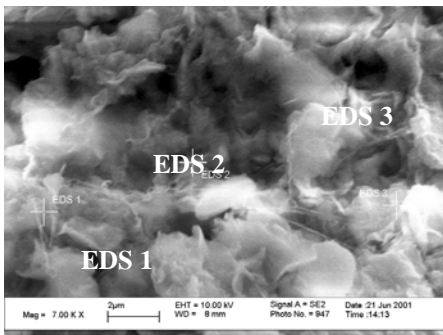
bryen11500b
Ionic Stabilizer Treated
Bryan at 11500x-B



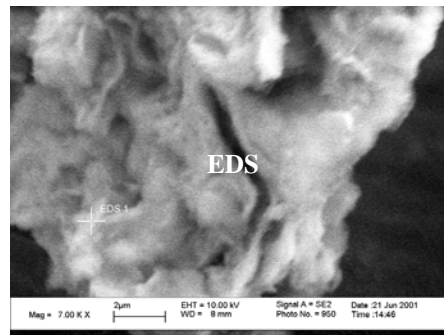
brybs200a
Polymer Stabilizer Treated
Bryan at 200x-A



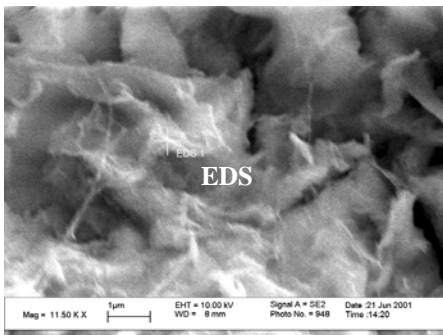
brybs200b
Polymer Stabilizer Treated
Bryan at 200x-B



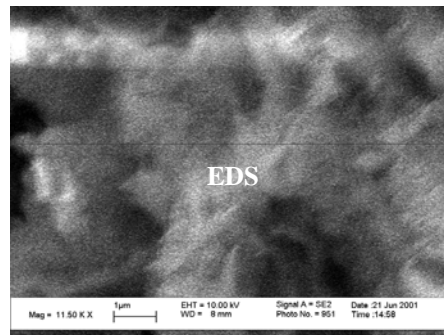
brybs7000a
Polymer Stabilizer Treated
Bryan at 7000x-A



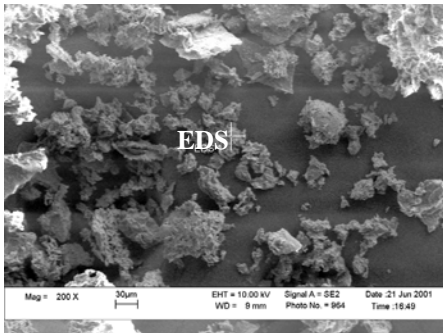
brybs7000b
Polymer Stabilizer Treated
Bryan at 7000x-B



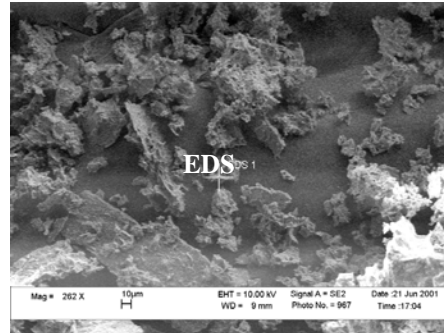
brybs11500a
Polymer Stabilizer Treated
Bryan at 11500x-A



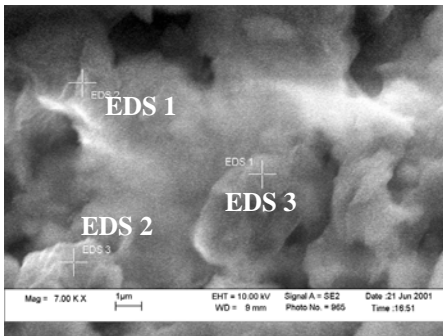
brybs11500b
Polymer Stabilizer Treated
Bryan at 11500x-B



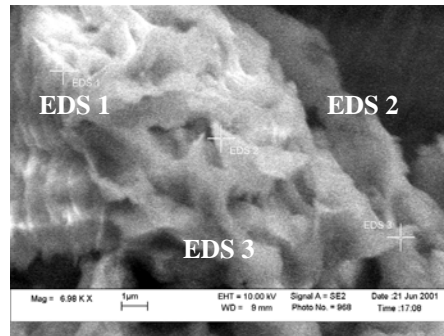
brypz200a
Enzyme Stabilizer Treated
Bryan at 200x-A



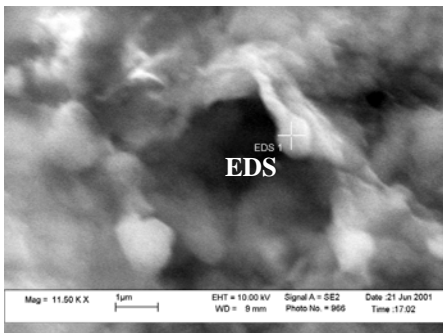
brypz200b
Enzyme Stabilizer Treated
Bryan at 200x-B



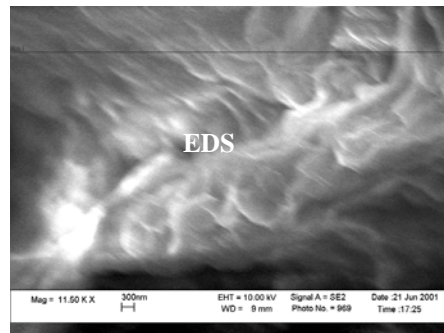
brypz7000a
Enzyme Stabilizer Treated
Bryan at 7000x-A



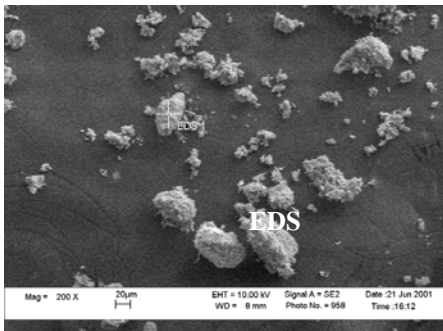
brypz7000b
Enzyme Stabilizer Treated
Bryan at 7000x-B



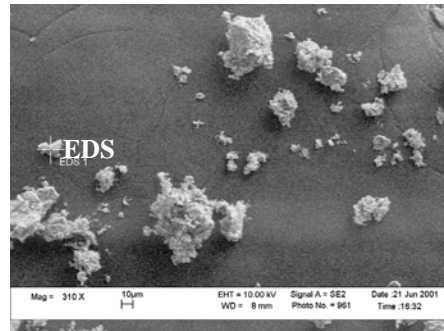
brypz11500a
Enzyme Stabilizer Treated
Bryan at 11500x-A



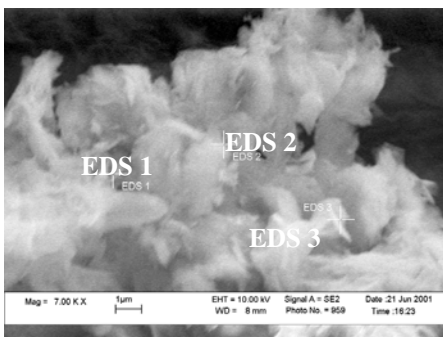
brypz11500b
Enzyme Stabilizer Treated
Bryan at 11500x-B



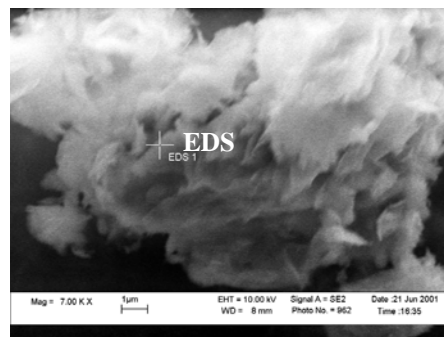
bryH2S200a
Sulfuric Acid Treated
Bryan at 200x-A



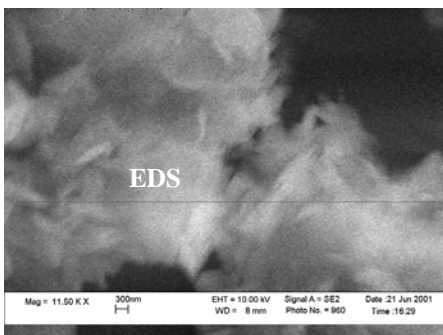
bryH2S200b
Sulfuric Acid Treated
Bryan at 200x-B



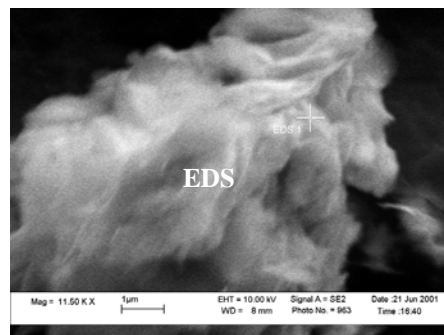
bryH2S7000a
Sulfuric Acid Treated
Bryan at 7000x-A



bryH2S7000b
Sulfuric Acid Treated
Bryan at 7000x-B

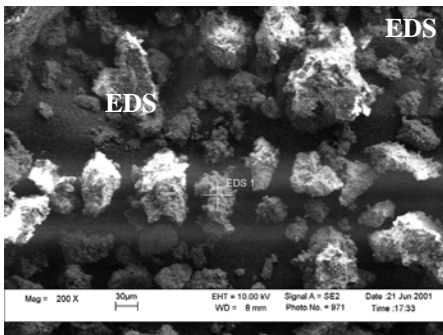


bryH2S11500a
Sulfuric Acid Treated
Bryan at 11500x-A

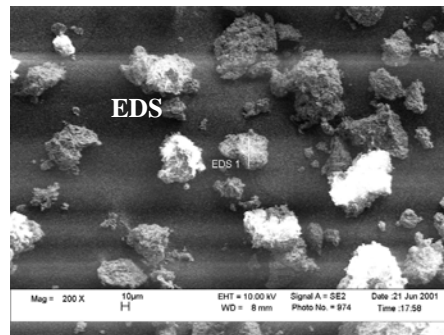


bryH2S11500b
Sulfuric Acid Treated
Bryan at 11500x-B

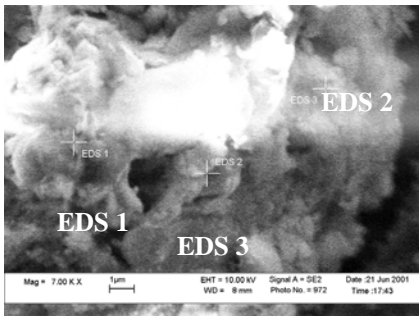
Appendix E.5. SEM/EDS images of Mesquite soil



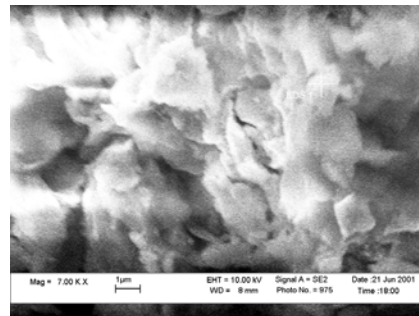
mesun200a
Untreated
Mesquite at 200x-A



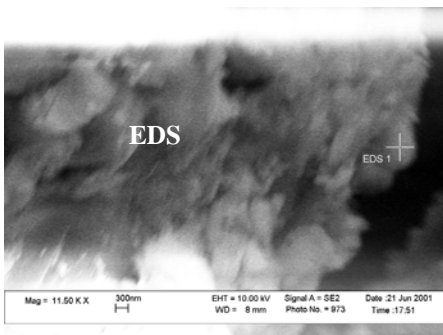
mesun200b
Untreated
Mesquite at 200x-B



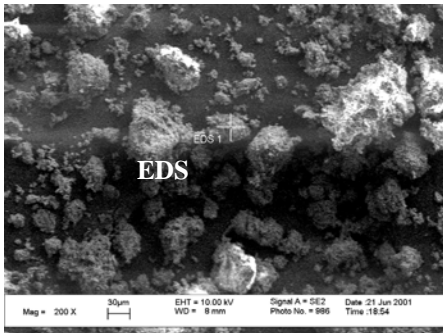
mesun7000a
Untreated
Mesquite at 7000x-A



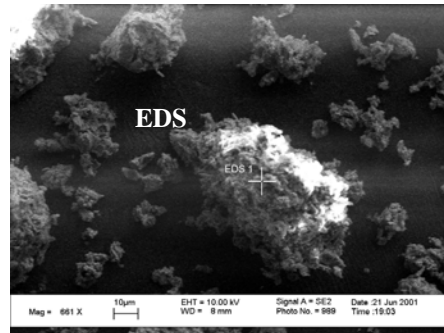
mesun7000b
Untreated
Mesquite at 7000x-B



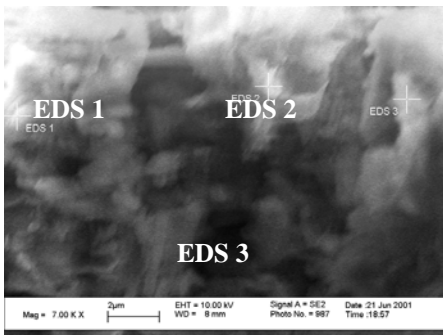
mesun11500a
Untreated
Mesquite at 11500x-A



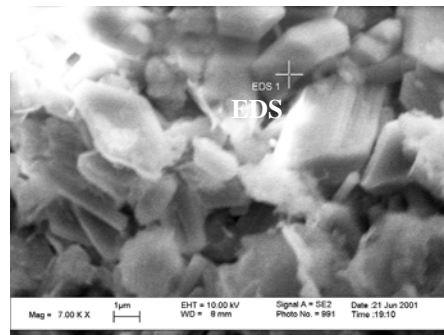
mesen200a
Ionic Stabilizer Treated
Mesquite at 200x-A



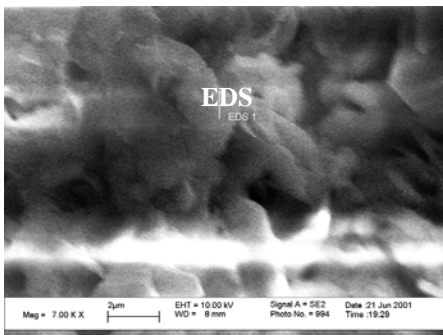
mesen200b
Ionic Stabilizer Treated
Mesquite at 200-B



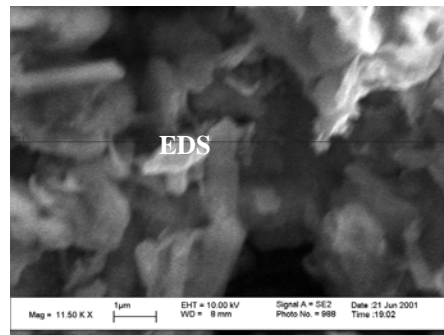
mesen7000a
Ionic Stabilizer Treated
Mesquite at 7000x-A



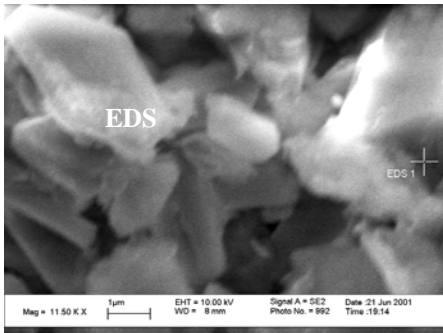
mesen7000b
Ionic Stabilizer Treated
Mesquite at 7000x-B



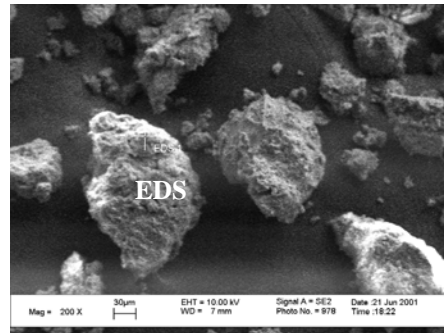
mesen7000c
Ionic Stabilizer Treated
Mesquite at 7000x-C



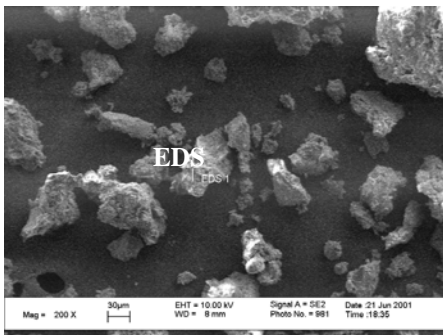
mesen11500a
Ionic Stabilizer Treated
Mesquite at 11500x-A



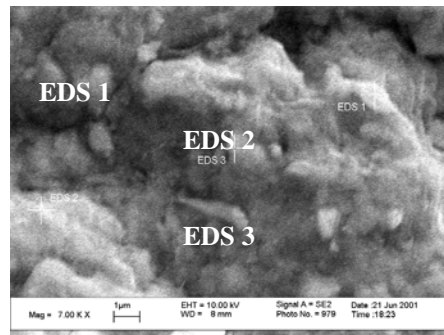
Mesen11500b
Ionic Stabilizer Treated
Mesquite at 11500x-B



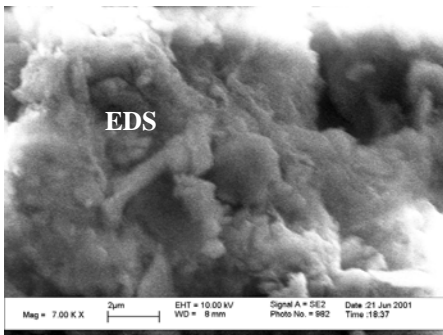
mesbs200a
Polymer Stabilizer Treated
Mesquite at 200x-A



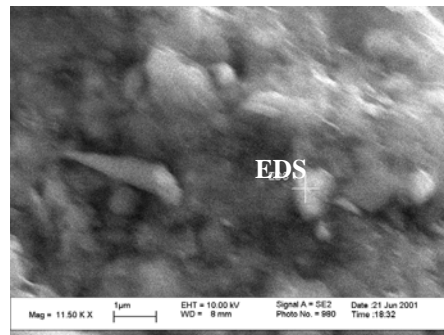
Mesbs200b
Polymer Stabilizer Treated
Mesquite at 200x-B



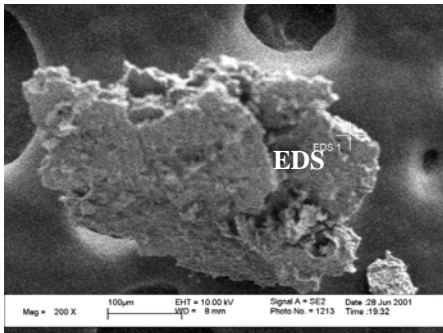
mesbs7000a
Polymer Stabilizer Treated
Mesquite at 7000x-A



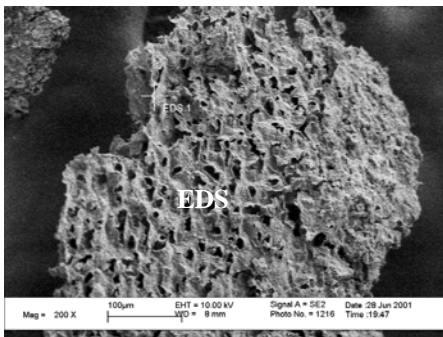
Mesbs7000b
Polymer Stabilizer Treated
Mesquite at 7000x-B



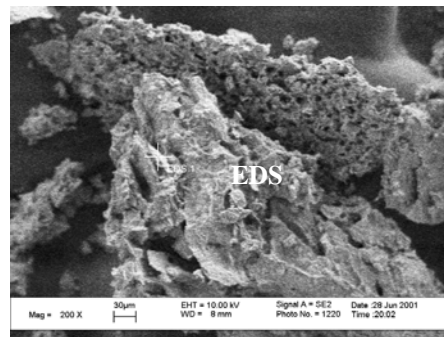
mesbs11500a
Polymer Stabilizer Treated
Mesquite at 11500x-A



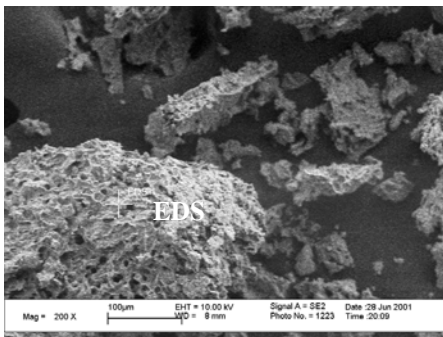
mespz200a
Enzyme Stabilizer Treated
Mesquite at 200x-A



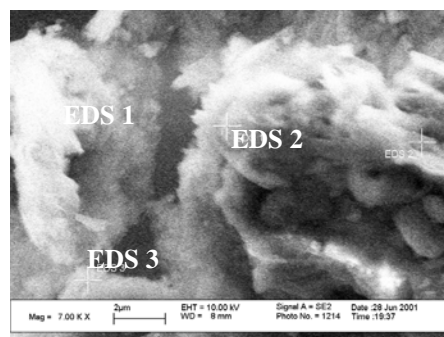
mespz200b
Enzyme Stabilizer Treated
Mesquite at 200x-B



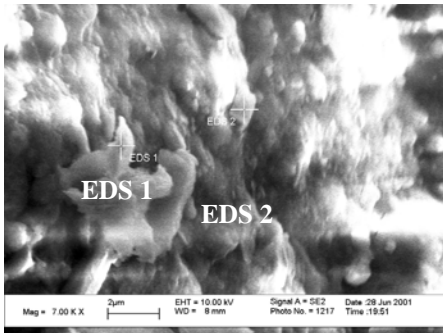
mespz200c
Enzyme Stabilizer Treated
Mesquite at 200x-C



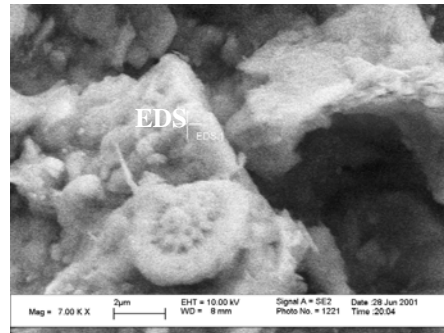
mespz200d
Enzyme Stabilizer Treated
Mesquite at 200x-D



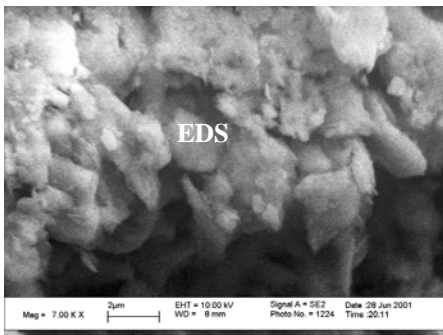
mespz7000a
Enzyme Stabilizer Treated
Mesquite at 7000x-A



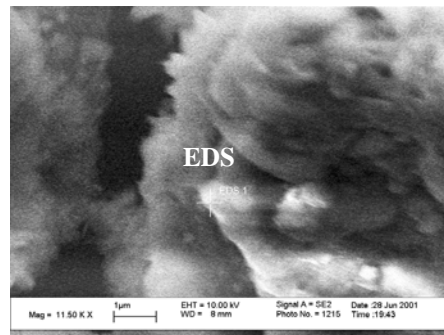
mespz7000b
Enzyme Stabilizer Treated
Mesquite at 7000x-B



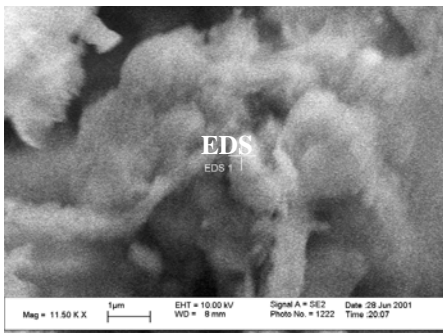
Mespz7000c
Enzyme Stabilizer Treated
Mesquite at 7000x-C



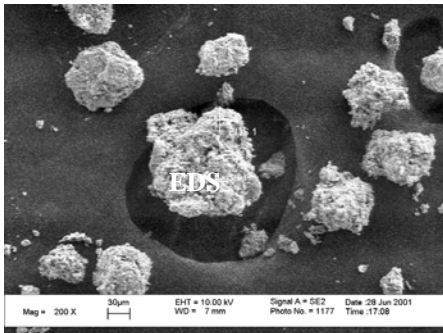
mespz7000d
Enzyme Stabilizer Treated
Mesquite at 7000x-D



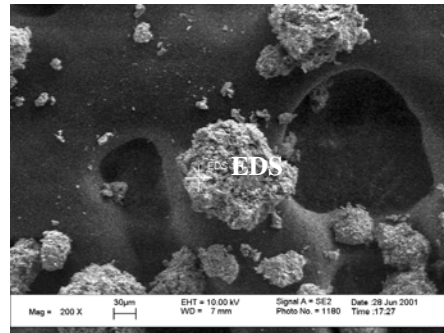
mespz11500a
Enzyme Stabilizer Treated
Mesquite at 11500x-A



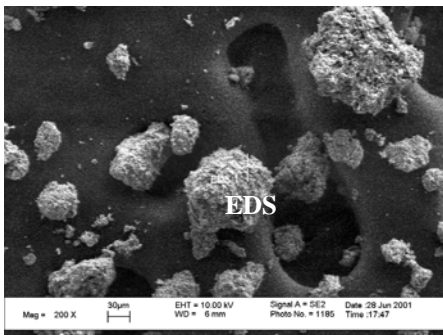
mespz11500c
Enzyme Stabilizer Treated
Mesquite at 11500x-C



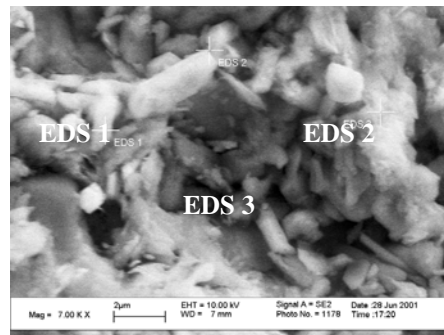
mesH2SO4200a
Sulfuric Acid Treated
Mesquite at 200x-A



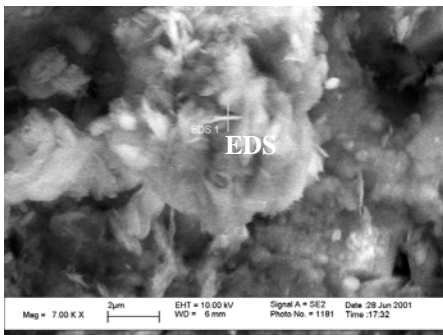
mesH2SO4200b
Sulfuric Acid Treated
Mesquite at 200x-B



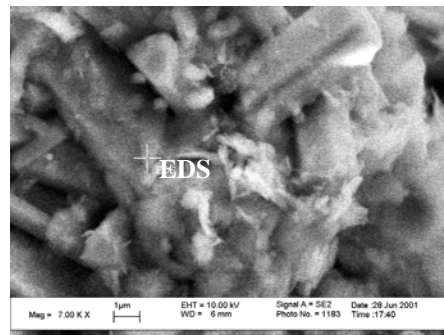
mesH2SO4200c
Sulfuric Acid Treated
Mesquite at 200x-C



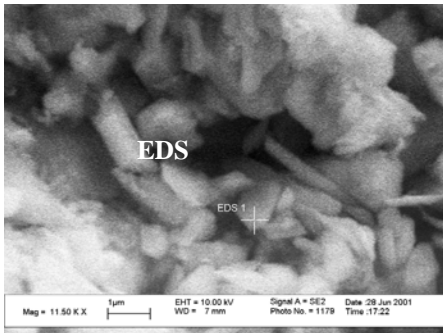
mesH2SO47000a
Sulfuric Acid Treated
Mesquite at 7000x-A



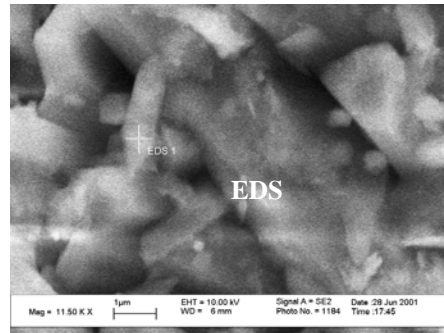
mesH2SO47000b
Sulfuric Acid Treated
Mesquite at 7000x-B



mesH2SO47000c
Sulfuric Acid Treated
Mesquite at 7000x-C



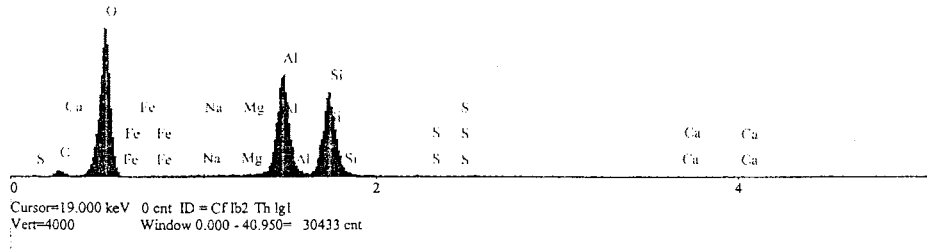
mesH2SO411500a
Sulfuric Acid Treated
Mesquite at 7000x-A



mesH2SO411500c
Sulfuric Acid Treated
Mesquite at 11500x-C

Appendix E.6. SEM/EDS spectra of kaolinite.

Spectrum: kaoun200a



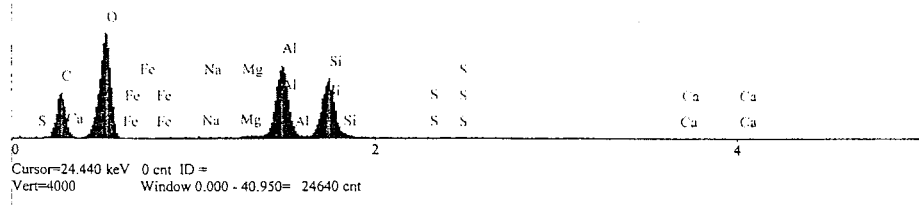
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	4.43	7.854	wt.%
O	Ka	133.46	57.152	wt.%
Na	Ka	0.26	0.049	wt.%
Mg	Ka	0.41	0.065	wt.%
Al	Ka	107.48	17.768	wt.%
Si	Ka	87.69	16.928	wt.%
S	Ka	0.23	0.056	wt.%
Ca	Ka	0.28	0.120	wt.%
Fe	La	0.01	0.008	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: kaoun200b



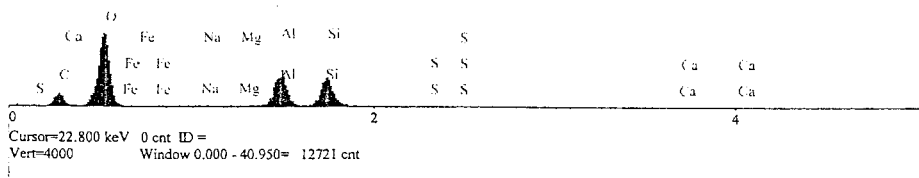
Elt.	Line	Intensity (c/s)	Conc (wt.%)
C	Ka	37.40	35.919 wt.%
O	Ka	100.36	44.060 wt.%
Na	Ka	0.19	0.027 wt.%
Mg	Ka	0.72	0.088 wt.%
Al	Ka	80.17	10.284 wt.%
Si	Ka	65.58	9.472 wt.%
S	Ka	0.18	0.032 wt.%
Ca	Ka	0.17	0.055 wt.%
Fe	La	0.11	0.063 wt.%
			100.000 wt.%
Total			

kV

10.0

Material Classification:

Spectrum: kaoun200c

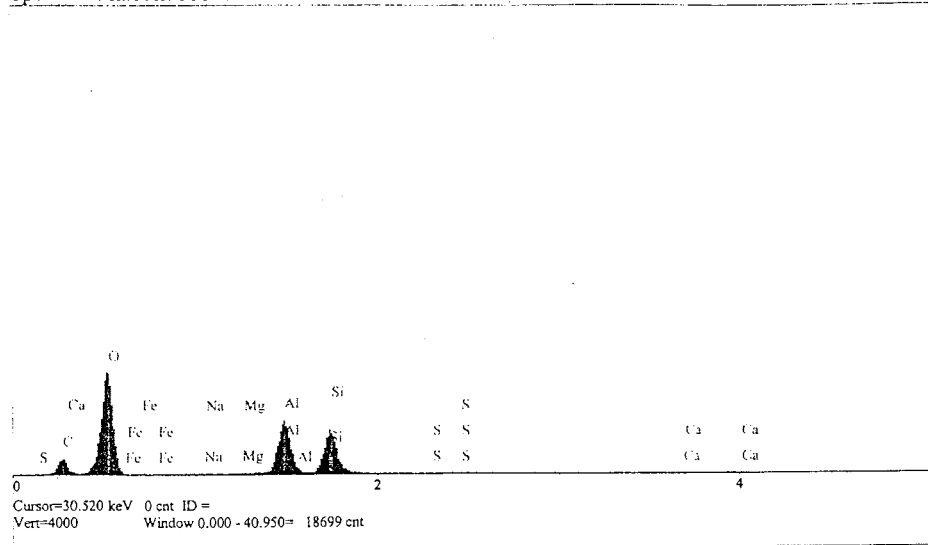


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	11.63	23.244	wt.%
O	Ka	75.59	56.452	wt.%
Na	Ka	0.37	0.111	wt.%
Mg	Ka	0.16	0.042	wt.%
Al	Ka	38.55	10.097	wt.%
Si	Ka	33.69	9.850	wt.%
S	Ka	0.08	0.028	wt.%
Ca	Ka	0.14	0.095	wt.%
Fe	La	0.06	0.082	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: kaoun7000a1

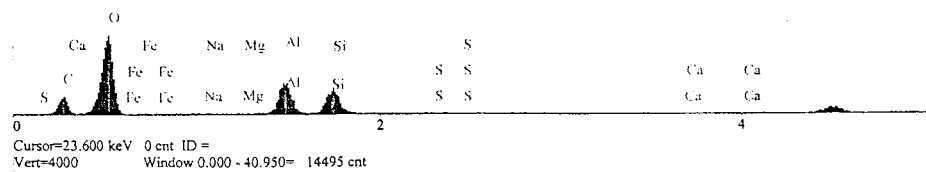


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	25.63	21.632	wt.%
O	Ka	188.22	56.067	wt.%
Na	Ka	0.73	0.086	wt.%
Mg	Ka	1.04	0.106	wt.%
Al	Ka	108.22	11.386	wt.%
Si	Ka	89.30	10.569	wt.%
S	Ka	0.10	0.015	wt.%
Ca	Ka	0.26	0.070	wt.%
Fe	La	0.14	0.068	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: kaoun7000a2



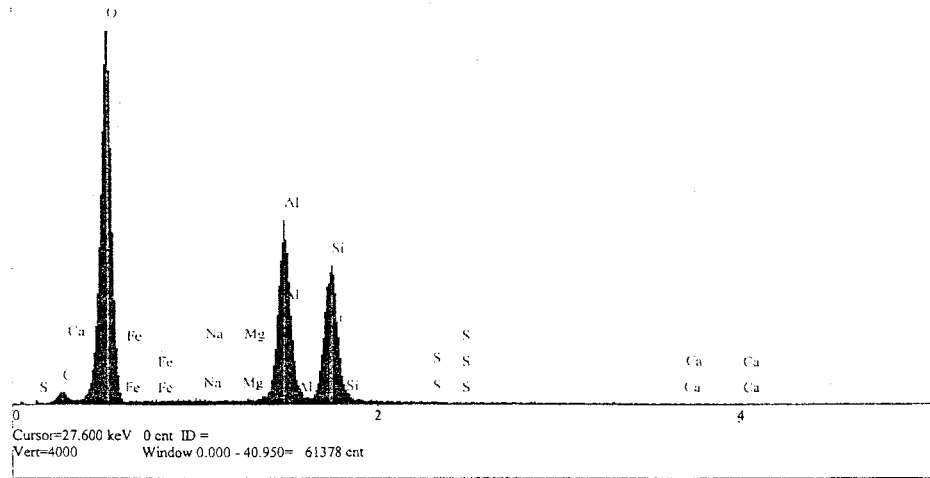
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	32.30	26.713	wt.%
O	Ka	162.37	56.376	wt.%
Na	Ka	1.23	0.167	wt.%
Mg	Ka	0.31	0.036	wt.%
Al	Ka	72.99	8.716	wt.%
Si	Ka	58.42	7.717	wt.%
S	Ka	0.21	0.034	wt.%
Ca	Ka	0.36	0.108	wt.%
Fe	La	0.23	0.133	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: kaoun7000a3

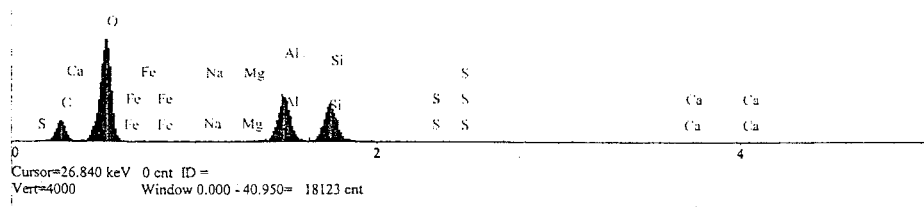


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	4.76	5.196	wt.%
O	Ka	246.24	66.439	wt.%
Na	Ka	0.49	0.065	wt.%
Mg	Ka	0.36	0.040	wt.%
Al	Ka	123.65	14.399	wt.%
Si	Ka	103.46	13.715	wt.%
S	Ka	0.42	0.069	wt.%
Ca	Ka	0.10	0.029	wt.%
Fe	La	0.08	0.048	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: kaoun7000b



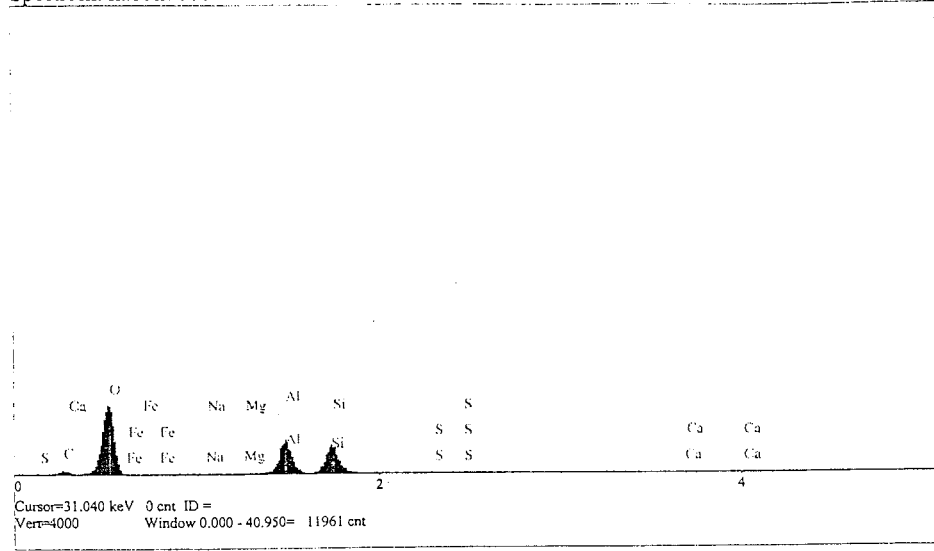
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	37.01	25.180	wt.%
O	Ka	208.62	55.597	wt.%
Na	Ka	0.89	0.092	wt.%
Mg	Ka	0.60	0.054	wt.%
Al	Ka	105.11	9.644	wt.%
Si	Ka	90.50	9.247	wt.%
S	Ka	0.27	0.034	wt.%
Ca	Ka	0.23	0.053	wt.%
Fe	La	0.22	0.099	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: kaoun700c

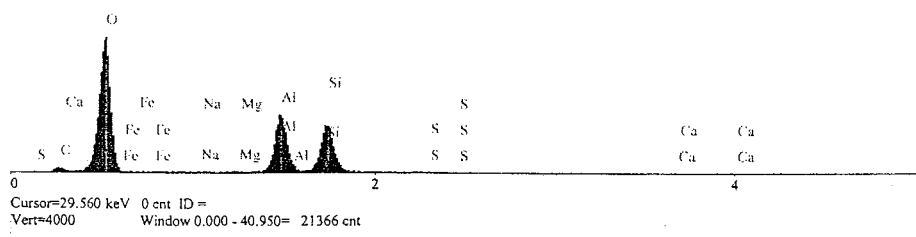


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	10.83	10.505	wt.%
O	Ka	233.47	63.133	wt.%
Na	Ka	0.36	0.044	wt.%
Mg	Ka	0.59	0.062	wt.%
Al	Ka	120.65	13.131	wt.%
Si	Ka	103.82	12.794	wt.%
S	Ka	0.49	0.075	wt.%
Ca	Ka	0.70	0.193	wt.%
Fe	La	0.12	0.064	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: kaoun11500a

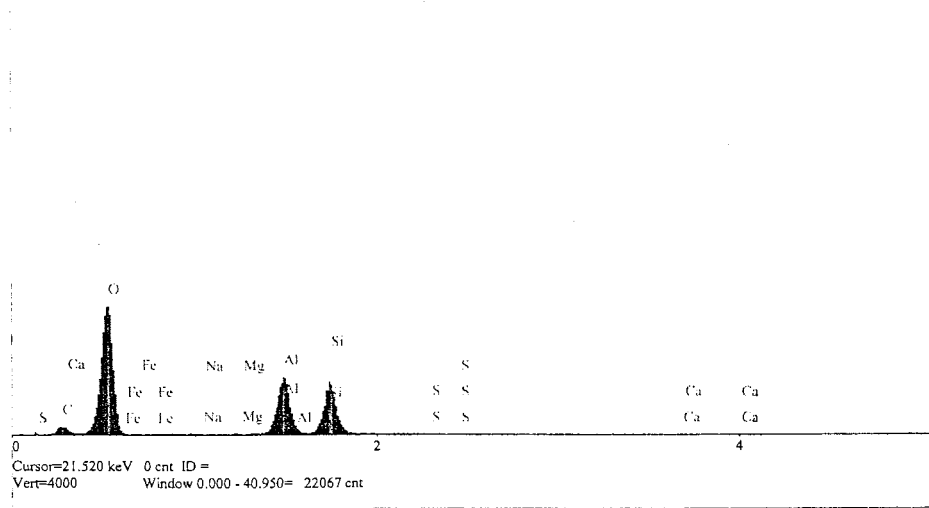


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	7.07	6.876	wt.%
O	Ka	263.33	66.734	wt.%
Na	Ka	0.68	0.084	wt.%
Mg	Ka	0.79	0.083	wt.%
Al	Ka	121.76	13.221	wt.%
Si	Ka	104.83	12.866	wt.%
S	Ka	0.30	0.046	wt.%
Ca	Ka	0.16	0.043	wt.%
Fe	La	0.09	0.046	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: kaoun11500c

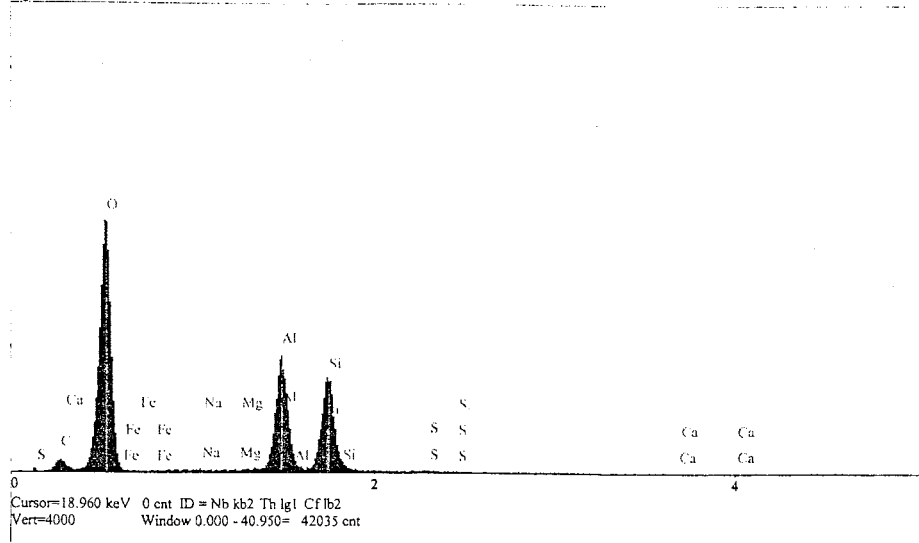


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	5.66	10.121	wt.%
O	Ka	129.28	64.847	wt.%
Na	Ka	0.14	0.032	wt.%
Mg	Ka	0.31	0.063	wt.%
Al	Ka	60.34	12.441	wt.%
Si	Ka	53.05	12.323	wt.%
S	Ka	0.12	0.036	wt.%
Ca	Ka	0.19	0.100	wt.%
Fe	La	0.04	0.037	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: kaoen200a

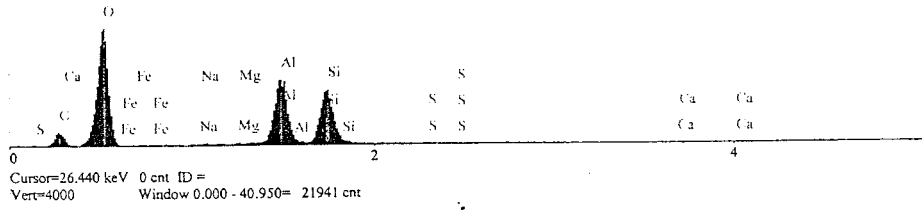


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	6.41	8.166	wt.%
O	Ka	192.92	65.177	wt.%
Na	Ka	0.58	0.094	wt.%
Mg	Ka	0.46	0.063	wt.%
Al	Ka	93.84	13.245	wt.%
Si	Ka	81.54	13.025	wt.%
S	Ka	0.86	0.171	wt.%
Ca	Ka	0.10	0.036	wt.%
Fe	La	0.03	0.023	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: kaoen200b

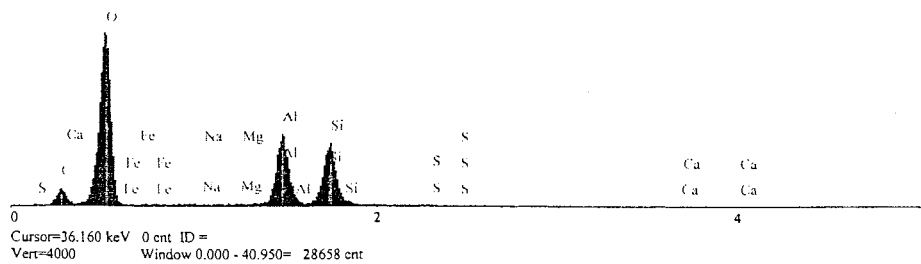


Elt.	Line	Intensity (c/s)	Conc wt. %	
C	Ka	12.96	18.822	wt. %
O	Ka	118.95	55.254	wt. %
Na	Ka	0.77	0.143	wt. %
Mg	Ka	0.90	0.144	wt. %
Al	Ka	77.98	12.896	wt. %
Si	Ka	66.69	12.530	wt. %
S	Ka	0.44	0.103	wt. %
Ca	Ka	0.19	0.079	wt. %
Fe	La	0.04	0.029	wt. %
			100.000	wt. % Total

kV
10.0

Material Classification:

Spectrum: kaoen200c



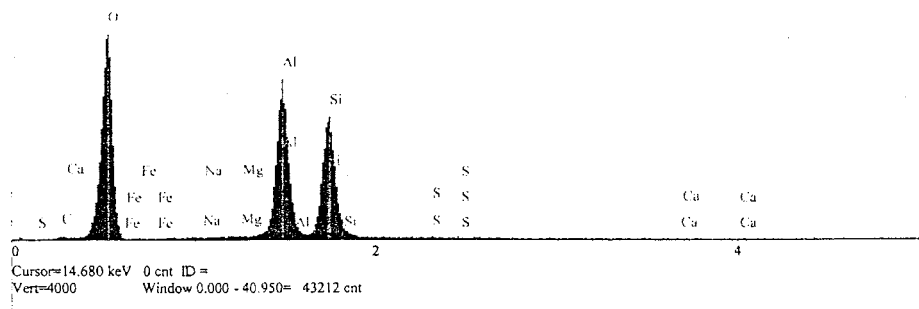
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	16.88	15.196	wt.%
O	Ka	219.18	62.727	wt.%
Na	Ka	0.29	0.037	wt.%
Mg	Ka	0.36	0.039	wt.%
Al	Ka	97.08	10.834	wt.%
Si	Ka	86.88	10.832	wt.%
S	Ka	0.93	0.145	wt.%
Ca	Ka	0.37	0.105	wt.%
Fe	La	0.16	0.086	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: kaoen7000a1



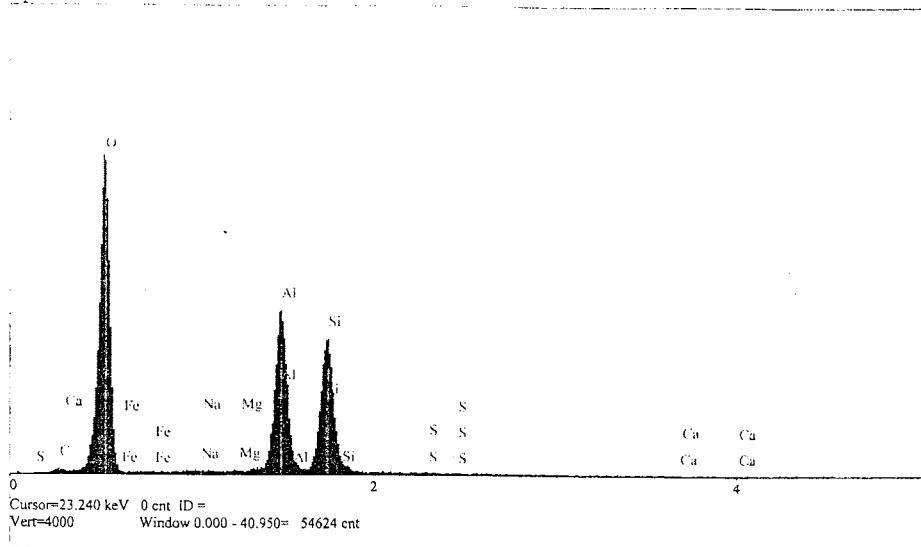
El.	Line	Intensity (c/s)	Conc	
C	Ka	0.75	1.611	wt.%
O	Ka	130.75	58.934	wt.%
Na	Ka	0.26	0.053	wt.%
Mg	Ka	0.84	0.150	wt.%
Al	Ka	108.30	19.923	wt.%
Si	Ka	88.07	19.130	wt.%
S	Ka	0.40	0.108	wt.%
Ca	Ka	0.19	0.092	wt.%
Fe	La	0.00	0.000	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: kaoen7000a2



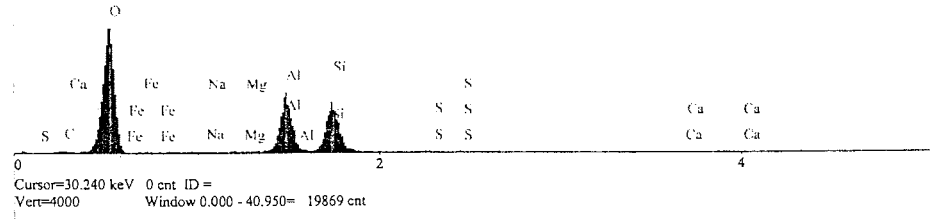
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	2.80	3.767	wt.%
O	Ka	205.65	64.540	wt.%
Na	Ka	0.76	0.115	wt.%
Mg	Ka	0.61	0.080	wt.%
Al	Ka	116.83	15.686	wt.%
Si	Ka	99.87	15.393	wt.%
S	Ka	0.53	0.102	wt.%
Ca	Ka	0.14	0.047	wt.%
Fe	La	0.42	0.271	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: kaoen7000a3

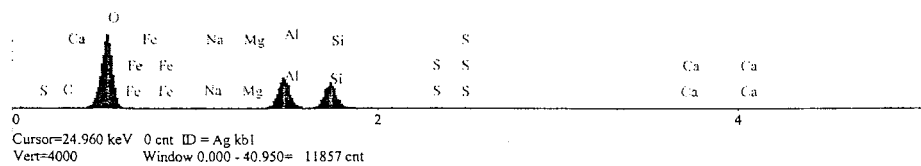


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.83	2.932	wt.%
O	Ka	81.61	68.096	wt.%
Na	Ka	0.36	0.154	wt.%
Mg	Ka	0.17	0.060	wt.%
Al	Ka	37.54	13.970	wt.%
Si	Ka	33.93	14.322	wt.%
S	Ka	0.28	0.148	wt.%
Ca	Ka	0.04	0.039	wt.%
Fe	La	0.15	0.278	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: kaoen7000b

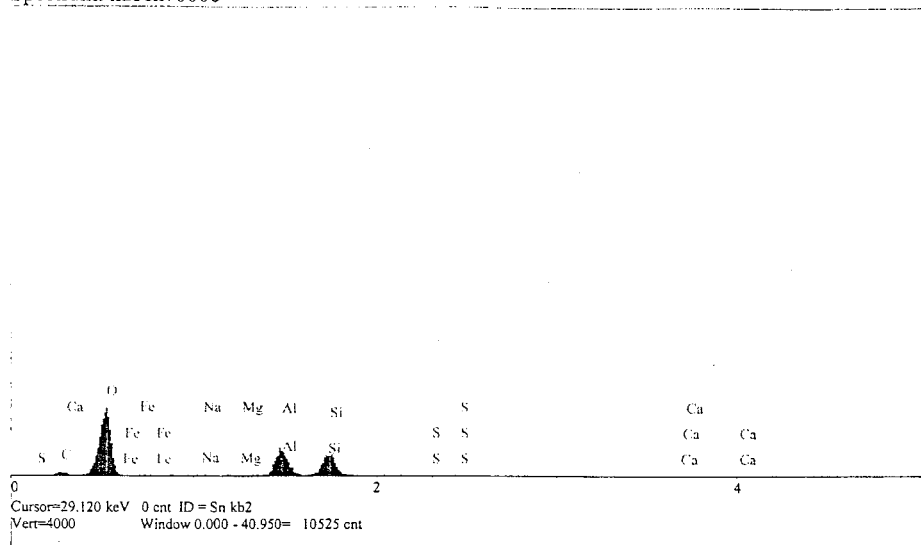


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.56	1.691	wt.%
O	Ka	98.34	68.796	wt.%
Na	Ka	0.79	0.286	wt.%
Mg	Ka	0.15	0.048	wt.%
Al	Ka	45.75	14.533	wt.%
Si	Ka	38.99	14.079	wt.%
S	Ka	0.47	0.210	wt.%
Ca	Ka	0.03	0.028	wt.%
Fe	La	0.21	0.328	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: kaoen7000c



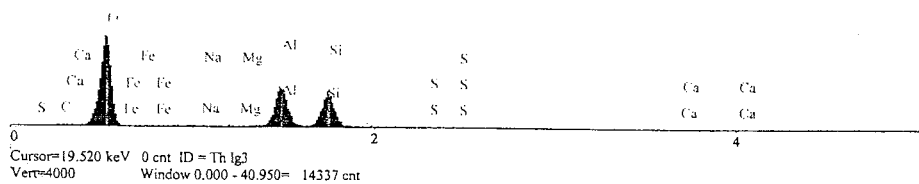
Elt.	Line	Intensity	Conc	
			(c/s)	
C	Ka	7.27	9.968	wt.%
O	Ka	169.04	65.509	wt.%
Na	Ka	1.03	0.190	wt.%
Mg	Ka	0.30	0.048	wt.%
Al	Ka	74.60	12.037	wt.%
Si	Ka	63.89	11.570	wt.%
S	Ka	0.88	0.197	wt.%
Ca	Ka	0.20	0.080	wt.%
Fe	La	0.51	0.403	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: kaoen11500a



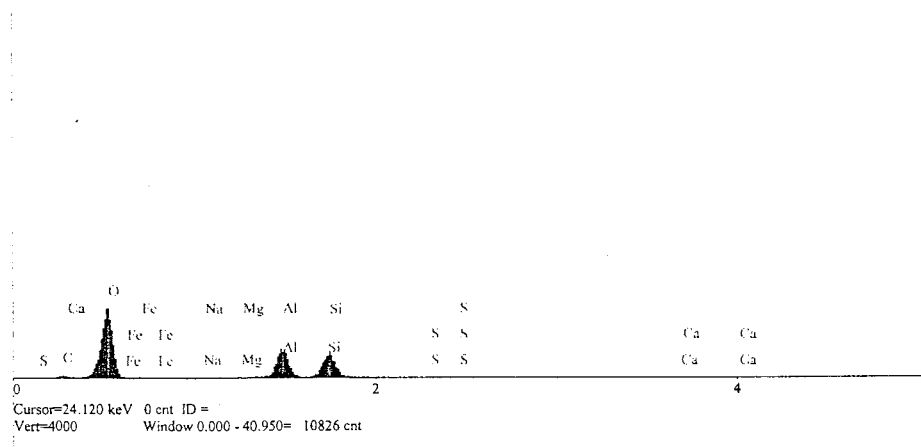
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	1.15	1.855	wt.%
O	Ka	182.58	67.294	wt.%
Na	Ka	0.87	0.161	wt.%
Mg	Ka	0.34	0.054	wt.%
Al	Ka	93.73	15.316	wt.%
Si	Ka	80.39	15.026	wt.%
S	Ka	0.40	0.092	wt.%
Ca	Ka	0.44	0.181	wt.%
Fe	La	0.03	0.021	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: kaoen11500c



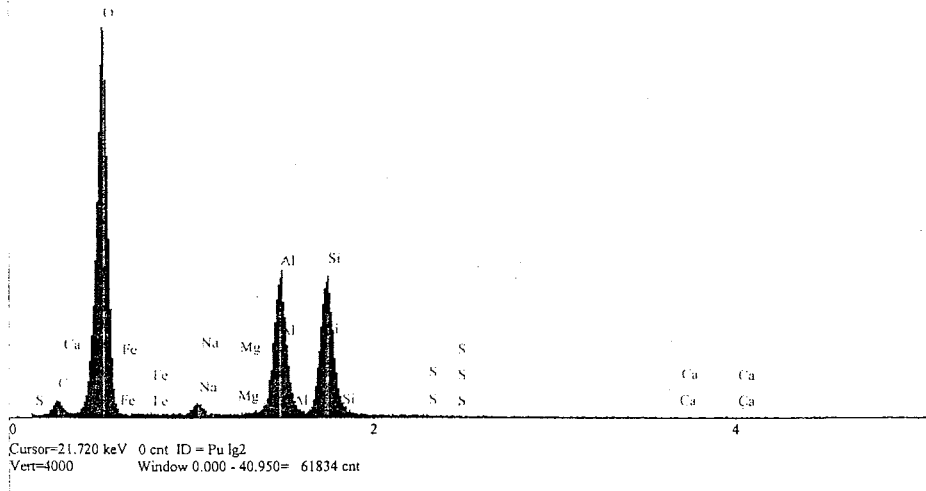
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	3.71	6.476	wt.%
O	Ka	147.02	66.438	wt.%
Na	Ka	0.18	0.041	wt.%
Mg	Ka	0.27	0.050	wt.%
Al	Ka	67.14	12.971	wt.%
Si	Ka	60.13	13.107	wt.%
S	Ka	0.93	0.251	wt.%
Ca	Ka	0.44	0.213	wt.%
Fe	La	0.48	0.453	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: kaobs200a

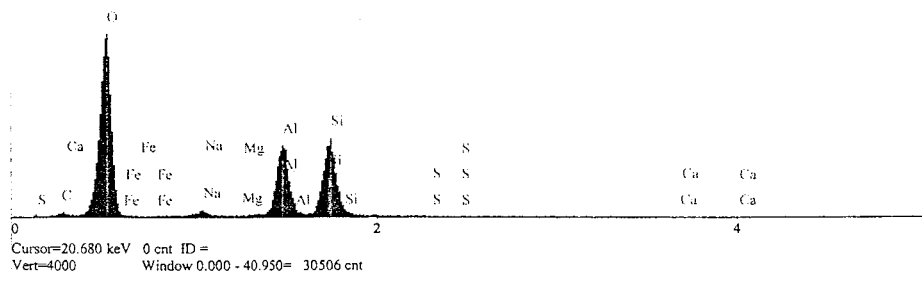


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	7.78	7.623	wt.%
O	Ka	254.97	66.792	wt.%
Na	Ka	6.42	0.821	wt.%
Mg	Ka	0.25	0.027	wt.%
Al	Ka	101.94	11.447	wt.%
Si	Ka	104.00	13.057	wt.%
S	Ka	0.29	0.045	wt.%
Ca	Ka	0.23	0.065	wt.%
Fe	La	0.22	0.123	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: kaobs200b



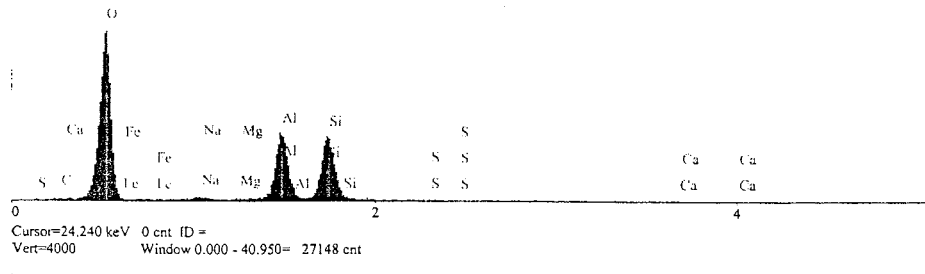
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	2.59	3.199	wt.%
O	Ka	230.70	67.490	wt.%
Na	Ka	6.09	0.897	wt.%
Mg	Ka	0.28	0.036	wt.%
Al	Ka	98.45	12.764	wt.%
Si	Ka	105.71	15.443	wt.%
S	Ka	0.18	0.032	wt.%
Ca	Ka	0.23	0.074	wt.%
Fe	La	0.10	0.064	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: kaobs200c

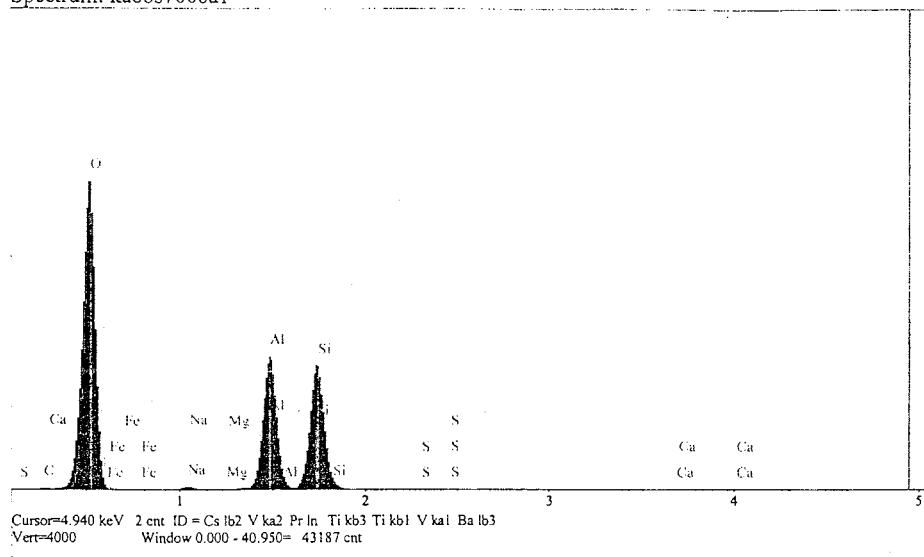


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.91	0.957	wt.%
O	Ka	292.10	69.637	wt.%
Na	Ka	4.80	0.602	wt.%
Mg	Ka	0.96	0.103	wt.%
Al	Ka	122.52	13.458	wt.%
Si	Ka	119.99	14.885	wt.%
S	Ka	0.29	0.044	wt.%
Ca	Ka	0.19	0.053	wt.%
Fe	La	0.49	0.261	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: kaobs7000a1



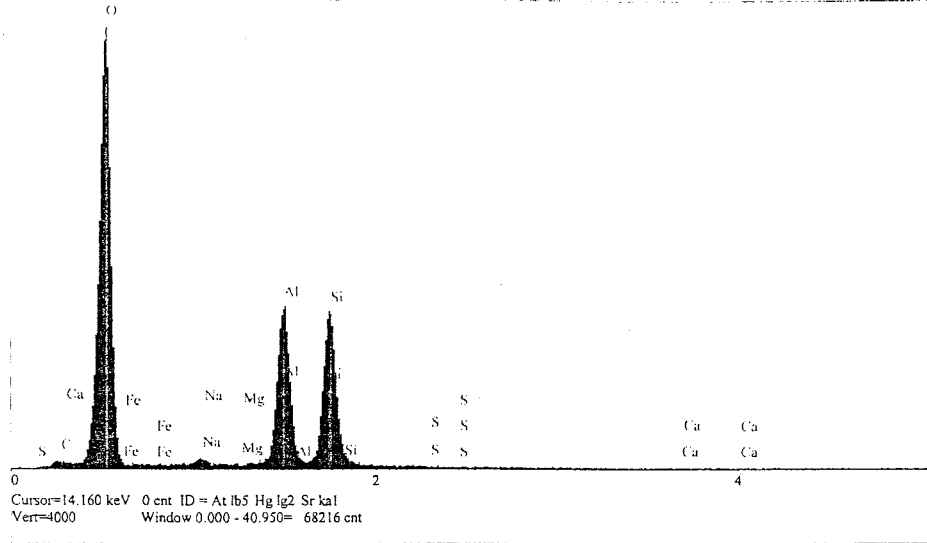
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.60	0.862	wt.%
O	Ka	214.34	68.540	wt.%
Na	Ka	2.31	0.381	wt.%
Mg	Ka	0.49	0.070	wt.%
Al	Ka	99.44	14.413	wt.%
Si	Ka	94.88	15.643	wt.%
S	Ka	0.17	0.034	wt.%
Ca	Ka	0.15	0.057	wt.%
Fe	La	0.00	0.000	wt.%
100.000				Total

kV

10.0

Material Classification:

Spectrum: kaobs7000a2

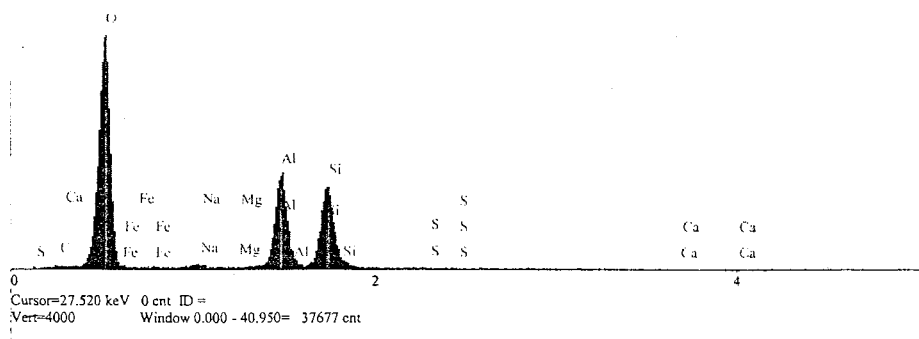


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	3.54	3.462	wt.%
O	Ka	290.35	69.062	wt.%
Na	Ka	3.79	0.465	wt.%
Mg	Ka	0.36	0.038	wt.%
Al	Ka	116.63	12.490	wt.%
Si	Ka	116.44	14.011	wt.%
S	Ka	0.30	0.044	wt.%
Ca	Ka	0.22	0.060	wt.%
Fe	La	0.70	0.369	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: kaobs7000a3



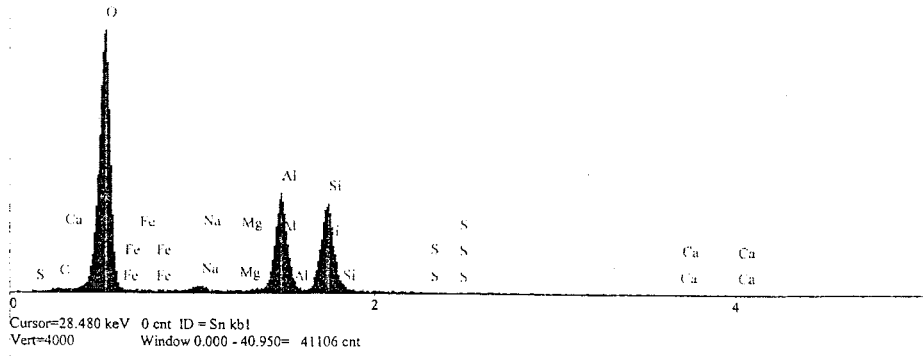
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	1.06	1.116	wt.%
O	Ka	290.67	70.138	wt.%
Na	Ka	4.21	0.535	wt.%
Mg	Ka	0.18	0.020	wt.%
Al	Ka	123.27	13.719	wt.%
Si	Ka	114.08	14.362	wt.%
S	Ka	0.29	0.046	wt.%
Ca	Ka	0.23	0.065	wt.%
Fe	La	0.00	0.000	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: kaobs7000b



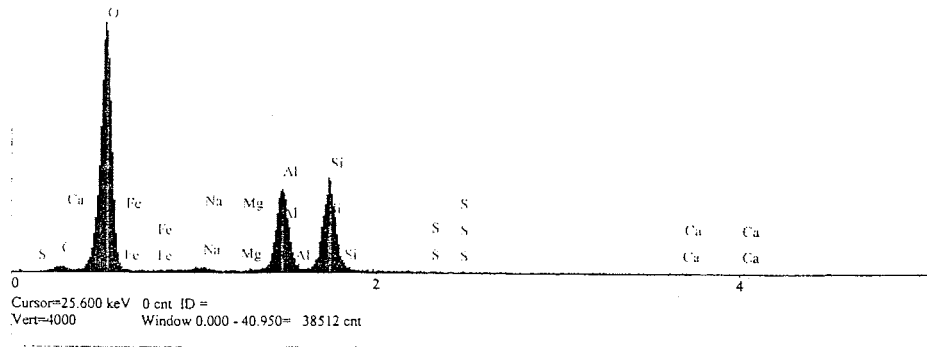
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.53	0.644	wt.%
O	Ka	253.14	71.787	wt.%
Na	Ka	4.68	0.718	wt.%
Mg	Ka	0.31	0.041	wt.%
Al	Ka	95.58	12.800	wt.%
Si	Ka	91.71	13.798	wt.%
S	Ka	0.15	0.029	wt.%
Ca	Ka	0.22	0.075	wt.%
Fe	La	0.16	0.109	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: kaobs7000c

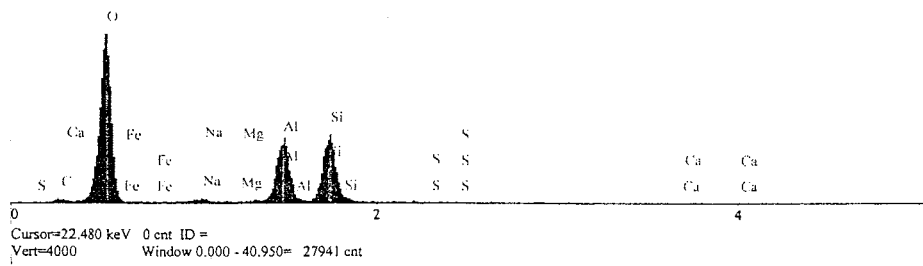


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	3.87	4.802	wt.%
O	Ka	220.53	69.754	wt.%
Na	Ka	3.37	0.547	wt.%
Mg	Ka	0.26	0.035	wt.%
Al	Ka	78.29	11.097	wt.%
Si	Ka	85.06	13.437	wt.%
S	Ka	0.33	0.066	wt.%
Ca	Ka	0.28	0.101	wt.%
Fe	La	0.23	0.159	wt.%
			100.000	wt.% Total

kV
10.0

Material Classification:

Spectrum: kaobs11500a

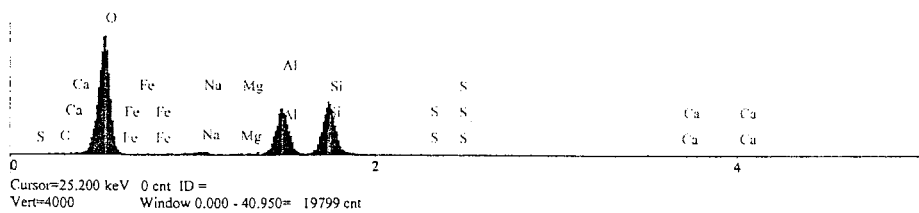


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	2.82	3.455	wt.%
O	Ka	230.04	67.909	wt.%
Na	Ka	4.42	0.659	wt.%
Mg	Ka	0.63	0.081	wt.%
Al	Ka	96.03	12.581	wt.%
Si	Ka	101.29	14.931	wt.%
S	Ka	0.15	0.028	wt.%
Ca	Ka	0.45	0.150	wt.%
Fe	La	0.32	0.207	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: kaobs11500c



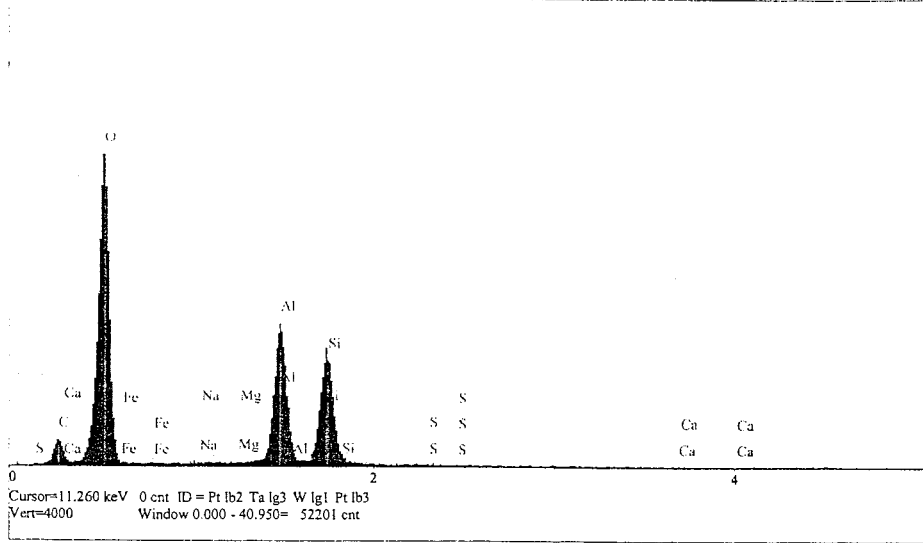
El.	Line	Intensity (c/s)	Conc	
C	Ka	0.00	0.000	wt.%
O	Ka	204.66	68.434	wt.%
Na	Ka	5.01	0.868	wt.%
Mg	Ka	0.69	0.103	wt.%
Al	Ka	87.54	13.350	wt.%
Si	Ka	98.80	17.034	wt.%
S	Ka	0.18	0.039	wt.%
Ca	Ka	0.24	0.093	wt.%
Fe	La	0.11	0.079	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: kaopz200a



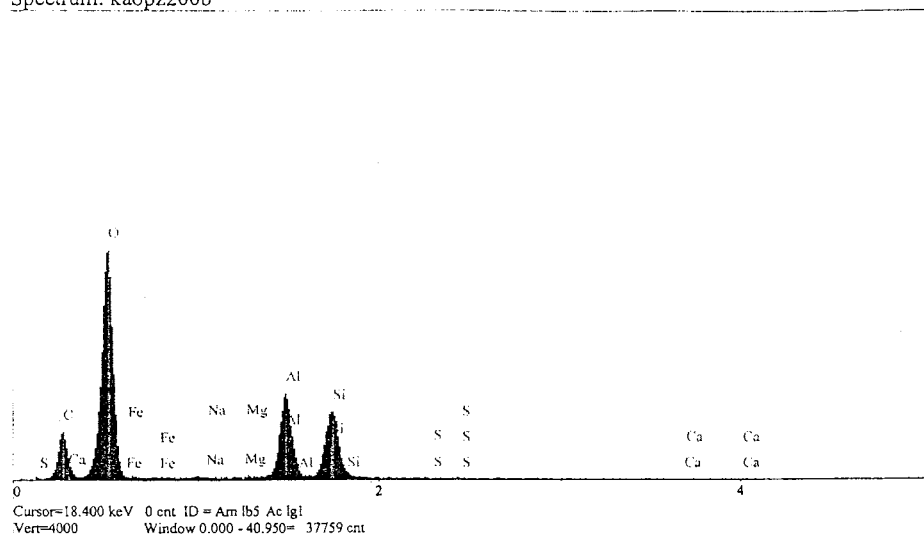
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	13.07	12.616	wt.%
O	Ka	221.24	63.164	wt.%
Na	Ka	0.49	0.063	wt.%
Mg	Ka	0.51	0.057	wt.%
Al	Ka	108.16	12.323	wt.%
Si	Ka	89.61	11.501	wt.%
S	Ka	0.56	0.089	wt.%
Ca	Ka	0.20	0.056	wt.%
Fe	La	0.23	0.130	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: kaopz200b



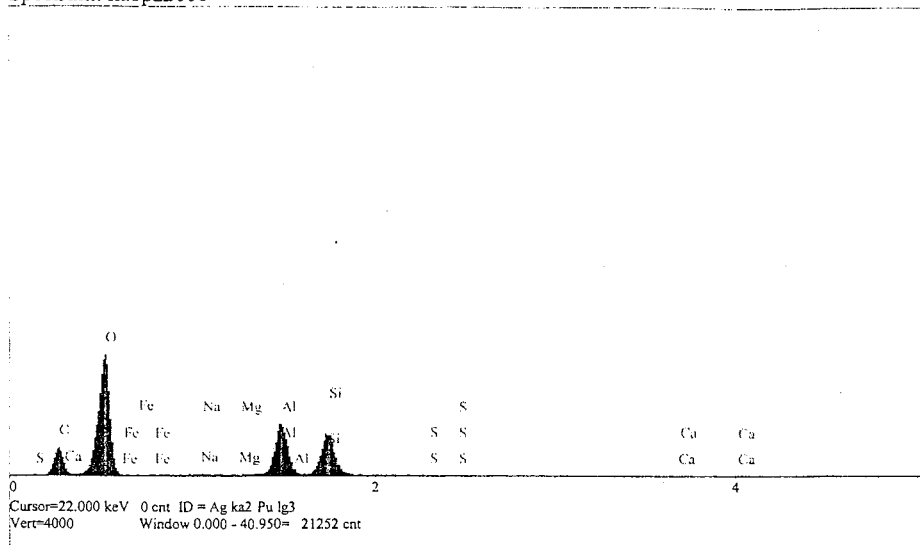
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	40.73	24.339	wt.%
O	Ka	244.94	59.069	wt.%
Na	Ka	0.91	0.090	wt.%
Mg	Ka	0.79	0.066	wt.%
Al	Ka	95.91	8.272	wt.%
Si	Ka	83.95	7.978	wt.%
S	Ka	0.29	0.034	wt.%
Ca	Ka	0.13	0.028	wt.%
Fe	La	0.29	0.124	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: kaopz200c

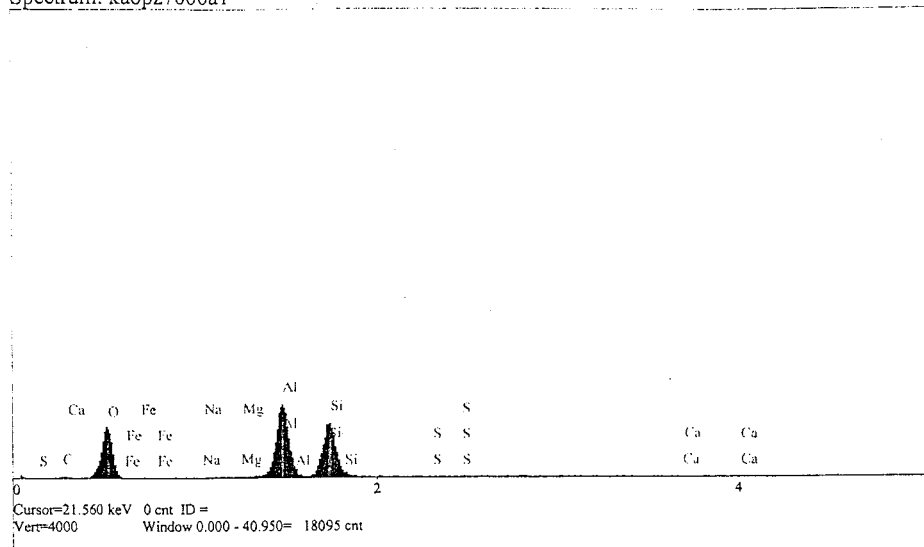


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	35.66	26.886	wt.%
O	Ka	177.11	54.998	wt.%
Na	Ka	1.20	0.142	wt.%
Mg	Ka	0.32	0.032	wt.%
Al	Ka	86.51	9.095	wt.%
Si	Ka	73.39	8.564	wt.%
S	Ka	0.42	0.062	wt.%
Ca	Ka	0.54	0.143	wt.%
Fe	La	0.15	0.078	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: kaopz7000a1

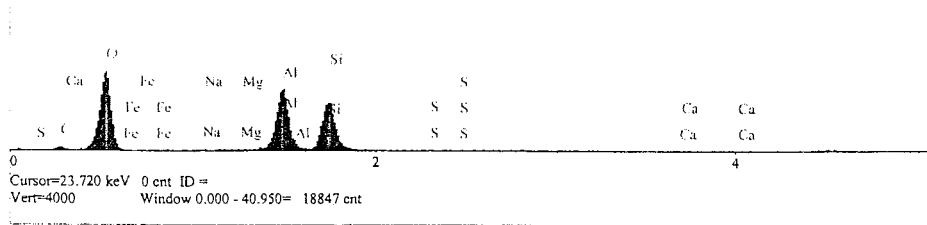


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.94	5.136	wt.%
O	Ka	40.16	44.650	wt.%
Na	Ka	0.11	0.048	wt.%
Mg	Ka	0.36	0.133	wt.%
Al	Ka	66.98	25.933	wt.%
Si	Ka	49.83	23.779	wt.%
S	Ka	0.08	0.048	wt.%
Ca	Ka	0.24	0.247	wt.%
Fe	La	0.02	0.026	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: kaopz700a2



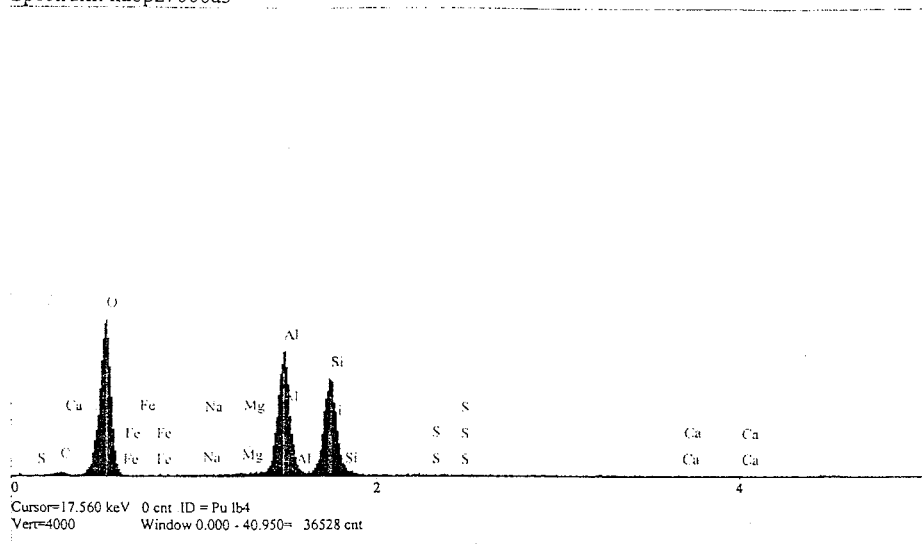
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	2.31	7.314	wt.%
O	Ka	74.72	55.912	wt.%
Na	Ka	0.38	0.119	wt.%
Mg	Ka	0.35	0.095	wt.%
Al	Ka	63.93	18.251	wt.%
Si	Ka	53.58	17.924	wt.%
S	Ka	0.26	0.110	wt.%
Ca	Ka	0.37	0.275	wt.%
Fe	La	0.00	0.000	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: kaopz7000a3



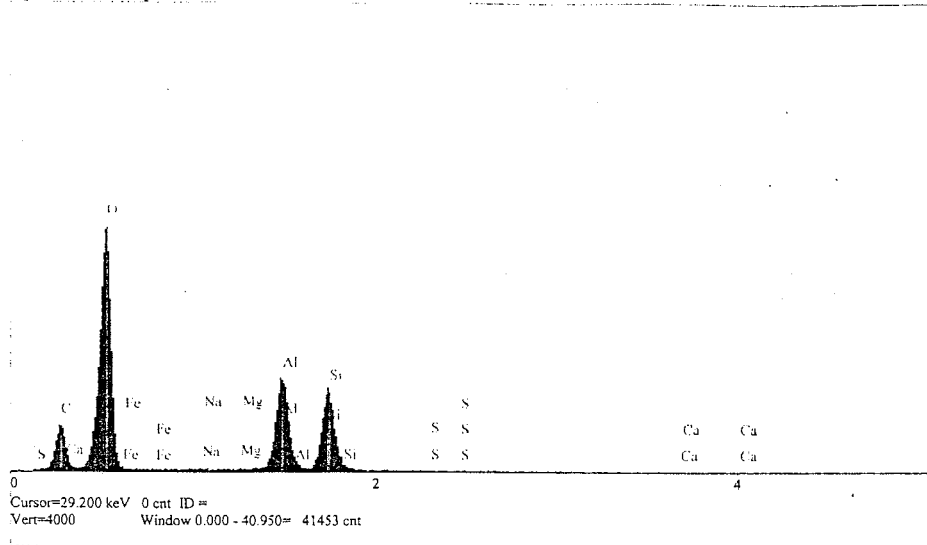
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	1.73	4.314	wt.%
O	Ka	104.20	57.321	wt.%
Na	Ka	0.10	0.025	wt.%
Mg	Ka	1.36	0.285	wt.%
Al	Ka	88.71	19.320	wt.%
Si	Ka	72.29	18.539	wt.%
S	Ka	0.10	0.031	wt.%
Ca	Ka	0.19	0.105	wt.%
Fe	La	0.06	0.061	wt.%
100.000				wt.%
				Total

kV

10.0

Material Classification:

Spectrum: kaopz7000b



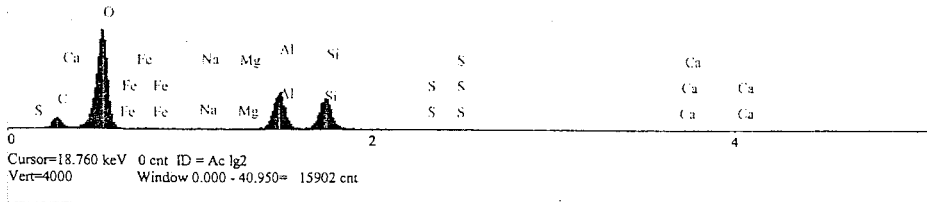
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	39.05	23.837	wt.%
O	Ka	242.73	58.706	wt.%
Na	Ka	0.67	0.066	wt.%
Mg	Ka	0.32	0.027	wt.%
Al	Ka	98.54	8.548	wt.%
Si	Ka	86.39	8.269	wt.%
S	Ka	0.22	0.026	wt.%
Ca	Ka	0.16	0.035	wt.%
Fe	La	1.15	0.487	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: kaopz7000c1



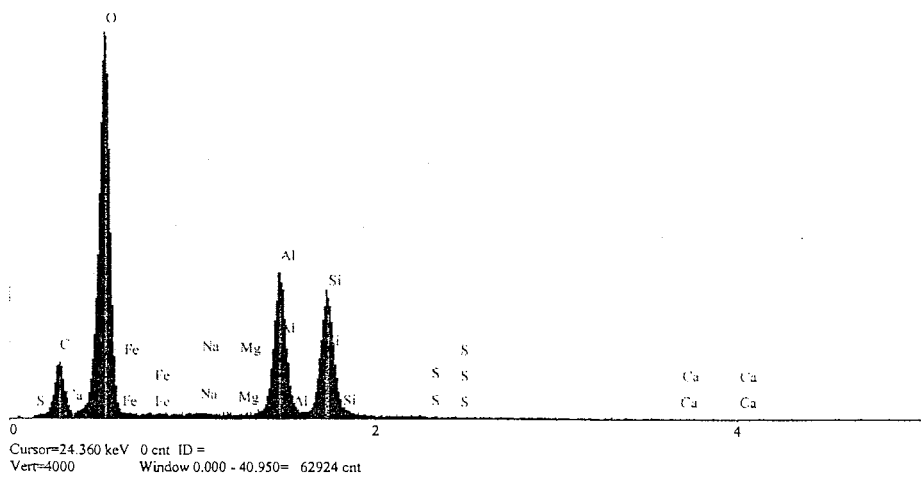
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	23.94	17.995	wt.%
O	Ka	239.78	62.225	wt.%
Na	Ka	1.22	0.138	wt.%
Mg	Ka	0.36	0.035	wt.%
Al	Ka	100.20	9.947	wt.%
Si	Ka	85.68	9.451	wt.%
S	Ka	0.39	0.054	wt.%
Ca	Ka	0.31	0.077	wt.%
Fe	La	0.16	0.078	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: kaopz7000c2



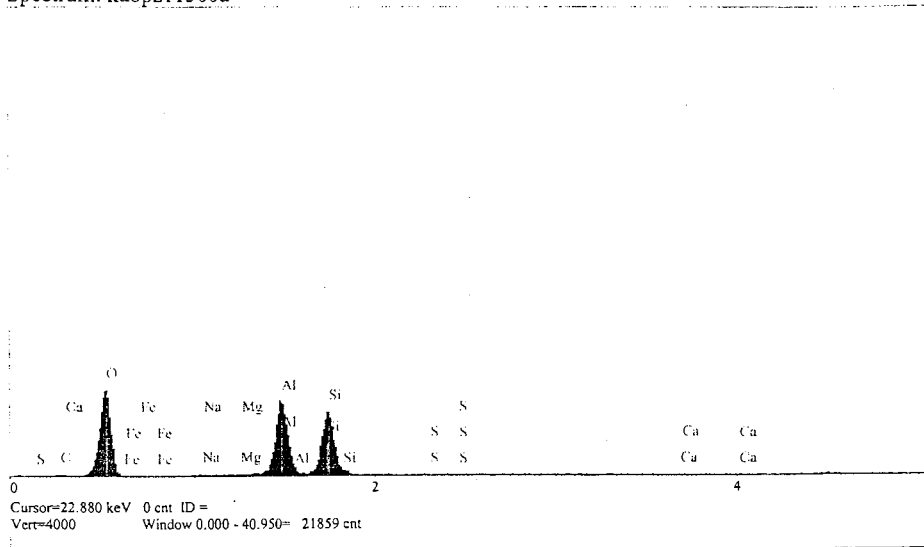
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	34.29	19.275	wt.%
O	Ka	307.49	62.173	wt.%
Na	Ka	1.19	0.105	wt.%
Mg	Ka	0.24	0.018	wt.%
Al	Ka	119.14	9.148	wt.%
Si	Ka	105.86	8.988	wt.%
S	Ka	0.24	0.025	wt.%
Ca	Ka	0.32	0.061	wt.%
Fe	La	0.54	0.207	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: kaopz11500a



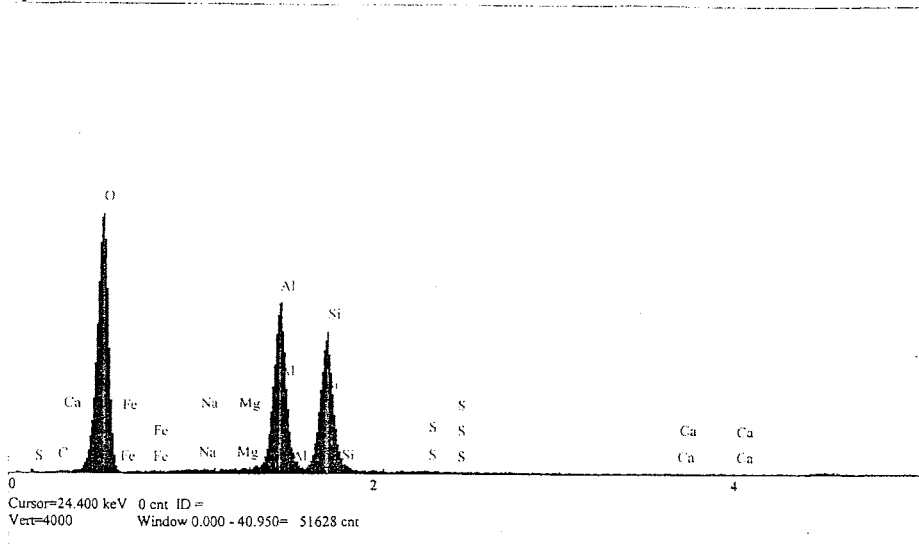
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.72	2.646	wt.%
O	Ka	71.91	55.055	wt.%
Na	Ka	0.65	0.213	wt.%
Mg	Ka	0.45	0.129	wt.%
Al	Ka	69.37	20.662	wt.%
Si	Ka	58.80	20.818	wt.%
S	Ka	0.22	0.096	wt.%
Ca	Ka	0.40	0.313	wt.%
Fe	La	0.05	0.067	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: kaoH2SO4200a

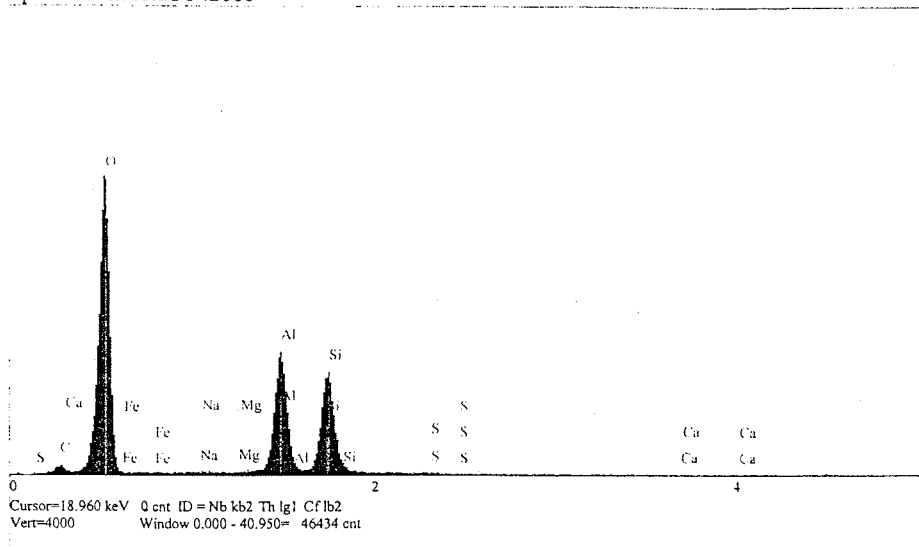


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.00	0.000	wt.%
O	Ka	172.35	62.675	wt.%
Na	Ka	0.72	0.126	wt.%
Mg	Ka	0.76	0.115	wt.%
Al	Ka	121.36	18.908	wt.%
Si	Ka	98.27	17.928	wt.%
S	Ka	0.80	0.182	wt.%
Ca	Ka	0.16	0.065	wt.%
Fe	La	0.00	0.000	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: kaoH2SO4200b



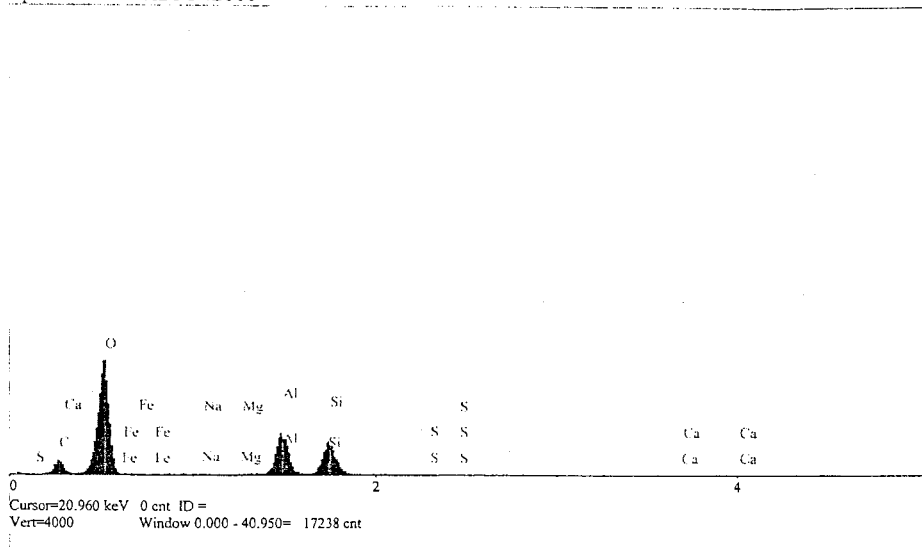
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	4.40	4.689	wt.%
O	Ka	256.15	68.215	wt.%
Na	Ka	0.74	0.100	wt.%
Mg	Ka	0.45	0.052	wt.%
Al	Ka	113.22	13.292	wt.%
Si	Ka	99.09	13.139	wt.%
S	Ka	1.01	0.166	wt.%
Ca	Ka	0.39	0.114	wt.%
Fe	La	0.40	0.233	wt.%
			100.000	wt.% Total

kV

10.0

Material Classification:

Spectrum: kaoH2SO4200c

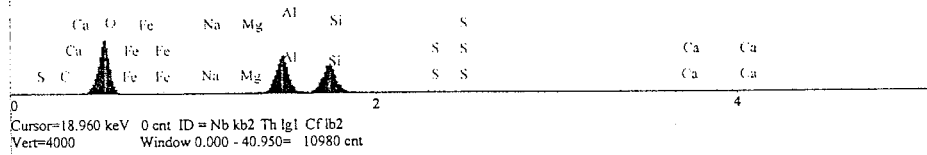


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	7.51	18.348	wt.%
O	Ka	72.97	62.496	wt.%
Na	Ka	0.41	0.153	wt.%
Mg	Ka	0.21	0.066	wt.%
Al	Ka	29.19	9.569	wt.%
Si	Ka	25.00	9.082	wt.%
S	Ka	0.28	0.127	wt.%
Ca	Ka	0.09	0.075	wt.%
Fe	La	0.05	0.083	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: kaoH2SO47000a1

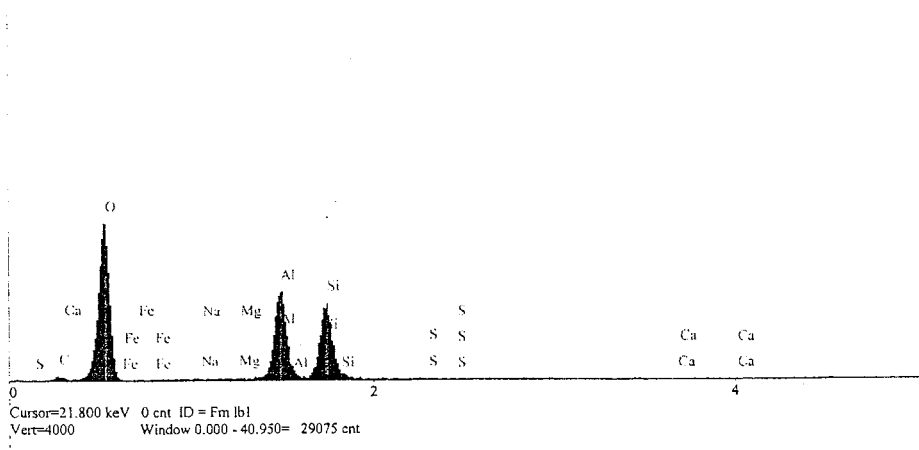


El.	Line	Intensity (c/s)	Conc	
C	Ka	0.00	0.000	wt.%
O	Ka	96.40	60.004	wt.%
Na	Ka	0.68	0.196	wt.%
Mg	Ka	0.39	0.098	wt.%
Al	Ka	76.55	19.799	wt.%
Si	Ka	63.12	19.241	wt.%
S	Ka	0.77	0.292	wt.%
Ca	Ka	0.39	0.262	wt.%
Fe	La	0.09	0.108	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: kaoH2SO47000a2



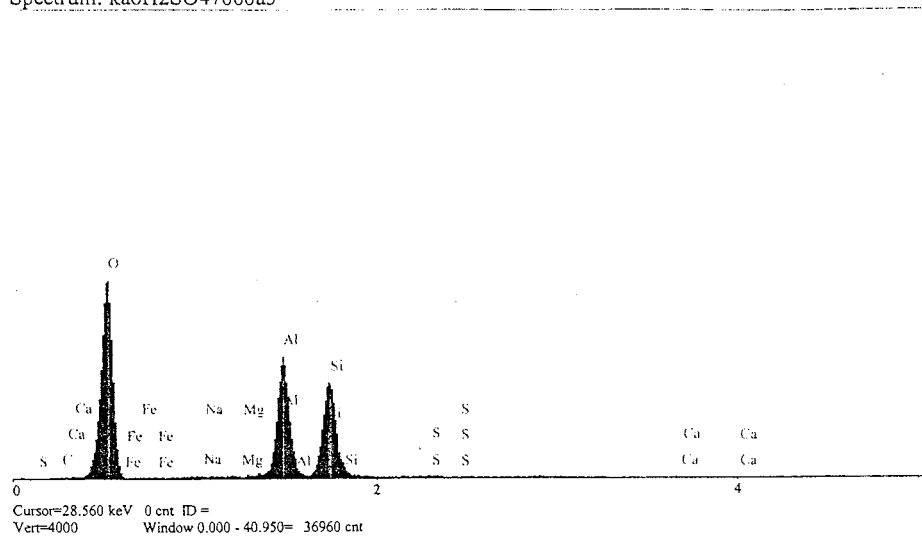
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	3.04	4.597	wt.%
O	Ka	177.82	62.793	wt.%
Na	Ka	0.42	0.069	wt.%
Mg	Ka	0.56	0.079	wt.%
Al	Ka	109.89	16.144	wt.%
Si	Ka	94.58	16.020	wt.%
S	Ka	1.02	0.216	wt.%
Ca	Ka	0.21	0.080	wt.%
Fe	La	0.00	0.000	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: kaoH2SO47000a3

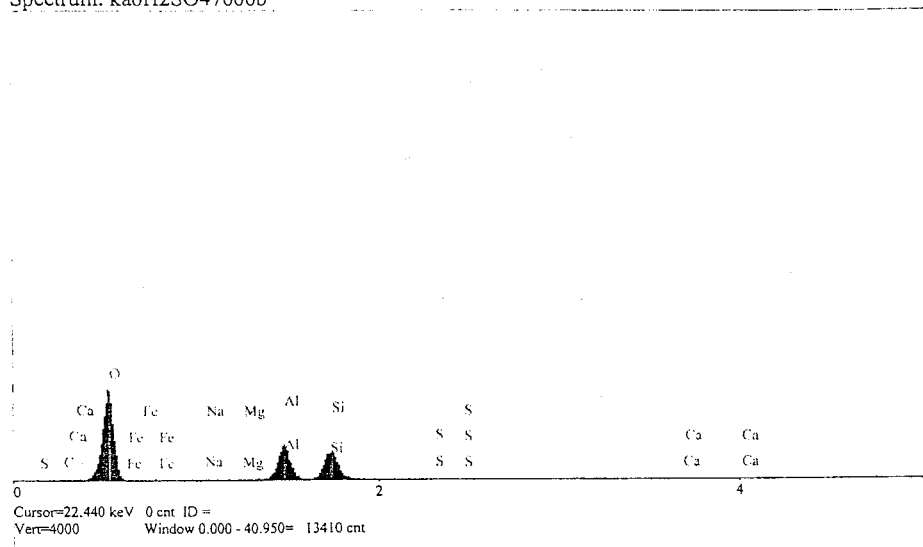


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.00	0.000	wt.%
O	Ka	179.12	64.004	wt.%
Na	Ka	0.63	0.111	wt.%
Mg	Ka	0.37	0.056	wt.%
Al	Ka	113.67	17.577	wt.%
Si	Ka	99.42	17.862	wt.%
S	Ka	1.33	0.298	wt.%
Ca	Ka	0.23	0.093	wt.%
Fe	La	0.00	0.000	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: kaoH2SO47000b

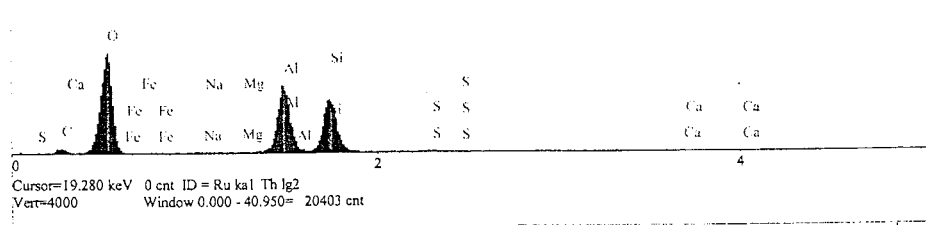


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.00	0.000	wt.%
O	Ka	231.59	70.047	wt.%
Na	Ka	0.92	0.147	wt.%
Mg	Ka	0.58	0.079	wt.%
Al	Ka	101.62	14.184	wt.%
Si	Ka	92.94	14.712	wt.%
S	Ka	1.88	0.370	wt.%
Ca	Ka	0.60	0.210	wt.%
Fe	La	0.37	0.252	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: kaoH2SO47000c



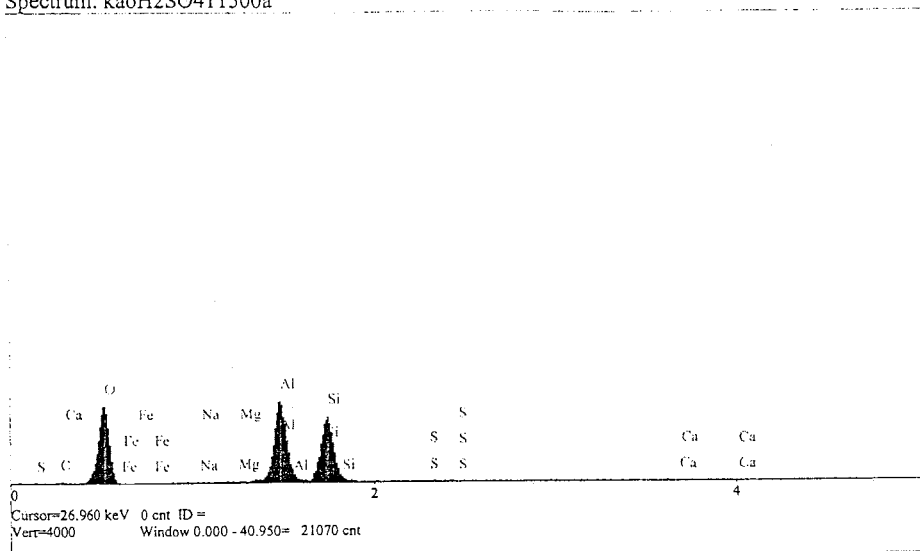
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	5.33	9.395	wt.%
O	Ka	129.26	56.849	wt.%
Na	Ka	0.66	0.124	wt.%
Mg	Ka	0.47	0.077	wt.%
Al	Ka	98.89	16.568	wt.%
Si	Ka	84.60	16.442	wt.%
S	Ka	1.76	0.428	wt.%
Ca	Ka	0.19	0.081	wt.%
Fe	La	0.05	0.037	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: kaoH2SO411500a



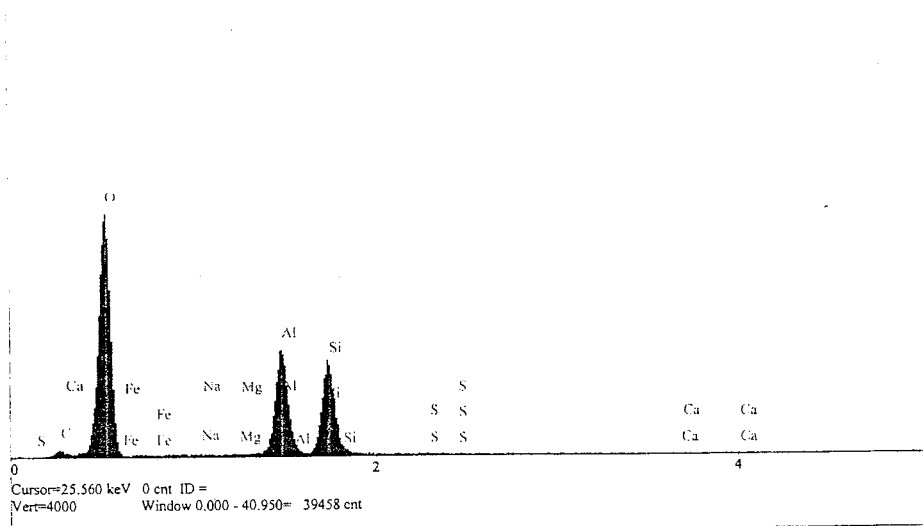
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.56	1.846	wt.%
O	Ka	79.21	51.498	wt.%
Na	Ka	0.20	0.053	wt.%
Mg	Ka	0.95	0.224	wt.%
Al	Ka	94.63	23.248	wt.%
Si	Ka	76.25	22.645	wt.%
S	Ka	0.73	0.270	wt.%
Ca	Ka	0.31	0.199	wt.%
Fe	La	0.02	0.017	wt.%
100.000				wt.%
				Total

kV

10.0

Material Classification:

Spectrum: kaoH2SO411500c



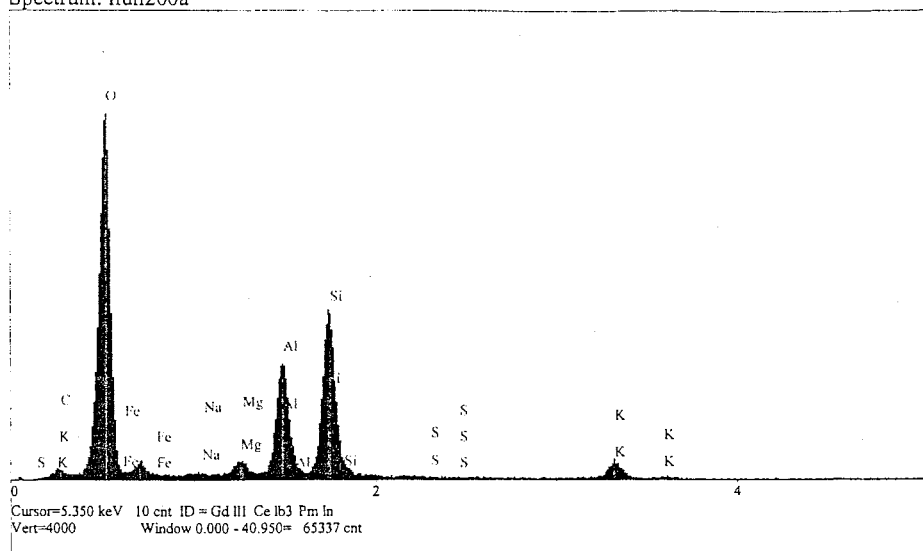
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	2.86	4.327	wt.%
O	Ka	181.96	67.099	wt.%
Na	Ka	0.61	0.113	wt.%
Mg	Ka	0.40	0.063	wt.%
Al	Ka	86.04	13.888	wt.%
Si	Ka	76.60	14.024	wt.%
S	Ka	0.53	0.122	wt.%
Ca	Ka	0.10	0.042	wt.%
Fe	La	0.41	0.323	wt.%
			100.000	wt.%
				Total

kV
 10.0

Material Classification:

Appendix E.7. SEM/EDS spectra of illite.

Spectrum: ilun200a



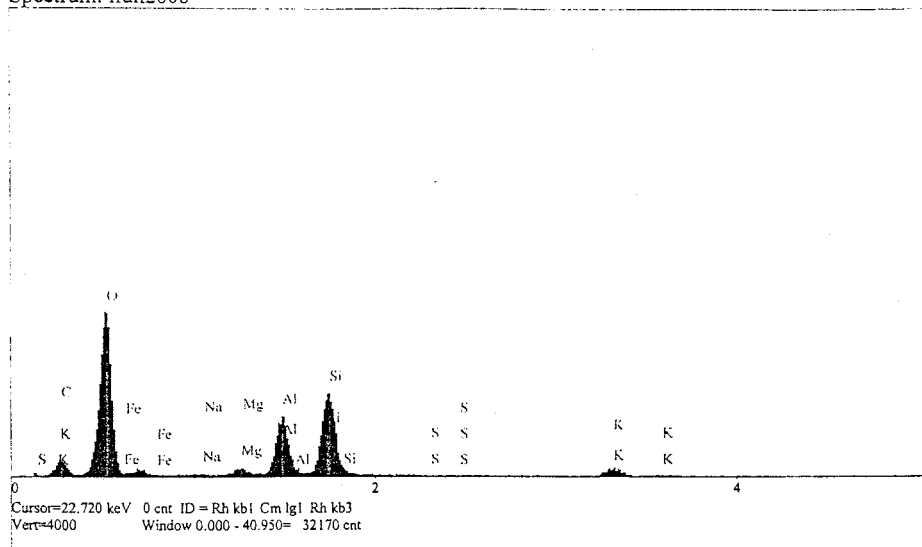
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	5.37	5.754	wt.%
O	Ka	239.81	62.489	wt.%
Na	Ka	1.16	0.144	wt.%
Mg	Ka	9.68	1.019	wt.%
Al	Ka	81.91	8.835	wt.%
Si	Ka	123.88	14.646	wt.%
S	Ka	0.23	0.035	wt.%
K	Ka	13.10	2.951	wt.%
Fe	La	8.23	4.129	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: ilun200b



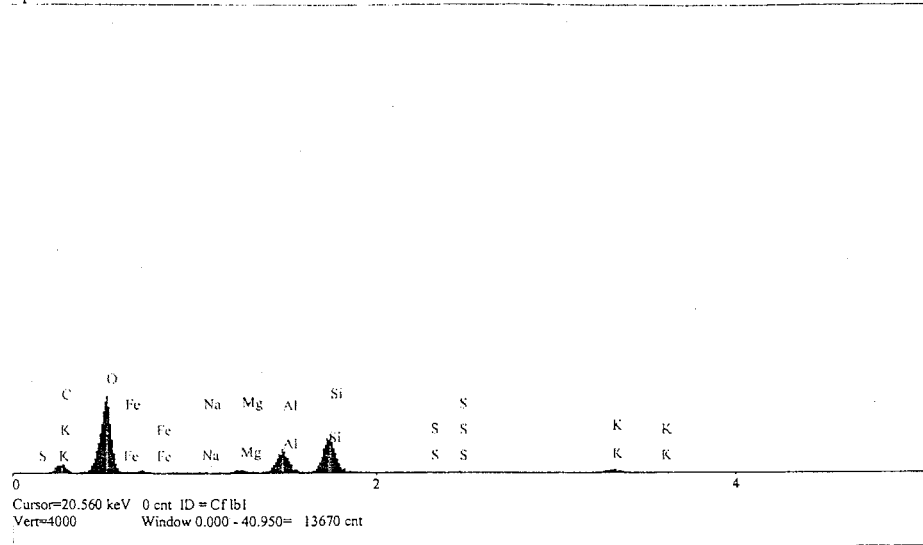
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	14.01	16.350	wt.%
O	Ka	161.00	56.173	wt.%
Na	Ka	0.63	0.091	wt.%
Mg	Ka	6.81	0.840	wt.%
Al	Ka	61.68	7.816	wt.%
Si	Ka	92.44	12.830	wt.%
S	Ka	0.08	0.013	wt.%
K	Ka	10.45	2.792	wt.%
Fe	La	5.26	3.096	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: ilun200c

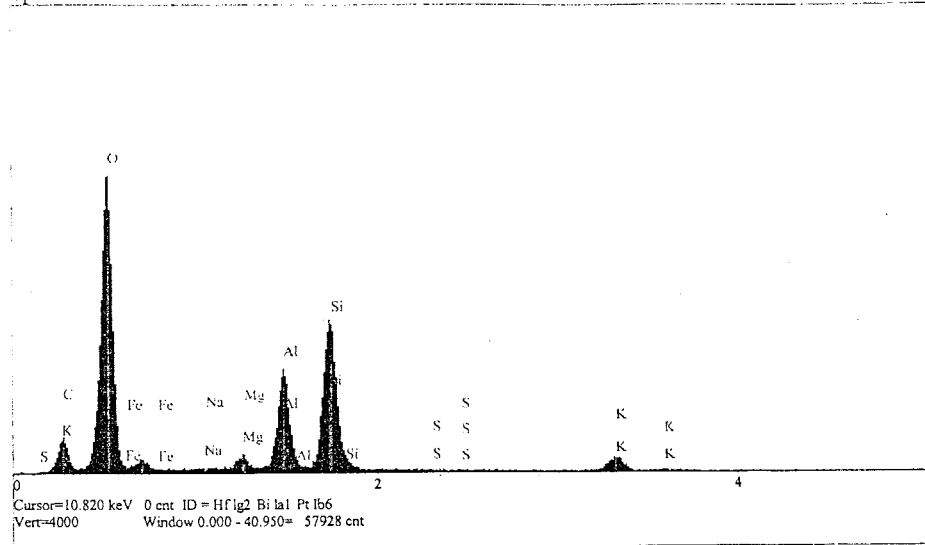


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	13.40	19.570	wt.%
O	Ka	117.32	55.644	wt.%
Na	Ka	0.53	0.101	wt.%
Mg	Ka	4.72	0.772	wt.%
Al	Ka	38.82	6.524	wt.%
Si	Ka	65.89	12.050	wt.%
S	Ka	0.20	0.045	wt.%
K	Ka	7.16	2.537	wt.%
Fe	La	3.50	2.756	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: ilun7000a1

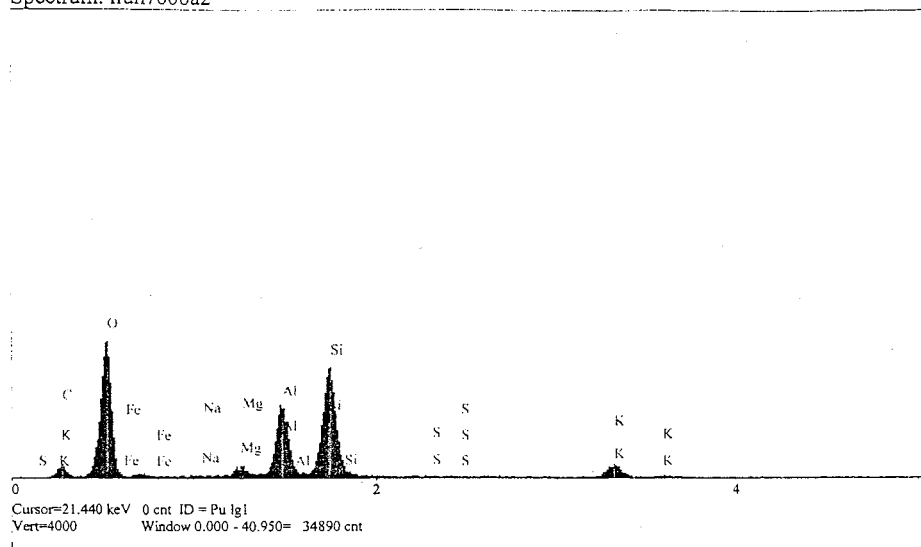


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	19.31	17.610	wt.%
O	Ka	199.02	56.437	wt.%
Na	Ka	0.40	0.047	wt.%
Mg	Ka	8.11	0.810	wt.%
Al	Ka	67.67	6.945	wt.%
Si	Ka	112.39	12.572	wt.%
S	Ka	0.19	0.027	wt.%
K	Ka	11.71	2.531	wt.%
Fe	La	6.30	3.022	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: ilun7000a2

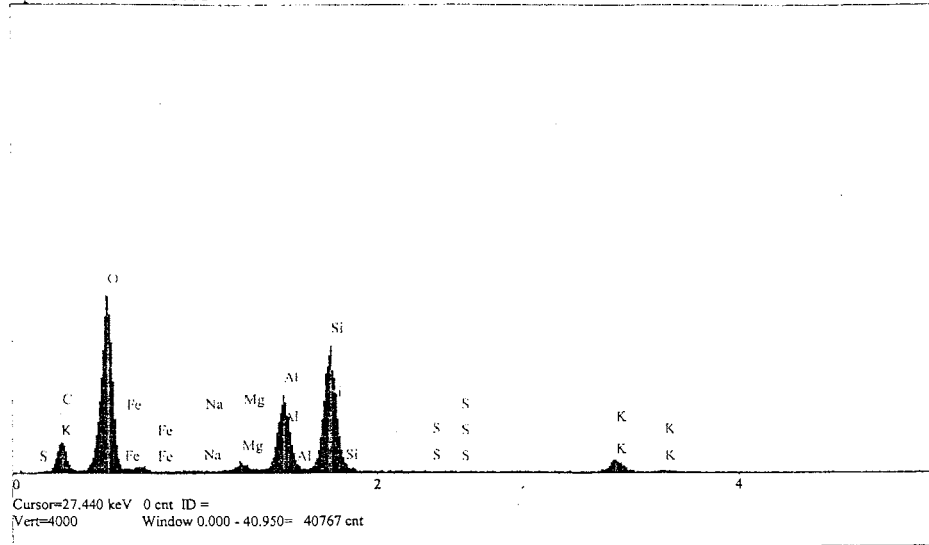


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	7.93	14.515	wt.%
O	Ka	107.41	51.087	wt.%
Na	Ka	0.41	0.074	wt.%
Mg	Ka	7.80	1.211	wt.%
Al	Ka	60.12	9.678	wt.%
Si	Ka	96.75	17.341	wt.%
S	Ka	0.29	0.067	wt.%
K	Ka	12.55	4.351	wt.%
Fe	La	2.29	1.677	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: ilun7000a3

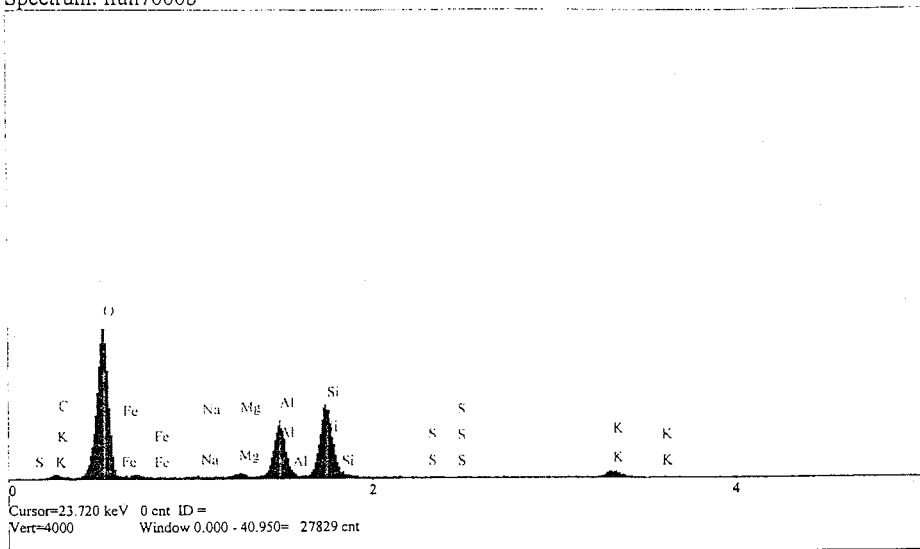


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	18.25	23.339	wt.%
O	Ka	117.94	50.056	wt.%
Na	Ka	0.22	0.034	wt.%
Mg	Ka	5.16	0.693	wt.%
Al	Ka	52.10	7.217	wt.%
Si	Ka	88.16	13.403	wt.%
S	Ka	0.11	0.022	wt.%
K	Ka	9.81	2.902	wt.%
Fe	La	3.67	2.335	wt.%
			100.000	wt.%
				Total

kV
 10.0

Material Classification:

Spectrum: ilun7000b



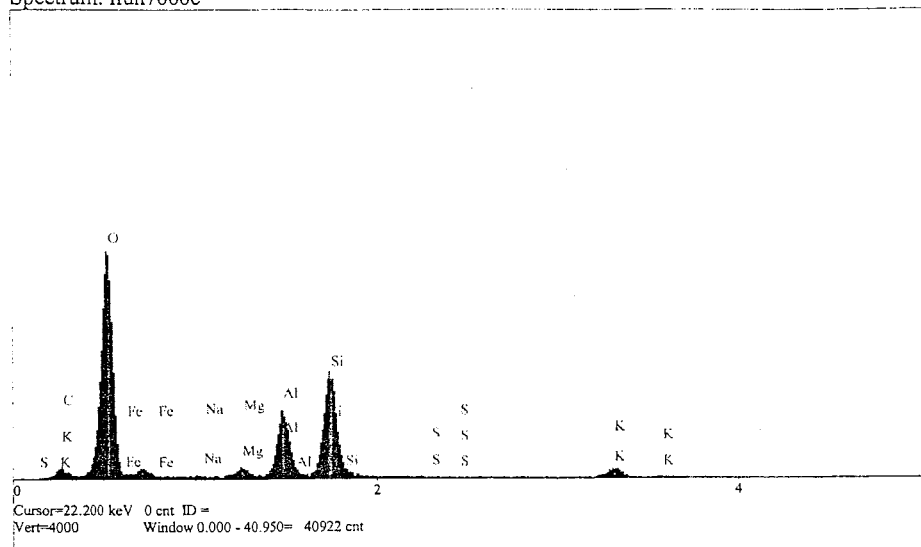
Elt.	Line	Intensity (c/s)	Conc (wt.%)	
C	Ka	5.77	7.017	wt.%
O	Ka	207.86	62.272	wt.%
Na	Ka	1.05	0.144	wt.%
Mg	Ka	5.35	0.629	wt.%
Al	Ka	79.49	9.572	wt.%
Si	Ka	111.22	14.790	wt.%
S	Ka	0.55	0.092	wt.%
K	Ka	11.66	2.964	wt.%
Fe	La	4.43	2.520	wt.%
			100.000	Total wt.%

kV

10.0

Material Classification:

Spectrum: ilun7000c

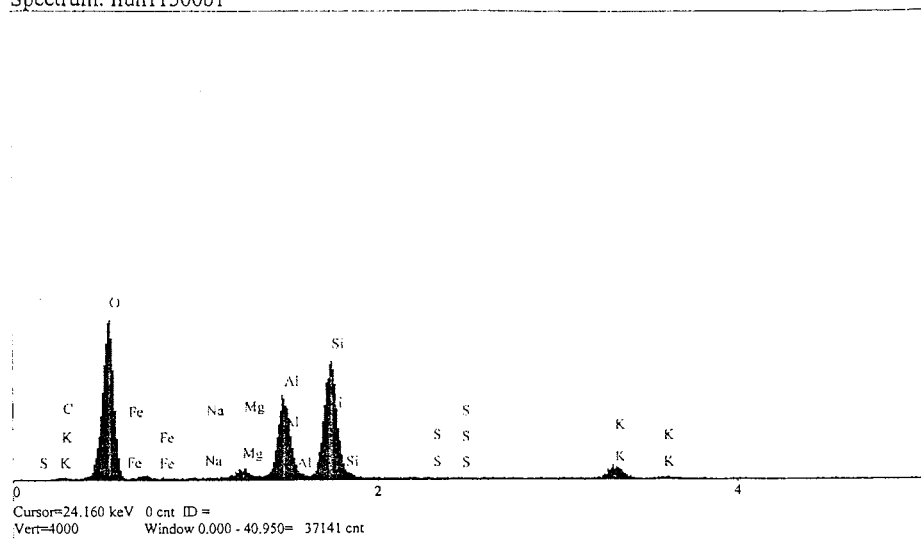


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	9.32	9.380	wt.%
O	Ka	230.38	61.473	wt.%
Na	Ka	0.67	0.083	wt.%
Mg	Ka	8.53	0.894	wt.%
Al	Ka	71.41	7.659	wt.%
Si	Ka	120.19	14.055	wt.%
S	Ka	0.27	0.040	wt.%
K	Ka	11.14	2.497	wt.%
Fe	La	7.82	3.919	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: ilun11500b1



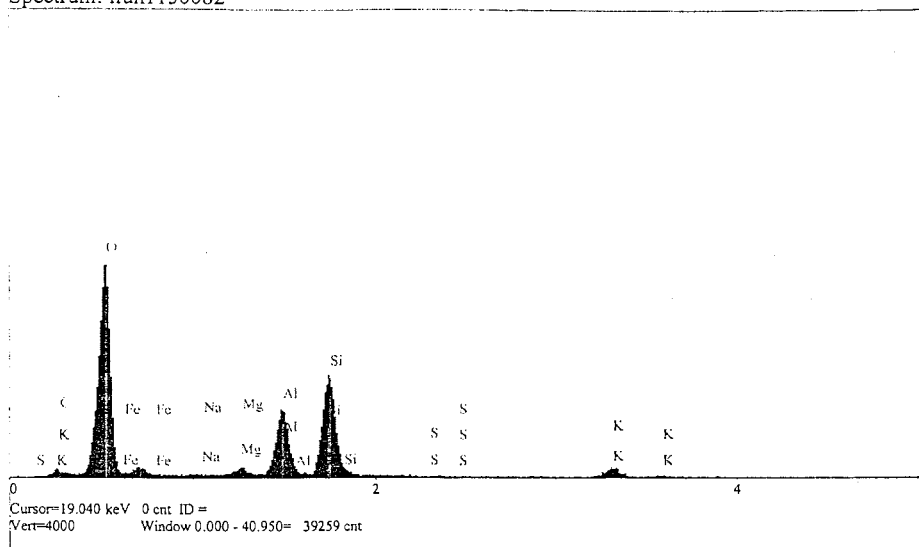
Elt.	Line	Intensity (c/s)	Conc (wt.%)	
C	Ka	1.16	2.514	wt.%
O	Ka	128.48	56.517	wt.%
Na	Ka	0.19	0.035	wt.%
Mg	Ka	8.19	1.309	wt.%
Al	Ka	74.29	12.323	wt.%
Si	Ka	111.69	20.888	wt.%
S	Ka	0.23	0.054	wt.%
K	Ka	13.49	4.830	wt.%
Fe	La	2.02	1.530	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: ilun11500b2



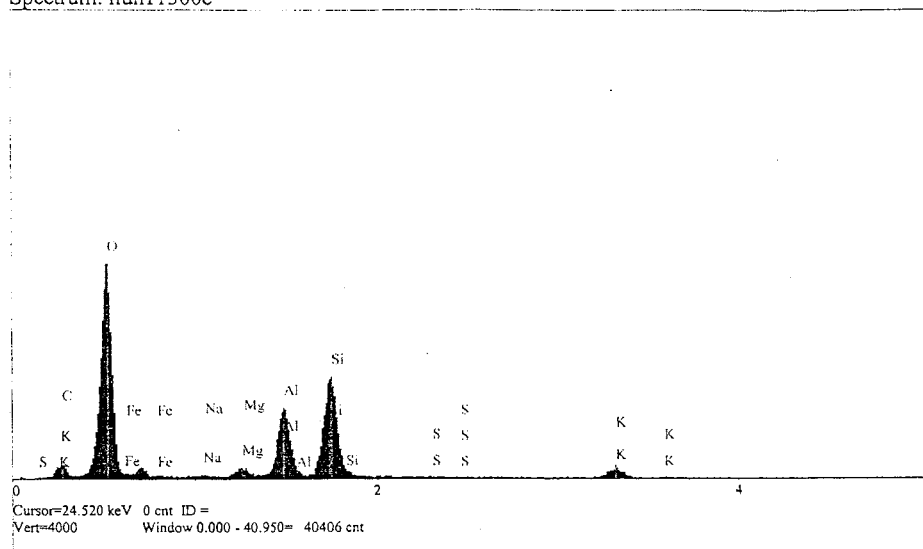
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	7.48	7.067	wt.%
O	Ka	261.52	61.675	wt.%
Na	Ka	0.64	0.071	wt.%
Mg	Ka	8.67	0.814	wt.%
Al	Ka	88.06	8.455	wt.%
Si	Ka	139.08	14.615	wt.%
S	Ka	0.25	0.033	wt.%
K	Ka	14.70	2.952	wt.%
Fe	La	9.69	4.320	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: ilun11500c



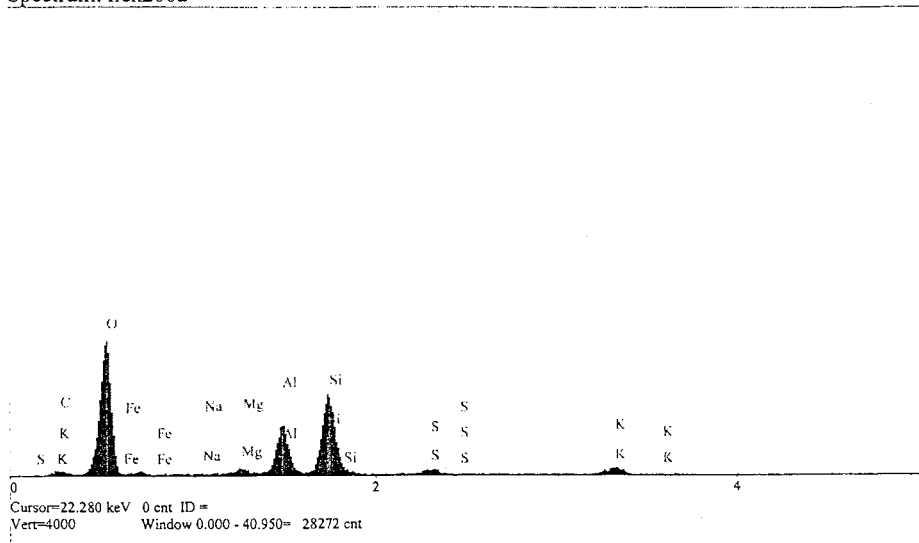
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	12.50	12.269	wt.%
O	Ka	215.61	59.001	wt.%
Na	Ka	1.28	0.155	wt.%
Mg	Ka	9.23	0.949	wt.%
Al	Ka	75.01	7.910	wt.%
Si	Ka	112.64	12.977	wt.%
S	Ka	0.48	0.070	wt.%
K	Ka	12.67	2.795	wt.%
Fe	La	7.92	3.875	wt.%
			100.000	Total wt.%

kV

10.0

Material Classification:

Spectrum: ilen200a



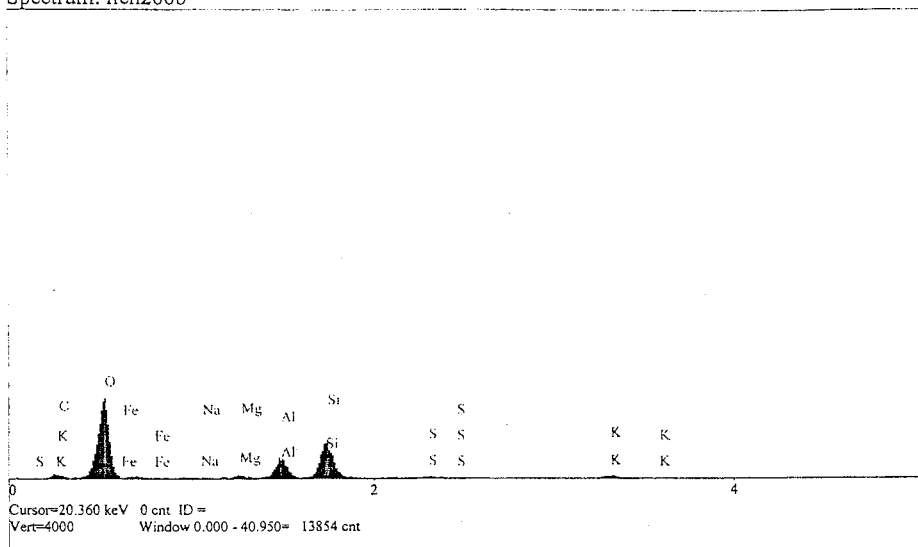
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	5.25	8.628	wt.%
O	Ka	146.79	58.435	wt.%
Na	Ka	0.36	0.062	wt.%
Mg	Ka	6.17	0.899	wt.%
Al	Ka	56.76	8.510	wt.%
Si	Ka	98.83	16.309	wt.%
S	Ka	7.00	1.462	wt.%
K	Ka	10.79	3.446	wt.%
Fe	La	3.21	2.249	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: ilen200b



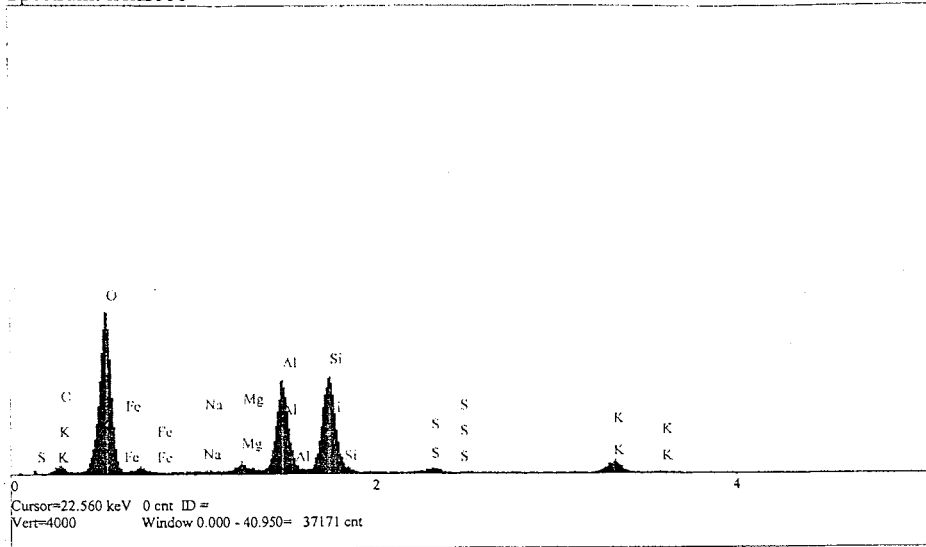
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	8.88	11.029	wt.%
O	Ka	183.06	62.215	wt.%
Na	Ka	0.69	0.106	wt.%
Mg	Ka	5.89	0.768	wt.%
Al	Ka	49.44	6.599	wt.%
Si	Ka	94.29	13.666	wt.%
S	Ka	4.26	0.778	wt.%
K	Ka	8.62	2.419	wt.%
Fe	La	3.79	2.420	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: ilen200c

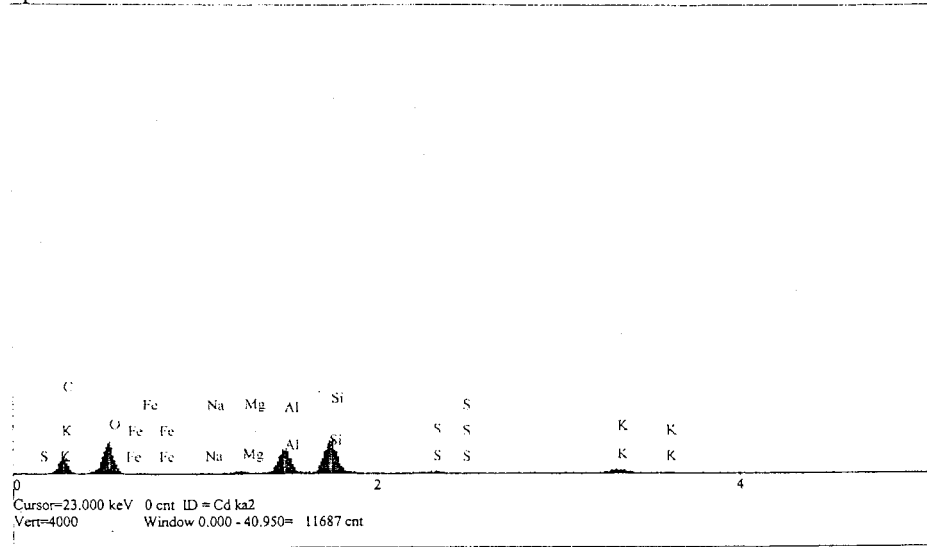


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	6.50	9.346	wt.%
O	Ka	158.68	54.982	wt.%
Na	Ka	0.52	0.074	wt.%
Mg	Ka	7.78	0.955	wt.%
Al	Ka	94.80	12.030	wt.%
Si	Ka	107.15	15.267	wt.%
S	Ka	4.94	0.881	wt.%
K	Ka	14.17	3.846	wt.%
Fe	La	4.54	2.619	wt.%
100.000				Total

kV
10.0

Material Classification:

Spectrum: ilen200d

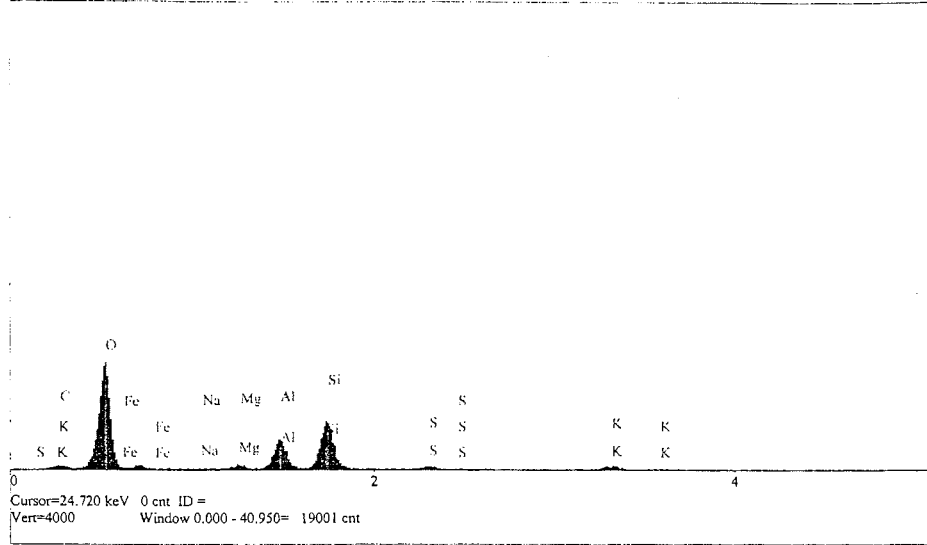


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	12.42	40.098	wt.%
O	Ka	25.76	33.832	wt.%
Na	Ka	0.20	0.074	wt.%
Mg	Ka	1.71	0.542	wt.%
Al	Ka	23.19	7.687	wt.%
Si	Ka	33.75	12.461	wt.%
S	Ka	2.15	1.010	wt.%
K	Ka	5.19	3.794	wt.%
Fe	La	0.34	0.502	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: ilen7000a1



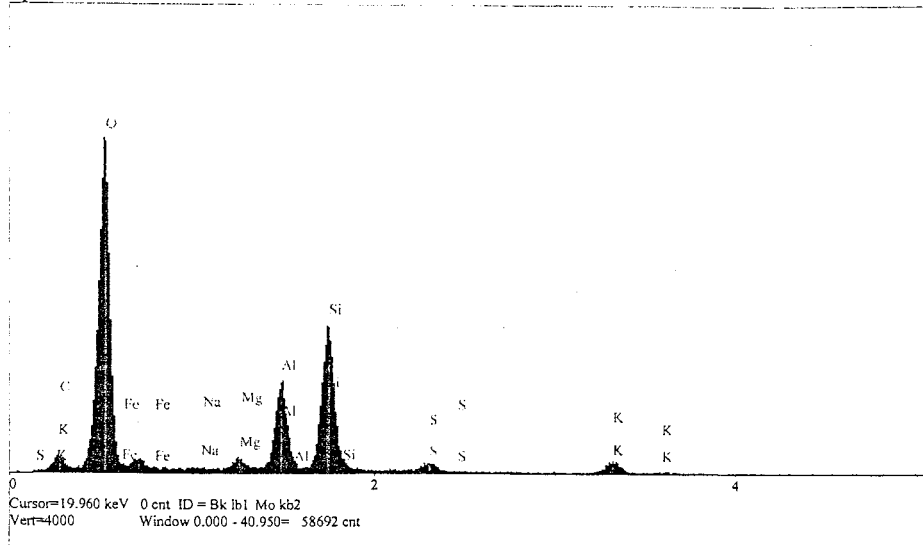
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	6.23	9.433	wt.%
O	Ka	154.33	60.739	wt.%
Na	Ka	0.20	0.035	wt.%
Mg	Ka	5.62	0.852	wt.%
Al	Ka	48.21	7.484	wt.%
Si	Ka	81.14	13.724	wt.%
S	Ka	5.76	1.222	wt.%
K	Ka	8.30	2.702	wt.%
Fe	La	5.25	3.808	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: ilen7000a2

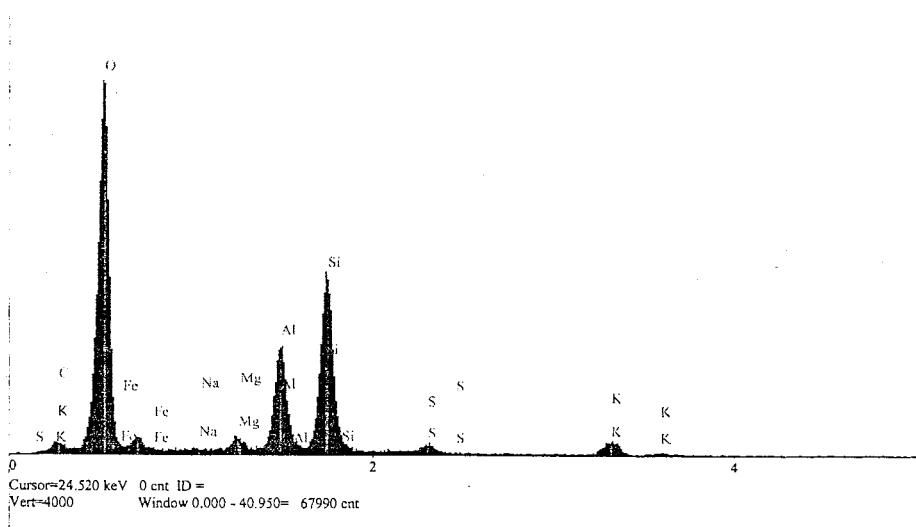


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	11.70	10.113	wt.%
O	Ka	265.97	62.268	wt.%
Na	Ka	0.74	0.080	wt.%
Mg	Ka	8.20	0.753	wt.%
Al	Ka	73.55	6.903	wt.%
Si	Ka	126.71	12.906	wt.%
S	Ka	7.92	1.011	wt.%
K	Ka	11.68	2.290	wt.%
Fe	La	8.29	3.676	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: ilen7000a3



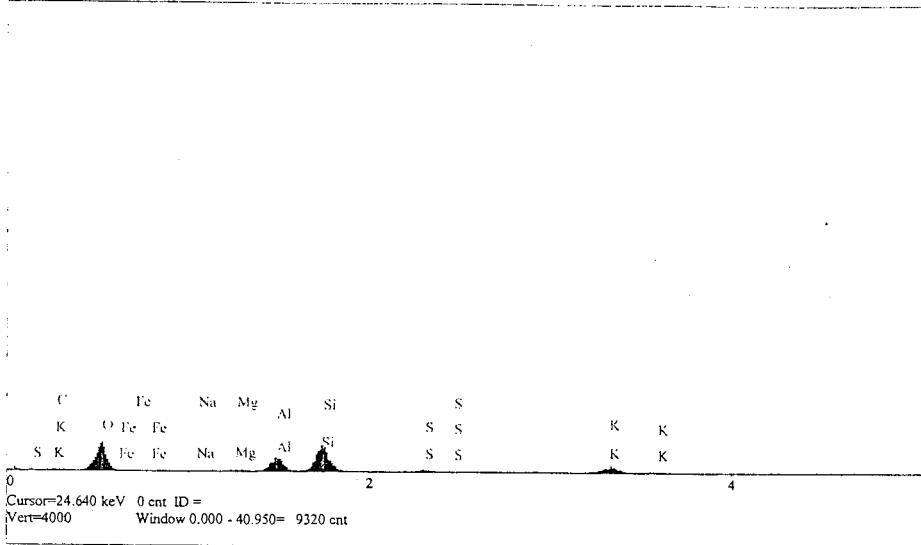
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	8.45	7.918	wt.%
O	Ka	259.50	61.812	wt.%
Na	Ka	0.51	0.057	wt.%
Mg	Ka	8.42	0.794	wt.%
Al	Ka	77.82	7.498	wt.%
Si	Ka	135.92	14.260	wt.%
S	Ka	6.40	0.843	wt.%
K	Ka	13.05	2.630	wt.%
Fe	La	9.31	4.189	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: ilen7000b1

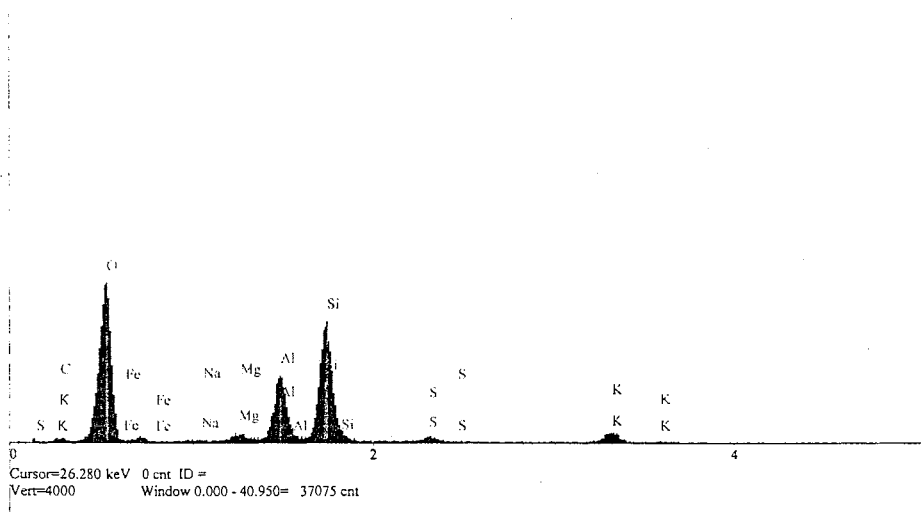


Elt.	Line	Intensity (c/s)	Conc wt. %	
C	Ka	0.56	6.523	wt. %
O	Ka	21.35	50.254	wt. %
Na	Ka	0.02	0.014	wt. %
Mg	Ka	0.94	0.692	wt. %
Al	Ka	12.62	9.544	wt. %
Si	Ka	23.90	20.118	wt. %
S	Ka	1.77	1.910	wt. %
K	Ka	5.95	9.778	wt. %
Fe	La	0.34	1.167	wt. %
			100.000	wt. %
				Total

kV
10.0

Material Classification:

Spectrum: ilen7000b2



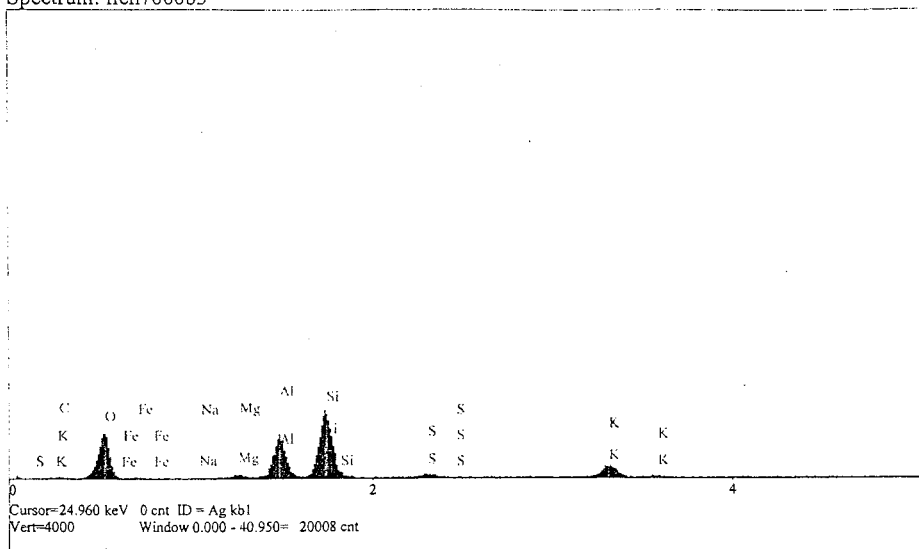
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	2.25	4.374	wt.%
O	Ka	137.05	57.633	wt.%
Na	Ka	0.58	0.105	wt.%
Mg	Ka	6.92	1.076	wt.%
Al	Ka	60.09	9.645	wt.%
Si	Ka	112.68	20.066	wt.%
S	Ka	4.55	1.035	wt.%
K	Ka	11.00	3.787	wt.%
Fe	La	3.09	2.277	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: ilen7000b3



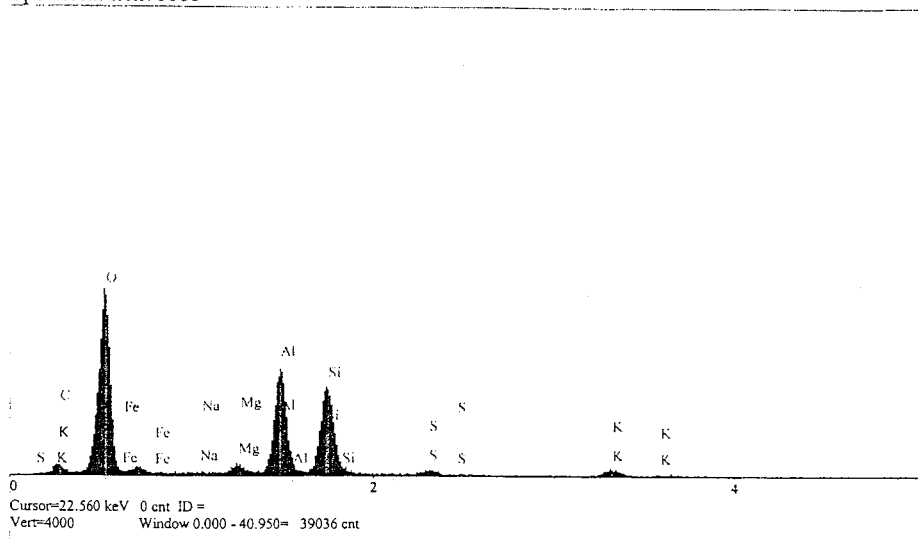
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.99	7.359	wt.%
O	Ka	28.92	41.727	wt.%
Na	Ka	0.06	0.029	wt.%
Mg	Ka	2.26	0.929	wt.%
Al	Ka	29.57	12.701	wt.%
Si	Ka	50.75	24.867	wt.%
S	Ka	2.82	1.786	wt.%
K	Ka	10.15	9.701	wt.%
Fe	La	0.48	0.900	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: ilen7000c

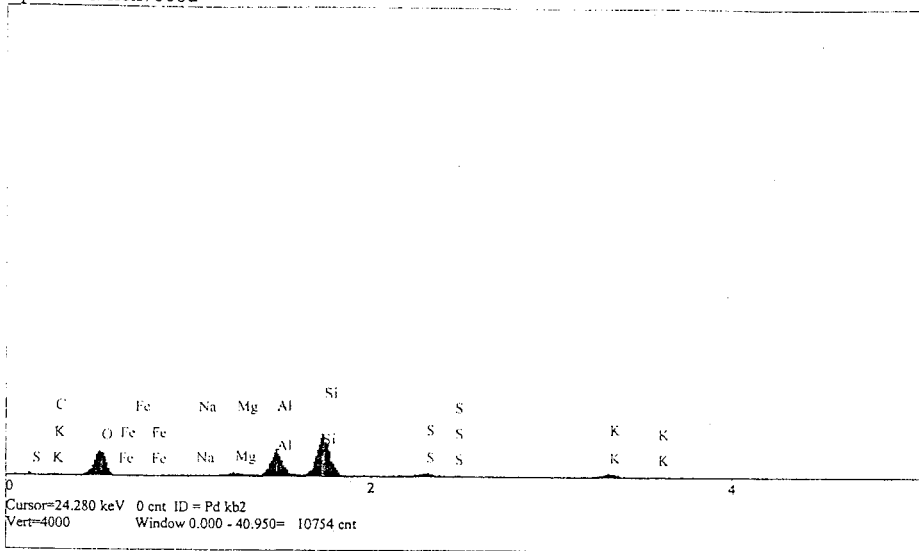


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	10.78	10.635	wt.%
O	Ka	220.63	56.435	wt.%
Na	Ka	0.61	0.067	wt.%
Mg	Ka	9.60	0.906	wt.%
Al	Ka	133.63	13.024	wt.%
Si	Ka	117.06	12.856	wt.%
S	Ka	6.48	0.880	wt.%
K	Ka	9.81	2.033	wt.%
Fe	La	7.13	3.163	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: ilen7000d



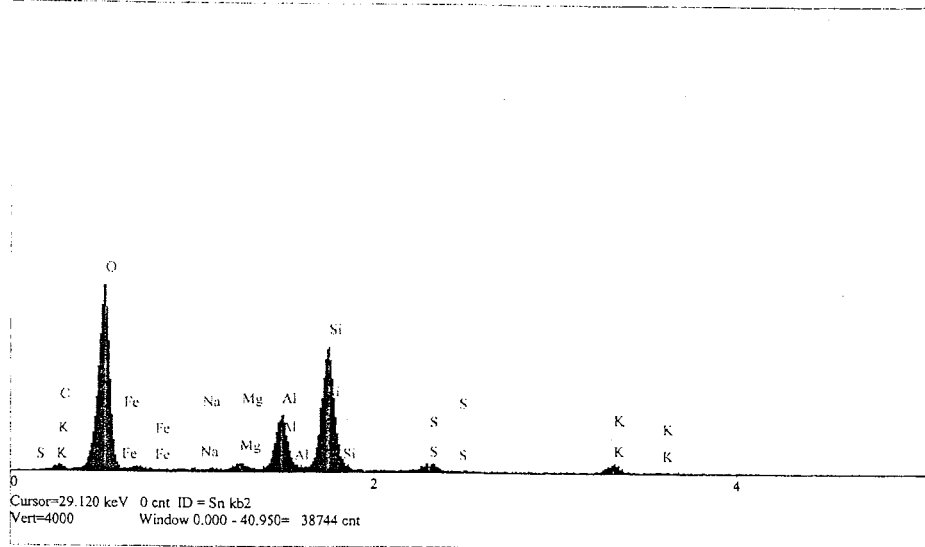
Elt.	Line	Intensity (c/s)	Conc (wt.%)	
C	Ka	0.96	8.626	wt.%
O	Ka	22.61	41.077	wt.%
Na	Ka	0.14	0.083	wt.%
Mg	Ka	2.52	1.344	wt.%
Al	Ka	22.94	12.827	wt.%
Si	Ka	42.09	26.941	wt.%
S	Ka	3.20	2.674	wt.%
K	Ka	4.35	5.450	wt.%
Fe	La	0.41	0.977	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: ilen11500a1



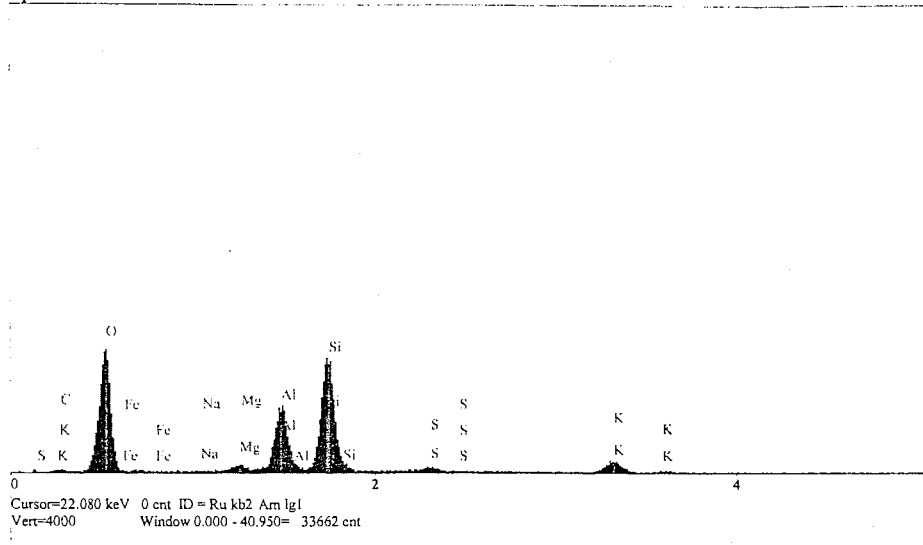
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	3.93	6.158	wt.%
O	Ka	166.97	60.653	wt.%
Na	Ka	0.29	0.047	wt.%
Mg	Ka	5.25	0.726	wt.%
Al	Ka	52.15	7.398	wt.%
Si	Ka	121.54	18.881	wt.%
S	Ka	7.91	1.574	wt.%
K	Ka	8.61	2.611	wt.%
Fe	La	2.92	1.953	wt.%
			100.000	wt.% Total

kV

10.0

Material Classification:

Spectrum: ilen11500a2

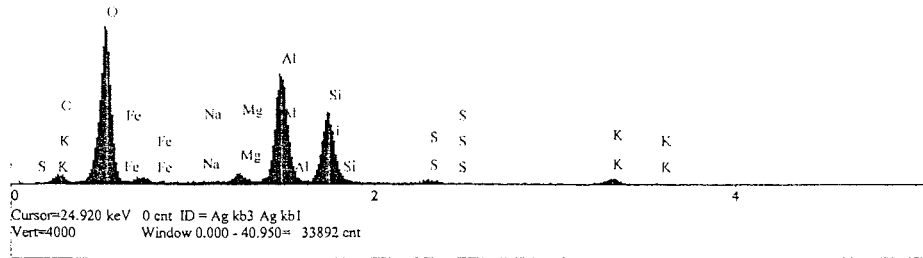


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	2.17	5.434	wt.%
O	Ka	101.95	53.332	wt.%
Na	Ka	0.14	0.030	wt.%
Mg	Ka	5.61	0.999	wt.%
Al	Ka	59.13	10.923	wt.%
Si	Ka	107.03	22.207	wt.%
S	Ka	3.82	1.020	wt.%
K	Ka	12.55	5.055	wt.%
Fe	La	1.19	1.000	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: ilen11500c



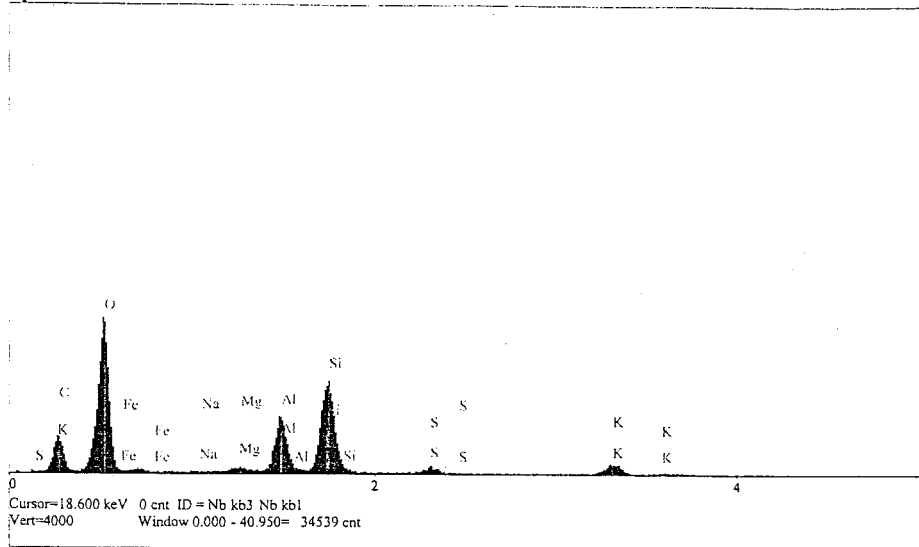
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	8.58	11.277	wt.%
O	Ka	158.77	54.070	wt.%
Na	Ka	0.59	0.084	wt.%
Mg	Ka	8.44	1.037	wt.%
Al	Ka	127.65	16.262	wt.%
Si	Ka	78.86	11.529	wt.%
S	Ka	3.98	0.711	wt.%
K	Ka	7.29	1.983	wt.%
Fe	La	5.34	3.046	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: ilen11500d

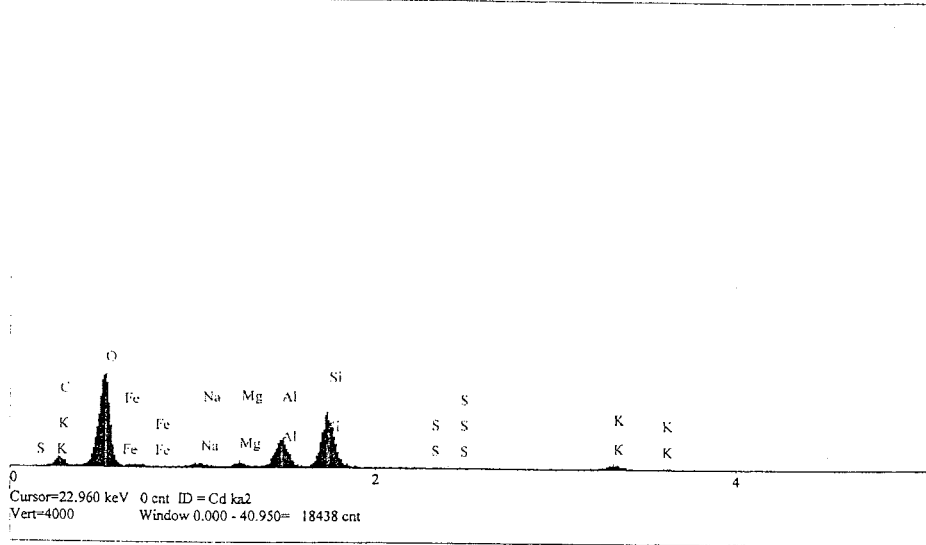


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	27.77	27.072	wt.%
O	Ka	141.95	49.660	wt.%
Na	Ka	0.32	0.040	wt.%
Mg	Ka	4.57	0.486	wt.%
Al	Ka	54.16	5.929	wt.%
Si	Ka	96.47	11.517	wt.%
S	Ka	6.49	0.979	wt.%
K	Ka	12.85	3.012	wt.%
Fe	La	2.54	1.305	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: ilbs200a



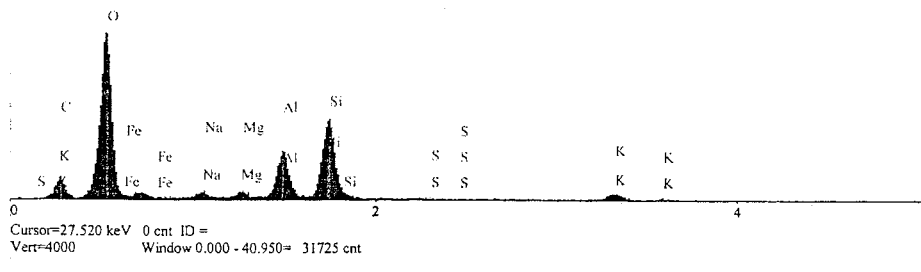
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	15.63	16.291	wt.%
O	Ka	182.17	56.291	wt.%
Na	Ka	7.17	0.907	wt.%
Mg	Ka	6.87	0.749	wt.%
Al	Ka	60.75	6.793	wt.%
Si	Ka	115.08	14.028	wt.%
S	Ka	0.12	0.018	wt.%
K	Ka	11.62	2.746	wt.%
Fe	La	4.17	2.177	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: ilbs200b

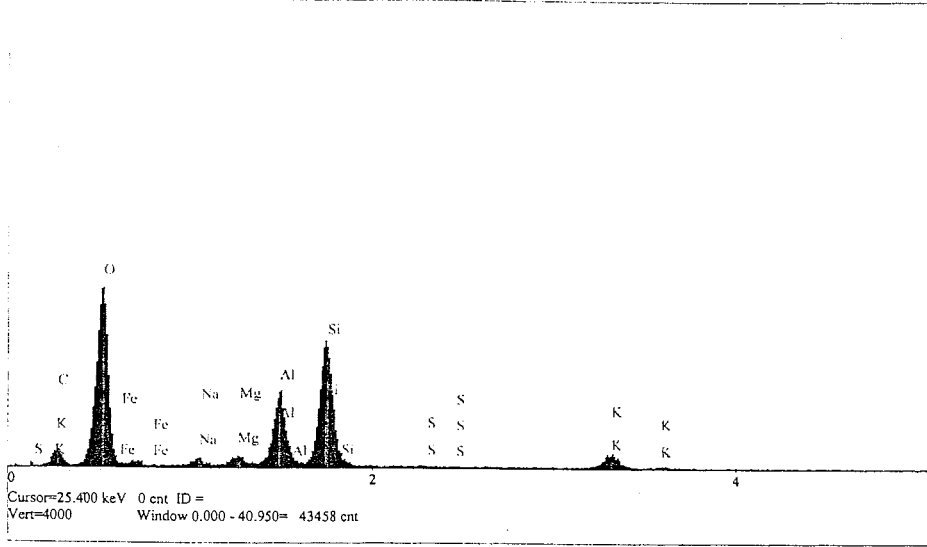


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	17.15	18.667	wt.%
O	Ka	160.17	57.117	wt.%
Na	Ka	4.90	0.732	wt.%
Mg	Ka	5.23	0.667	wt.%
Al	Ka	45.76	5.984	wt.%
Si	Ka	82.24	11.641	wt.%
S	Ka	0.18	0.033	wt.%
K	Ka	7.38	2.020	wt.%
Fe	La	5.13	3.139	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: ilbs200c



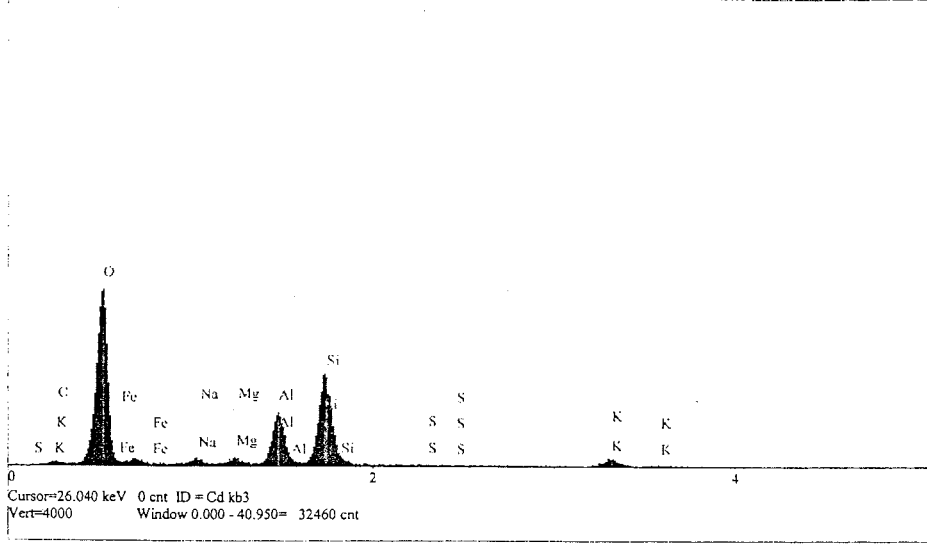
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	9.70	15.152	wt.%
O	Ka	125.11	53.943	wt.%
Na	Ka	4.34	0.740	wt.%
Mg	Ka	6.39	0.941	wt.%
Al	Ka	51.98	7.880	wt.%
Si	Ka	93.11	15.508	wt.%
S	Ka	0.43	0.091	wt.%
K	Ka	11.39	3.674	wt.%
Fe	La	2.97	2.072	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: ilbs7000a1



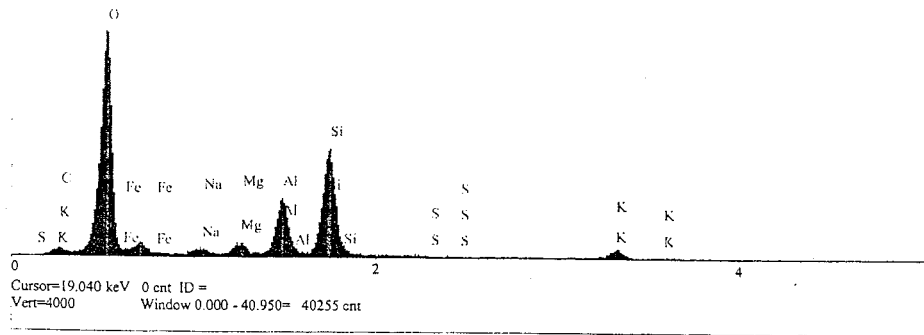
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	4.28	4.817	wt.%
O	Ka	235.71	62.473	wt.%
Na	Ka	6.45	0.810	wt.%
Mg	Ka	7.40	0.794	wt.%
Al	Ka	73.36	8.044	wt.%
Si	Ka	137.31	16.453	wt.%
S	Ka	0.59	0.090	wt.%
K	Ka	12.93	2.973	wt.%
Fe	La	6.95	3.547	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: ilbs7000a2



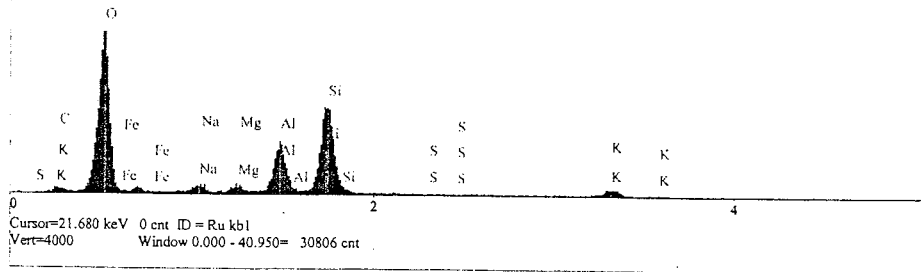
El.	Line	Intensity (c/s)	Conc	
C	Ka	9.64	8.186	wt.%
O	Ka	274.29	60.956	wt.%
Na	Ka	7.07	0.749	wt.%
Mg	Ka	13.26	1.196	wt.%
Al	Ka	71.14	6.552	wt.%
Si	Ka	142.17	14.133	wt.%
S	Ka	0.17	0.022	wt.%
K	Ka	12.55	2.385	wt.%
Fe	La	13.90	5.821	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: ilbs7000a3

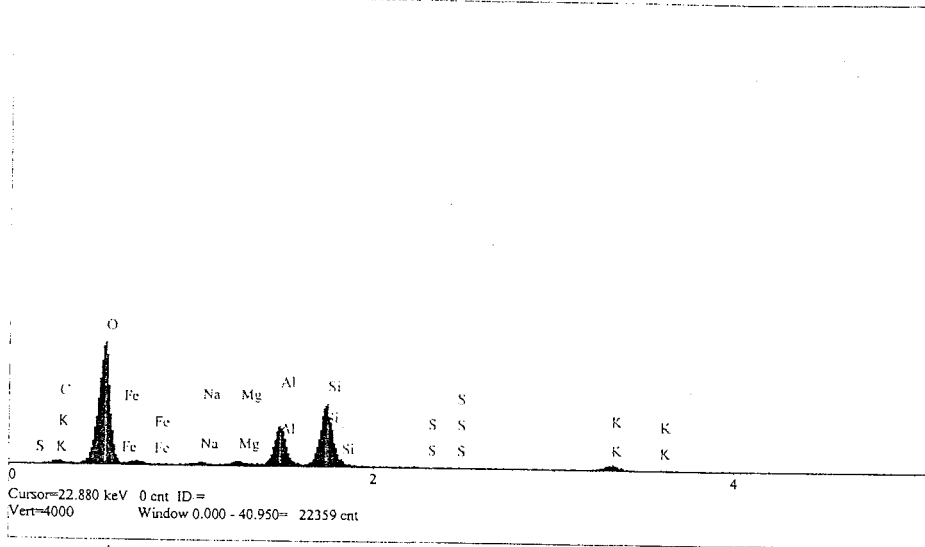


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	6.58	7.702	wt.%
O	Ka	209.71	60.480	wt.%
Na	Ka	9.23	1.196	wt.%
Mg	Ka	7.60	0.848	wt.%
Al	Ka	67.74	7.743	wt.%
Si	Ka	132.63	16.575	wt.%
S	Ka	0.35	0.056	wt.%
K	Ka	12.16	2.929	wt.%
Fe	La	4.64	2.471	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: ilbs7000b1



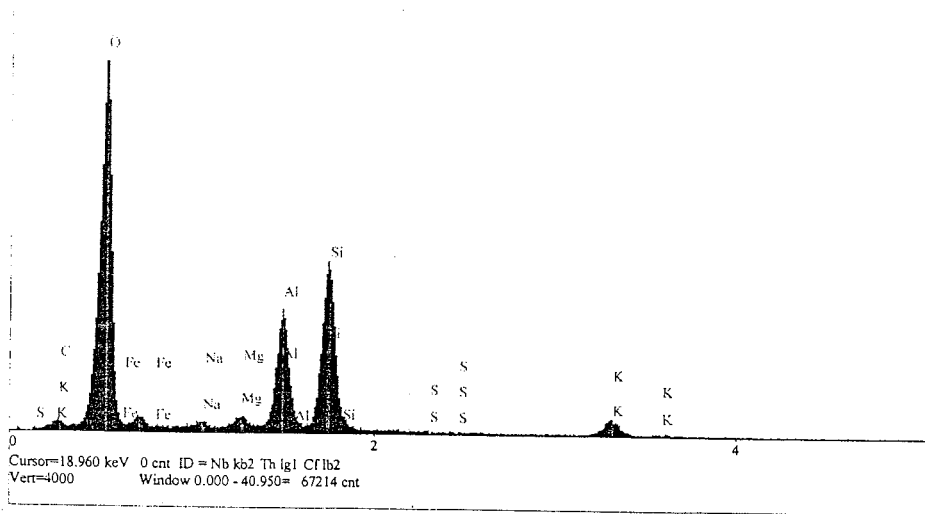
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	5.61	7.510	wt.%
O	Ka	183.29	61.298	wt.%
Na	Ka	3.29	0.506	wt.%
Mg	Ka	5.73	0.753	wt.%
Al	Ka	62.65	8.428	wt.%
Si	Ka	101.85	15.012	wt.%
S	Ka	0.18	0.033	wt.%
K	Ka	10.51	2.965	wt.%
Fe	La	5.57	3.494	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: ilbs7000b2

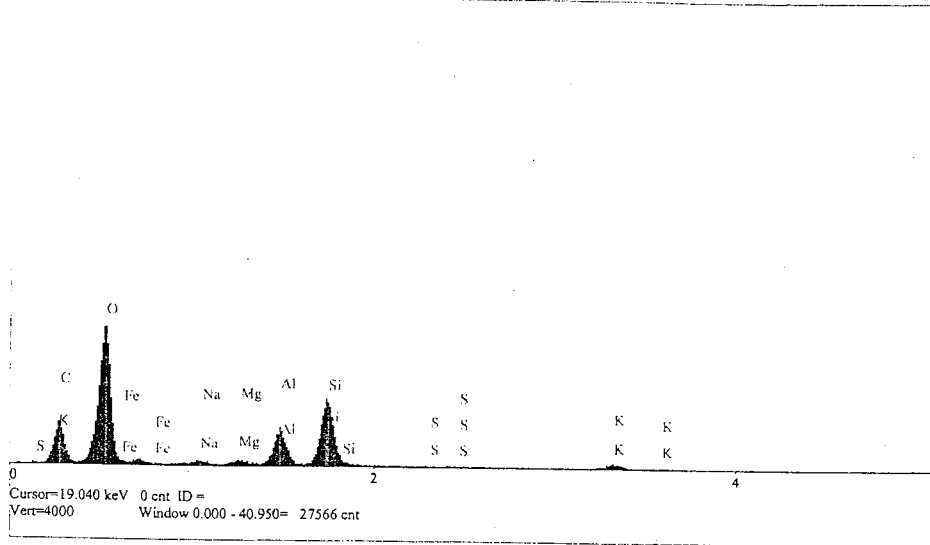


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	6.88	6.987	wt.%
O	Ka	246.13	62.453	wt.%
Na	Ka	3.20	0.381	wt.%
Mg	Ka	7.74	0.785	wt.%
Al	Ka	83.99	8.711	wt.%
Si	Ka	126.25	14.358	wt.%
S	Ka	0.26	0.037	wt.%
K	Ka	13.06	2.838	wt.%
Fe	La	7.10	3.450	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: ilbs7000c



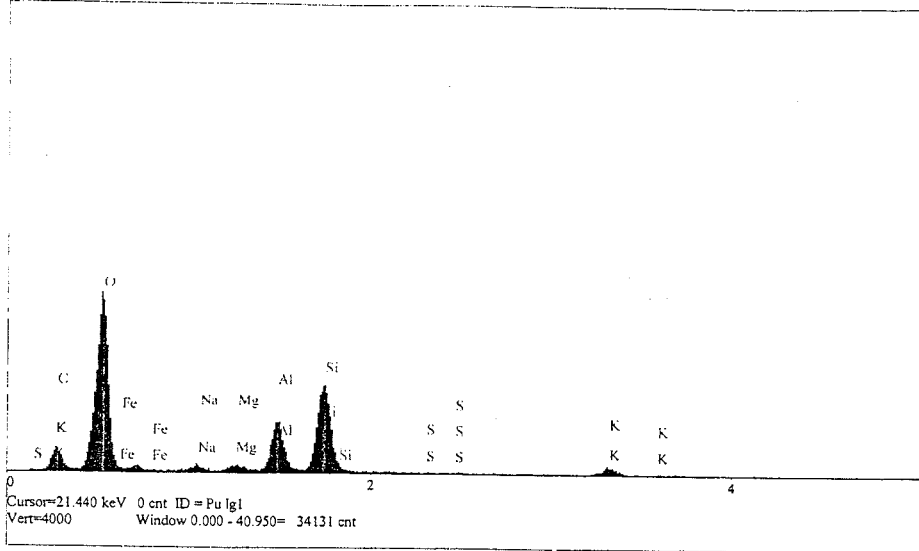
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	42.87	30.622	wt.%
O	Ka	166.18	51.185	wt.%
Na	Ka	4.39	0.495	wt.%
Mg	Ka	5.21	0.504	wt.%
Al	Ka	43.86	4.357	wt.%
Si	Ka	85.08	9.104	wt.%
S	Ka	0.33	0.045	wt.%
K	Ka	7.32	1.533	wt.%
Fe	La	4.61	2.156	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: ilbs11500c

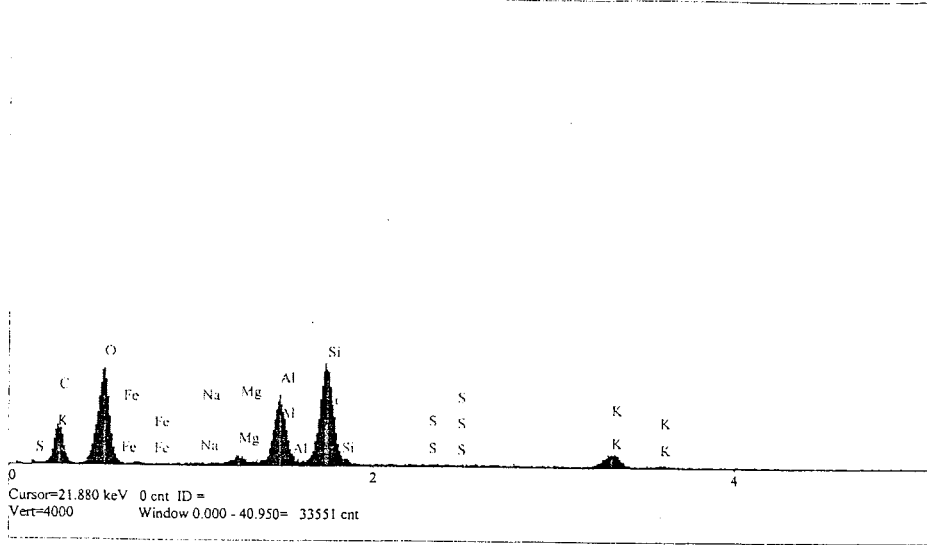


Elt.	Line	Intensity (c/s)	Conc (wt.%)
C	Ka	21.28	19.072 wt.%
O	Ka	194.52	56.791 wt.%
Na	Ka	5.51	0.660 wt.%
Mg	Ka	6.81	0.699 wt.%
Al	Ka	56.22	5.918 wt.%
Si	Ka	108.49	12.381 wt.%
S	Ka	0.19	0.028 wt.%
K	Ka	9.64	2.135 wt.%
Fe	La	4.67	2.318 wt.%
			100.000 wt.%
			Total

kV
10.0

Material Classification:

Spectrum: ilpz200a



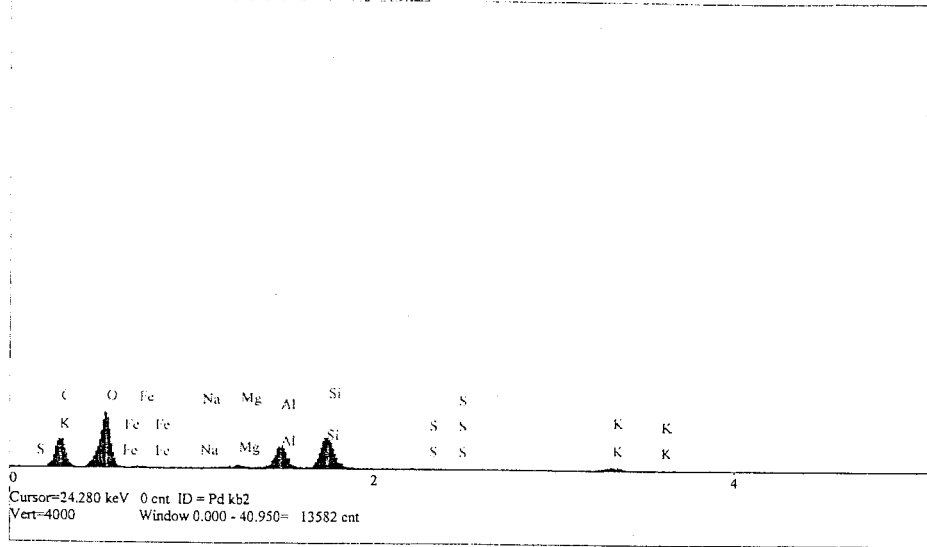
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	21.22	34.969	wt.%
O	Ka	61.52	37.749	wt.%
Na	Ka	0.30	0.054	wt.%
Mg	Ka	4.79	0.751	wt.%
Al	Ka	46.78	7.659	wt.%
Si	Ka	75.88	13.803	wt.%
S	Ka	0.41	0.095	wt.%
K	Ka	12.33	4.422	wt.%
Fe	La	0.68	0.498	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: ilpz200b

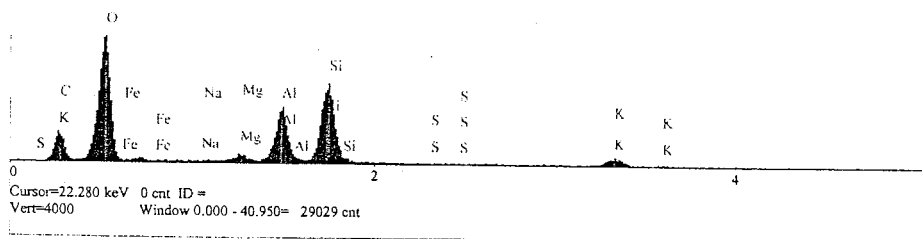


Elt.	Line	Intensity (c/s)	Conc (wt.%)	
C	Ka	56.46	41.606	wt.%
O	Ka	111.38	40.861	wt.%
Na	Ka	0.13	0.014	wt.%
Mg	Ka	4.71	0.453	wt.%
Al	Ka	49.95	4.971	wt.%
Si	Ka	79.20	8.587	wt.%
S	Ka	0.70	0.096	wt.%
K	Ka	11.01	2.359	wt.%
Fe	La	2.29	1.052	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: ilpz200c

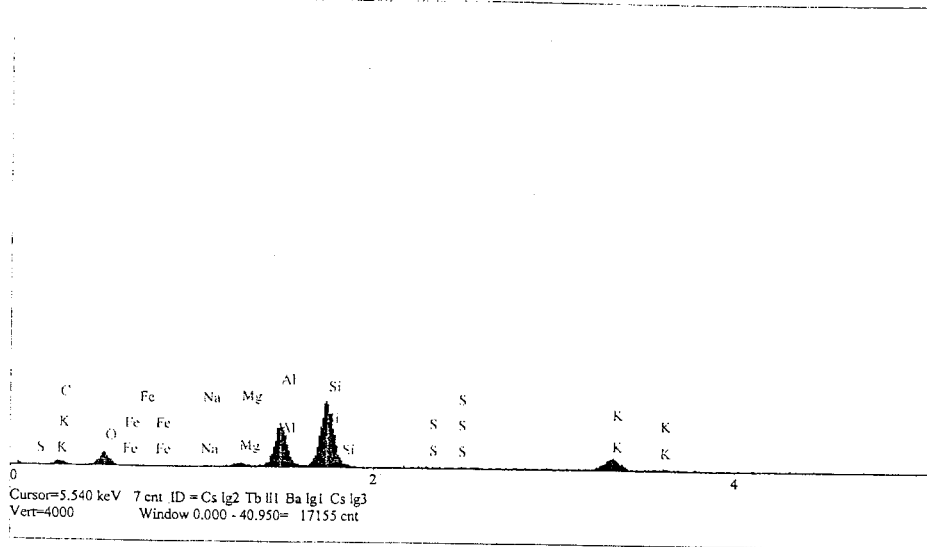


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	25.88	25.948	wt.%
O	Ka	140.28	49.589	wt.%
Na	Ka	0.33	0.041	wt.%
Mg	Ka	7.38	0.804	wt.%
Al	Ka	62.87	7.074	wt.%
Si	Ka	98.43	12.156	wt.%
S	Ka	0.08	0.012	wt.%
K	Ka	12.04	2.897	wt.%
Fe	La	2.83	1.479	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: ilpz7000a1



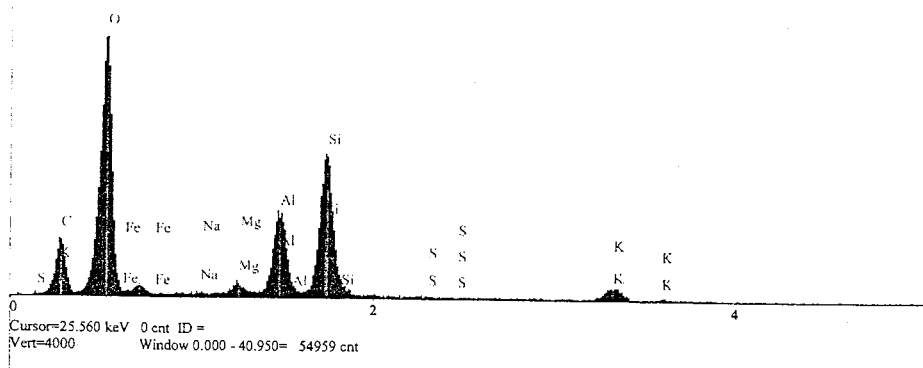
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	2.95	26.612	wt.%
O	Ka	8.51	18.027	wt.%
Na	Ka	0.05	0.023	wt.%
Mg	Ka	2.52	1.112	wt.%
Al	Ka	31.12	14.613	wt.%
Si	Ka	49.97	27.523	wt.%
S	Ka	0.39	0.281	wt.%
K	Ka	10.82	11.759	wt.%
Fe	La	0.03	0.051	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: ilpz7000a2

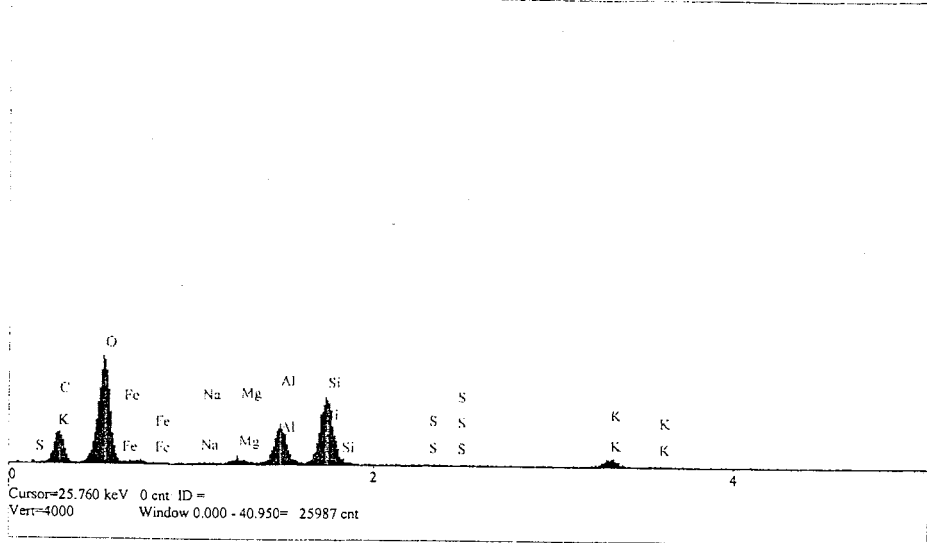


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	31.91	25.781	wt.%
O	Ka	172.99	51.228	wt.%
Na	Ka	0.47	0.052	wt.%
Mg	Ka	6.84	0.647	wt.%
Al	Ka	61.90	6.025	wt.%
Si	Ka	107.71	11.412	wt.%
S	Ka	0.47	0.063	wt.%
K	Ka	10.93	2.256	wt.%
Fe	La	5.61	2.536	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: ilpz7000a3



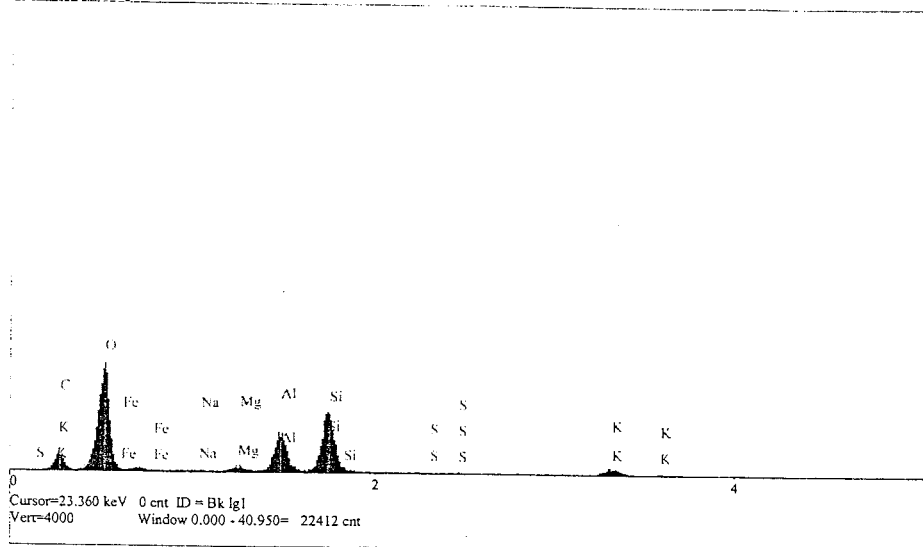
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	22.77	30.887	wt.%
O	Ka	87.69	46.139	wt.%
Na	Ka	0.65	0.115	wt.%
Mg	Ka	4.85	0.743	wt.%
Al	Ka	35.55	5.636	wt.%
Si	Ka	65.58	11.327	wt.%
S	Ka	0.71	0.154	wt.%
K	Ka	9.00	3.048	wt.%
Fe	La	2.68	1.950	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: ilpz7000b1

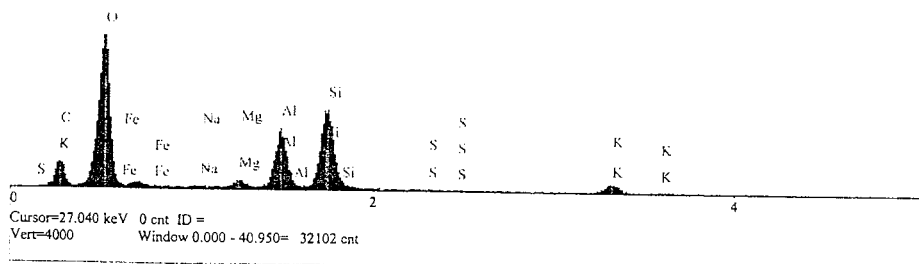


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	18.78	22.131	wt.%
O	Ka	134.88	52.876	wt.%
Na	Ka	0.57	0.086	wt.%
Mg	Ka	6.22	0.797	wt.%
Al	Ka	51.79	6.838	wt.%
Si	Ka	83.85	12.096	wt.%
S	Ka	0.20	0.037	wt.%
K	Ka	10.63	2.978	wt.%
Fe	La	3.51	2.161	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: ilpz7000b2



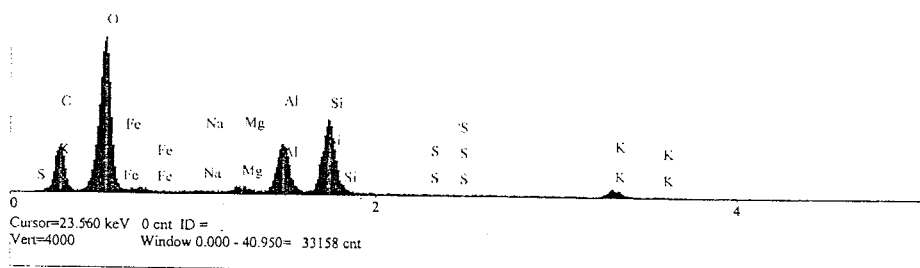
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	29.08	22.431	wt.%
O	Ka	202.84	53.090	wt.%
Na	Ka	1.11	0.112	wt.%
Mg	Ka	8.31	0.717	wt.%
Al	Ka	77.66	6.895	wt.%
Si	Ka	117.82	11.422	wt.%
S	Ka	0.82	0.099	wt.%
K	Ka	14.51	2.726	wt.%
Fe	La	6.06	2.508	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: ilpz7000b3



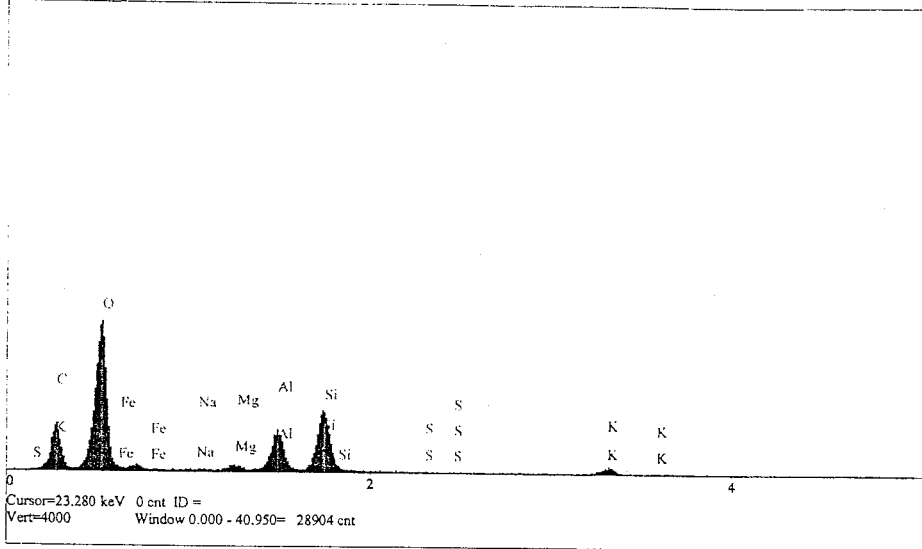
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	51.48	31.437	wt.%
O	Ka	190.96	49.737	wt.%
Na	Ka	0.76	0.070	wt.%
Mg	Ka	7.11	0.564	wt.%
Al	Ka	66.23	5.410	wt.%
Si	Ka	100.47	8.909	wt.%
S	Ka	0.47	0.052	wt.%
K	Ka	11.42	1.979	wt.%
Fe	La	4.79	1.841	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: ilpz7000c



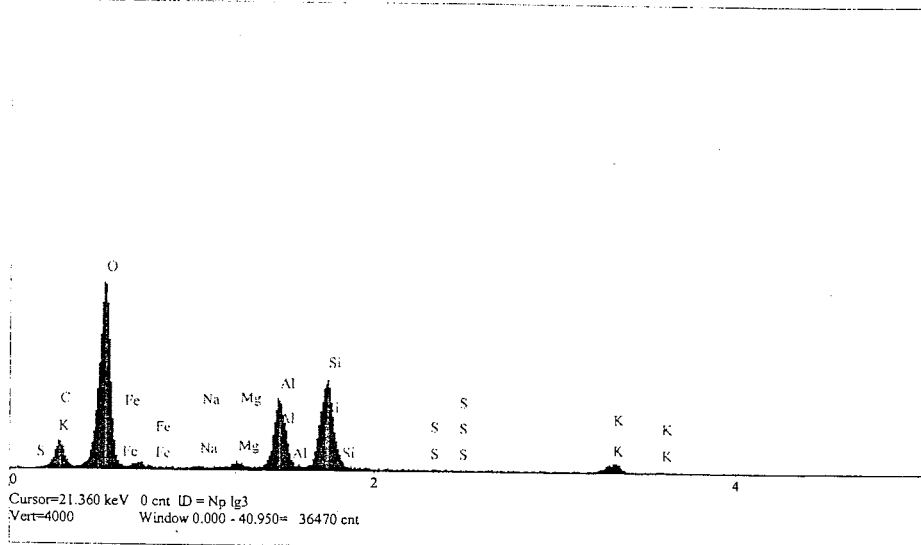
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	47.16	31.319	wt.%
O	Ka	175.61	51.205	wt.%
Na	Ka	0.72	0.077	wt.%
Mg	Ka	5.86	0.532	wt.%
Al	Ka	49.71	4.636	wt.%
Si	Ka	79.95	8.041	wt.%
S	Ka	0.45	0.056	wt.%
K	Ka	9.47	1.861	wt.%
Fe	La	5.16	2.274	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: ilpz11500a

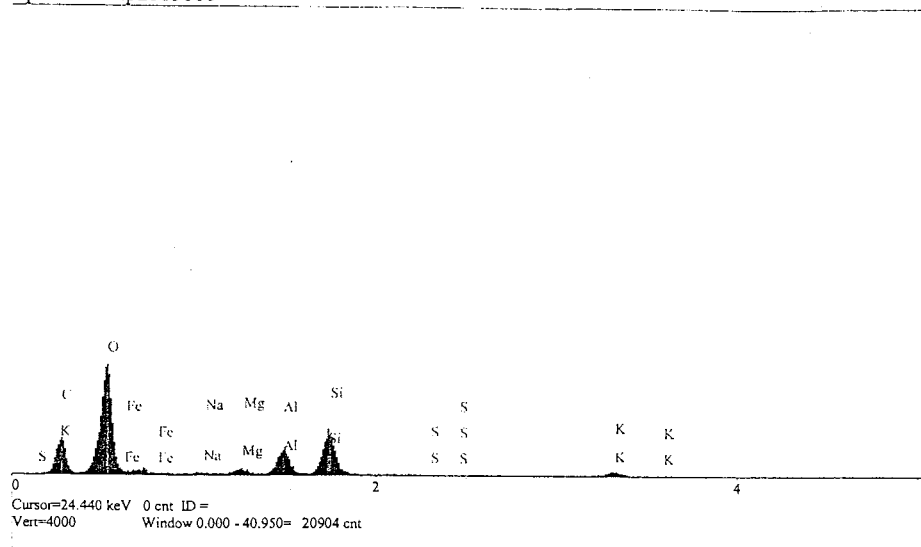


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	26.75	21.261	wt.%
O	Ka	204.38	54.797	wt.%
Na	Ka	1.01	0.107	wt.%
Mg	Ka	5.48	0.498	wt.%
Al	Ka	79.08	7.370	wt.%
Si	Ka	108.72	11.090	wt.%
S	Ka	0.50	0.064	wt.%
K	Ka	12.12	2.390	wt.%
Fe	La	5.54	2.423	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: ilpz11500c

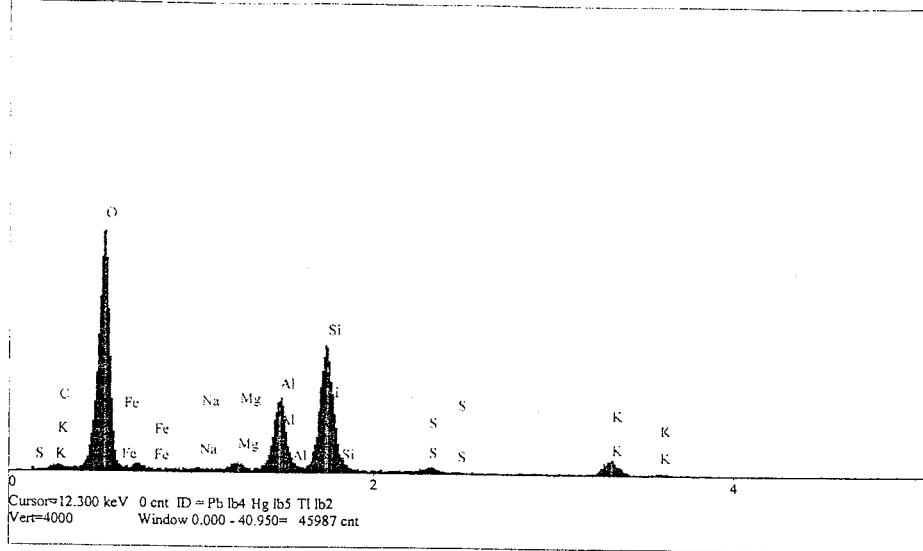


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	48.31	31.772	wt.%
O	Ka	170.76	50.799	wt.%
Na	Ka	1.53	0.168	wt.%
Mg	Ka	8.54	0.801	wt.%
Al	Ka	41.12	3.959	wt.%
Si	Ka	69.54	7.175	wt.%
S	Ka	0.22	0.029	wt.%
K	Ka	8.82	1.772	wt.%
Fe	La	7.86	3.527	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: ilhs200a



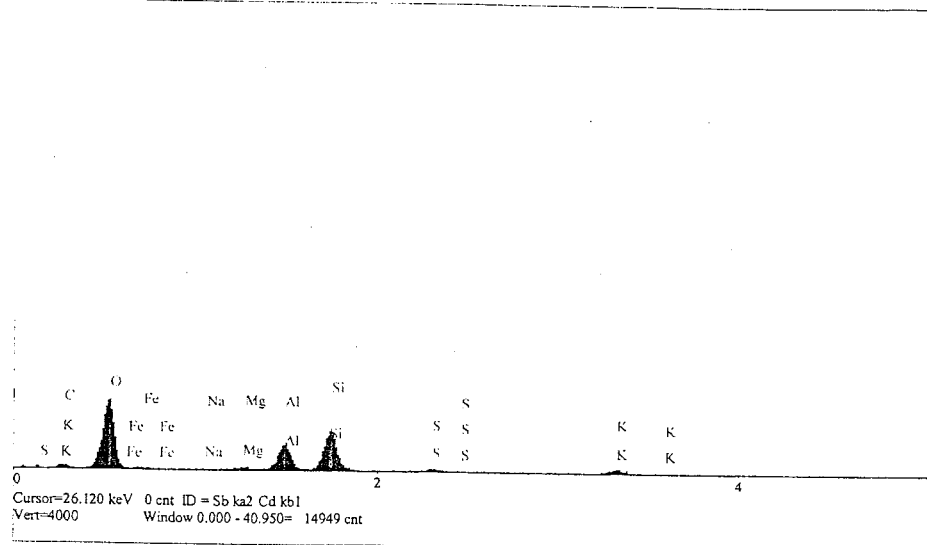
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	3.68	4.505	wt.%
O	Ka	225.88	63.033	wt.%
Na	Ka	0.81	0.103	wt.%
Mg	Ka	6.37	0.696	wt.%
Al	Ka	74.00	8.274	wt.%
Si	Ka	134.15	16.448	wt.%
S	Ka	5.45	0.846	wt.%
K	Ka	16.63	3.934	wt.%
Fe	La	4.06	2.161	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: ilhs200b

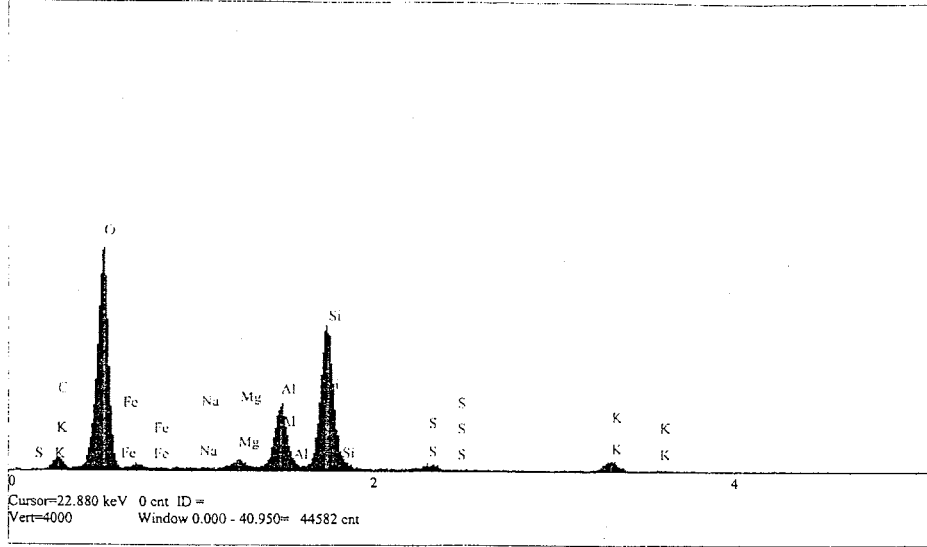


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	2.28	11.453	wt.%
O	Ka	44.45	56.726	wt.%
Na	Ka	0.05	0.024	wt.%
Mg	Ka	1.63	0.728	wt.%
Al	Ka	18.81	8.669	wt.%
Si	Ka	29.85	15.170	wt.%
S	Ka	2.19	1.407	wt.%
K	Ka	4.01	3.950	wt.%
Fe	La	0.87	1.872	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: ilhs200c



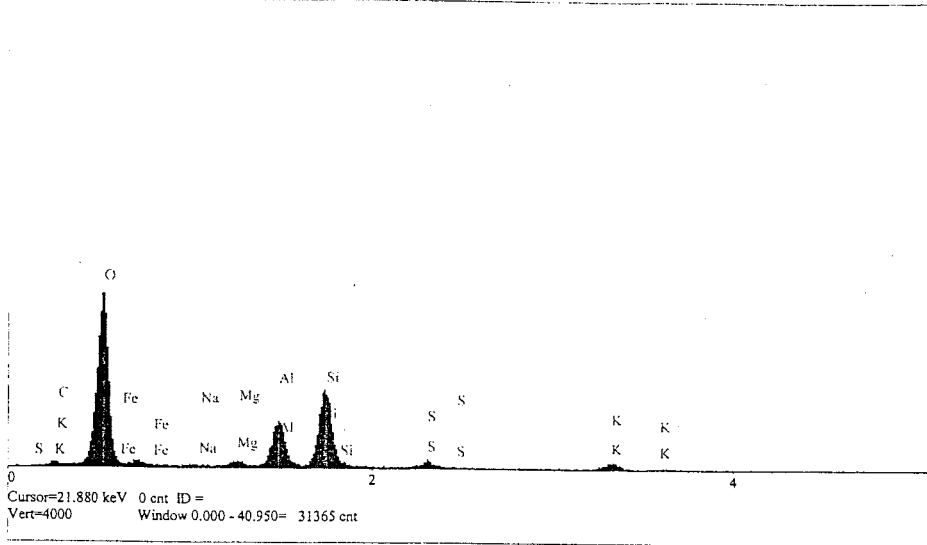
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	9.29	11.067	wt.%
O	Ka	190.13	58.560	wt.%
Na	Ka	0.21	0.028	wt.%
Mg	Ka	7.32	0.818	wt.%
Al	Ka	58.58	6.737	wt.%
Si	Ka	140.51	17.649	wt.%
S	Ka	5.22	0.838	wt.%
K	Ka	10.57	2.597	wt.%
Fe	La	3.15	1.706	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: ilhs7000a1



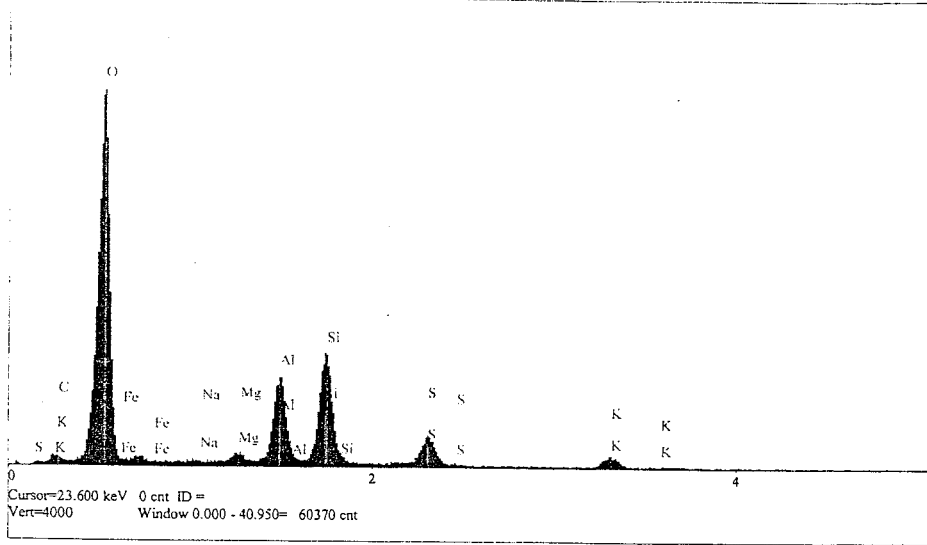
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	4.19	5.282	wt.%
O	Ka	212.76	64.292	wt.%
Na	Ka	0.88	0.127	wt.%
Mg	Ka	6.18	0.758	wt.%
Al	Ka	60.96	7.642	wt.%
Si	Ka	104.60	14.282	wt.%
S	Ka	8.59	1.473	wt.%
K	Ka	10.69	2.807	wt.%
Fe	La	5.61	3.337	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: ilhs7000a2



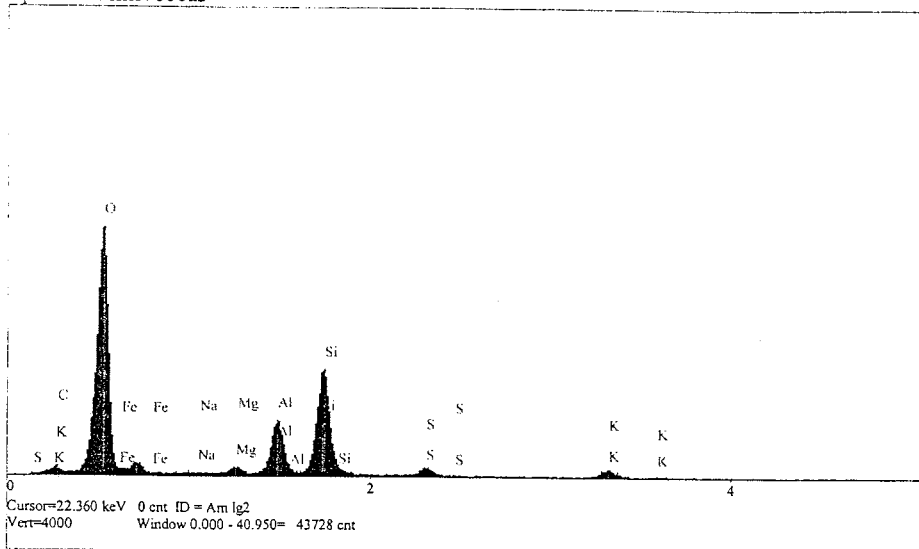
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	6.49	6.971	wt.%
O	Ka	245.63	67.180	wt.%
Na	Ka	0.47	0.062	wt.%
Mg	Ka	5.50	0.616	wt.%
Al	Ka	63.08	7.210	wt.%
Si	Ka	82.08	10.176	wt.%
S	Ka	22.70	3.499	wt.%
K	Ka	8.87	2.120	wt.%
Fe	La	3.87	2.166	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: ilhs7000a3

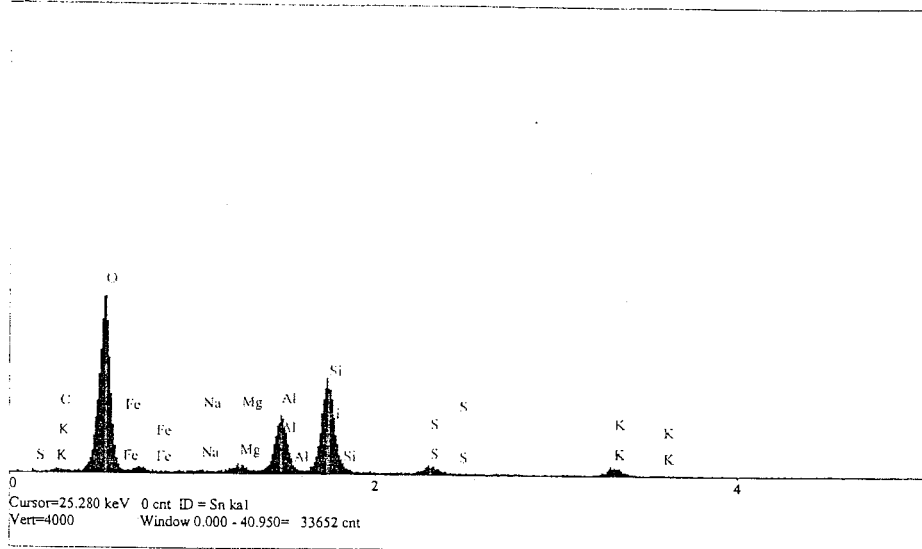


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	7.42	6.899	wt.%
O	Ka	268.39	63.409	wt.%
Na	Ka	0.71	0.081	wt.%
Mg	Ka	7.26	0.705	wt.%
Al	Ka	63.52	6.277	wt.%
Si	Ka	129.47	13.804	wt.%
S	Ka	10.08	1.349	wt.%
K	Ka	10.85	2.226	wt.%
Fe	La	11.39	5.250	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: ilhs7000b



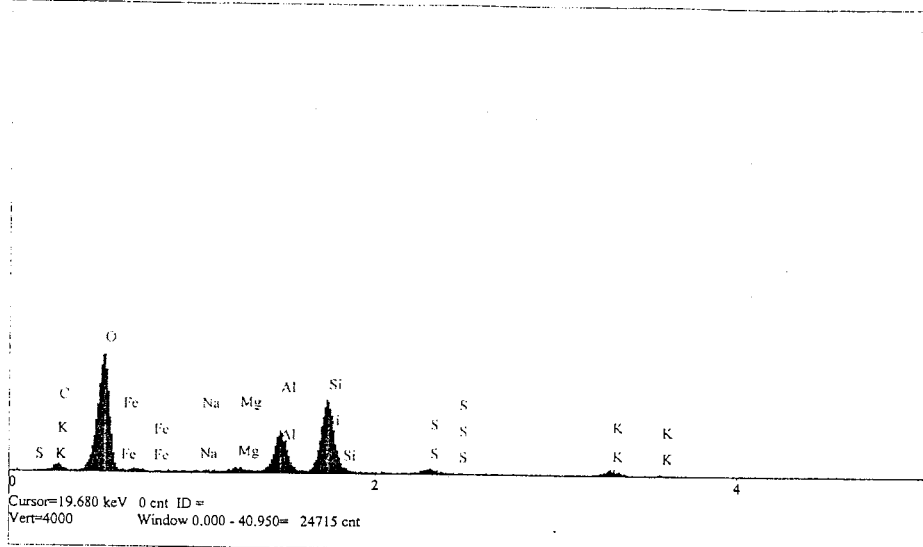
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	2.63	4.020	wt.%
O	Ka	180.84	62.302	wt.%
Na	Ka	0.82	0.130	wt.%
Mg	Ka	6.89	0.939	wt.%
Al	Ka	60.49	8.454	wt.%
Si	Ka	106.26	16.283	wt.%
S	Ka	9.52	1.842	wt.%
K	Ka	10.47	3.093	wt.%
Fe	La	4.48	2.937	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: ilhs7000c

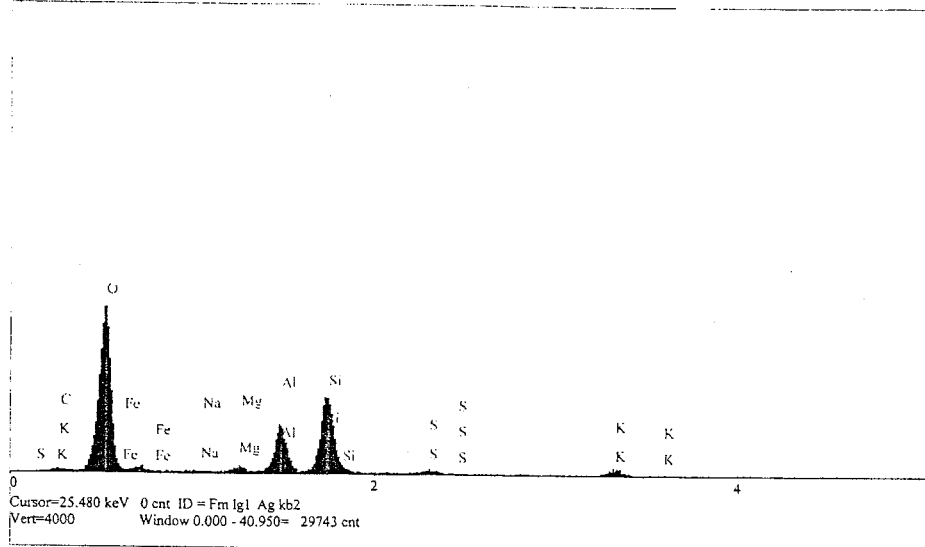


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	6.19	9.668	wt.%
O	Ka	150.54	58.979	wt.%
Na	Ka	0.45	0.076	wt.%
Mg	Ka	4.89	0.706	wt.%
Al	Ka	54.34	8.059	wt.%
Si	Ka	101.39	16.525	wt.%
S	Ka	6.66	1.378	wt.%
K	Ka	8.35	2.642	wt.%
Fe	La	2.82	1.967	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: ilhs11500b



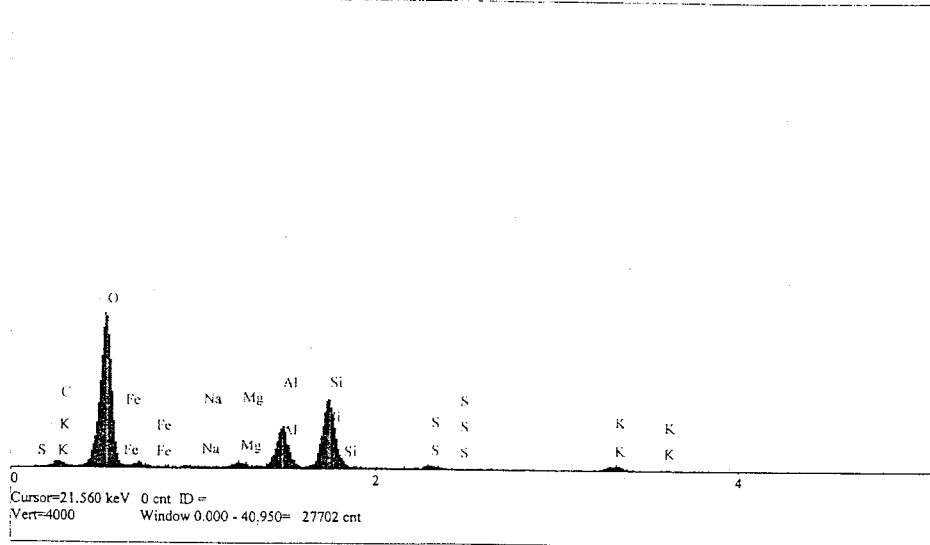
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	3.40	4.123	wt.%
O	Ka	227.34	64.525	wt.%
Na	Ka	0.86	0.118	wt.%
Mg	Ka	6.69	0.781	wt.%
Al	Ka	65.64	7.824	wt.%
Si	Ka	120.09	15.616	wt.%
S	Ka	5.63	0.922	wt.%
K	Ka	10.94	2.736	wt.%
Fe	La	5.95	3.355	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: ilhs11500c



Elt.	Line	Intensity (c/s)	Conc	
C	Ka	7.14	7.649	wt.%
O	Ka	233.98	63.990	wt.%
Na	Ka	0.70	0.090	wt.%
Mg	Ka	7.25	0.793	wt.%
Al	Ka	64.82	7.253	wt.%
Si	Ka	116.48	14.186	wt.%
S	Ka	5.84	0.894	wt.%
K	Ka	10.13	2.379	wt.%
Fe	La	5.17	2.765	wt.%
			100.000	wt.%
				Total

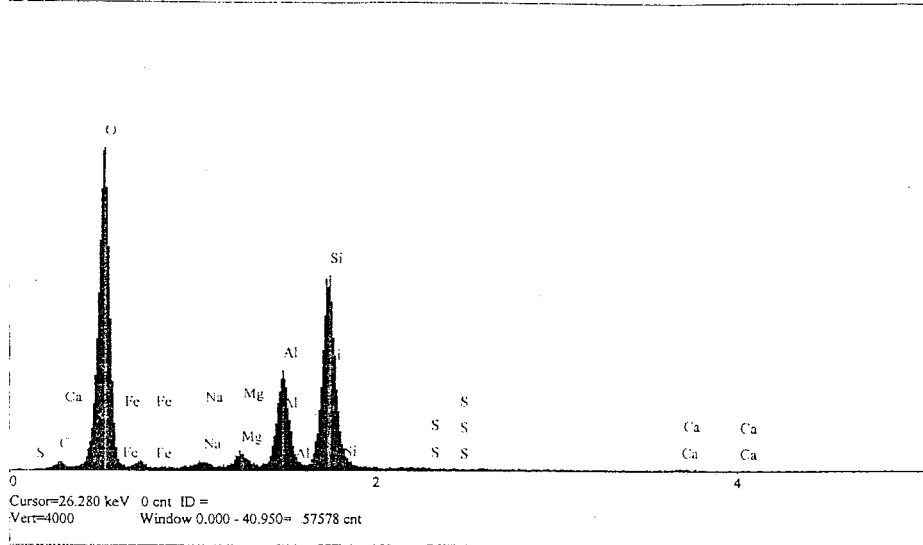
kV

10.0

Material Classification:

Appendix E.8. SEM/EDS spectra of sodium montmorillonite.

Spectrum: namtun200a



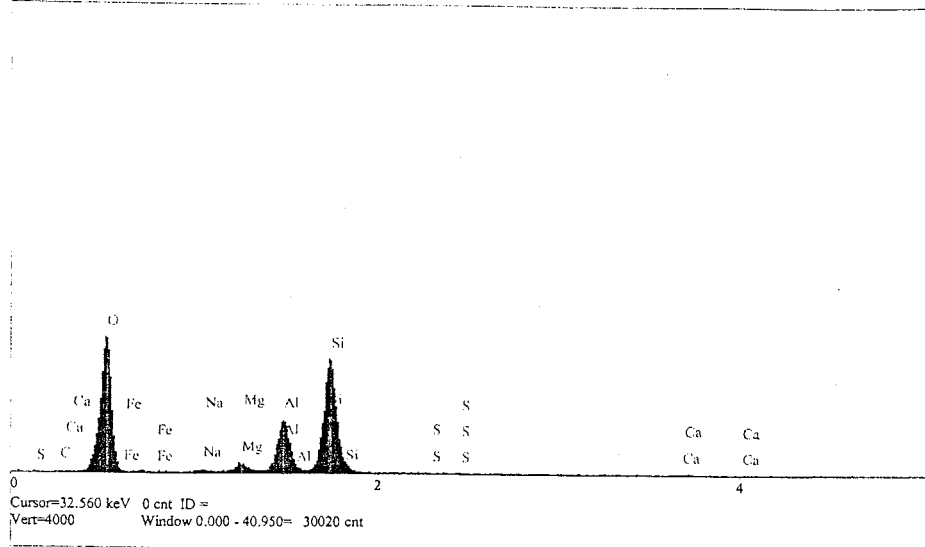
El.	Line	Intensity (c/s)	Conc	
C	Ka	3.27	3.845	wt.%
O	Ka	227.82	63.385	wt.%
Na	Ka	3.85	0.520	wt.%
Mg	Ka	9.77	1.132	wt.%
Al	Ka	71.31	8.495	wt.%
Si	Ka	151.45	19.845	wt.%
S	Ka	0.45	0.075	wt.%
Ca	Ka	1.25	0.373	wt.%
Fe	La	4.19	2.329	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: namtun200b

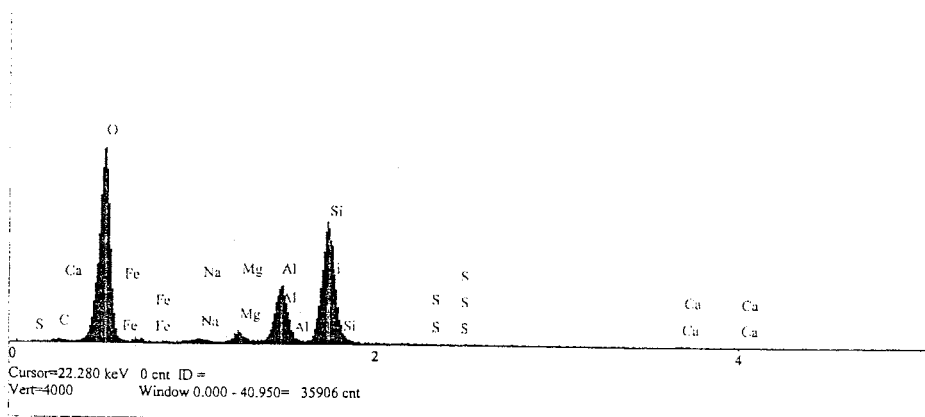


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.00	0.000	wt.%
O	Ka	119.55	59.892	wt.%
Na	Ka	1.85	0.429	wt.%
Mg	Ka	7.82	1.561	wt.%
Al	Ka	50.69	10.508	wt.%
Si	Ka	112.65	26.140	wt.%
S	Ka	0.17	0.051	wt.%
Ca	Ka	1.09	0.575	wt.%
Fe	La	0.89	0.844	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: namtun200c



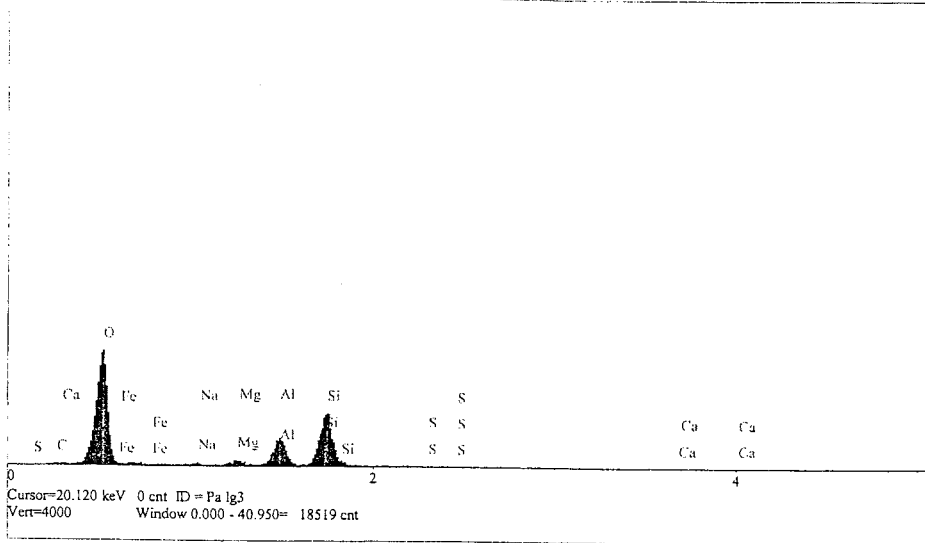
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	1.51	2.136	wt.%
O	Ka	200.18	64.200	wt.%
Na	Ka	3.20	0.505	wt.%
Mg	Ka	9.28	1.253	wt.%
Al	Ka	62.93	8.753	wt.%
Si	Ka	136.39	20.907	wt.%
S	Ka	0.27	0.052	wt.%
Ca	Ka	1.13	0.395	wt.%
Fe	La	2.76	1.798	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: namtun7000a1

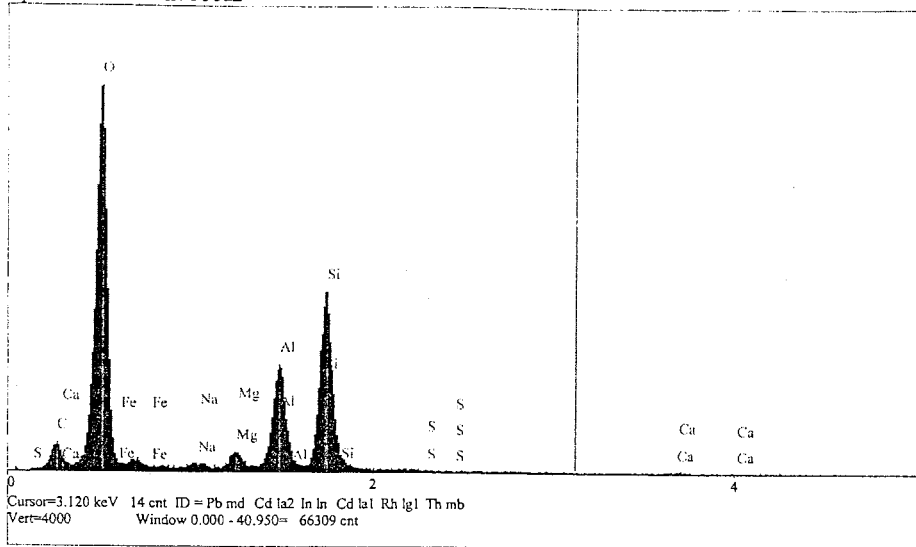


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.00	0.000	wt.%
O	Ka	270.18	68.999	wt.%
Na	Ka	3.01	0.410	wt.%
Mg	Ka	11.36	1.315	wt.%
Al	Ka	71.56	8.501	wt.%
Si	Ka	139.95	18.215	wt.%
S	Ka	0.21	0.035	wt.%
Ca	Ka	1.34	0.395	wt.%
Fe	La	3.75	2.131	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: namtun7000a2



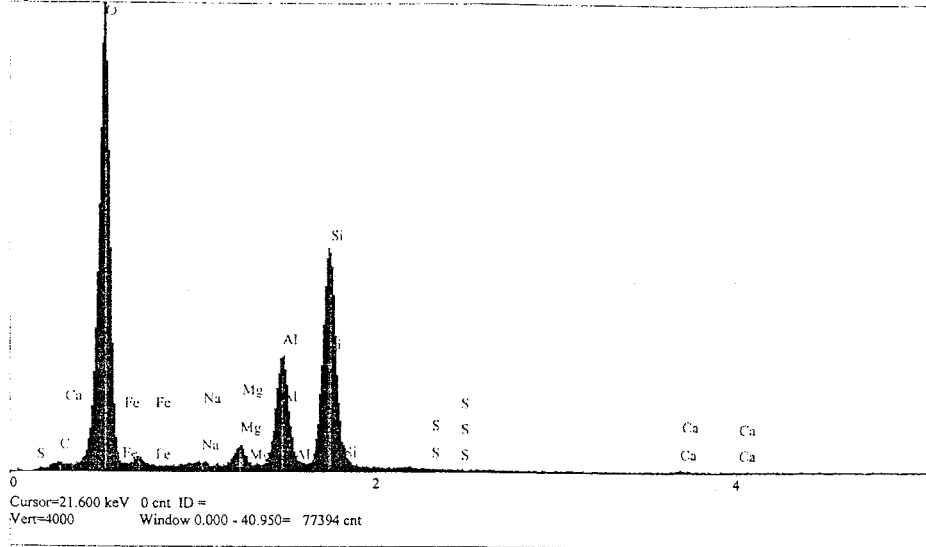
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	13.16	11.010	wt.%
O	Ka	258.95	62.900	wt.%
Na	Ka	2.92	0.333	wt.%
Mg	Ka	10.69	1.042	wt.%
Al	Ka	74.60	7.462	wt.%
Si	Ka	130.70	14.261	wt.%
S	Ka	0.22	0.031	wt.%
Ca	Ka	1.22	0.301	wt.%
Fe	La	5.62	2.661	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: namtun7000a3



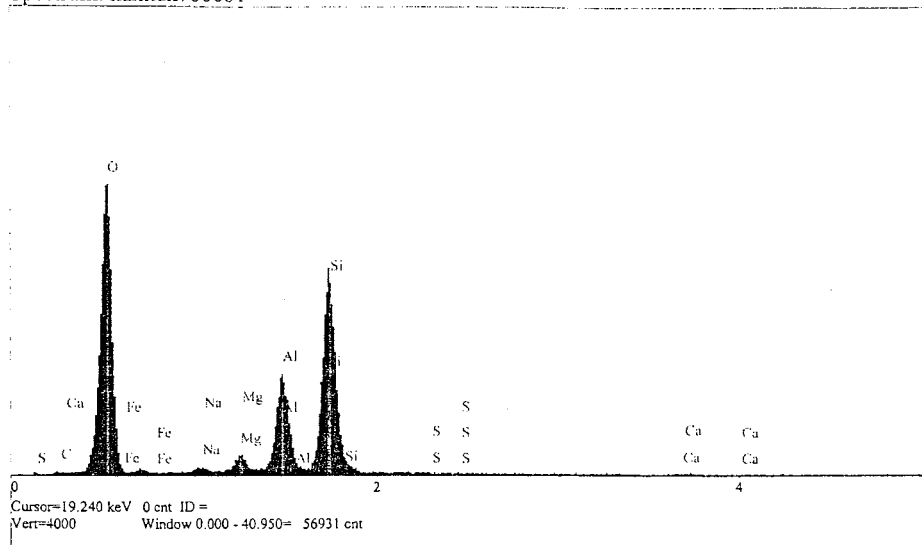
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	3.24	2.912	wt.%
O	Ka	310.01	67.122	wt.%
Na	Ka	2.64	0.294	wt.%
Mg	Ka	12.57	1.192	wt.%
Al	Ka	80.73	7.852	wt.%
Si	Ka	166.38	17.677	wt.%
S	Ka	0.14	0.018	wt.%
Ca	Ka	1.49	0.358	wt.%
Fe	La	5.56	2.574	wt.%
100.000				wt.%
				Total

kV

10.0

Material Classification:

Spectrum: namtun7000b1



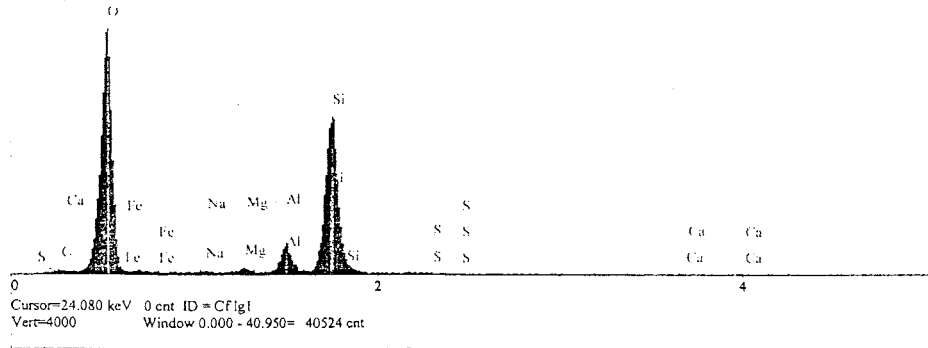
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.54	0.821	wt.%
O	Ka	191.70	62.959	wt.%
Na	Ka	2.94	0.467	wt.%
Mg	Ka	10.66	1.457	wt.%
Al	Ka	68.29	9.638	wt.%
Si	Ka	145.18	22.734	wt.%
S	Ka	0.20	0.040	wt.%
Ca	Ka	1.24	0.442	wt.%
Fe	La	2.20	1.442	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: namtun7000b2

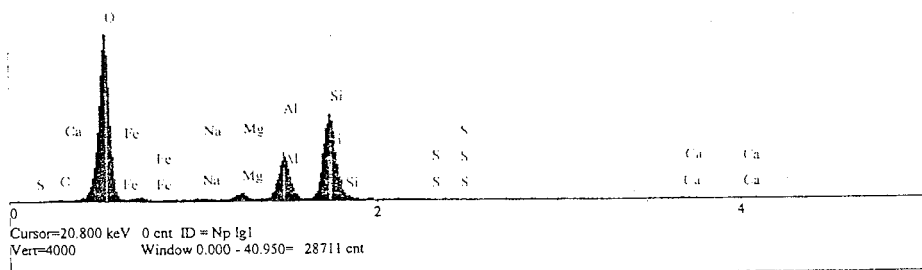


Elt.	Line	Intensity (c/s)	Conc wt. %	
C	Ka	2.39	2.399	wt. %
O	Ka	293.78	67.978	wt. %
Na	Ka	1.80	0.212	wt. %
Mg	Ka	4.88	0.487	wt. %
Al	Ka	34.49	3.512	wt. %
Si	Ka	217.25	23.738	wt. %
S	Ka	0.65	0.094	wt. %
Ca	Ka	0.72	0.185	wt. %
Fe	La	2.81	1.395	wt. %
			100.000	Total wt. %

kV
10.0

Material Classification:

Spectrum: nantun7000c



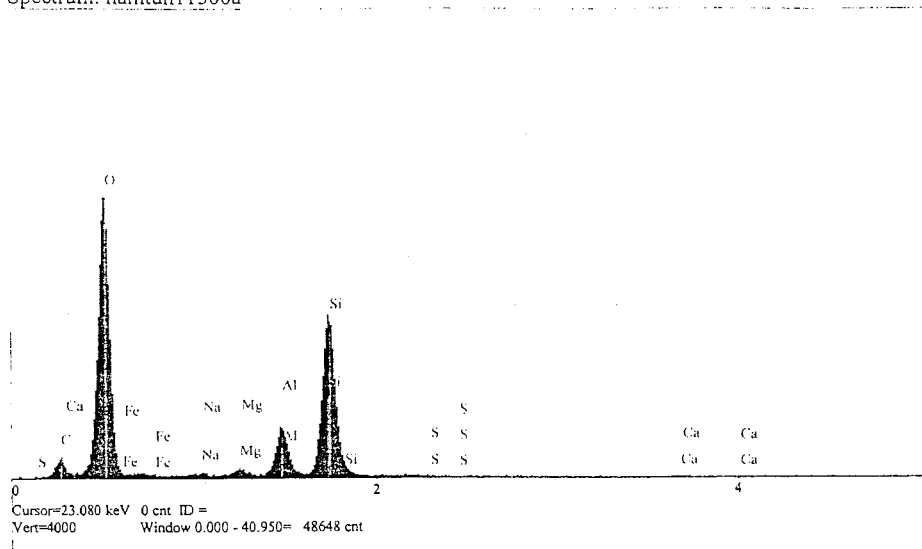
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	1.84	2.164	wt.%
O	Ka	239.84	66.207	wt.%
Na	Ka	2.25	0.316	wt.%
Mg	Ka	8.35	1.001	wt.%
Al	Ka	67.33	8.268	wt.%
Si	Ka	139.91	18.831	wt.%
S	Ka	0.23	0.039	wt.%
Ca	Ka	1.68	0.512	wt.%
Fe	La	4.59	2.663	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: namtun11500a

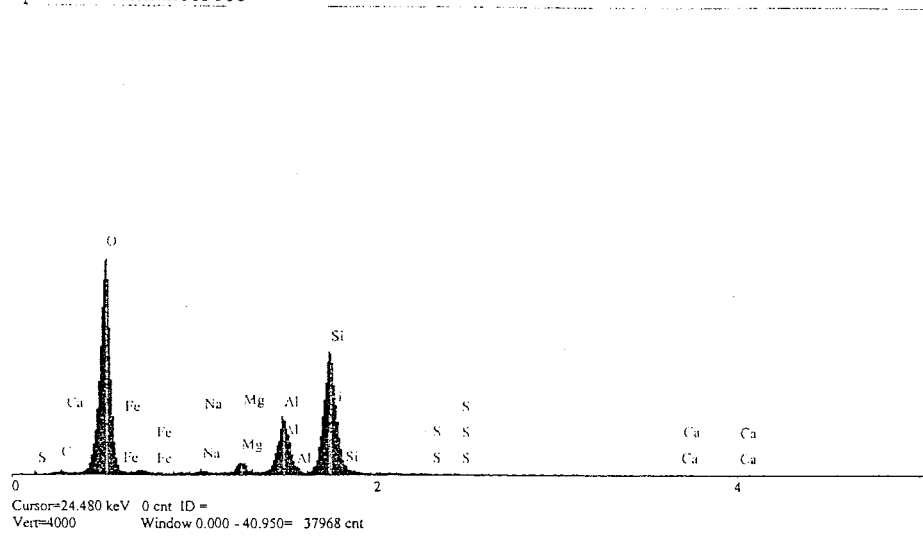


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	10.67	10.978	wt.%
O	Ka	217.30	63.816	wt.%
Na	Ka	2.00	0.274	wt.%
Mg	Ka	4.66	0.543	wt.%
Al	Ka	37.69	4.490	wt.%
Si	Ka	139.52	17.904	wt.%
S	Ka	0.31	0.051	wt.%
Ca	Ka	0.88	0.261	wt.%
Fe	La	2.92	1.683	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: namtun11500c



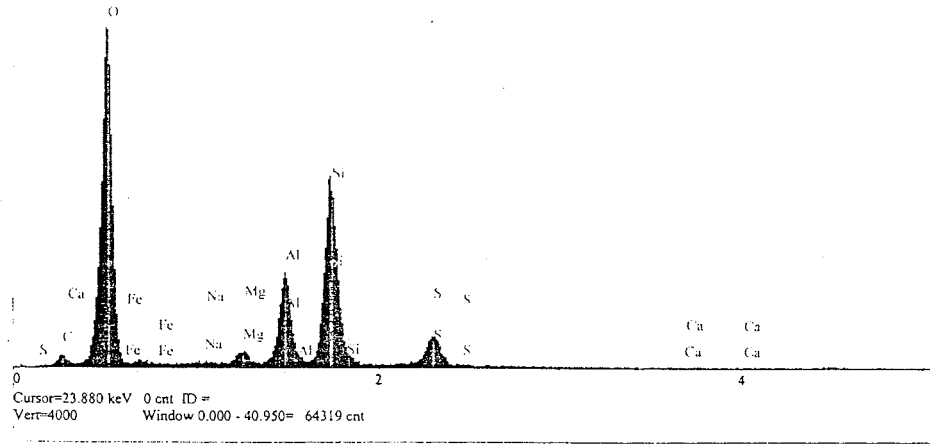
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	1.75	2.343	wt.%
O	Ka	212.06	66.173	wt.%
Na	Ka	1.74	0.272	wt.%
Mg	Ka	9.18	1.229	wt.%
Al	Ka	57.41	7.900	wt.%
Si	Ka	130.87	19.726	wt.%
S	Ka	0.22	0.042	wt.%
Ca	Ka	1.31	0.451	wt.%
Fe	La	2.85	1.863	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: namtEN200a



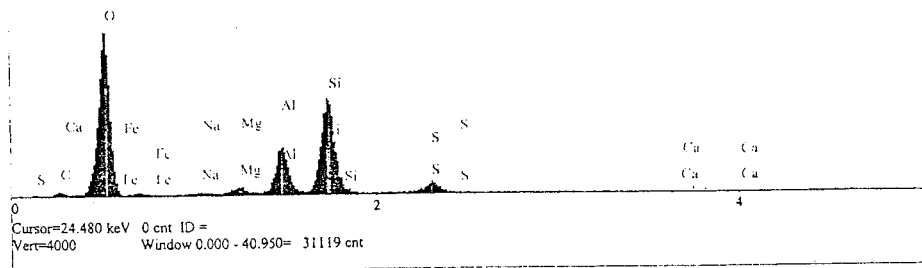
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	4.78	5.705	wt.%
O	Ka	223.98	62.762	wt.%
Na	Ka	1.02	0.132	wt.%
Mg	Ka	8.41	0.935	wt.%
Al	Ka	64.32	7.347	wt.%
Si	Ka	141.88	17.731	wt.%
S	Ka	24.43	3.905	wt.%
Ca	Ka	0.27	0.078	wt.%
Fe	La	2.59	1.404	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: namten200b



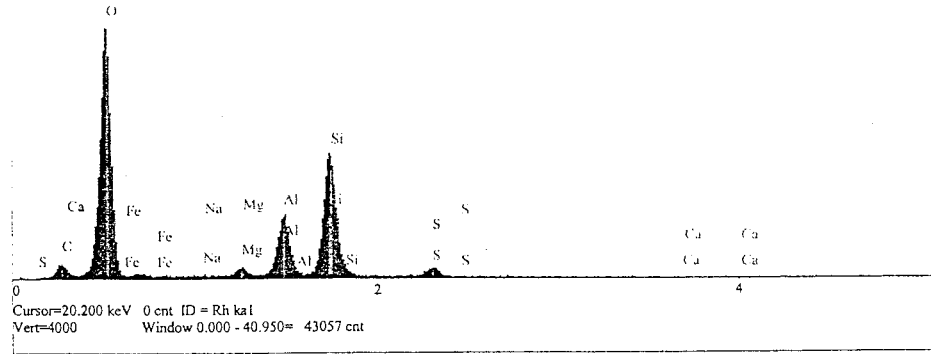
Elt.	Line	Intensity (c/s)	Conc (wt.%)
C	Ka	3.91	5.385 wt.%
O	Ka	192.91	62.255 wt.%
Na	Ka	1.93	0.288 wt.%
Mg	Ka	8.40	1.077 wt.%
Al	Ka	60.12	7.944 wt.%
Si	Ka	129.75	18.831 wt.%
S	Ka	14.68	2.729 wt.%
Ca	Ka	0.42	0.140 wt.%
Fe	La	2.17	1.351 wt.%
			100.000 wt.%
			Total

kV

10.0

Material Classification:

Spectrum: namten200c

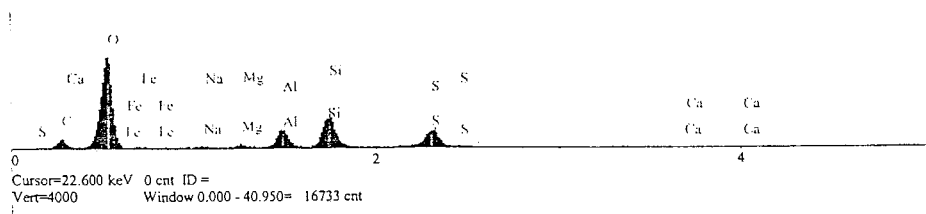


Elt.	Line	Intensity (c/s)	Conc (wt.%)	
C	Ka	10.34	9.916	wt.%
O	Ka	243.59	63.595	wt.%
Na	Ka	0.48	0.058	wt.%
Mg	Ka	7.64	0.792	wt.%
Al	Ka	62.79	6.679	wt.%
Si	Ka	136.64	15.830	wt.%
S	Ka	9.93	1.463	wt.%
Ca	Ka	0.28	0.074	wt.%
Fe	La	3.11	1.592	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: namten7000a1

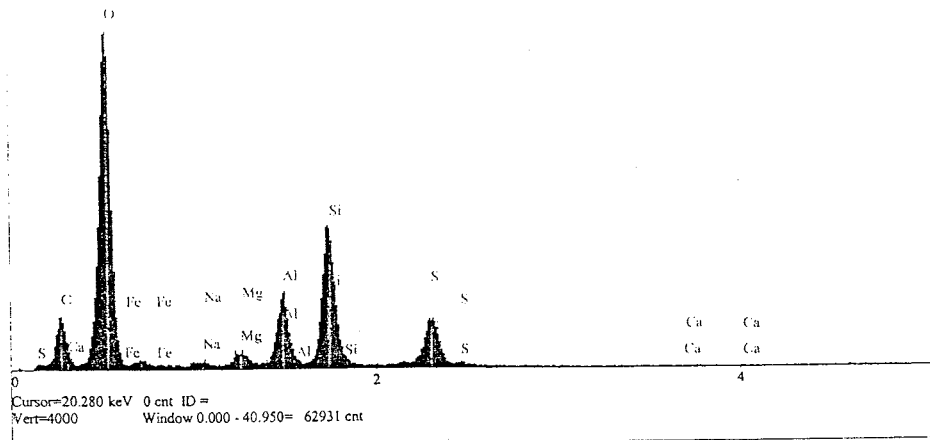


El.	Line	Intensity (c/s)	Conc wt. %
C	Ka	14.12	16.707 wt. %
O	Ka	167.69	59.386 wt. %
Na	Ka	2.29	0.336 wt. %
Mg	Ka	5.15	0.646 wt. %
Al	Ka	35.82	4.613 wt. %
Si	Ka	69.06	9.555 wt. %
S	Ka	42.82	7.463 wt. %
Ca	Ka	0.42	0.136 wt. %
Fe	La	1.86	1.156 wt. %
			100.000 wt. % Total

kV
10.0

Material Classification:

Spectrum: namten7000a2

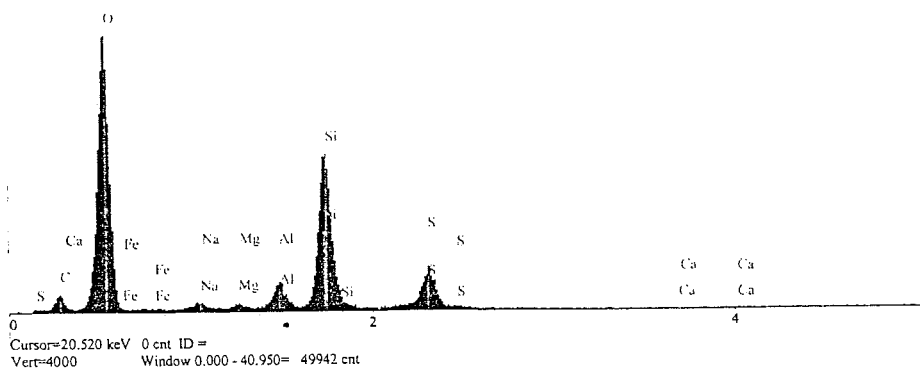


Elt.	Line	Intensity (c/s)	Conc (wt.%)
C	Ka	35.60	21.690 wt.%
O	Ka	271.50	56.713 wt.%
Na	Ka	3.29	0.274 wt.%
Mg	Ka	11.69	0.835 wt.%
Al	Ka	57.95	4.252 wt.%
Si	Ka	125.23	9.869 wt.%
S	Ka	48.43	4.813 wt.%
Ca	Ka	0.51	0.093 wt.%
Fe	La	4.16	1.462 wt.%
			100.000 wt.%
			Total

kV
10.0

Material Classification:

Spectrum: namtEN7000a3

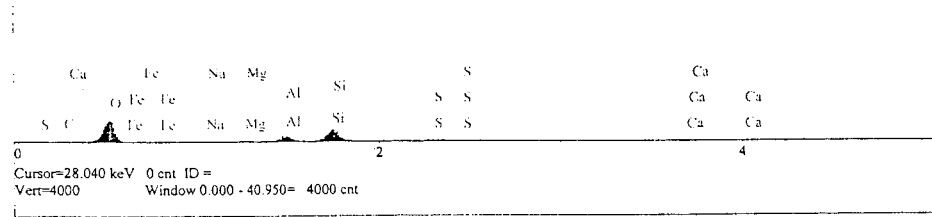


Elt.	Line	Intensity (c/s)	Conc wt. %	
C	Ka	11.16	10.931	wt. %
O	Ka	244.81	62.758	wt. %
Na	Ka	5.82	0.653	wt. %
Mg	Ka	3.58	0.344	wt. %
Al	Ka	24.32	2.393	wt. %
Si	Ka	161.01	16.874	wt. %
S	Ka	42.46	5.773	wt. %
Ca	Ka	0.27	0.066	wt. %
Fe	La	0.43	0.208	wt. %
			100.000	wt. % Total

kV
10.0

Material Classification:

Spectrum: namten7000b

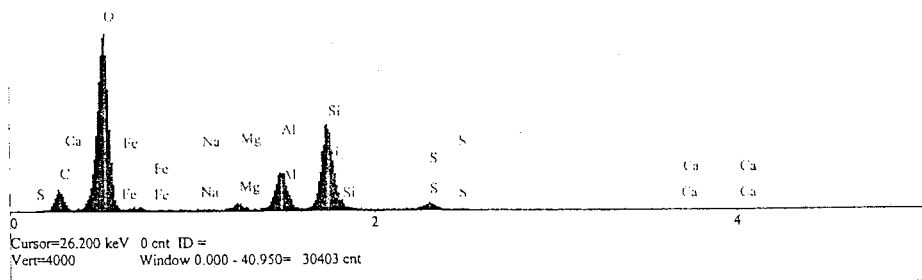


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.00	0.000	wt.%
O	Ka	248.18	66.470	wt.%
Na	Ka	0.92	0.124	wt.%
Mg	Ka	10.03	1.152	wt.%
Al	Ka	63.60	7.506	wt.%
Si	Ka	155.39	20.054	wt.%
S	Ka	19.22	3.186	wt.%
Ca	Ka	0.00	0.000	wt.%
Fe	La	2.68	1.508	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: namten7000c

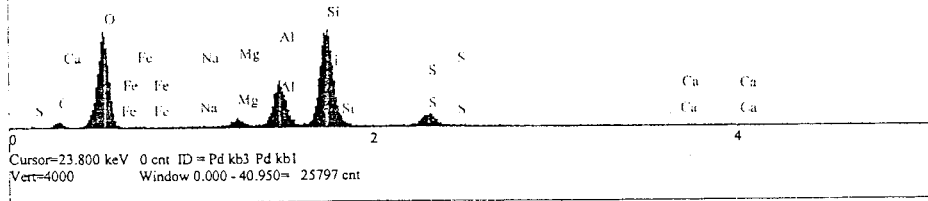


Elt.	Line	Intensity (c/s)	Conc (wt.%)	
C	Ka	20.14	17.405	wt.%
O	Ka	213.00	59.953	wt.%
Na	Ka	0.45	0.055	wt.%
Mg	Ka	7.18	0.745	wt.%
Al	Ka	50.13	5.340	wt.%
Si	Ka	115.19	13.270	wt.%
S	Ka	8.80	1.284	wt.%
Ca	Ka	0.14	0.037	wt.%
Fe	La	3.74	1.910	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: namten11500a



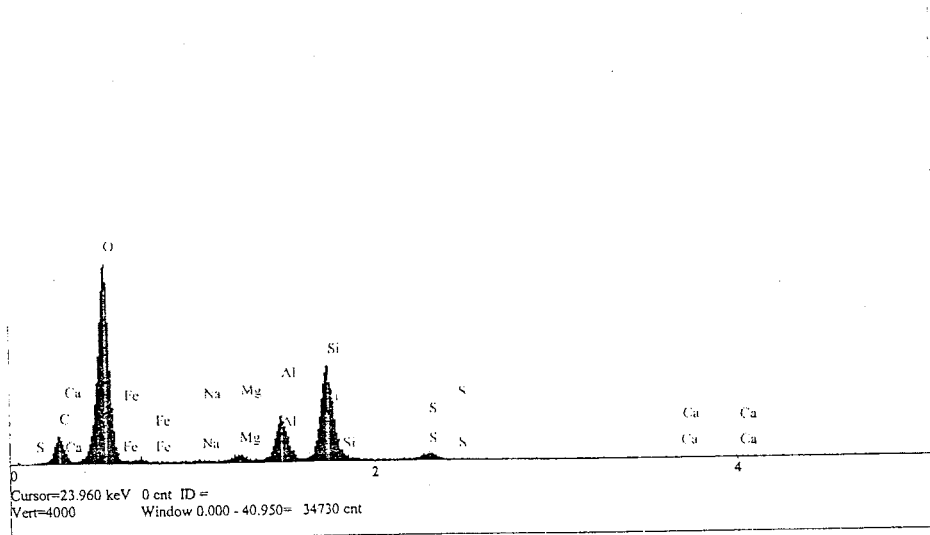
Elt.	Line	Intensity (c/s)	Conc wt. %	
C	Ka	5.42	10.451	wt. %
O	Ka	111.75	50.168	wt. %
Na	Ka	0.63	0.108	wt. %
Mg	Ka	8.86	1.322	wt. %
Al	Ka	57.98	9.015	wt. %
Si	Ka	137.43	23.861	wt. %
S	Ka	18.55	4.206	wt. %
Ca	Ka	0.67	0.269	wt. %
Fe	La	0.86	0.601	wt. %
			100.000	wt. % Total

kV

10.0

Material Classification:

Spectrum: namten11500c

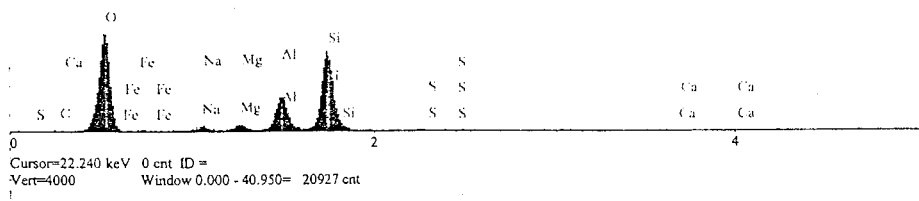


Elt.	Line	Intensity (c/s)	Conc wt. %	
C	Ka	20.39	18.574	wt. %
O	Ka	194.52	59.662	wt. %
Na	Ka	0.88	0.115	wt. %
Mg	Ka	6.14	0.686	wt. %
Al	Ka	44.88	5.142	wt. %
Si	Ka	104.15	12.896	wt. %
S	Ka	7.48	1.173	wt. %
Ca	Ka	0.39	0.112	wt. %
Fe	La	2.97	1.638	wt. %
			100.000	wt. %
				Total

kV
10.0

Material Classification:

Spectrum: namtbs200a

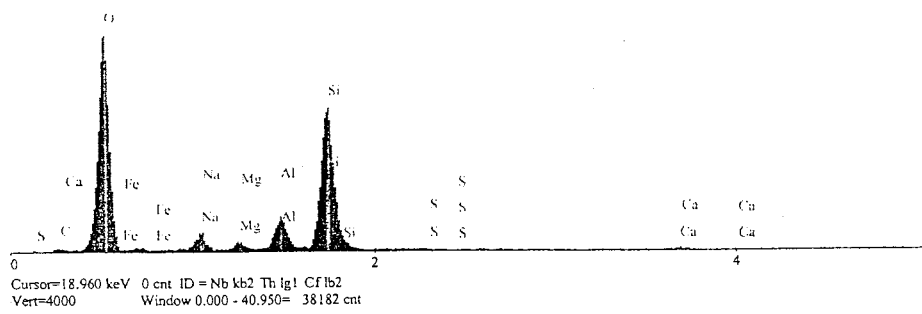


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.52	1.025	wt.%
O	Ka	146.64	59.986	wt.%
Na	Ka	5.98	1.126	wt.%
Mg	Ka	8.81	1.442	wt.%
Al	Ka	56.71	9.614	wt.%
Si	Ka	136.80	25.831	wt.%
S	Ka	0.70	0.173	wt.%
Ca	Ka	0.59	0.256	wt.%
Fe	La	0.71	0.548	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: namtbs200b

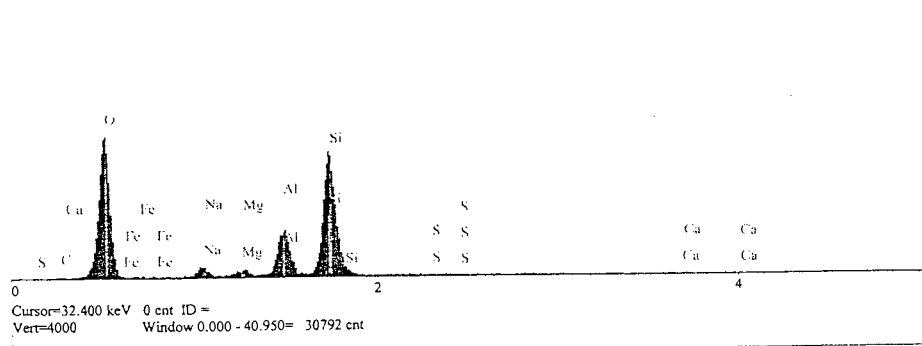


Elt.	Line	Intensity (c/s)	Conc wt.%	
C	Ka	2.30	2.602	wt.%
O	Ka	245.64	64.698	wt.%
Na	Ka	17.14	2.200	wt.%
Mg	Ka	7.47	0.833	wt.%
Al	Ka	38.83	4.417	wt.%
Si	Ka	188.13	23.018	wt.%
S	Ka	0.62	0.099	wt.%
Ca	Ka	2.47	0.699	wt.%
Fe	La	2.68	1.435	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: namtbs200c

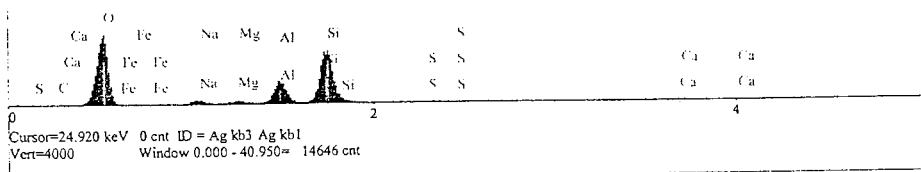


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.00	0.000	wt.%
O	Ka	136.69	60.267	wt.%
Na	Ka	8.61	1.757	wt.%
Mg	Ka	6.02	1.074	wt.%
Al	Ka	49.03	9.022	wt.%
Si	Ka	132.97	27.178	wt.%
S	Ka	0.20	0.055	wt.%
Ca	Ka	0.62	0.293	wt.%
Fe	La	0.42	0.355	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: namtbs7000a1



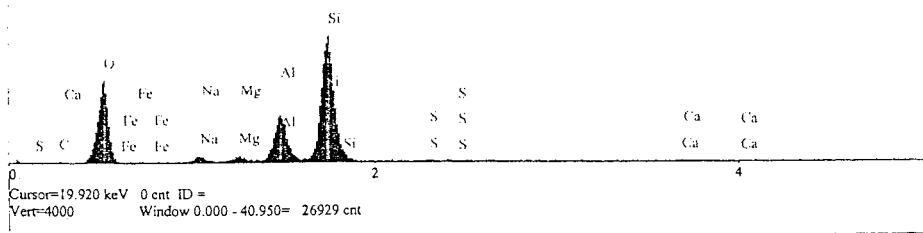
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.00	0.000	wt.%
O	Ka	131.10	60.658	wt.%
Na	Ka	7.93	1.730	wt.%
Mg	Ka	6.15	1.168	wt.%
Al	Ka	46.49	9.109	wt.%
Si	Ka	118.19	25.674	wt.%
S	Ka	1.02	0.287	wt.%
Ca	Ka	0.47	0.236	wt.%
Fe	La	1.28	1.139	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: namtbs7000a2

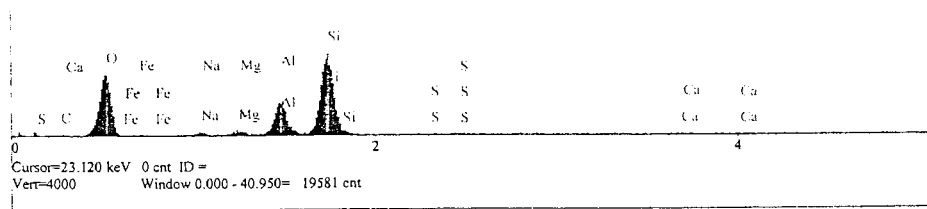


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.11	0.557	wt.%
O	Ka	49.57	47.613	wt.%
Na	Ka	3.48	1.303	wt.%
Mg	Ka	3.63	1.201	wt.%
Al	Ka	33.48	11.563	wt.%
Si	Ka	92.31	36.360	wt.%
S	Ka	0.55	0.291	wt.%
Ca	Ka	0.89	0.811	wt.%
Fe	La	0.20	0.300	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: namtbs7000a3

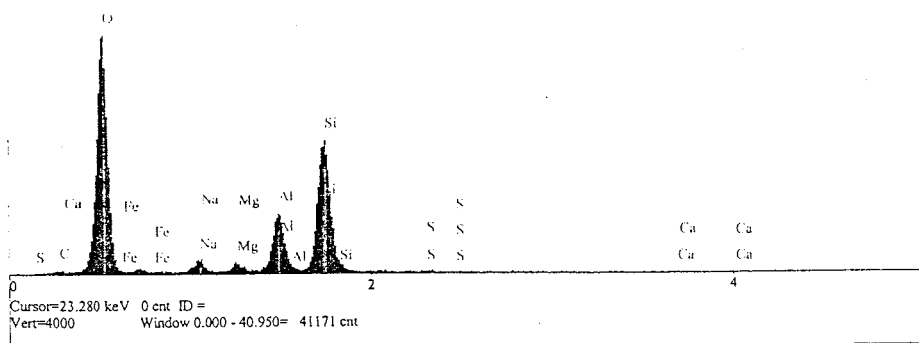


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.24	1.558	wt.%
O	Ka	39.61	50.806	wt.%
Na	Ka	1.67	0.864	wt.%
Mg	Ka	2.82	1.278	wt.%
Al	Ka	23.66	11.186	wt.%
Si	Ka	61.08	32.750	wt.%
S	Ka	0.22	0.160	wt.%
Ca	Ka	0.77	0.957	wt.%
Fe	La	0.21	0.442	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: namtbs7000b



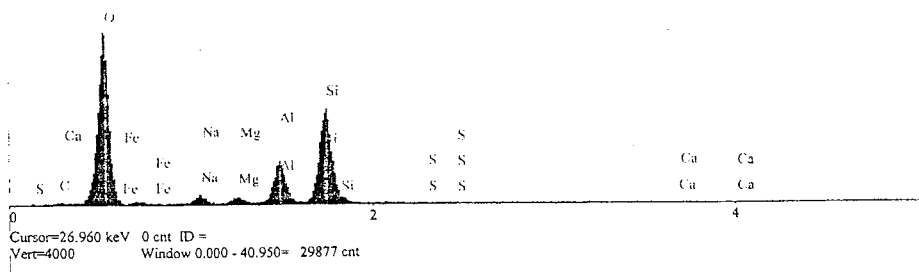
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	1.22	1.499	wt.%
O	Ka	239.68	65.967	wt.%
Na	Ka	11.29	1.570	wt.%
Mg	Ka	7.07	0.849	wt.%
Al	Ka	62.36	7.665	wt.%
Si	Ka	153.10	20.588	wt.%
S	Ka	1.15	0.199	wt.%
Ca	Ka	0.39	0.120	wt.%
Fe	La	2.66	1.543	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: namtbs7000c

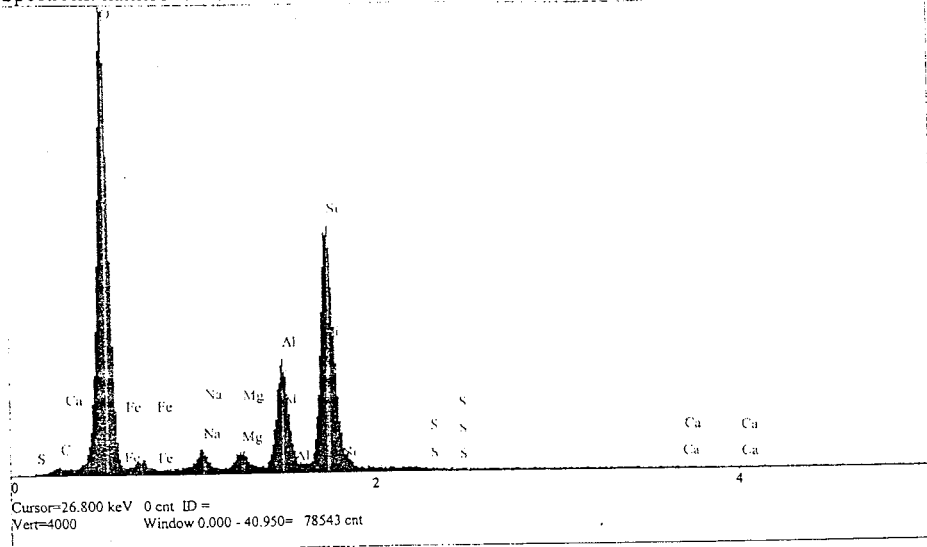


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.99	1.284	wt.%
O	Ka	225.64	65.488	wt.%
Na	Ka	11.21	1.651	wt.%
Mg	Ka	8.33	1.059	wt.%
Al	Ka	61.02	7.948	wt.%
Si	Ka	141.79	20.212	wt.%
S	Ka	0.33	0.060	wt.%
Ca	Ka	0.65	0.210	wt.%
Fe	La	3.43	2.087	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: namtbs11500b2



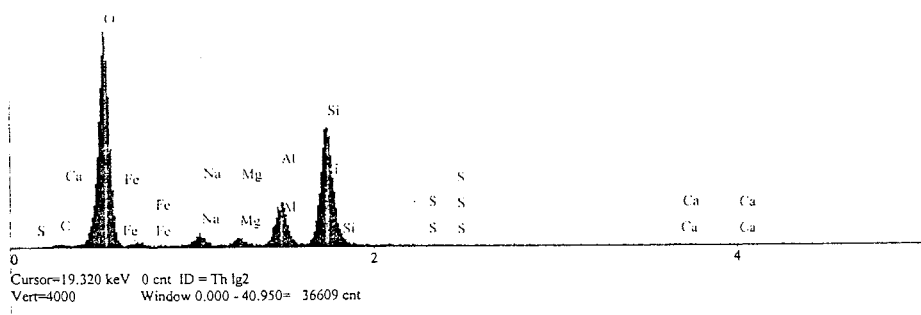
Elt.	Line	Intensity (c/s)	Conc (wt.%)	
C	Ka	2.70	2.456	wt.%
O	Ka	310.60	66.085	wt.%
Na	Ka	11.51	1.256	wt.%
Mg	Ka	10.62	0.994	wt.%
Al	Ka	76.20	7.300	wt.%
Si	Ka	183.06	19.103	wt.%
S	Ka	0.26	0.035	wt.%
Ca	Ka	0.48	0.113	wt.%
Fe	La	5.91	2.658	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: namtbs11500b3



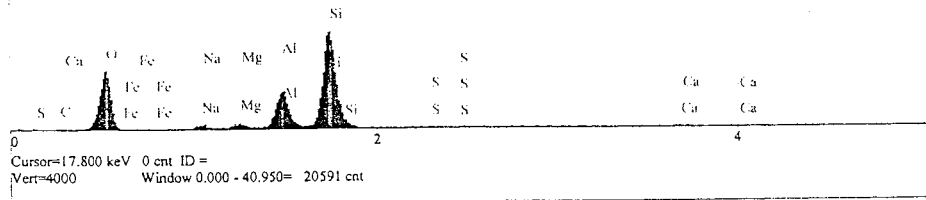
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	2.01	2.011	wt.%
O	Ka	285.22	66.282	wt.%
Na	Ka	13.17	1.559	wt.%
Mg	Ka	8.84	0.901	wt.%
Al	Ka	60.00	6.245	wt.%
Si	Ka	180.04	20.311	wt.%
S	Ka	0.35	0.051	wt.%
Ca	Ka	1.38	0.356	wt.%
Fe	La	4.65	2.285	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: namtbs11500c



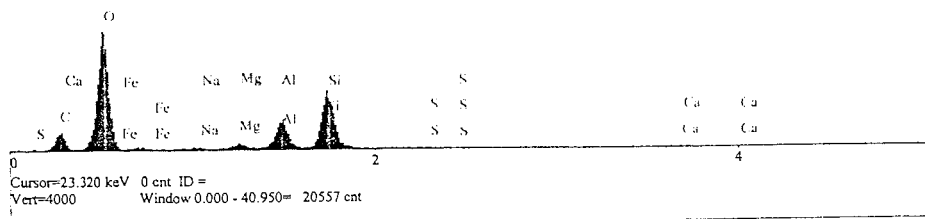
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.00	0.000	wt.%
O	Ka	52.89	46.924	wt.%
Na	Ka	3.43	1.172	wt.%
Mg	Ka	4.27	1.290	wt.%
Al	Ka	37.58	11.877	wt.%
Si	Ka	103.00	37.229	wt.%
S	Ka	0.71	0.347	wt.%
Ca	Ka	1.20	1.004	wt.%
Fe	La	0.12	0.156	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: namtpz200a



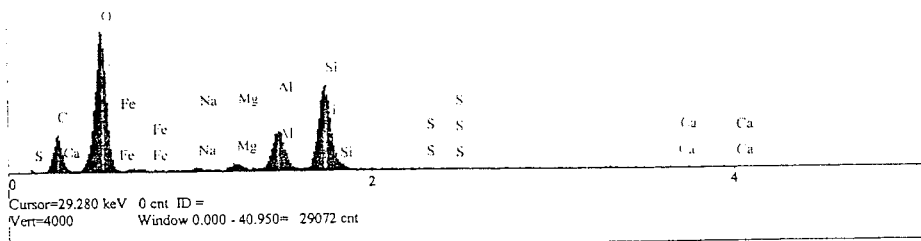
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	18.13	20.096	wt.%
O	Ka	148.38	58.663	wt.%
Na	Ka	1.70	0.283	wt.%
Mg	Ka	6.28	0.893	wt.%
Al	Ka	36.84	5.386	wt.%
Si	Ka	79.50	12.573	wt.%
S	Ka	0.31	0.061	wt.%
Ca	Ka	0.86	0.312	wt.%
Fe	La	2.48	1.732	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: namtpz200b



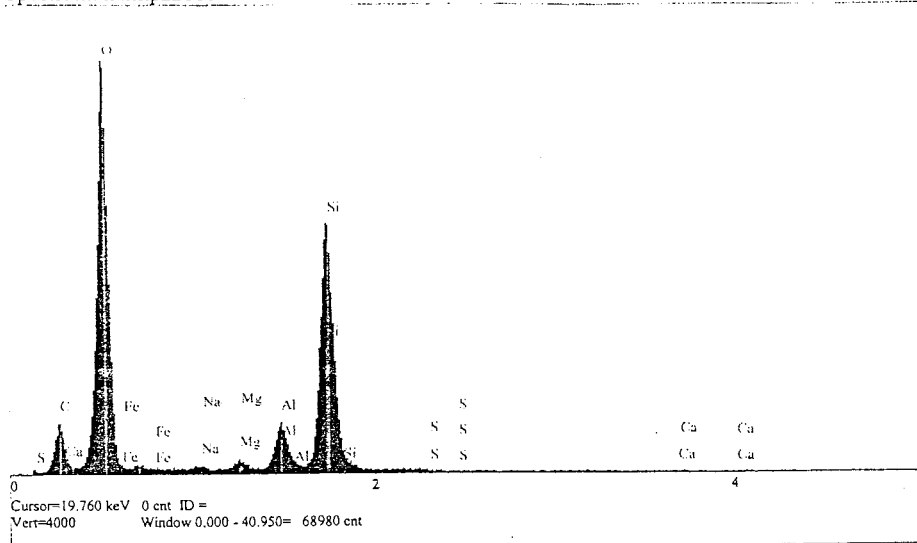
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	30.99	27.752	wt.%
O	Ka	143.61	51.811	wt.%
Na	Ka	2.02	0.270	wt.%
Mg	Ka	6.17	0.711	wt.%
Al	Ka	44.19	5.259	wt.%
Si	Ka	98.68	12.766	wt.%
S	Ka	0.38	0.062	wt.%
Ca	Ka	0.71	0.213	wt.%
Fe	La	2.06	1.155	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: namtpz200c



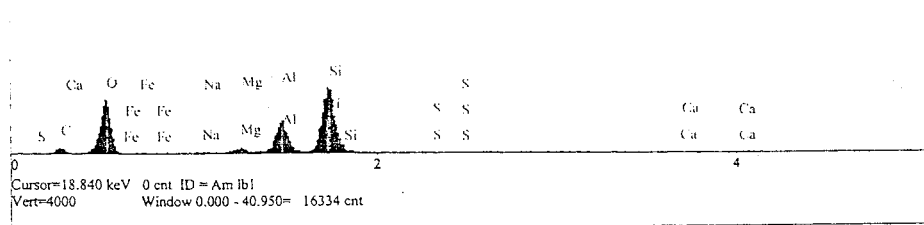
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	28.04	18.181	wt.%
O	Ka	278.69	60.203	wt.%
Na	Ka	2.17	0.200	wt.%
Mg	Ka	5.77	0.455	wt.%
Al	Ka	34.42	2.776	wt.%
Si	Ka	194.54	16.779	wt.%
S	Ka	0.52	0.058	wt.%
Ca	Ka	0.65	0.131	wt.%
Fe	La	3.11	1.218	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: namtpz7000a1



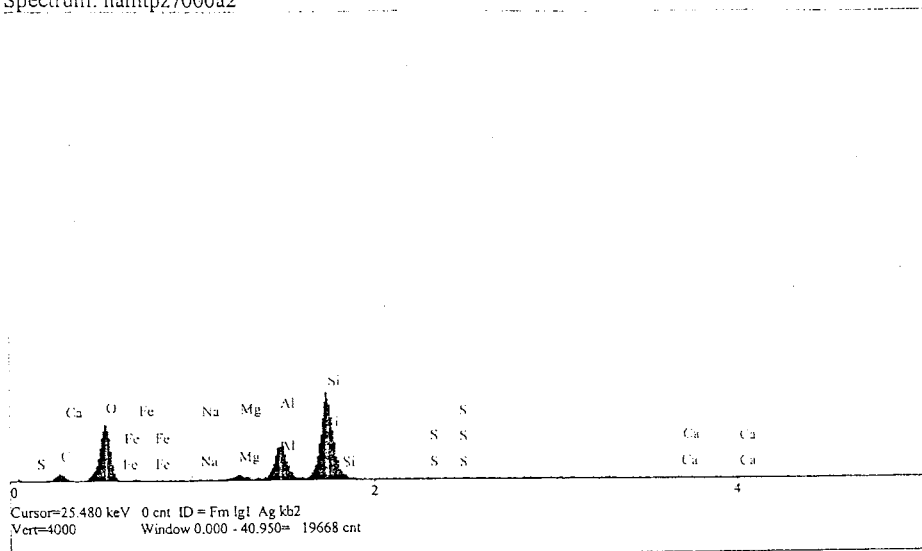
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	4.61	15.080	wt.%
O	Ka	53.53	46.377	wt.%
Na	Ka	0.67	0.209	wt.%
Mg	Ka	4.83	1.319	wt.%
Al	Ka	35.69	10.186	wt.%
Si	Ka	78.64	25.318	wt.%
S	Ka	0.22	0.093	wt.%
Ca	Ka	1.30	0.964	wt.%
Fe	La	0.36	0.455	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: namtpz7000a2



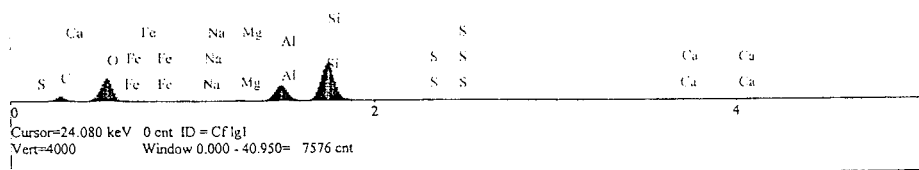
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	4.28	18.379	wt.%
O	Ka	36.78	43.210	wt.%
Na	Ka	0.42	0.173	wt.%
Mg	Ka	3.48	1.239	wt.%
Al	Ka	26.38	9.827	wt.%
Si	Ka	61.52	25.861	wt.%
S	Ka	0.18	0.099	wt.%
Ca	Ka	0.50	0.488	wt.%
Fe	La	0.45	0.726	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: namtpz7000a3



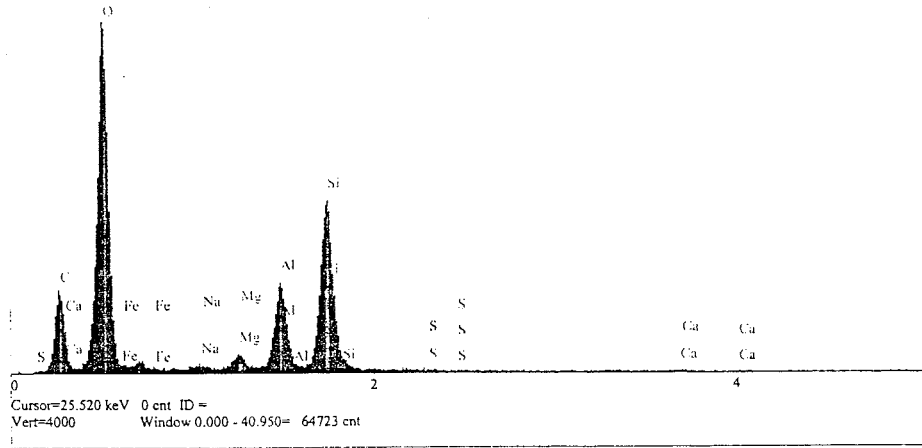
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	3.62	26.014	wt.%
O	Ka	16.46	38.054	wt.%
Na	Ka	0.07	0.050	wt.%
Mg	Ka	1.33	0.839	wt.%
Al	Ka	13.48	8.919	wt.%
Si	Ka	32.20	24.001	wt.%
S	Ka	0.24	0.231	wt.%
Ca	Ka	0.75	1.316	wt.%
Fe	La	0.20	0.577	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: namtpz7000b1

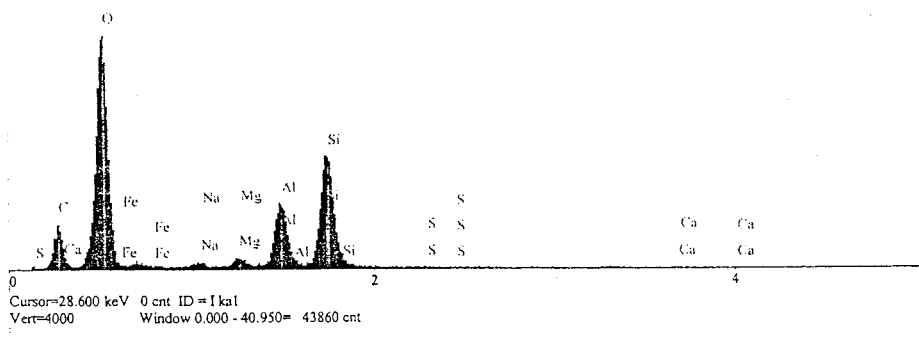


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	47.49	26.861	wt.%
O	Ka	232.43	54.301	wt.%
Na	Ka	2.39	0.217	wt.%
Mg	Ka	9.07	0.705	wt.%
Al	Ka	60.93	4.869	wt.%
Si	Ka	125.98	10.881	wt.%
S	Ka	0.83	0.091	wt.%
Ca	Ka	1.09	0.217	wt.%
Fe	La	4.90	1.858	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: namtpz7000b2

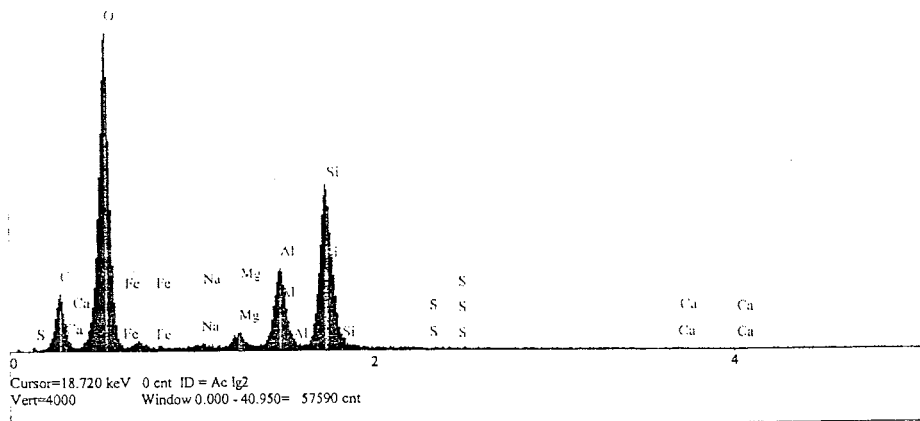


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	32.68	22.331	wt.%
O	Ka	224.50	56.339	wt.%
Na	Ka	3.68	0.374	wt.%
Mg	Ka	7.77	0.679	wt.%
Al	Ka	66.60	5.977	wt.%
Si	Ka	127.26	12.419	wt.%
S	Ka	0.46	0.057	wt.%
Ca	Ka	0.75	0.170	wt.%
Fe	La	3.89	1.654	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: namtpz7000b3



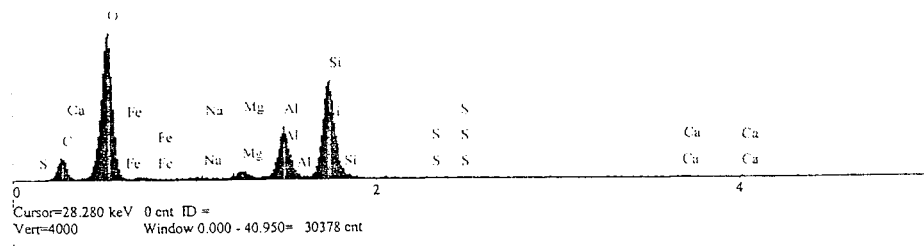
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	31.55	21.903	wt.%
O	Ka	223.89	56.473	wt.%
Na	Ka	2.03	0.209	wt.%
Mg	Ka	9.76	0.860	wt.%
Al	Ka	60.54	5.483	wt.%
Si	Ka	132.49	13.012	wt.%
S	Ka	0.25	0.031	wt.%
Ca	Ka	0.85	0.192	wt.%
Fe	La	4.29	1.838	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: namtpz7000c



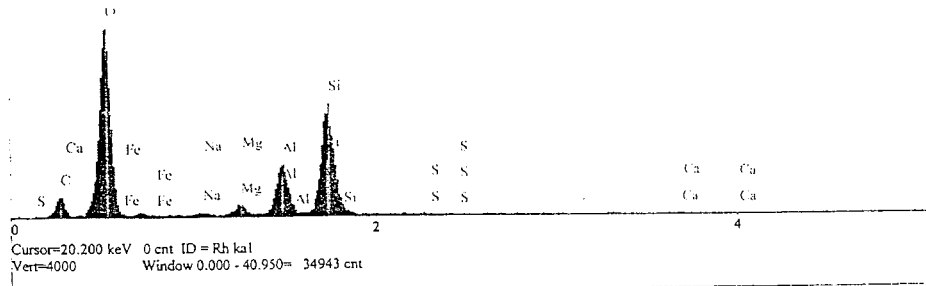
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	19.79	20.716	wt.%
O	Ka	153.35	54.245	wt.%
Na	Ka	1.60	0.223	wt.%
Mg	Ka	8.34	1.002	wt.%
Al	Ka	52.37	6.496	wt.%
Si	Ka	115.18	15.631	wt.%
S	Ka	0.39	0.067	wt.%
Ca	Ka	1.16	0.363	wt.%
Fe	La	2.17	1.258	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: namtpz11500a

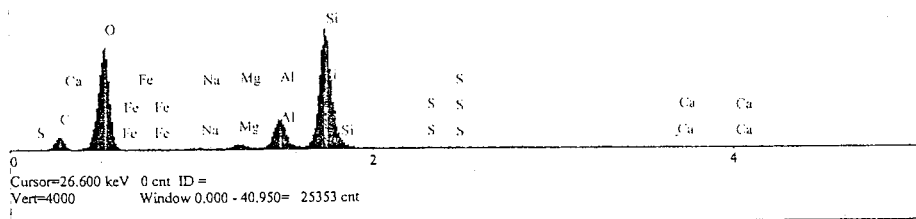


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	17.23	16.046	wt.%
O	Ka	201.99	58.708	wt.%
Na	Ka	2.71	0.335	wt.%
Mg	Ka	10.53	1.119	wt.%
Al	Ka	57.79	6.332	wt.%
Si	Ka	132.47	15.816	wt.%
S	Ka	0.48	0.073	wt.%
Ca	Ka	1.05	0.288	wt.%
Fe	La	2.47	1.283	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: namtpz11500c



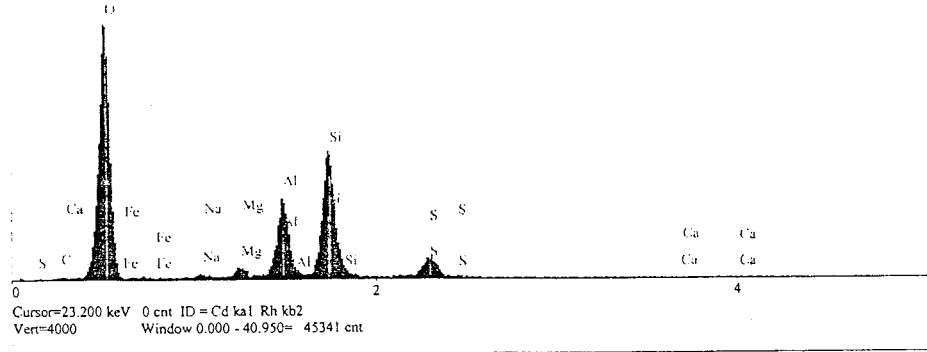
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	11.06	19.184	wt.%
O	Ka	96.37	49.436	wt.%
Na	Ka	0.97	0.184	wt.%
Mg	Ka	4.50	0.737	wt.%
Al	Ka	31.48	5.344	wt.%
Si	Ka	129.10	24.045	wt.%
S	Ka	0.52	0.127	wt.%
Ca	Ka	0.84	0.367	wt.%
Fe	Ka	0.20	0.575	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: namtH2S200a



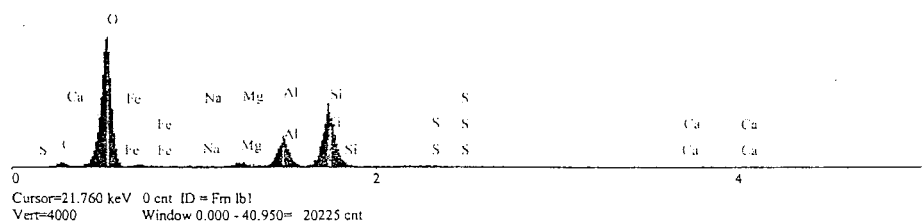
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.62	1.146	wt.%
O	Ka	166.72	65.800	wt.%
Na	Ka	1.86	0.359	wt.%
Mg	Ka	5.87	0.971	wt.%
Al	Ka	55.19	9.391	wt.%
Si	Ka	94.06	17.692	wt.%
S	Ka	16.47	3.937	wt.%
Ca	Ka	0.11	0.046	wt.%
Fe	La	0.80	0.656	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: namtH2S200b1



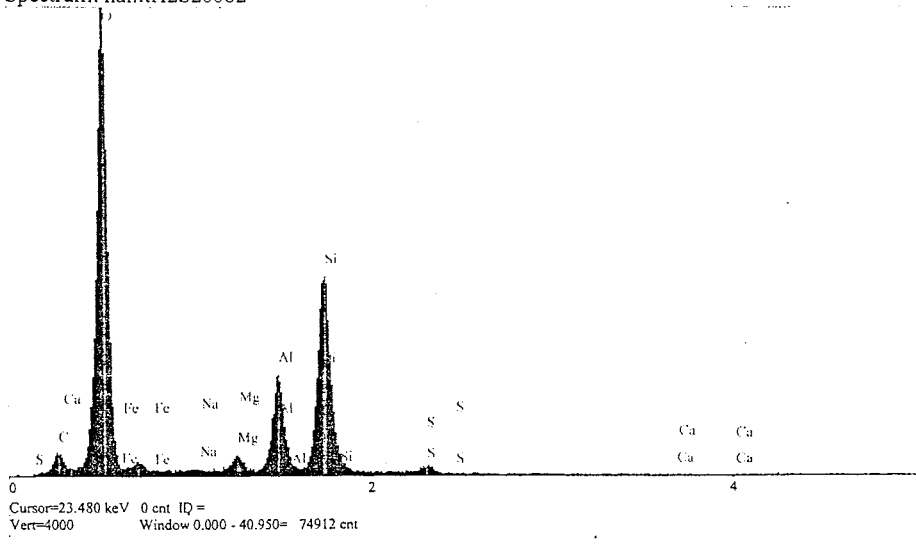
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	7.55	7.359	wt.%
O	Ka	257.38	66.191	wt.%
Na	Ka	0.94	0.119	wt.%
Mg	Ka	9.07	0.977	wt.%
Al	Ka	61.28	6.768	wt.%
Si	Ka	135.68	16.299	wt.%
S	Ka	2.59	0.396	wt.%
Ca	Ka	0.26	0.071	wt.%
Fe	La	3.41	1.820	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: namtH2S200b2



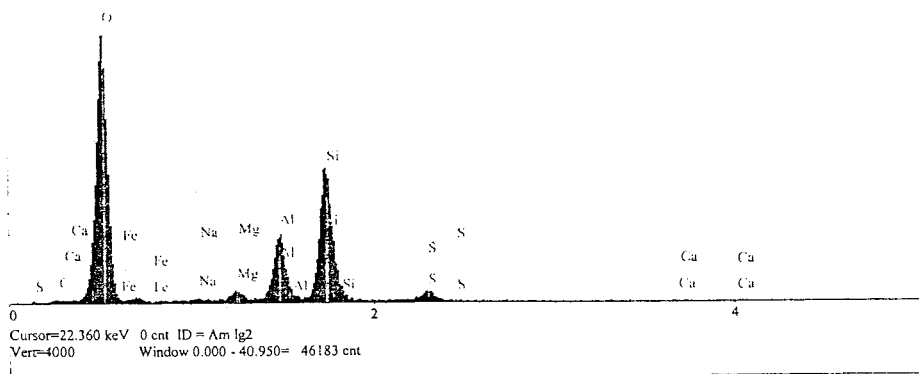
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	10.68	8.257	wt.%
O	Ka	313.47	66.447	wt.%
Na	Ka	0.91	0.096	wt.%
Mg	Ka	9.52	0.851	wt.%
Al	Ka	67.22	6.139	wt.%
Si	Ka	150.79	14.898	wt.%
S	Ka	5.04	0.630	wt.%
Ca	Ka	0.39	0.089	wt.%
Fe	La	5.89	2.593	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: namtH2S200b3



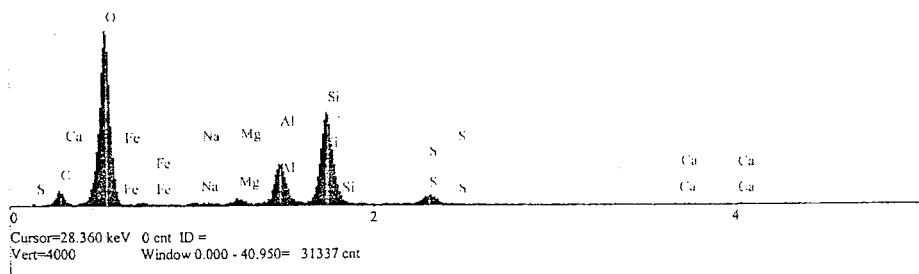
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.00	0.000	wt.%
O	Ka	281.67	68.167	wt.%
Na	Ka	1.41	0.176	wt.%
Mg	Ka	8.99	0.960	wt.%
Al	Ka	72.42	7.923	wt.%
Si	Ka	157.14	18.810	wt.%
S	Ka	11.54	1.763	wt.%
Ca	Ka	1.17	0.320	wt.%
Fe	La	3.58	1.881	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: namtH2S200c



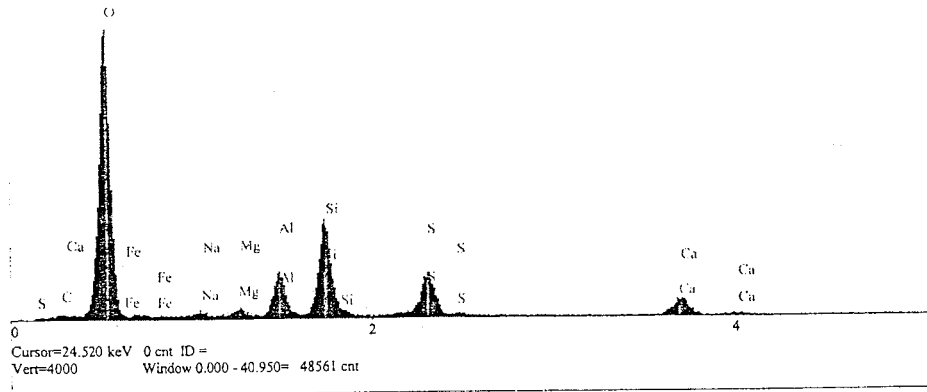
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	13.85	13.816	wt.%
O	Ka	207.70	61.416	wt.%
Na	Ka	1.75	0.228	wt.%
Mg	Ka	5.99	0.665	wt.%
Al	Ka	50.66	5.771	wt.%
Si	Ka	118.62	14.657	wt.%
S	Ka	12.94	2.035	wt.%
Ca	Ka	1.02	0.292	wt.%
Fe	La	2.04	1.119	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: namtH2S7000a1



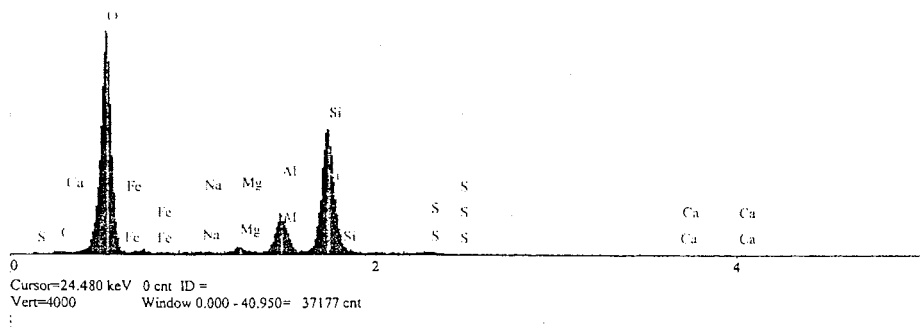
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	1.55	1.575	wt.%
O	Ka	244.29	68.572	wt.%
Na	Ka	3.20	0.411	wt.%
Mg	Ka	5.88	0.640	wt.%
Al	Ka	40.11	4.434	wt.%
Si	Ka	91.10	10.726	wt.%
S	Ka	45.76	6.753	wt.%
Ca	Ka	21.36	5.804	wt.%
Fe	La	1.95	1.086	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: namtH2S7000a2

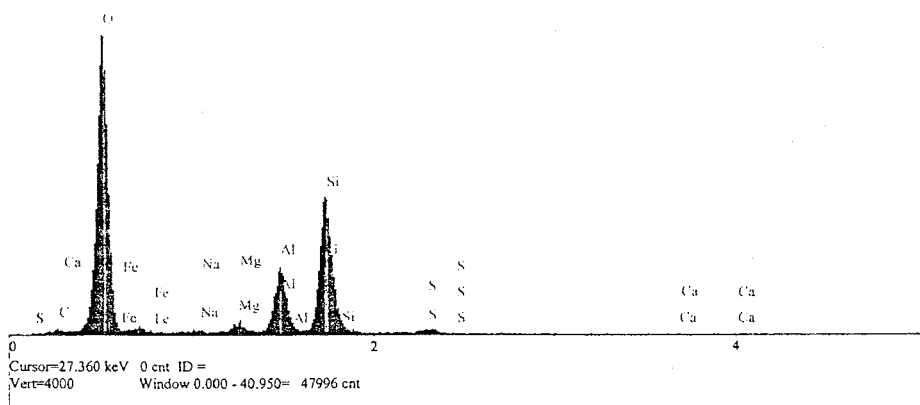


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	1.63	1.662	wt.%
O	Ka	296.44	68.523	wt.%
Na	Ka	1.23	0.146	wt.%
Mg	Ka	6.69	0.678	wt.%
Al	Ka	54.11	5.603	wt.%
Si	Ka	190.83	21.406	wt.%
S	Ka	3.13	0.456	wt.%
Ca	Ka	0.41	0.106	wt.%
Fe	La	2.82	1.421	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: namtH2S7000a3



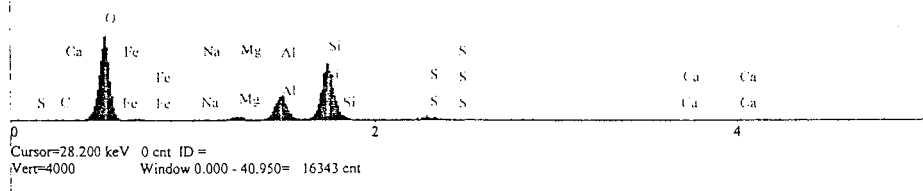
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	1.84	1.639	wt.%
O	Ka	334.19	69.231	wt.%
Na	Ka	1.88	0.206	wt.%
Mg	Ka	9.97	0.926	wt.%
Al	Ka	76.26	7.250	wt.%
Si	Ka	169.87	17.580	wt.%
S	Ka	6.21	0.817	wt.%
Ca	Ka	0.57	0.135	wt.%
Fe	La	4.83	2.216	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: namtH2S7000b



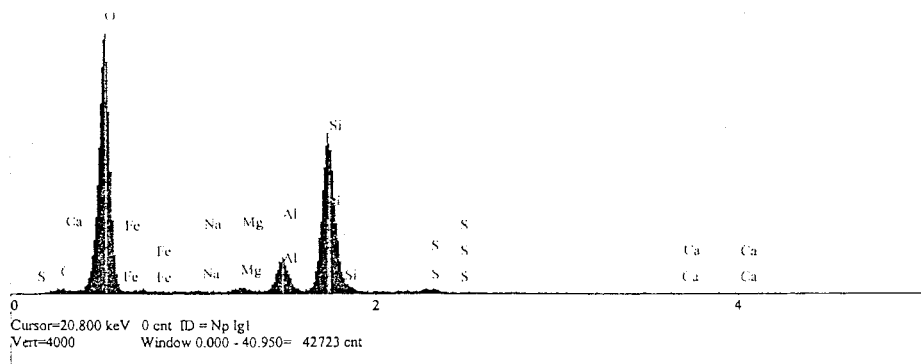
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.24	0.604	wt.%
O	Ka	116.73	62.225	wt.%
Na	Ka	0.43	0.110	wt.%
Mg	Ka	5.10	1.118	wt.%
Al	Ka	39.85	9.010	wt.%
Si	Ka	92.85	23.231	wt.%
S	Ka	4.94	1.599	wt.%
Ca	Ka	0.25	0.146	wt.%
Fe	La	1.87	1.958	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: namtH2S7000d

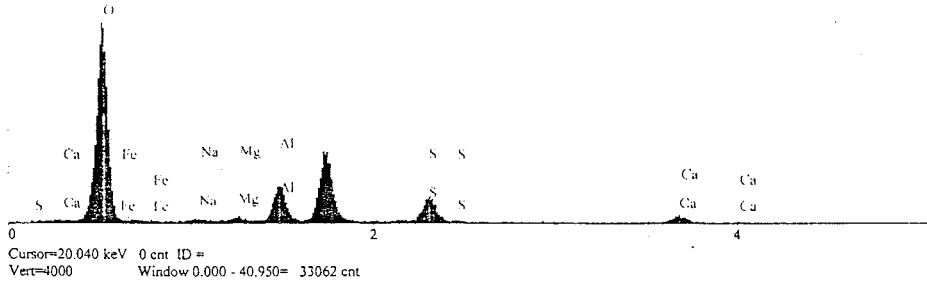


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	3.51	3.779	wt.%
O	Ka	265.37	67.637	wt.%
Na	Ka	0.92	0.117	wt.%
Mg	Ka	4.36	0.473	wt.%
Al	Ka	36.06	3.989	wt.%
Si	Ka	184.51	21.948	wt.%
S	Ka	4.85	0.753	wt.%
Ca	Ka	0.33	0.091	wt.%
Fe	La	2.24	1.212	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: namtH2S11500a

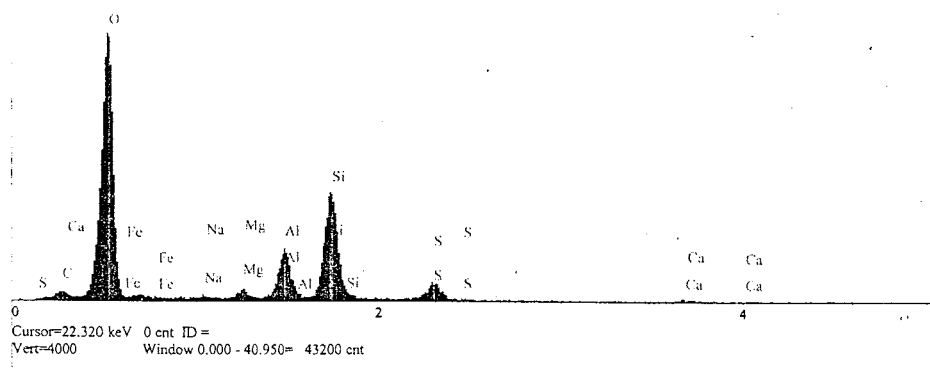


Elt.	Line	Intensity (c/s)	Conc	
O	Ka	182.43	78.273	wt.%
Na	Ka	2.46	0.571	wt.%
Mg	Ka	3.84	0.750	wt.%
Al	Ka	37.63	7.432	wt.%
S	Ka	29.30	7.418	wt.%
Ca	Ka	8.79	4.160	wt.%
Fe	La	1.36	1.396	wt.%
			100.000	wt.%
				Total

kV
 10.0

Material Classification:

Spectrum: namtH2S11500c



Elt.	Line	Intensity (c/s)	Conc (wt.%)	
C	Ka	6.44	6.288	wt.%
O	Ka	265.03	67.555	wt.%
Na	Ka	1.67	0.210	wt.%
Mg	Ka	7.86	0.835	wt.%
Al	Ka	50.43	5.480	wt.%
Si	Ka	122.82	14.380	wt.%
S	Ka	19.59	2.907	wt.%
Ca	Ka	2.47	0.664	wt.%
Fe	La	3.16	1.681	wt.%
		100.000		wt.%
				Total

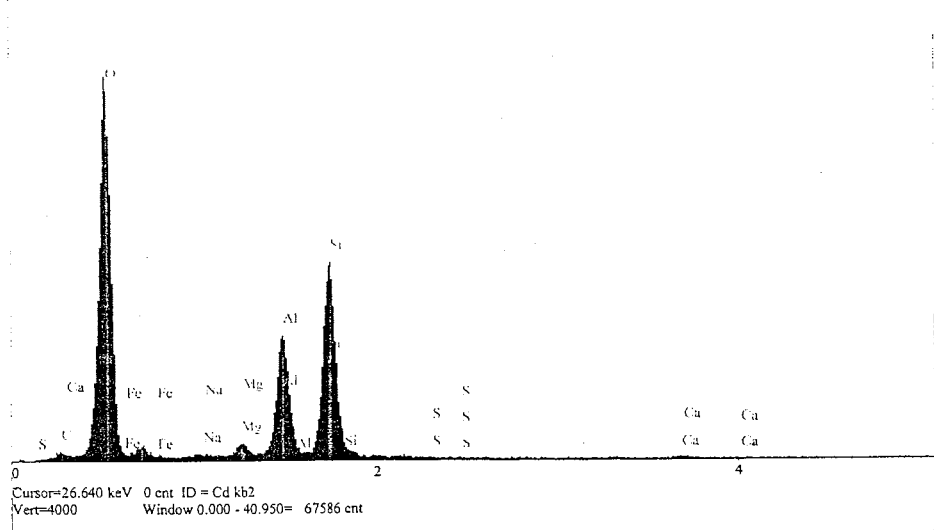
kV

10.0

Material Classification:

Appendix E.9. SEM/EDS spectra of Bryan soil.

Spectrum: bryunt200a



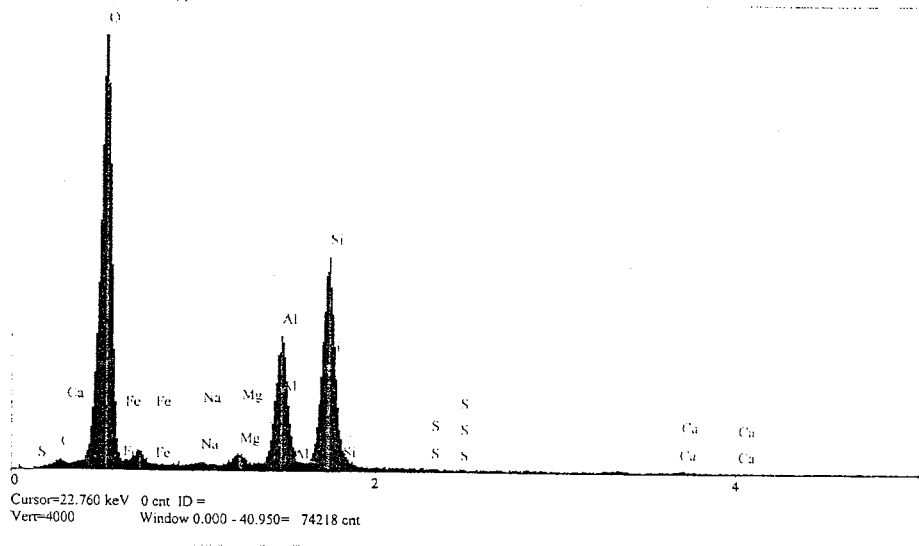
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	3.30	3.518	wt.%
O	Ka	249.72	63.737	wt.%
Na	Ka	1.84	0.233	wt.%
Mg	Ka	8.31	0.900	wt.%
Al	Ka	87.03	9.666	wt.%
Si	Ka	146.60	17.985	wt.%
S	Ka	0.17	0.026	wt.%
Ca	Ka	1.59	0.438	wt.%
Fe	La	6.78	3.497	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: bryunt200b



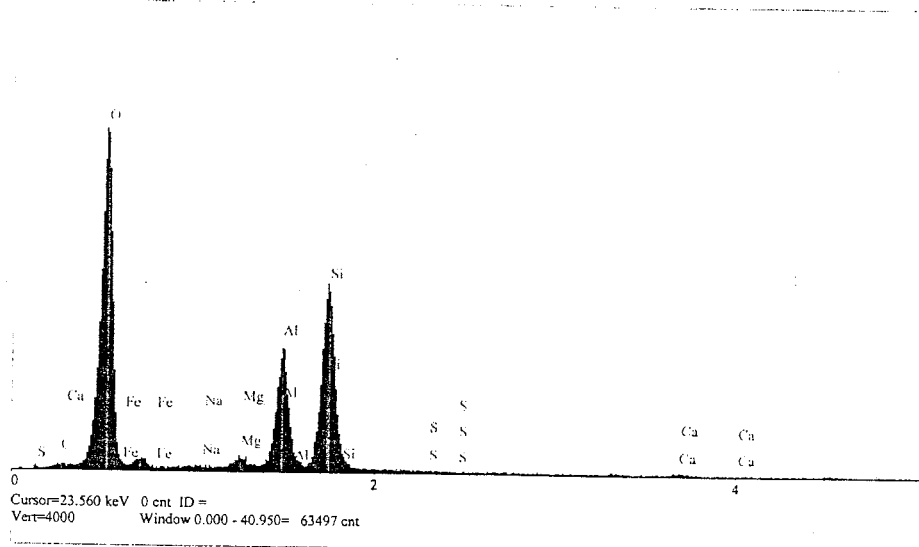
El.	Line	Intensity (c/s)	Conc	
C	Ka	2.72	2.569	wt.%
O	Ka	288.96	65.458	wt.%
Na	Ka	1.47	0.172	wt.%
Mg	Ka	7.50	0.746	wt.%
Al	Ka	91.08	9.256	wt.%
Si	Ka	152.06	16.989	wt.%
S	Ka	0.40	0.057	wt.%
Ca	Ka	1.77	0.444	wt.%
Fe	La	9.11	4.310	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: bryunt7000a1

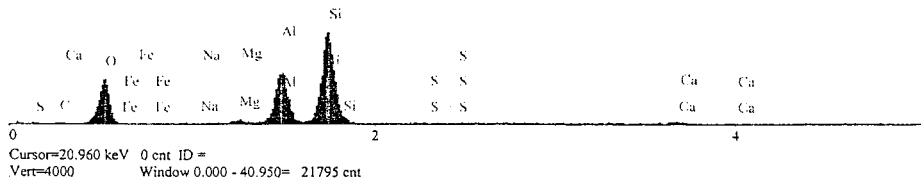


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	1.41	1.719	wt.%
O	Ka	229.94	64.302	wt.%
Na	Ka	0.71	0.100	wt.%
Mg	Ka	6.87	0.824	wt.%
Al	Ka	83.45	10.267	wt.%
Si	Ka	137.47	18.750	wt.%
S	Ka	0.29	0.050	wt.%
Ca	Ka	1.86	0.570	wt.%
Fe	La	5.98	3.418	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: bryunt7000a2

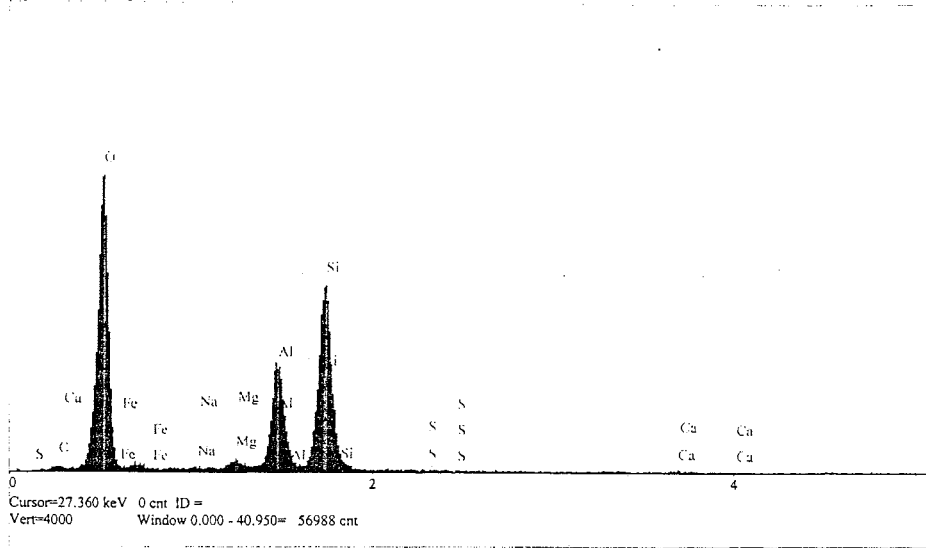


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.48	3.433	wt.%
O	Ka	28.03	39.167	wt.%
Na	Ka	0.08	0.038	wt.%
Mg	Ka	2.39	1.014	wt.%
Al	Ka	38.53	17.262	wt.%
Si	Ka	68.95	36.566	wt.%
S	Ka	0.27	0.188	wt.%
Ca	Ka	1.62	1.965	wt.%
Fe	La	0.20	0.367	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: bryunt7000a3



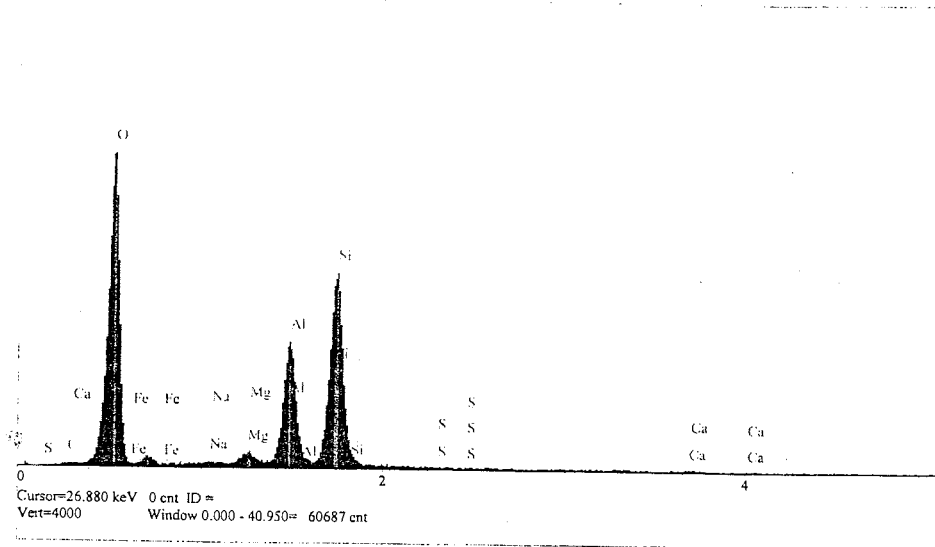
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	1.70	2.423	wt.%
O	Ka	193.63	62.368	wt.%
Na	Ka	0.61	0.095	wt.%
Mg	Ka	5.60	0.744	wt.%
Al	Ka	76.44	10.444	wt.%
Si	Ka	138.54	21.095	wt.%
S	Ka	0.29	0.057	wt.%
Ca	Ka	1.24	0.428	wt.%
Fe	La	3.70	2.347	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: bryunt7000b1

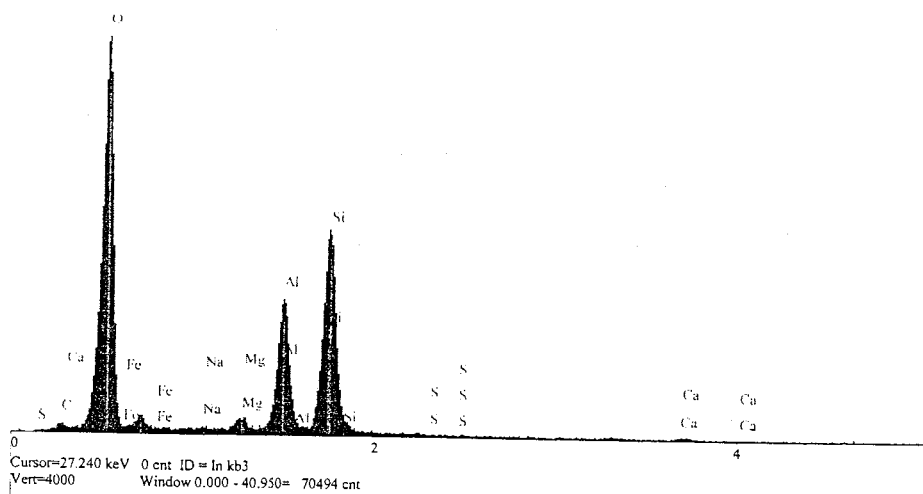


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.50	0.708	wt.%
O	Ka	203.47	62.250	wt.%
Na	Ka	0.99	0.148	wt.%
Mg	Ka	7.99	1.021	wt.%
Al	Ka	87.95	11.583	wt.%
Si	Ka	142.56	21.025	wt.%
S	Ka	0.18	0.035	wt.%
Ca	Ka	1.73	0.574	wt.%
Fe	La	4.39	2.657	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: bryunt7000b2



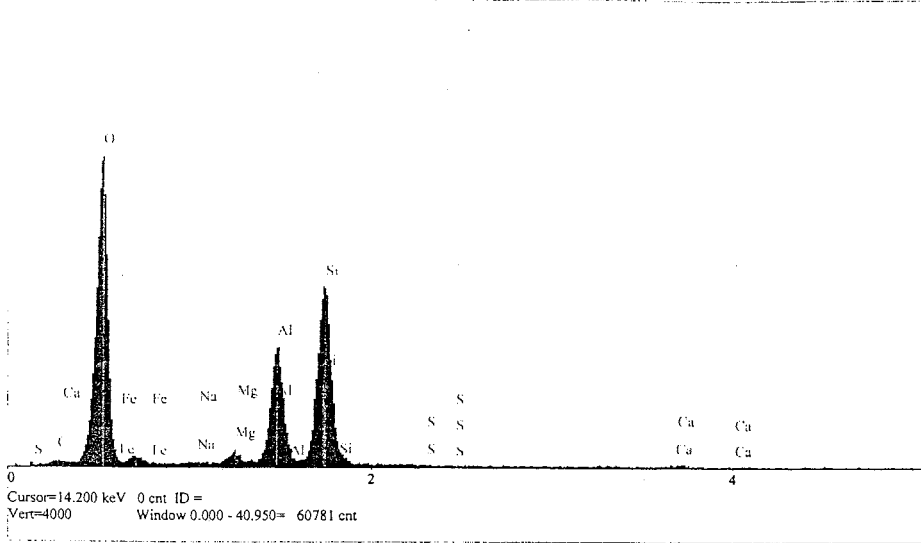
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	2.60	2.683	wt.%
O	Ka	262.23	64.086	wt.%
Na	Ka	0.76	0.093	wt.%
Mg	Ka	7.44	0.777	wt.%
Al	Ka	93.64	10.017	wt.%
Si	Ka	152.36	18.033	wt.%
S	Ka	0.19	0.028	wt.%
Ca	Ka	2.20	0.584	wt.%
Fe	La	7.45	3.699	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: bryunt11500a

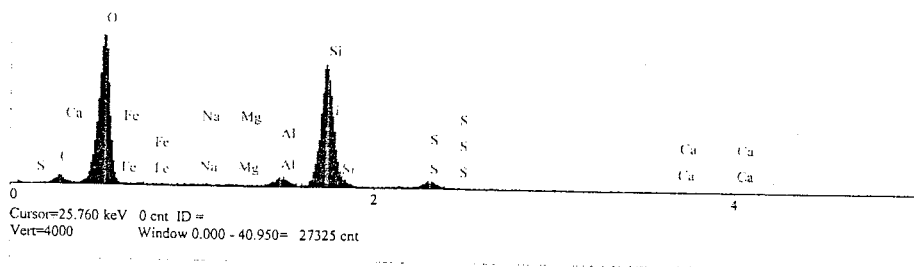


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	1.34	1.787	wt.%
O	Ka	206.05	62.491	wt.%
Na	Ka	0.69	0.102	wt.%
Mg	Ka	7.01	0.887	wt.%
Al	Ka	84.60	11.001	wt.%
Si	Ka	137.69	19.968	wt.%
S	Ka	0.29	0.053	wt.%
Ca	Ka	2.16	0.703	wt.%
Fe	La	5.02	3.009	wt.%
			100.000	wt.%
				Total

kV
 10.0

Material Classification:

Spectrum: bryen200a

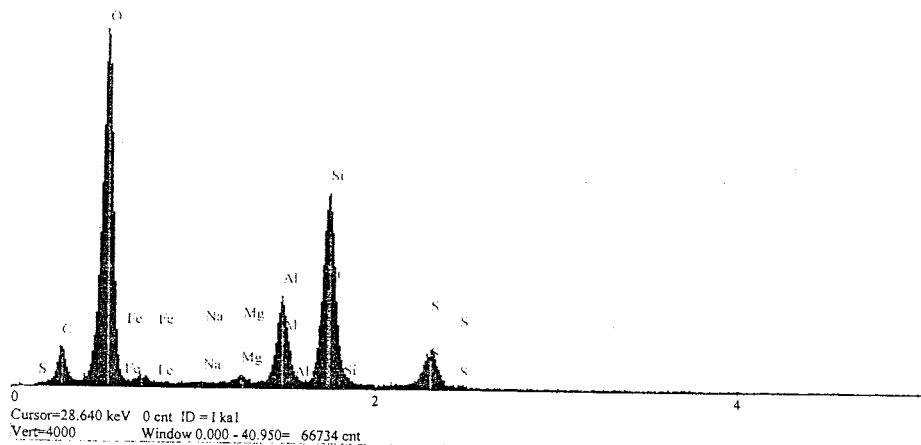


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	3.54	8.939	wt.%
O	Ka	98.70	63.152	wt.%
Na	Ka	0.42	0.121	wt.%
Mg	Ka	0.33	0.081	wt.%
Al	Ka	5.89	1.478	wt.%
Si	Ka	89.60	23.967	wt.%
S	Ka	4.90	1.745	wt.%
Ca	Ka	0.17	0.106	wt.%
Fe	La	0.33	0.410	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: bryen200b



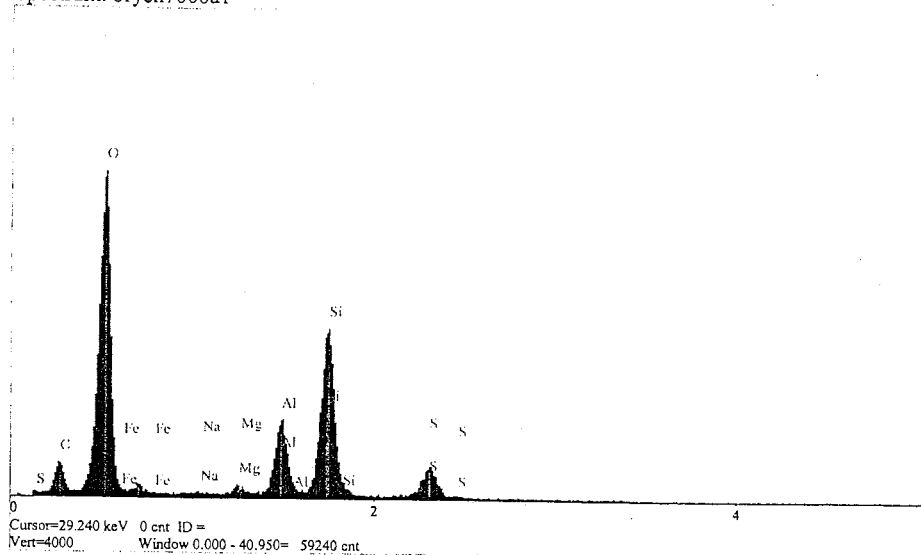
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	22.29	17.772	wt.%
O	Ka	231.21	57.225	wt.%
Na	Ka	0.51	0.052	wt.%
Mg	Ka	4.47	0.393	wt.%
Al	Ka	58.49	5.264	wt.%
Si	Ka	138.69	13.511	wt.%
S	Ka	28.46	3.526	wt.%
Fe	La	5.30	2.257	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: bryen7000a1



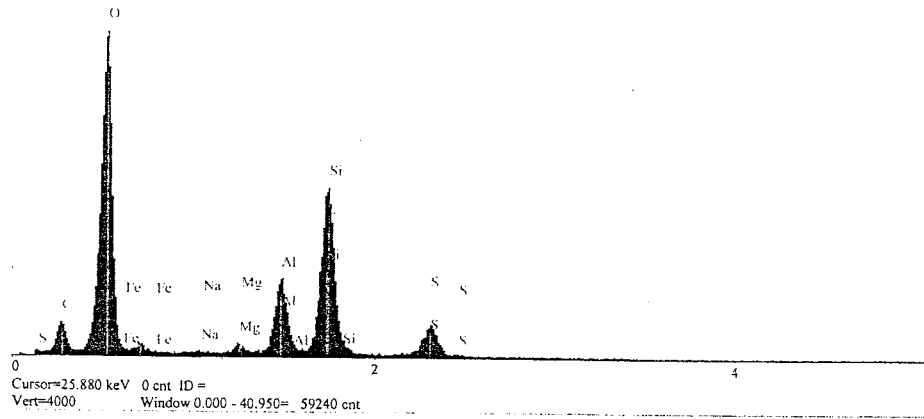
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	16.40	15.521	wt.%
O	Ka	209.10	58.947	wt.%
Na	Ka	0.84	0.102	wt.%
Mg	Ka	4.57	0.471	wt.%
Al	Ka	51.08	5.399	wt.%
Si	Ka	121.09	13.850	wt.%
S	Ka	23.73	3.451	wt.%
Fe	La	4.50	2.259	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: bryen7000a2



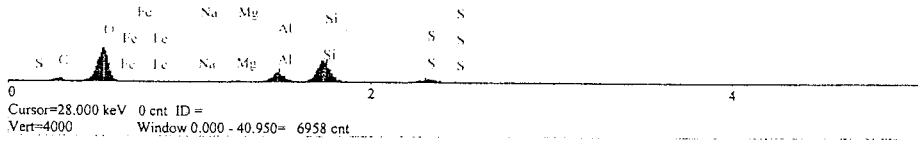
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	16.39	15.521	wt.%
O	Ka	209.08	58.947	wt.%
Na	Ka	0.84	0.102	wt.%
Mg	Ka	4.57	0.471	wt.%
Al	Ka	51.07	5.399	wt.%
Si	Ka	121.07	13.850	wt.%
S	Ka	23.73	3.451	wt.%
Fe	La	4.50	2.259	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: bryen7000a3



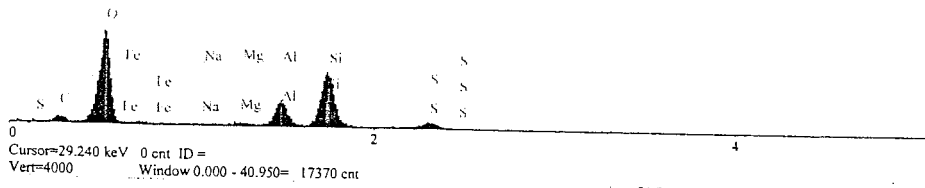
Elt.	Line	Intensity (c/s)	Conc wt. %	
C	Ka	10.73	15.310	wt. %
O	Ka	140.43	56.082	wt. %
Na	Ka	0.68	0.111	wt. %
Mg	Ka	4.57	0.636	wt. %
Al	Ka	45.52	6.530	wt. %
Si	Ka	103.90	16.306	wt. %
S	Ka	20.15	4.054	wt. %
Fe	La	1.44	0.970	wt. %
			100.000	wt. % Total

kV

10.0

Material Classification:

Spectrum: bryen7000b

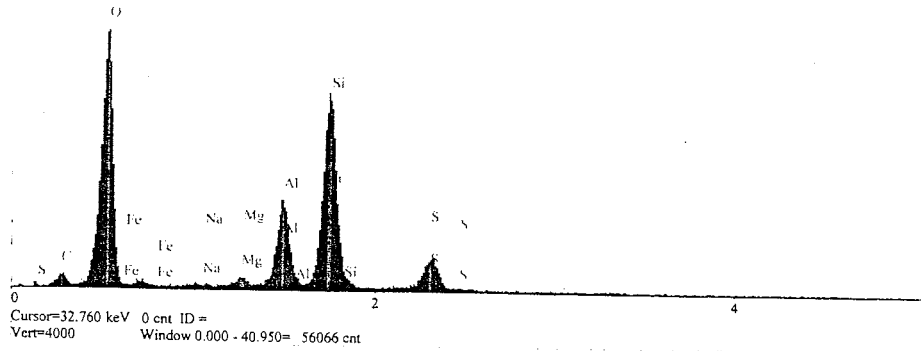


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	3.20	12.056	wt.%
O	Ka	58.55	59.776	wt.%
Na	Ka	0.21	0.091	wt.%
Mg	Ka	1.45	0.552	wt.%
Al	Ka	17.20	6.718	wt.%
Si	Ka	39.76	16.977	wt.%
S	Ka	4.78	2.612	wt.%
Fe	La	0.66	1.218	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: bryen11500a

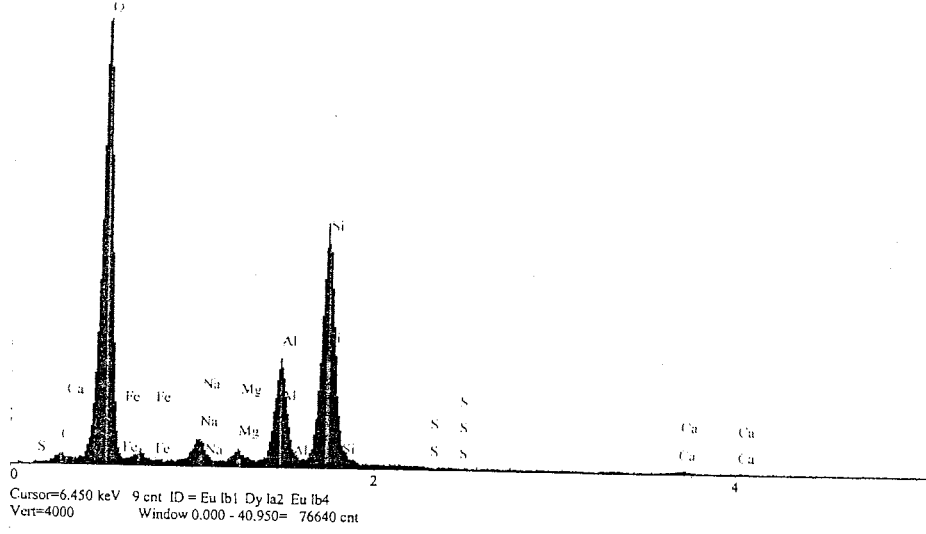


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	6.68	9.519	wt.%
O	Ka	163.07	55.794	wt.%
Na	Ka	1.08	0.155	wt.%
Mg	Ka	5.56	0.686	wt.%
Al	Ka	61.36	7.805	wt.%
Si	Ka	141.45	19.834	wt.%
S	Ka	24.62	4.454	wt.%
Fe	La	3.00	1.752	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: brybs200a



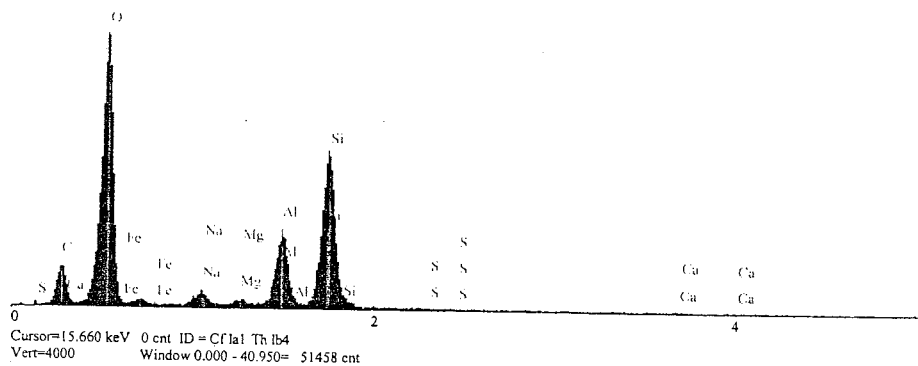
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	3.20	2.986	wt.%
O	Ka	292.72	65.493	wt.%
Na	Ka	14.95	1.682	wt.%
Mg	Ka	6.64	0.643	wt.%
Al	Ka	71.01	7.019	wt.%
Si	Ka	177.00	19.036	wt.%
S	Ka	0.18	0.025	wt.%
Ca	Ka	2.37	0.579	wt.%
Fe	La	5.46	2.537	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: brybs200b

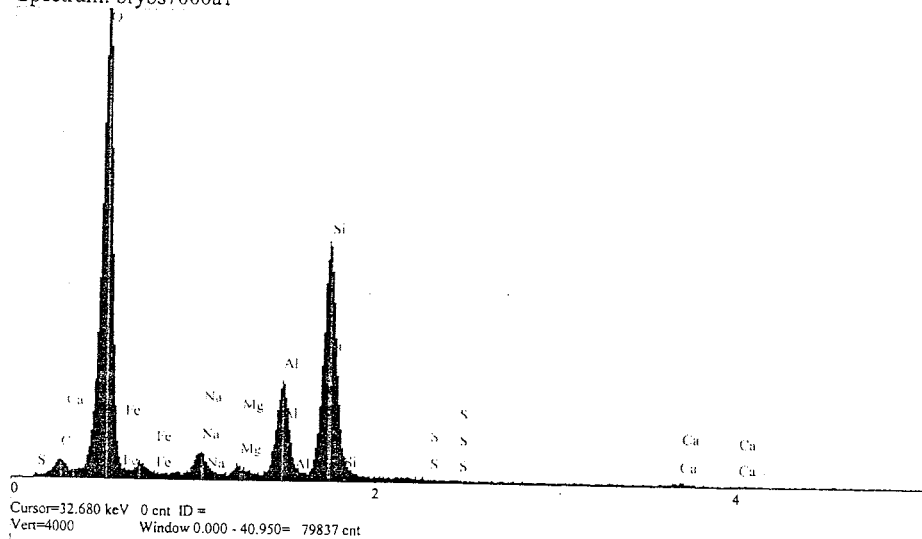


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	20.87	19.371	wt.%
O	Ka	180.76	56.780	wt.%
Na	Ka	8.96	1.165	wt.%
Mg	Ka	3.58	0.402	wt.%
Al	Ka	52.77	6.069	wt.%
Si	Ka	114.18	14.290	wt.%
S	Ka	0.22	0.035	wt.%
Ca	Ka	0.73	0.209	wt.%
Fe	La	3.10	1.679	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: brybs7000a1



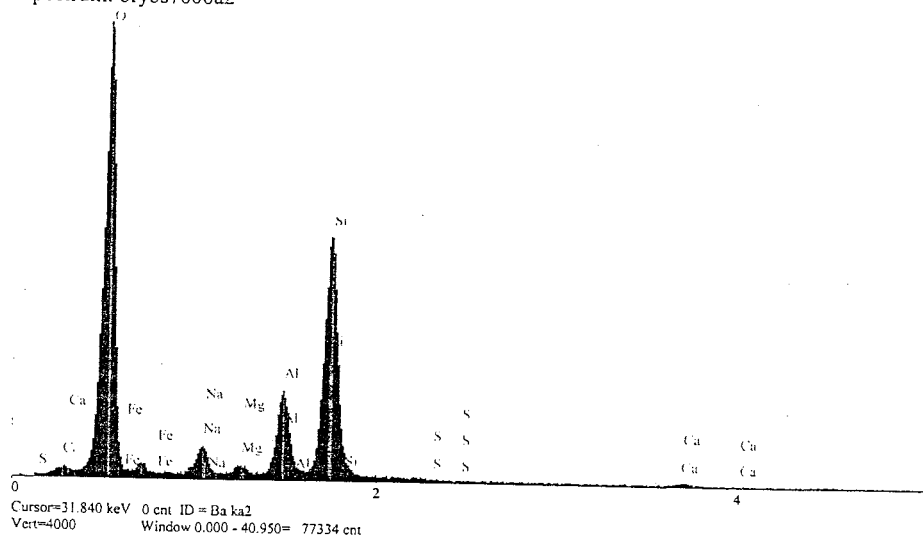
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	8.13	6.377	wt.%
O	Ka	315.65	65.244	wt.%
Na	Ka	14.73	1.508	wt.%
Mg	Ka	4.96	0.436	wt.%
Al	Ka	66.88	5.983	wt.%
Si	Ka	176.10	17.028	wt.%
S	Ka	0.21	0.025	wt.%
Ca	Ka	2.34	0.516	wt.%
Fe	La	6.81	2.883	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: brybs7000a2



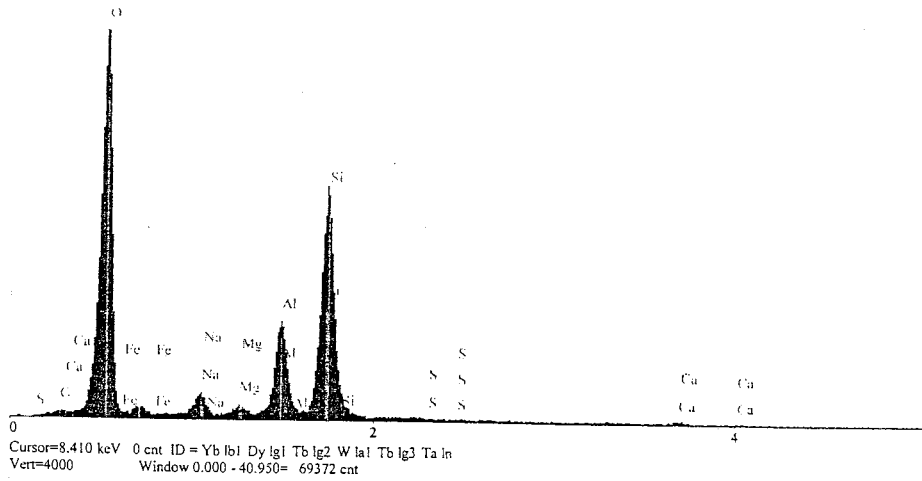
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	3.30	3.071	wt.%
O	Ka	297.45	66.720	wt.%
Na	Ka	18.02	2.029	wt.%
Mg	Ka	5.19	0.505	wt.%
Al	Ka	59.90	5.940	wt.%
Si	Ka	182.98	19.642	wt.%
S	Ka	0.32	0.044	wt.%
Ca	Ka	2.35	0.579	wt.%
Fe	Ka	0.89	1.470	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: brybs7000a3



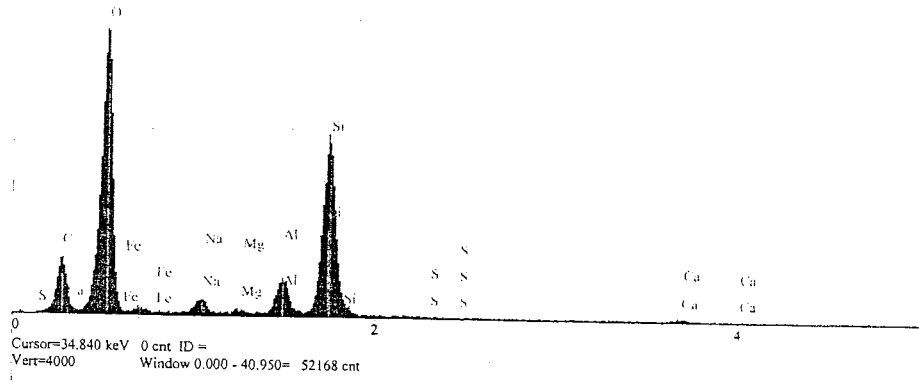
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	2.02	2.206	wt.%
O	Ka	255.45	64.574	wt.%
Na	Ka	13.08	1.652	wt.%
Mg	Ka	5.63	0.613	wt.%
Al	Ka	67.17	7.470	wt.%
Si	Ka	168.45	20.461	wt.%
S	Ka	0.20	0.031	wt.%
Ca	Ka	1.62	0.447	wt.%
Fe	La	4.91	2.545	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: brybs7000b

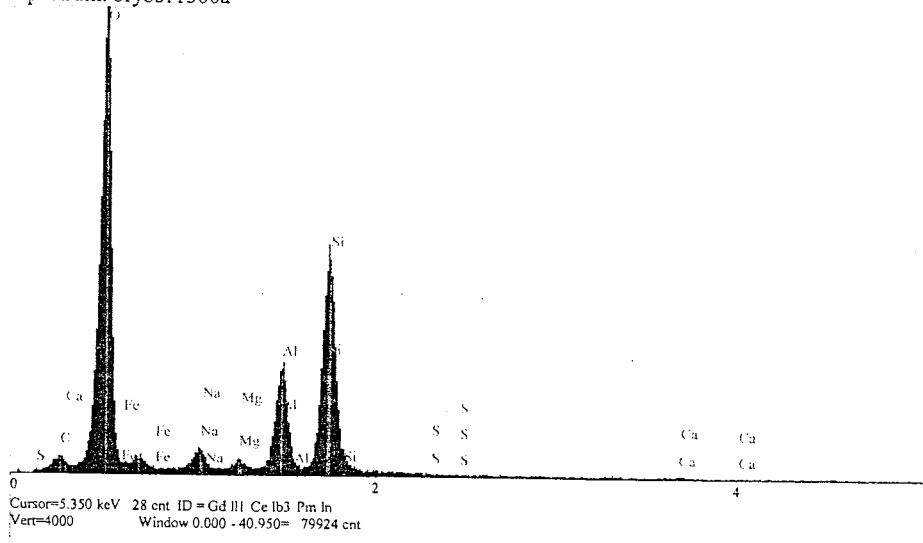


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	31.80	24.229	wt.%
O	Ka	189.11	55.816	wt.%
Na	Ka	8.78	1.022	wt.%
Mg	Ka	1.88	0.189	wt.%
Al	Ka	25.33	2.596	wt.%
Si	Ka	130.50	14.291	wt.%
S	Ka	0.17	0.025	wt.%
Ca	Ka	1.88	0.483	wt.%
Fe	La	2.75	1.349	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: brybs11500a

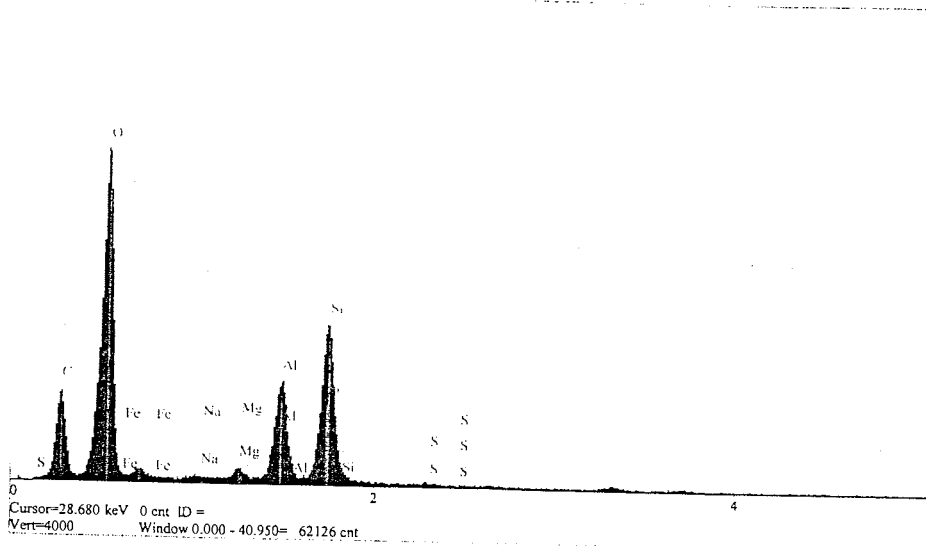


Elt.	Line	Intensity (c/s)	Conc (wt.%)
C	Ka	7.97	6.165 wt.%
O	Ka	320.69	65.381 wt.%
Na	Ka	13.36	1.376 wt.%
Mg	Ka	5.38	0.474 wt.%
Al	Ka	73.81	6.619 wt.%
Si	Ka	163.91	15.918 wt.%
S	Ka	0.16	0.019 wt.%
Ca	Ka	1.55	0.342 wt.%
Fe	La	8.79	3.706 wt.%
			100.000 wt.%
			Total

kV
10.0

Material Classification:

Spectrum: Brypz200a



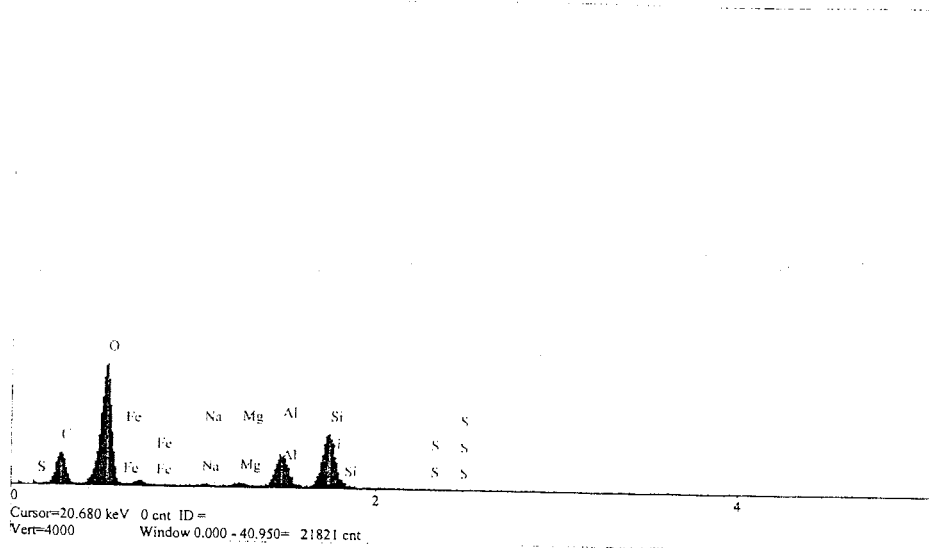
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	48.65	28.655	wt.%
O	Ka	210.21	52.386	wt.%
Na	Ka	1.25	0.118	wt.%
Mg	Ka	5.59	0.454	wt.%
Al	Ka	69.15	5.773	wt.%
Si	Ka	112.33	10.196	wt.%
S	Ka	1.08	0.123	wt.%
Fe	La	5.86	2.295	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: Brypz200b

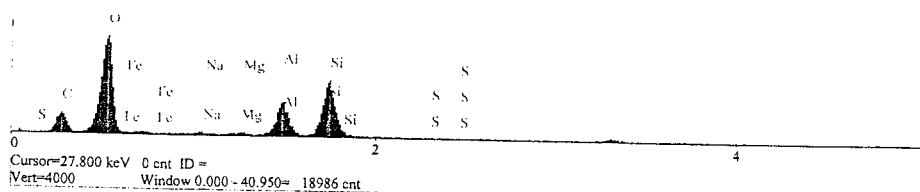


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	17.46	29.286	wt.%
O	Ka	71.97	51.929	wt.%
Na	Ka	0.77	0.210	wt.%
Mg	Ka	2.12	0.497	wt.%
Al	Ka	22.70	5.462	wt.%
Si	Ka	38.56	10.067	wt.%
S	Ka	0.23	0.075	wt.%
Fe	La	2.20	2.475	wt.%
			100.000	wt.% Total

kV
10.0

Material Classification:

Spectrum: Brypz7000a1

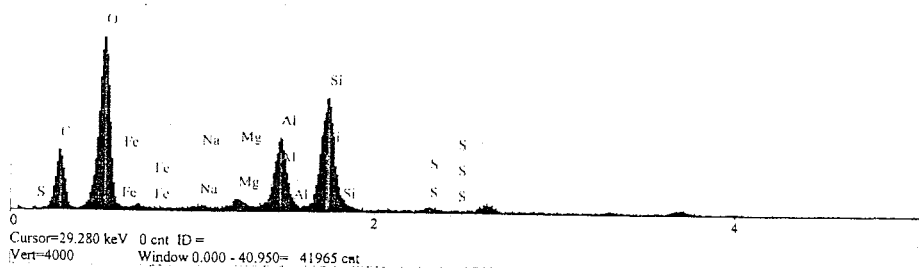


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	10.90	24.860	wt.%
O	Ka	62.07	53.687	wt.%
Na	Ka	1.05	0.354	wt.%
Mg	Ka	1.52	0.440	wt.%
Al	Ka	22.58	6.725	wt.%
Si	Ka	37.44	12.204	wt.%
S	Ka	0.19	0.080	wt.%
Fe	La	1.18	1.651	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: Brypz7000a2

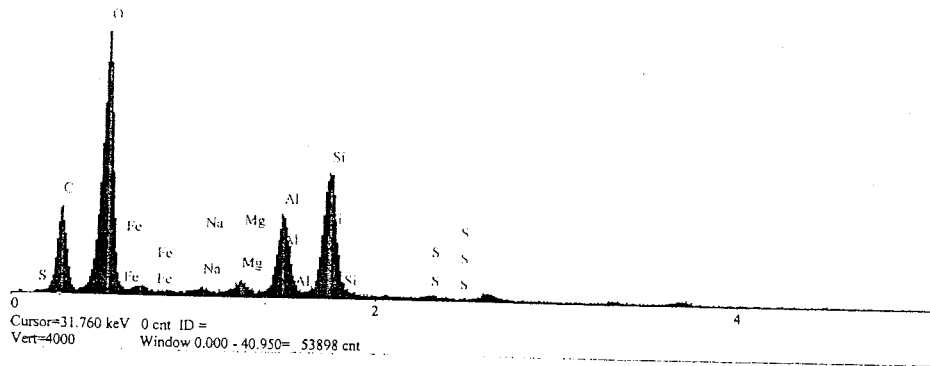


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	30.83	31.969	wt.%
O	Ka	107.38	46.832	wt.%
Na	Ka	1.59	0.239	wt.%
Mg	Ka	5.70	0.741	wt.%
Al	Ka	48.53	6.545	wt.%
Si	Ka	81.94	12.135	wt.%
S	Ka	2.27	0.426	wt.%
Fe	La	1.79	1.113	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: Brypz7000a3

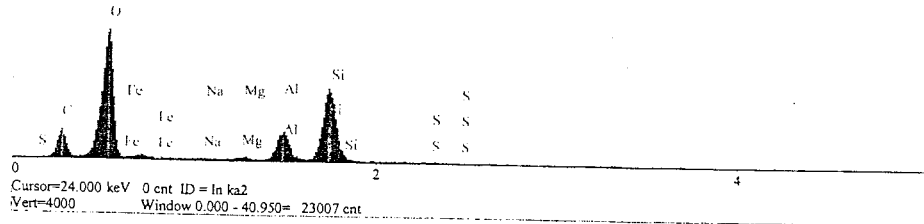


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	47.66	31.746	wt.%
O	Ka	167.74	50.466	wt.%
Na	Ka	2.23	0.245	wt.%
Mg	Ka	6.78	0.639	wt.%
Al	Ka	54.55	5.300	wt.%
Si	Ka	90.00	9.489	wt.%
S	Ka	1.78	0.236	wt.%
Fe	La	4.13	1.878	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: Brypz7000b1

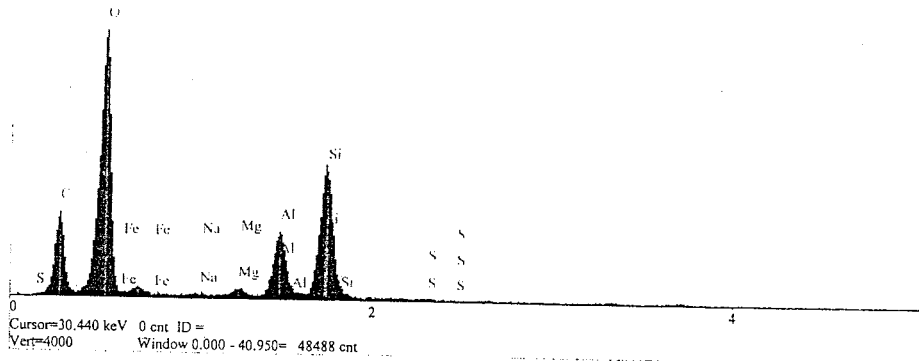


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	23.86	24.605	wt.%
O	Ka	139.40	54.571	wt.%
Na	Ka	0.78	0.120	wt.%
Mg	Ka	2.79	0.369	wt.%
Al	Ka	35.28	4.790	wt.%
Si	Ka	90.88	13.354	wt.%
S	Ka	0.64	0.120	wt.%
Fe	La	3.23	2.071	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: Brypz7000b2

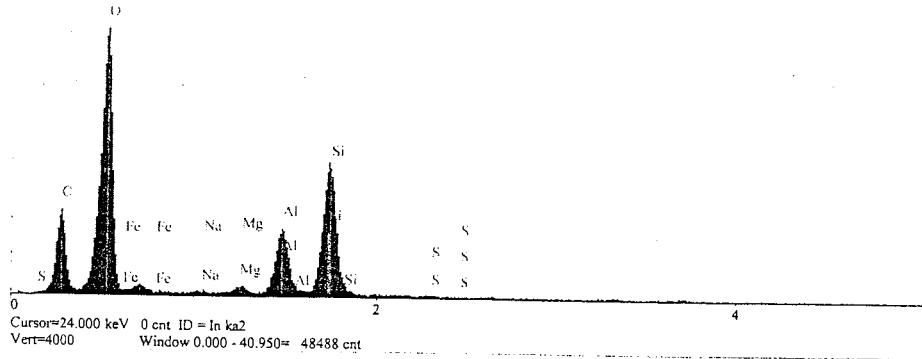


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	44.57	31.044	wt.%
O	Ka	164.67	51.203	wt.%
Na	Ka	1.03	0.119	wt.%
Mg	Ka	4.36	0.430	wt.%
Al	Ka	45.10	4.570	wt.%
Si	Ka	94.70	10.373	wt.%
S	Ka	0.80	0.110	wt.%
Fe	La	4.51	2.151	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: Brypz7000b3

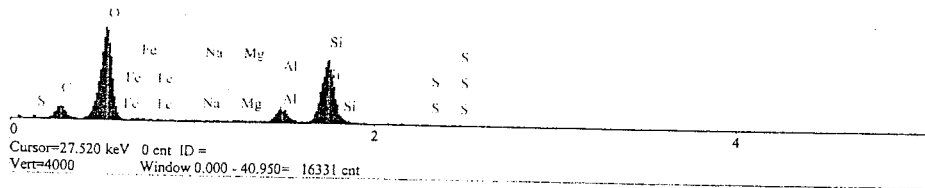


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	44.56	31.044	wt.%
O	Ka	164.64	51.203	wt.%
Na	Ka	1.03	0.119	wt.%
Mg	Ka	4.36	0.430	wt.%
Al	Ka	45.10	4.570	wt.%
Si	Ka	94.69	10.373	wt.%
S	Ka	0.80	0.110	wt.%
Fe	La	4.51	2.151	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: Brypz11500a

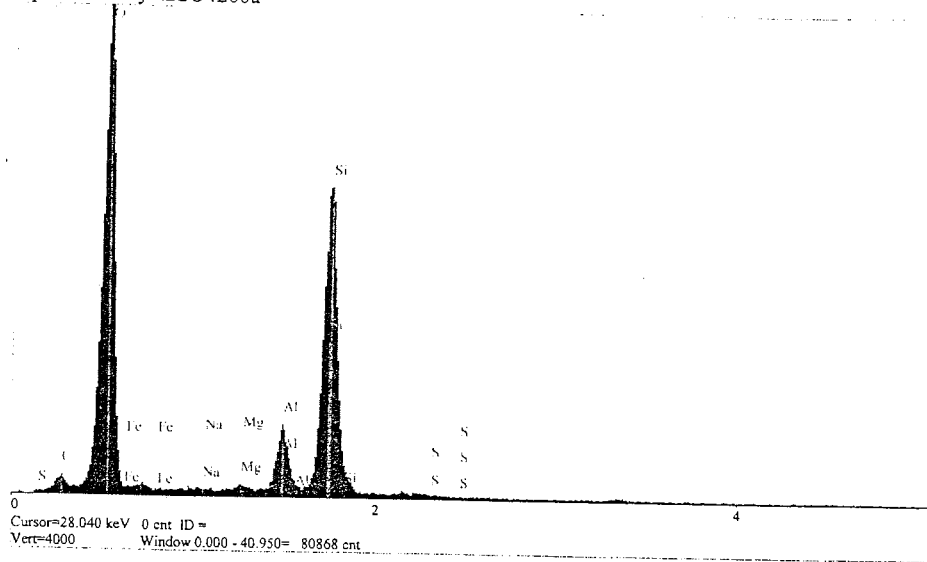


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	7.03	20.619	wt.%
O	Ka	57.29	57.653	wt.%
Na	Ka	0.30	0.123	wt.%
Mg	Ka	0.44	0.154	wt.%
Al	Ka	9.04	3.260	wt.%
Si	Ka	43.89	17.020	wt.%
S	Ka	0.16	0.079	wt.%
Fe	La	0.63	1.093	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: bryH2SO4200a

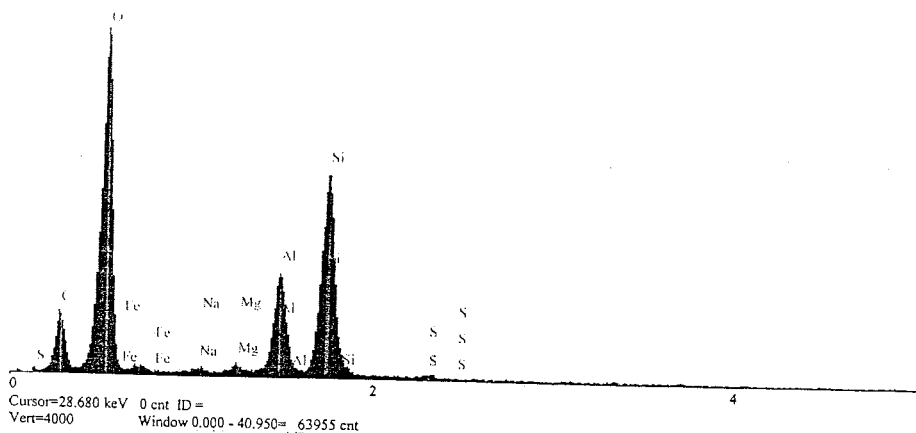


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	9.60	7.665	wt.%
O	Ka	316.18	65.322	wt.%
Na	Ka	0.93	0.093	wt.%
Mg	Ka	3.36	0.285	wt.%
Al	Ka	43.13	3.724	wt.%
Si	Ka	227.21	21.076	wt.%
S	Ka	1.14	0.137	wt.%
Fe	La	4.06	1.699	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: bryH2SO4200b

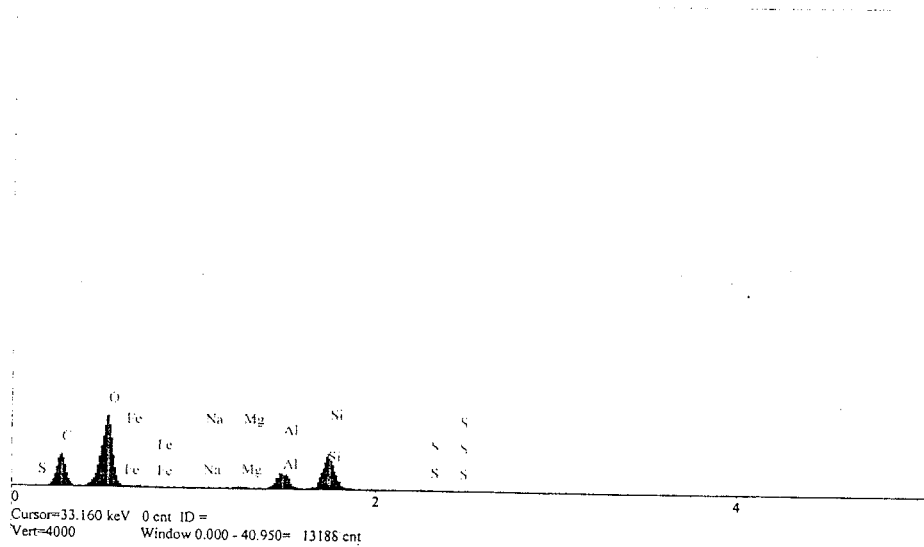


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	31.77	22.603	wt.%
O	Ka	216.41	54.838	wt.%
Na	Ka	2.56	0.257	wt.%
Mg	Ka	4.58	0.395	wt.%
Al	Ka	69.89	6.203	wt.%
Si	Ka	143.68	13.924	wt.%
S	Ka	2.09	0.258	wt.%
Fe	La	3.63	1.521	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: bryH2SO47000a1

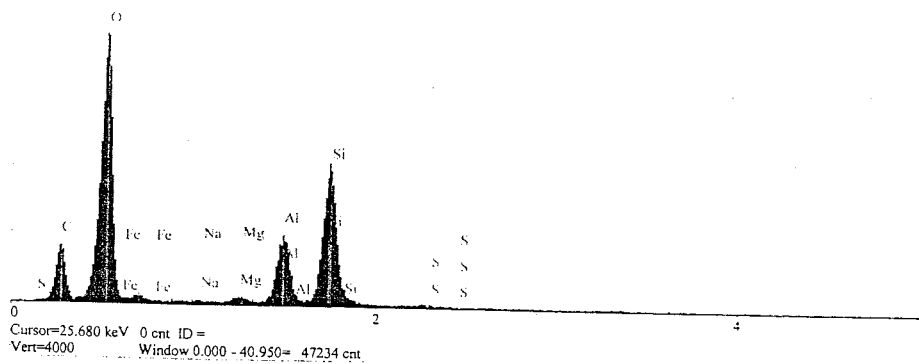


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	90.63	36.895	wt.%
O	Ka	233.29	48.819	wt.%
Na	Ka	0.67	0.048	wt.%
Mg	Ka	4.77	0.295	wt.%
Al	Ka	61.75	3.935	wt.%
Si	Ka	128.06	8.811	wt.%
S	Ka	2.23	0.193	wt.%
Fe	La	3.30	1.003	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: bryH2SO47000a2

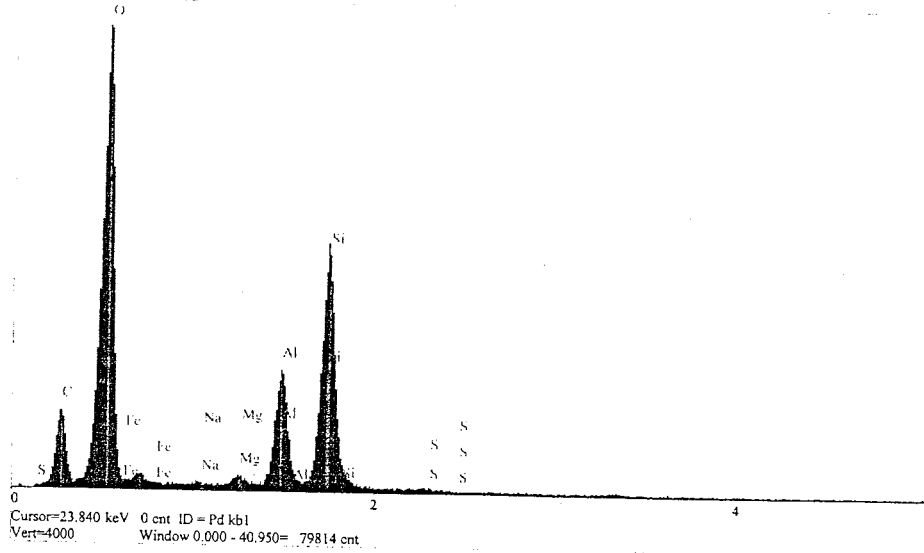


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	49.10	24.663	wt.%
O	Ka	285.20	55.552	wt.%
Na	Ka	1.19	0.093	wt.%
Mg	Ka	6.08	0.405	wt.%
Al	Ka	76.24	5.205	wt.%
Si	Ka	161.19	11.924	wt.%
S	Ka	1.38	0.129	wt.%
Fe	La	6.25	2.029	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: bryH2SO47000a3

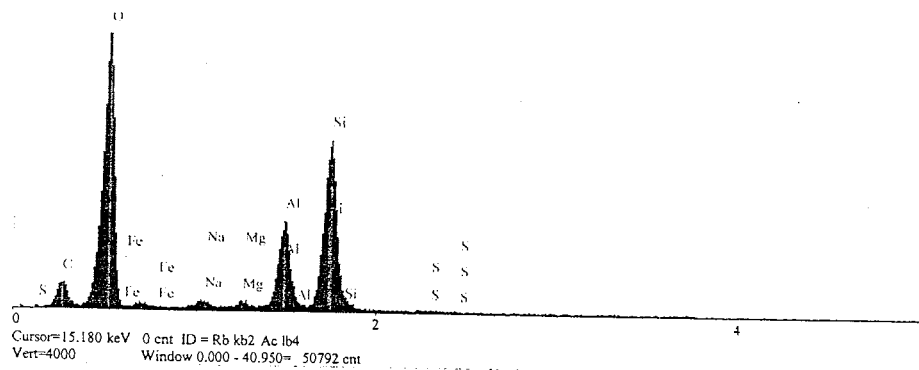


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	41.86	22.080	wt.%
O	Ka	295.97	56.907	wt.%
Na	Ka	1.08	0.085	wt.%
Mg	Ka	6.02	0.407	wt.%
Al	Ka	80.34	5.565	wt.%
Si	Ka	169.55	12.745	wt.%
S	Ka	1.41	0.135	wt.%
Fe	La	6.30	2.076	wt.%
			100.000	Total

kV
10.0

Material Classification:

Spectrum: bryH2SO47000b

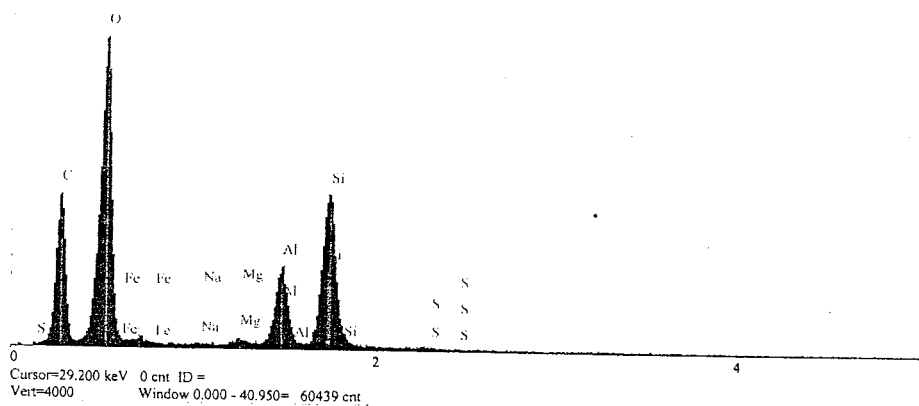


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	14.61	15.877	wt.%
O	Ka	175.20	57.774	wt.%
Na	Ka	4.68	0.656	wt.%
Mg	Ka	3.68	0.443	wt.%
Al	Ka	59.29	7.340	wt.%
Si	Ka	119.77	16.275	wt.%
S	Ka	0.94	0.163	wt.%
Fe	La	2.53	1.472	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: bryH2SO411500b



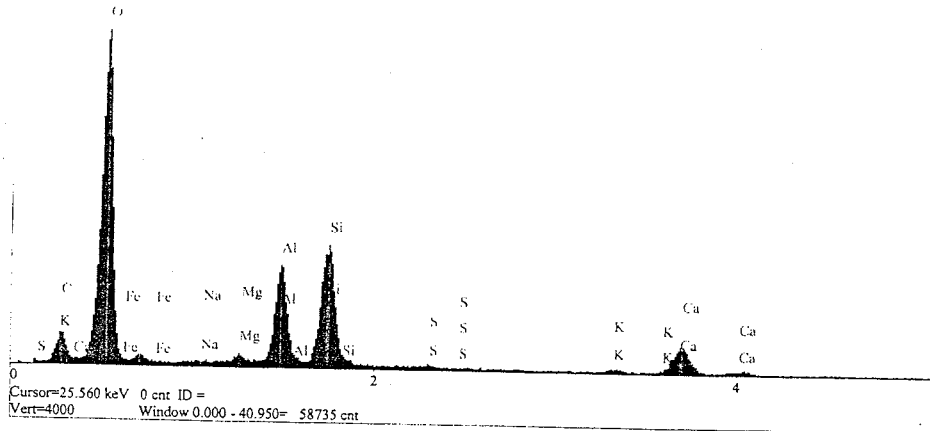
Elt.	Line	Intensity (c/s)	Conc (wt.%)
C	Ka	79.95	37.583 wt.%
O	Ka	195.78	47.765 wt.%
Na	Ka	0.54	0.045 wt.%
Mg	Ka	3.77	0.270 wt.%
Al	Ka	53.35	3.928 wt.%
Si	Ka	112.50	8.944 wt.%
S	Ka	0.99	0.100 wt.%
Fe	La	3.93	1.366 wt.%
			100.000 wt.%
			Total

kV
10.0

Material Classification:

Appendix E.10. SEM/EDS spectra of Mesquite soil.

Spectrum: mesunt200a

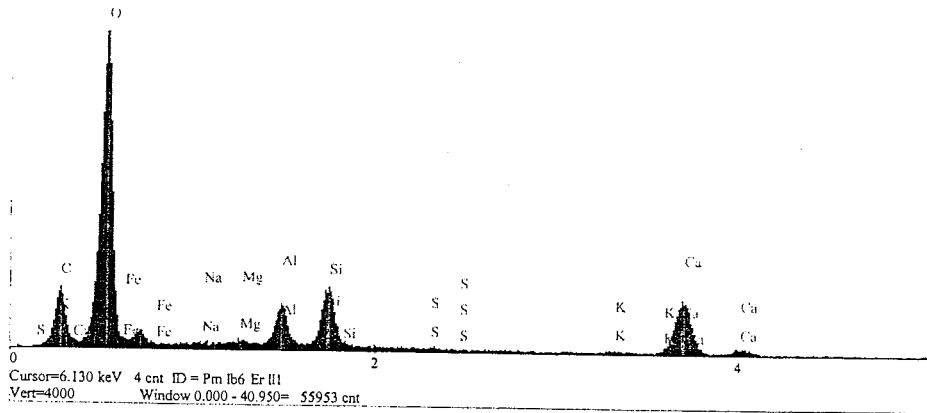


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	16.19	13.371	wt.%
O	Ka	197.58	60.633	wt.%
Na	Ka	0.69	0.086	wt.%
Mg	Ka	4.41	0.467	wt.%
Al	Ka	63.60	6.887	wt.%
Si	Ka	89.74	10.553	wt.%
S	Ka	1.41	0.206	wt.%
K	Ka	2.67	0.598	wt.%
Ca	Ka	21.66	5.802	wt.%
Fe	La	2.63	1.397	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: mesunt200b

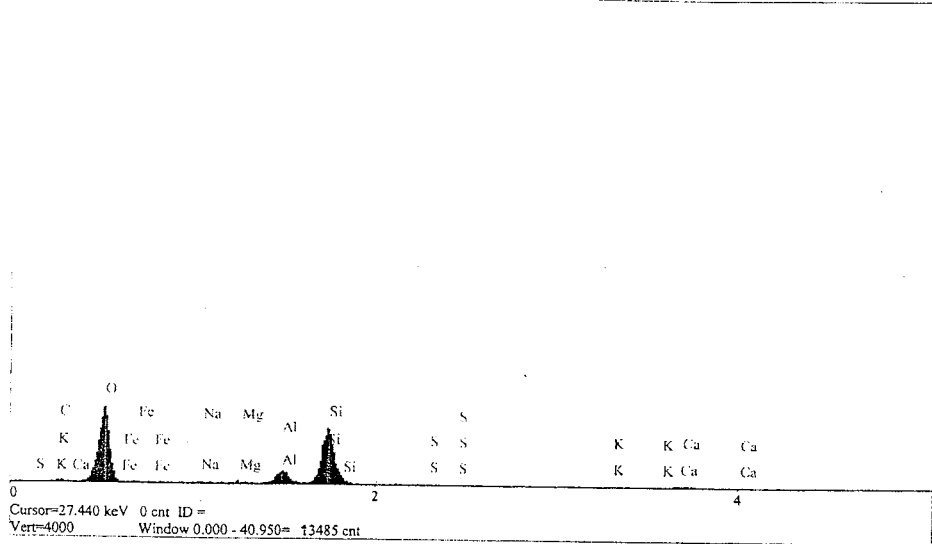


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	30.75	17.299	wt.%
O	Ka	191.60	59.975	wt.%
Na	Ka	0.84	0.099	wt.%
Mg	Ka	2.33	0.231	wt.%
Al	Ka	26.19	2.635	wt.%
Si	Ka	39.69	4.198	wt.%
S	Ka	0.94	0.122	wt.%
K	Ka	1.77	0.350	wt.%
Ca	Ka	48.61	11.735	wt.%
Fe	La	6.67	3.355	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: mesunt7000a1

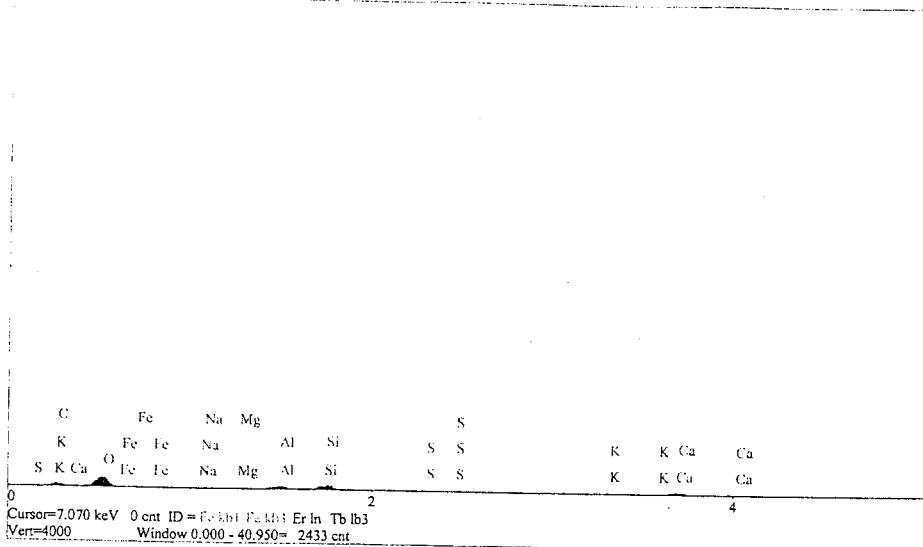


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	4.11	5.041	wt.%
O	Ka	206.71	62.424	wt.%
Na	Ka	1.58	0.211	wt.%
Mg	Ka	3.77	0.432	wt.%
Al	Ka	42.93	5.040	wt.%
Si	Ka	190.23	24.279	wt.%
S	Ka	1.58	0.266	wt.%
K	Ka	1.46	0.370	wt.%
Ca	Ka	6.48	1.938	wt.%
Fe	La	0.00	0.000	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: mesunt7000a2



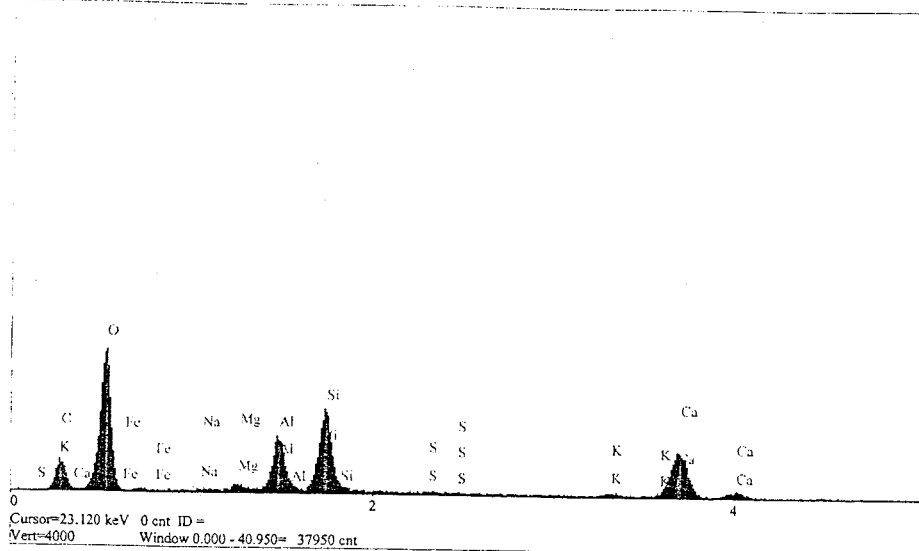
Cursor=7.070 keV 0 cnt ID= Fe Kbi Fe Lbi Er In Tb lbi
 Ver=4000 Window 0.000 - 40.950= 2433 cnt

Elt.	Line	Intensity (c/s)	Conc	
C	Ka	28.11	23.426	wt.%
O	Ka	114.93	51.716	wt.%
Na	Ka	1.43	0.209	wt.%
Mg	Ka	2.83	0.354	wt.%
Al	Ka	41.32	5.284	wt.%
Si	Ka	52.69	7.269	wt.%
S	Ka	2.16	0.370	wt.%
K	Ka	1.27	0.332	wt.%
Ca	Ka	34.71	11.039	wt.%
Fe	La	0.00	0.000	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: mesunt7000a3

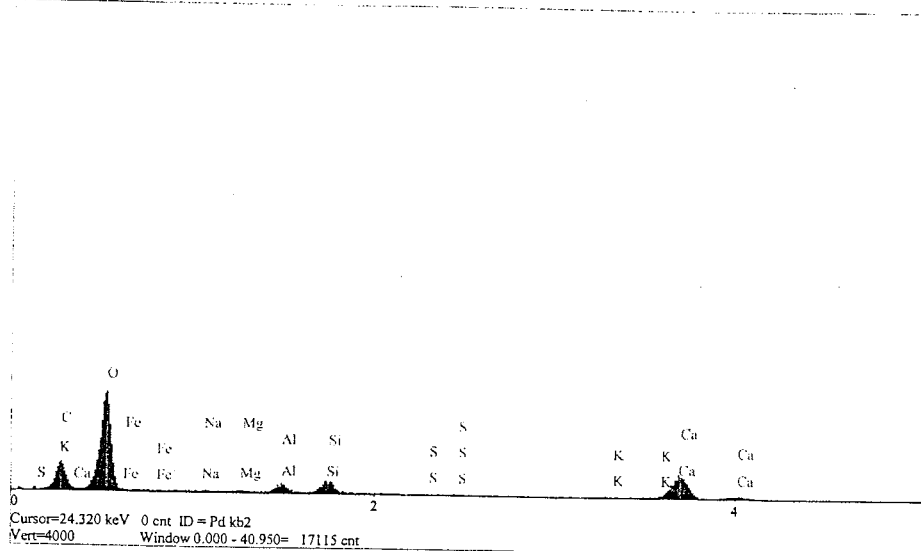


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	16.04	17.470	wt.%
O	Ka	87.64	49.125	wt.%
Na	Ka	0.66	0.115	wt.%
Mg	Ka	3.86	0.576	wt.%
Al	Ka	36.21	5.536	wt.%
Si	Ka	56.74	9.344	wt.%
S	Ka	0.93	0.189	wt.%
K	Ka	2.39	0.736	wt.%
Ca	Ka	41.40	15.634	wt.%
Fe	Ka	0.50	1.275	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: mesunt7000b

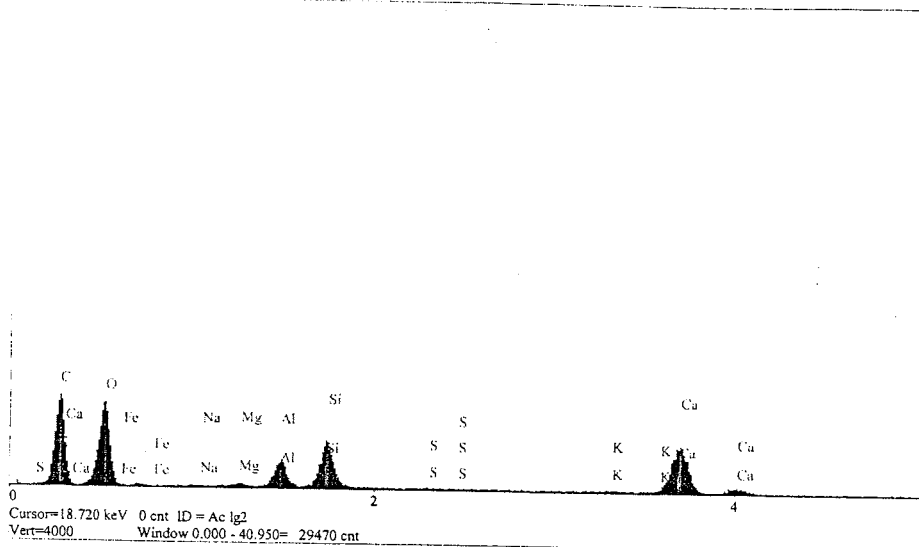


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	15.02	28.572	wt.%
O	Ka	58.37	66.272	wt.%
Na	Ka	0.22	0.106	wt.%
Mg	Ka	0.58	0.233	wt.%
Al	Ka	2.75	1.126	wt.%
Si	Ka	3.47	1.489	wt.%
S	Ka	0.17	0.089	wt.%
K	Ka	0.26	0.220	wt.%
Ca	Ka	1.90	1.893	wt.%
Fe	La	0.00	0.000	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: mesunt11500a

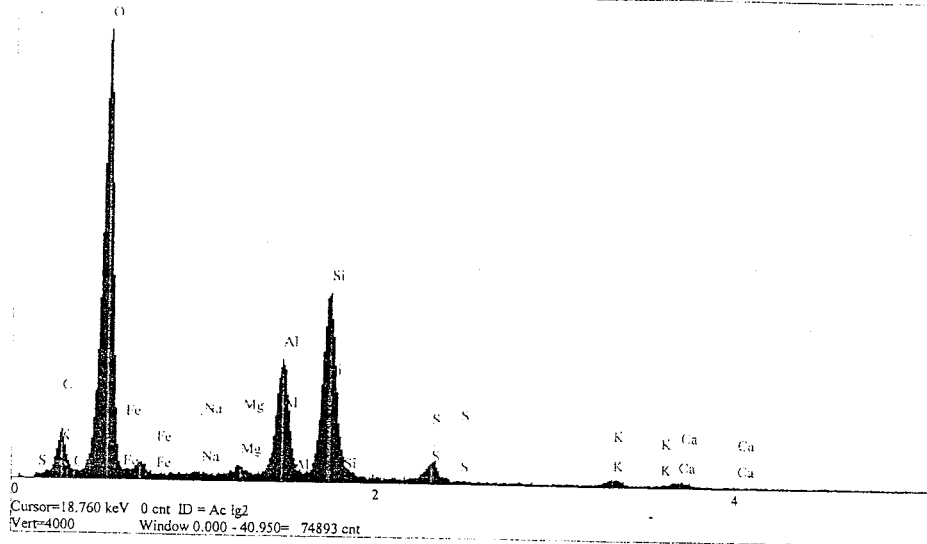


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	47.83	39.373	wt.%
O	Ka	53.20	36.352	wt.%
Na	Ka	0.27	0.047	wt.%
Mg	Ka	1.91	0.280	wt.%
Al	Ka	17.57	2.652	wt.%
Si	Ka	31.69	5.107	wt.%
S	Ka	0.58	0.115	wt.%
K	Ka	0.92	0.278	wt.%
Ca	Ka	41.70	15.795	wt.%
Fe	La	0.00	0.000	wt.%
100.000				wt.%
				Total

kV
10.0

Material Classification:

Spectrum: mesen200a

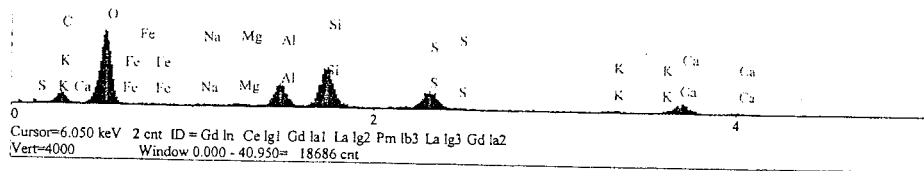


Elt.	Line	Intensity (c/s)	Conc (wt.%)	
C	Ka	23.95	17.077	wt.%
O	Ka	252.31	57.858	wt.%
Na	Ka	1.19	0.113	wt.%
Mg	Ka	5.83	0.475	wt.%
Al	Ka	81.80	6.823	wt.%
Si	Ka	133.35	12.123	wt.%
S	Ka	13.24	1.513	wt.%
K	Ka	5.36	0.944	wt.%
Ca	Ka	3.92	0.817	wt.%
Fe	La	5.70	2.258	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: mesen200b

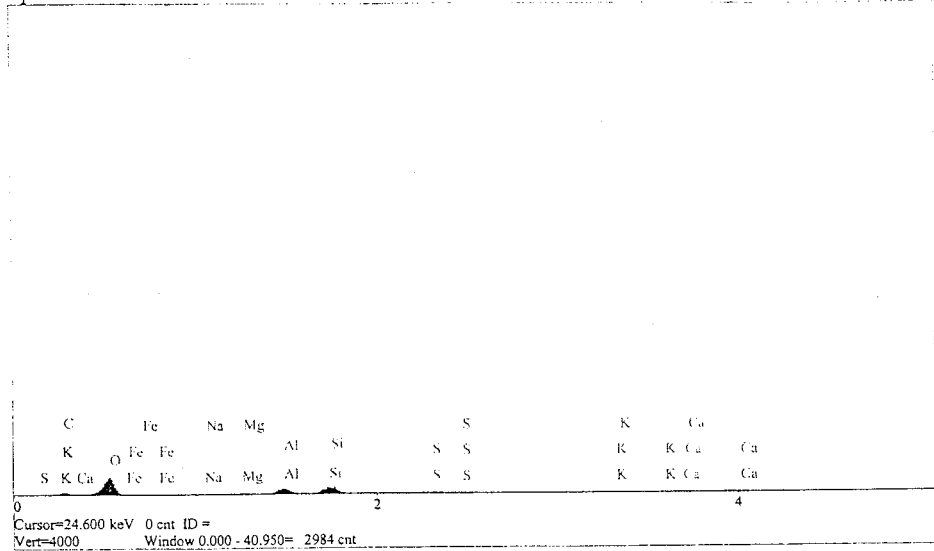


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	5.05	16.392	wt.%
O	Ka	47.65	52.982	wt.%
Na	Ka	0.42	0.161	wt.%
Mg	Ka	1.16	0.384	wt.%
Al	Ka	15.34	5.198	wt.%
Si	Ka	29.14	10.671	wt.%
S	Ka	14.75	6.816	wt.%
K	Ka	1.24	0.891	wt.%
Ca	Ka	7.58	6.503	wt.%
Fe	La	0.00	0.000	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: mesen7000a1

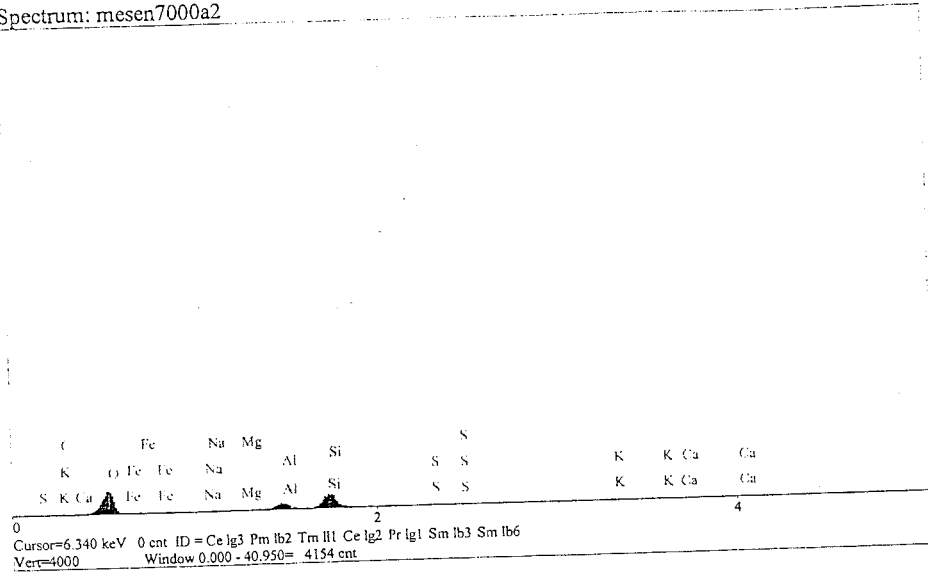


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	22.12	19.874	wt.%
O	Ka	187.78	56.473	wt.%
Na	Ka	1.05	0.123	wt.%
Mg	Ka	5.37	0.540	wt.%
Al	Ka	73.97	7.675	wt.%
Si	Ka	105.45	12.033	wt.%
S	Ka	8.87	1.275	wt.%
K	Ka	5.16	1.146	wt.%
Ca	Ka	3.27	0.861	wt.%
Fe	La	0.00	0.000	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: mesen7000a2



Elt.	Line	Intensity (c/s)	Conc	
C	Ka	2.41	3.266	wt.%
O	Ka	205.19	63.427	wt.%
Na	Ka	1.14	0.161	wt.%
Mg	Ka	3.72	0.451	wt.%
Al	Ka	66.88	8.333	wt.%
Si	Ka	155.60	21.419	wt.%
S	Ka	7.47	1.328	wt.%
K	Ka	2.64	0.711	wt.%
Ca	Ka	2.85	0.904	wt.%
Fe	La	0.00	0.000	wt.%
			100.000	wt.%

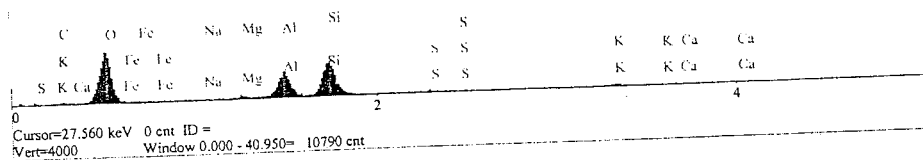
Total

kV

10.0

Material Classification:

Spectrum: mesen7000a3



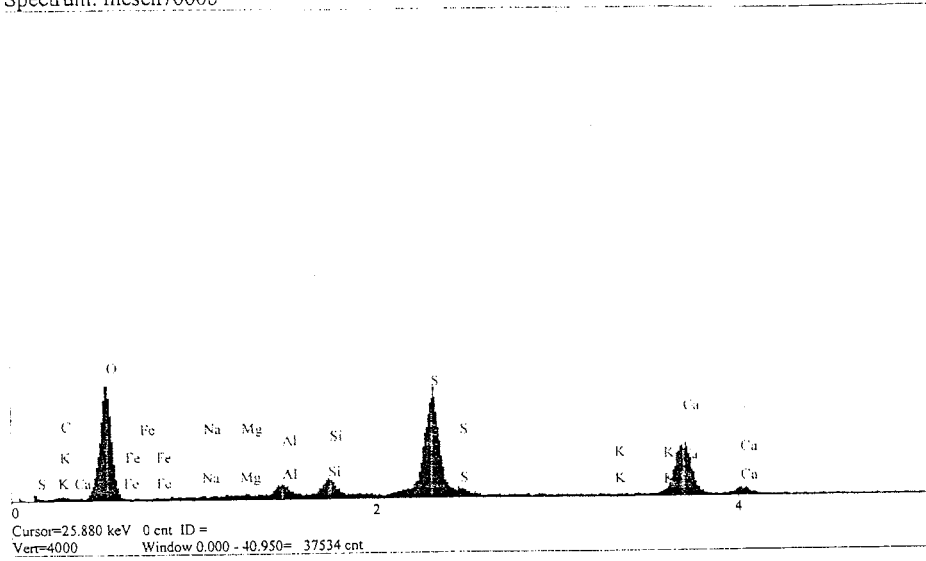
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	1.52	6.599 wt.%	
O	Ka	58.24	58.490 wt.%	
Na	Ka	0.20	0.085 wt.%	
Mg	Ka	2.17	0.798 wt.%	
Al	Ka	30.77	11.737 wt.%	
Si	Ka	45.12	19.401 wt.%	
S	Ka	1.34	0.734 wt.%	
K	Ka	2.26	1.877 wt.%	
Ca	Ka	0.28	0.278 wt.%	
Fe	La	0.00	0.000 wt.%	
			100.000 wt.%	Total

kV

10.0

Material Classification:

Spectrum: mesen7000b

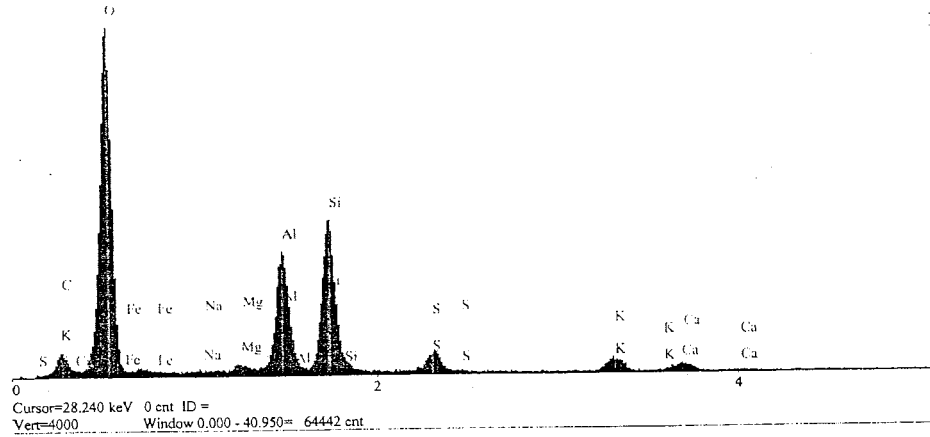


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.59	1.216	wt.%
O	Ka	70.07	51.292	wt.%
Na	Ka	0.36	0.079	wt.%
Mg	Ka	0.94	0.173	wt.%
Al	Ka	7.45	1.386	wt.%
Si	Ka	11.12	2.151	wt.%
S	Ka	88.46	21.124	wt.%
K	Ka	0.32	0.120	wt.%
Ca	Ka	47.64	21.949	wt.%
Fe	Ka	0.17	0.510	wt.%
			100.000	wt.%
				Total

kV
 10.0

Material Classification:

Spectrum: mesen7000c

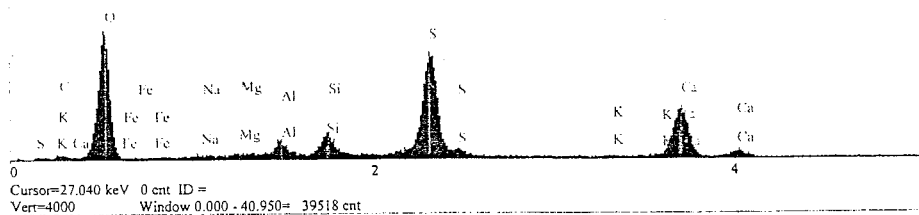


Elt.	Line	Intensity (c/s)	Conc (wt.%)	
C	Ka	12.75	13.132	wt.%
O	Ka	199.14	58.812	wt.%
Na	Ka	0.54	0.064	wt.%
Mg	Ka	4.70	0.479	wt.%
Al	Ka	84.21	8.824	wt.%
Si	Ka	108.87	12.597	wt.%
S	Ka	14.81	2.151	wt.%
K	Ka	10.61	2.373	wt.%
Ca	Ka	5.90	1.568	wt.%
Fe	La	0.00	0.000	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: mesen11500b

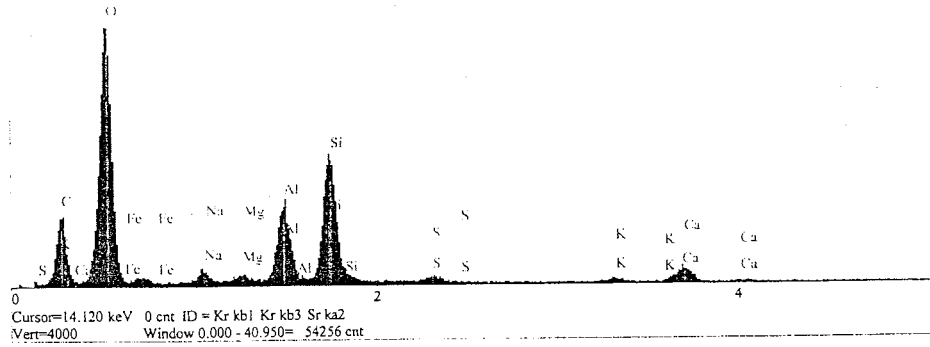


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	1.45	2.799	wt.%
O	Ka	78.87	52.746	wt.%
Na	Ka	0.89	0.182	wt.%
Mg	Ka	1.68	0.290	wt.%
Al	Ka	9.39	1.648	wt.%
Si	Ka	15.35	2.811	wt.%
S	Ka	87.29	19.784	wt.%
K	Ka	0.71	0.256	wt.%
Ca	Ka	44.68	19.484	wt.%
Fe	La	0.00	0.000	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: mesbs200a

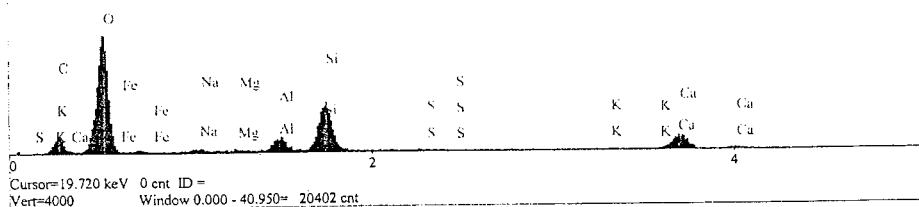


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	31.63	25.054	wt.%
O	Ka	159.00	51.981	wt.%
Na	Ka	6.70	0.796	wt.%
Mg	Ka	4.23	0.433	wt.%
Al	Ka	54.08	5.682	wt.%
Si	Ka	91.87	10.472	wt.%
S	Ka	4.17	0.598	wt.%
K	Ka	3.00	0.663	wt.%
Ca	Ka	10.91	2.870	wt.%
Fe	La	2.92	1.450	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: mesbs200b

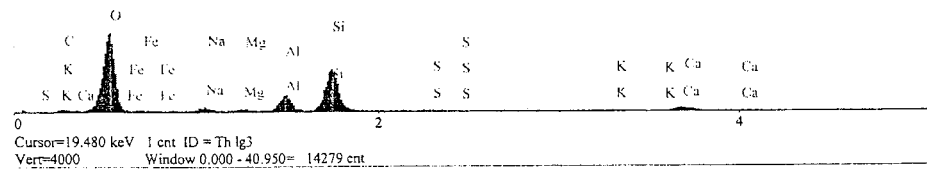


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	8.41	16.234	wt.%
O	Ka	73.29	62.012	wt.%
Na	Ka	1.73	0.570	wt.%
Mg	Ka	0.61	0.171	wt.%
Al	Ka	9.45	2.702	wt.%
Si	Ka	34.23	10.382	wt.%
S	Ka	0.51	0.196	wt.%
K	Ka	0.43	0.249	wt.%
Ca	Ka	10.61	7.484	wt.%
Fe	La	0.00	0.000	wt.%
100.000				wt.%
				Total

kV
10.0

Material Classification:

Spectrum: mesbs7000a1

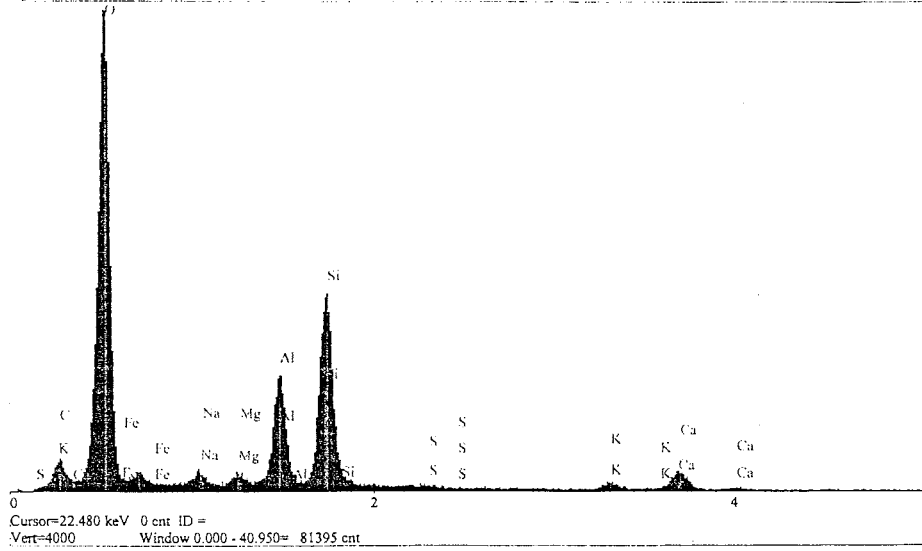


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.98	4.687	wt.%
O	Ka	49.53	66.130	wt.%
Na	Ka	2.12	1.281	wt.%
Mg	Ka	1.03	0.537	wt.%
Al	Ka	10.32	5.479	wt.%
Si	Ka	29.77	17.056	wt.%
S	Ka	0.38	0.279	wt.%
K	Ka	0.67	0.749	wt.%
Ca	Ka	2.88	3.801	wt.%
Fe	La	0.00	0.000	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: mesbs7000a2

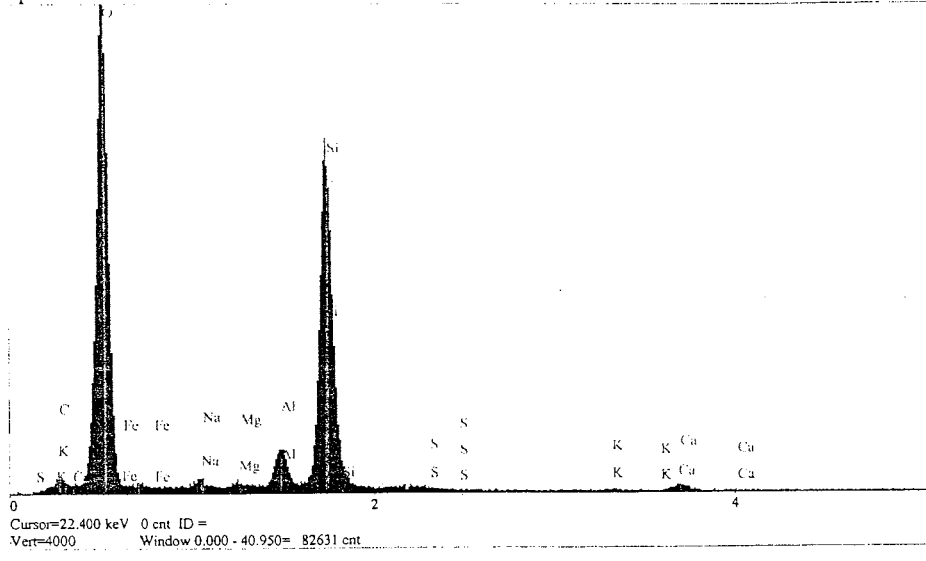


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	17.73	11.651	wt.%
O	Ka	292.20	62.230	wt.%
Na	Ka	8.12	0.763	wt.%
Mg	Ka	7.04	0.564	wt.%
Al	Ka	75.78	6.190	wt.%
Si	Ka	135.79	11.985	wt.%
S	Ka	1.60	0.176	wt.%
K	Ka	5.62	0.950	wt.%
Ca	Ka	14.66	2.946	wt.%
Fe	La	6.48	2.546	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: mesbs7000a3



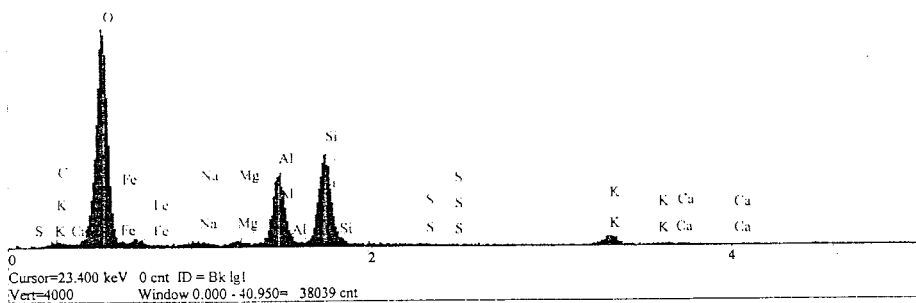
Cursor=22.400 keV 0 cnt ID =
 Vert=4000 Window 0.000 - 40.950= 82631 cnt

Elt.	Line	Intensity (c/s)	Conc (wt.%)
C	Ka	5.14	4.658 wt.%
O	Ka	295.45	66.830 wt.%
Na	Ka	4.57	0.489 wt.%
Mg	Ka	2.76	0.253 wt.%
Al	Ka	27.09	2.523 wt.%
Si	Ka	235.95	23.491 wt.%
S	Ka	1.23	0.162 wt.%
K	Ka	1.26	0.250 wt.%
Ca	Ka	5.72	1.345 wt.%
Fe	La	0.00	0.000 wt.%
			100.000 wt.%
			Total

kV
 10.0

Material Classification:

Spectrum: mesbs11500a



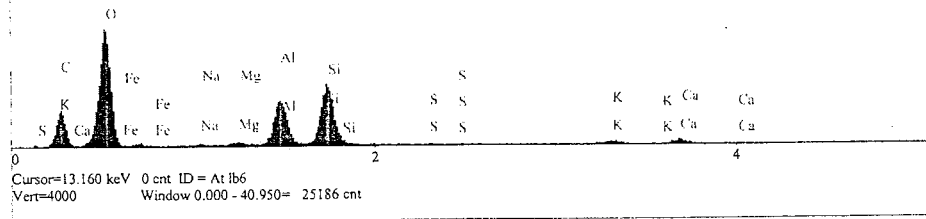
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	2.48	4.750	wt.%
O	Ka	137.81	64.156	wt.%
Na	Ka	2.75	0.612	wt.%
Mg	Ka	2.37	0.450	wt.%
Al	Ka	48.29	9.362	wt.%
Si	Ka	65.46	13.954	wt.%
S	Ka	0.55	0.145	wt.%
K	Ka	7.18	2.910	wt.%
Ca	Ka	0.91	0.435	wt.%
Fe	La	3.52	3.227	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: mespz200a

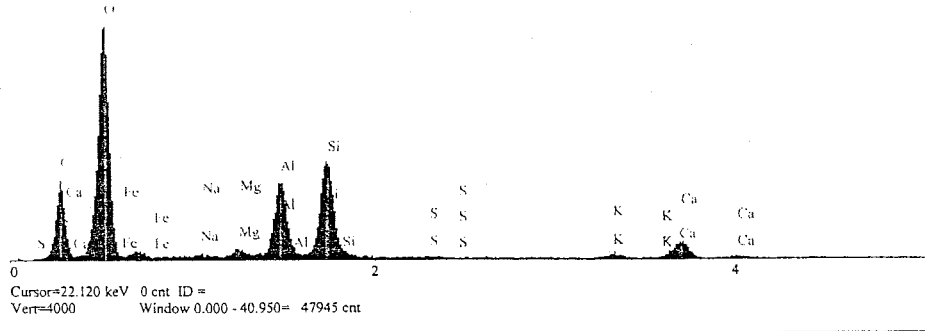


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	30.48	28.881	wt.%
O	Ka	126.61	50.733	wt.%
Na	Ka	1.19	0.166	wt.%
Mg	Ka	3.37	0.405	wt.%
Al	Ka	53.81	6.673	wt.%
Si	Ka	74.76	10.160	wt.%
S	Ka	0.75	0.128	wt.%
K	Ka	4.57	1.209	wt.%
Ca	Ka	5.22	1.644	wt.%
Fe	La	0.00	0.000	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: mespz200b



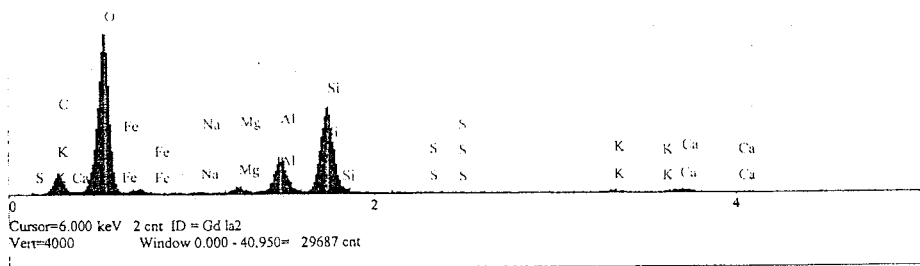
Elt.	Line	Intensity (c/s)	Conc (wt.%)
C	Ka	36.85	27.877 wt.%
O	Ka	145.35	50.428 wt.%
Na	Ka	1.33	0.163 wt.%
Mg	Ka	5.02	0.524 wt.%
Al	Ka	53.99	5.794 wt.%
Si	Ka	73.62	8.571 wt.%
S	Ka	1.05	0.152 wt.%
K	Ka	3.83	0.858 wt.%
Ca	Ka	13.72	3.676 wt.%
Fe	La	3.86	1.957 wt.%
			100.000 wt.%
			Total

kV

10.0

Material Classification:

Spectrum: mespz200c1



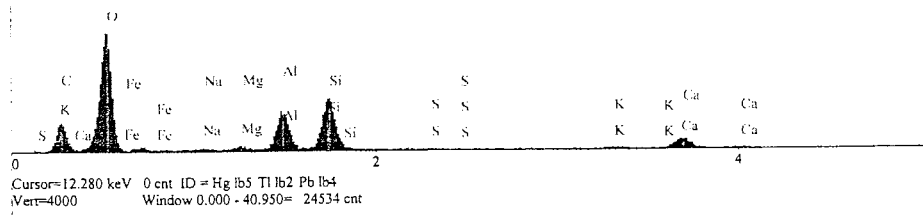
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	19.40	18.982	wt.%
O	Ka	166.51	56.068	wt.%
Na	Ka	1.04	0.140	wt.%
Mg	Ka	6.65	0.767	wt.%
Al	Ka	43.32	5.133	wt.%
Si	Ka	112.70	14.442	wt.%
S	Ka	0.52	0.085	wt.%
K	Ka	3.18	0.795	wt.%
Ca	Ka	5.11	1.516	wt.%
Fe	La	3.70	2.071	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: mespz200d

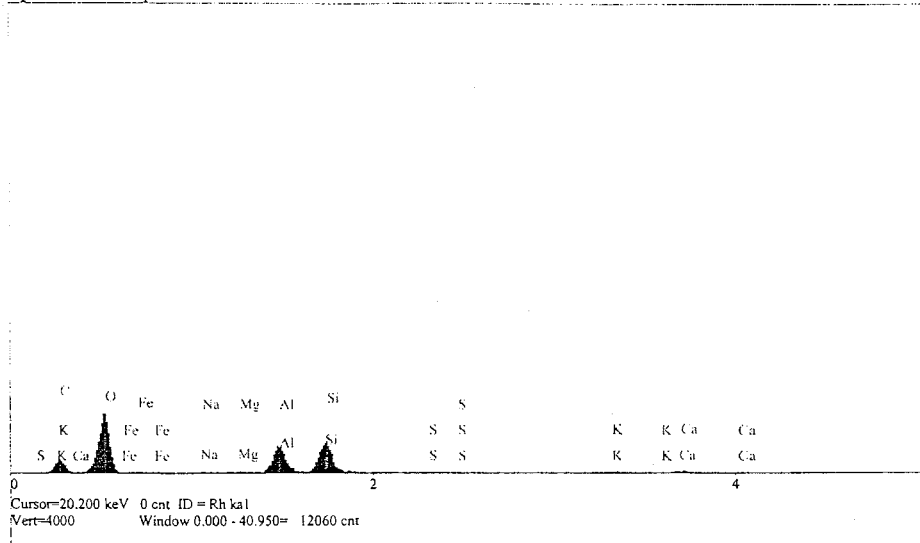


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	31.32	23.931	wt.%
O	Ka	161.53	54.069	wt.%
Na	Ka	1.87	0.223	wt.%
Mg	Ka	4.47	0.458	wt.%
Al	Ka	57.95	6.097	wt.%
Si	Ka	83.04	9.501	wt.%
S	Ka	1.13	0.161	wt.%
K	Ka	3.62	0.798	wt.%
Ca	Ka	18.03	4.761	wt.%
Fe	La	0.00	0.000	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: mespz7000a1



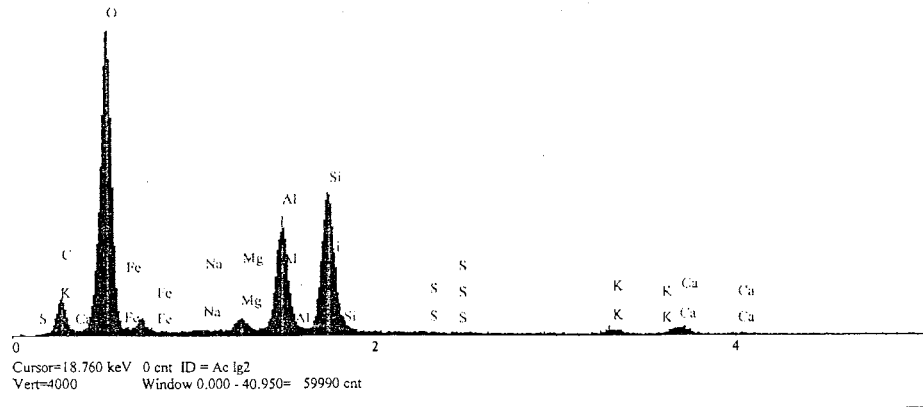
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	24.41	25.491	wt.%
O	Ka	125.34	51.959	wt.%
Na	Ka	0.89	0.132	wt.%
Mg	Ka	1.55	0.199	wt.%
Al	Ka	63.46	8.375	wt.%
Si	Ka	75.39	11.013	wt.%
S	Ka	0.15	0.028	wt.%
K	Ka	2.84	0.803	wt.%
Ca	Ka	5.96	2.001	wt.%
Fe	Ka	0.00	0.000	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: mespz7000a2

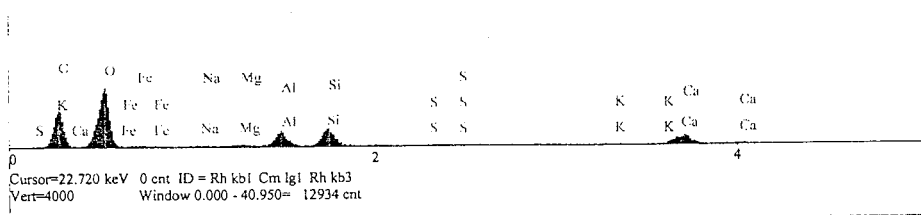


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	17.79	16.655	wt.%
O	Ka	181.38	55.260	wt.%
Na	Ka	1.03	0.128	wt.%
Mg	Ka	8.80	0.932	wt.%
Al	Ka	79.71	8.696	wt.%
Si	Ka	105.67	12.692	wt.%
S	Ka	0.39	0.059	wt.%
K	Ka	4.42	1.016	wt.%
Ca	Ka	6.08	1.656	wt.%
Fe	La	5.76	2.906	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: mespz7000a3

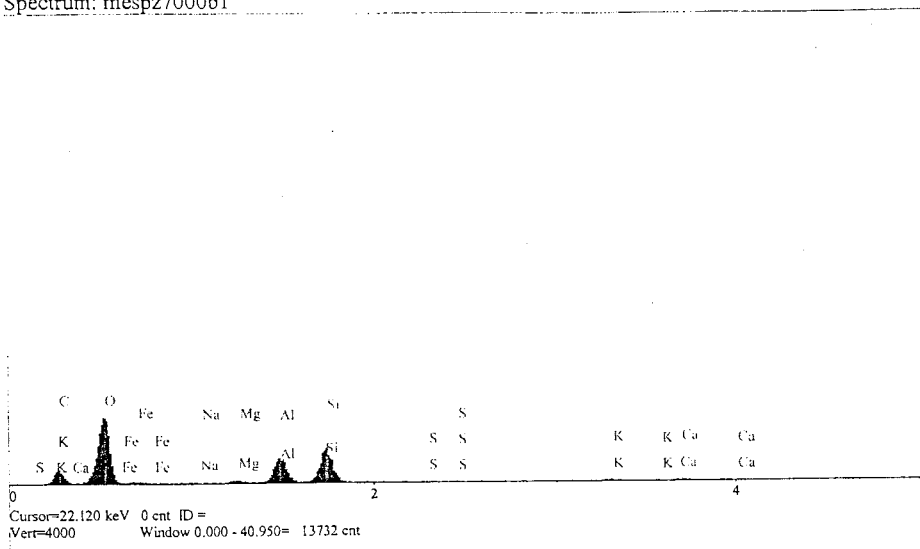


El.	Line	Intensity (c/s)	Conc	
C	Ka	76.75	36.805	wt.%
O	Ka	143.10	46.817	wt.%
Na	Ka	1.41	0.140	wt.%
Mg	Ka	3.99	0.338	wt.%
Al	Ka	36.11	3.146	wt.%
Si	Ka	47.85	4.457	wt.%
S	Ka	1.11	0.128	wt.%
K	Ka	2.44	0.438	wt.%
Ca	Ka	35.53	7.731	wt.%
Fe	La	0.00	0.000	wt.%
			100.000	wt.% Total

kV
10.0

Material Classification:

Spectrum: mespz7000b1



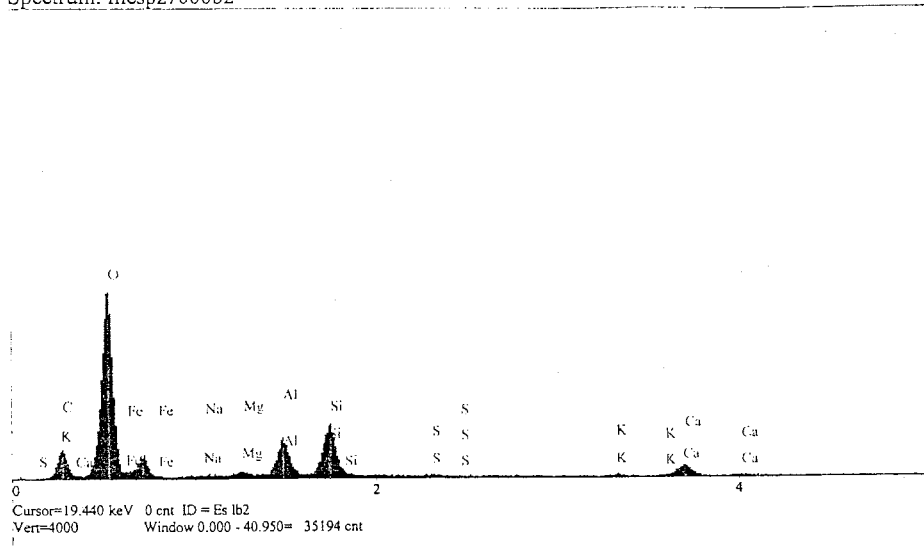
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	19.04	24.226	wt.%
O	Ka	108.66	52.476	wt.%
Na	Ka	0.72	0.132	wt.%
Mg	Ka	3.84	0.599	wt.%
Al	Ka	45.72	7.348	wt.%
Si	Ka	61.64	10.860	wt.%
S	Ka	0.53	0.116	wt.%
K	Ka	3.14	1.067	wt.%
Ca	Ka	2.93	1.185	wt.%
Fe	La	2.65	1.992	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: mespz7000b2

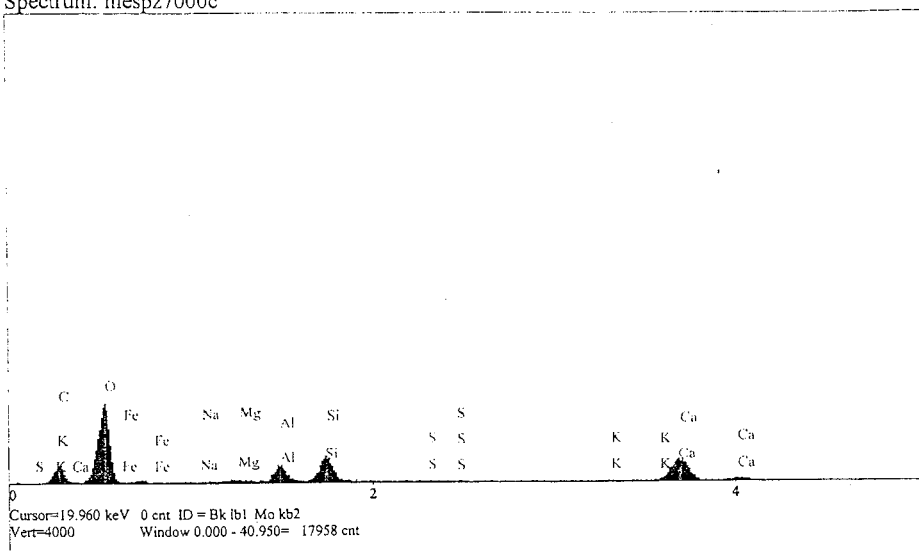


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	20.38	18.844	wt.%
O	Ka	143.62	55.020	wt.%
Na	Ka	0.96	0.157	wt.%
Mg	Ka	3.54	0.487	wt.%
Al	Ka	31.16	4.345	wt.%
Si	Ka	46.49	6.878	wt.%
S	Ka	1.52	0.276	wt.%
K	Ka	2.32	0.647	wt.%
Ca	Ka	11.93	3.962	wt.%
Fe	La	15.02	9.383	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: mespz7000c

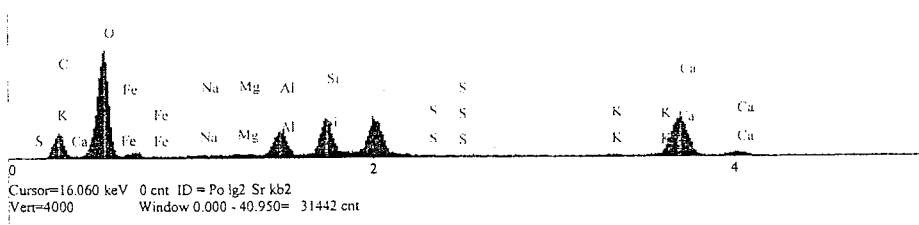


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	19.77	17.902	wt.%
O	Ka	101.07	54.325	wt.%
Na	Ka	0.18	0.033	wt.%
Mg	Ka	2.70	0.406	wt.%
Al	Ka	21.30	3.255	wt.%
Si	Ka	36.48	5.899	wt.%
S	Ka	0.65	0.130	wt.%
K	Ka	0.88	0.266	wt.%
Ca	Ka	43.21	16.034	wt.%
Fe	La	2.29	1.750	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: mespz11500a

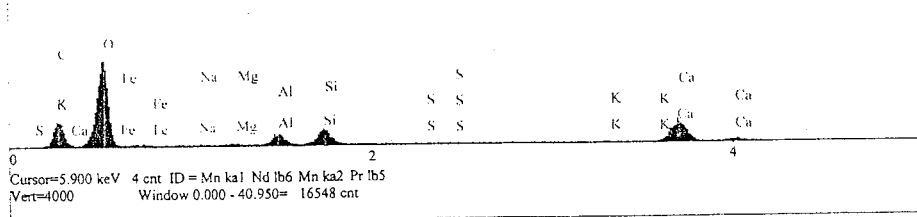


Elt.	Line	Intensity (c/s)	Conc (wt.%)
C	Ka	17.33	16.306 wt.%
O	Ka	89.75	51.894 wt.%
Na	Ka	0.89	0.164 wt.%
Mg	Ka	1.36	0.211 wt.%
Al	Ka	22.90	3.600 wt.%
Si	Ka	33.97	5.655 wt.%
S	Ka	0.25	0.052 wt.%
K	Ka	1.45	0.444 wt.%
Ca	Ka	50.39	19.169 wt.%
Fe	La	3.22	2.505 wt.%
			100.000 wt.%
			Total

kV
10.0

Material Classification:

Spectrum: mespz11500c

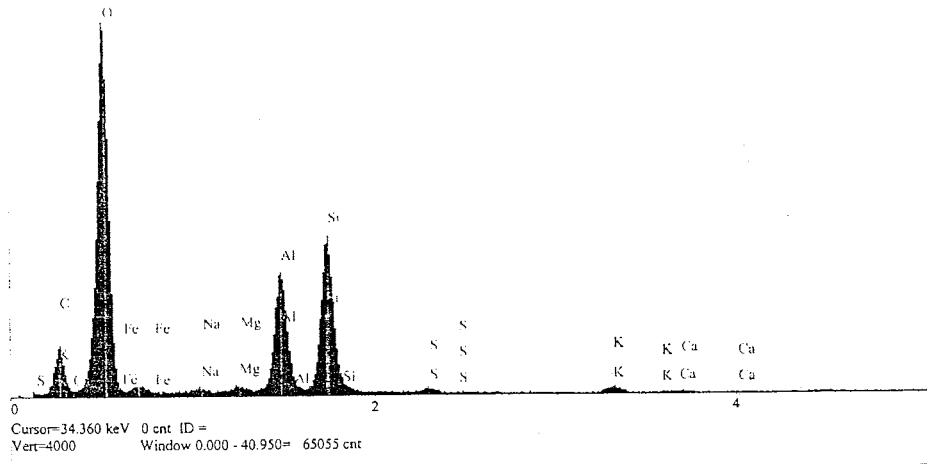


Elt.	Line	Intensity (c/s)	Conc wt.%	
C	Ka	33.10	20.807	wt.%
O	Ka	137.57	56.197	wt.%
Na	Ka	1.04	0.143	wt.%
Mg	Ka	2.41	0.282	wt.%
Al	Ka	19.13	2.268	wt.%
Si	Ka	29.40	3.663	wt.%
S	Ka	0.31	0.047	wt.%
K	Ka	0.82	0.191	wt.%
Ca	Ka	51.20	14.662	wt.%
Fe	Ka	0.90	1.741	wt.%
		100.000		wt.%
				Total

kV
10.0

Material Classification:

Spectrum: mesH2SO4200a

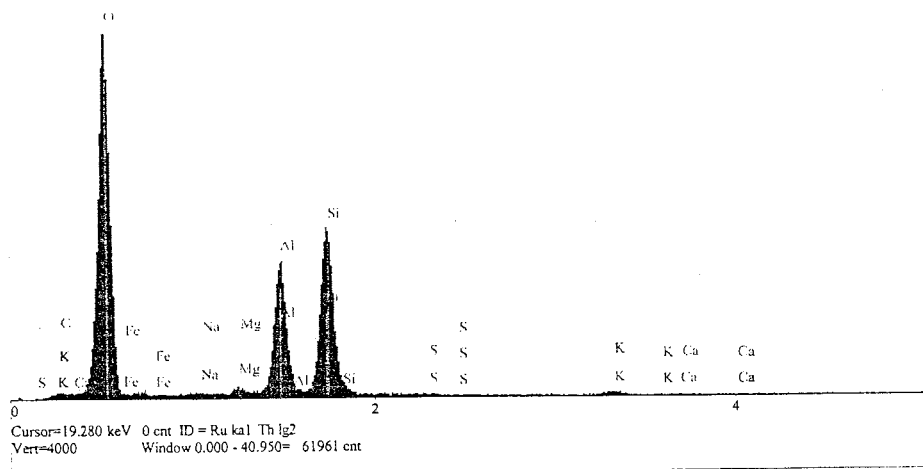


Elt.	Line	Intensity (c/s)	Conc (wt.%)
C	Ka	26.64	18.778 wt.%
O	Ka	245.82	58.726 wt.%
Na	Ka	2.56	0.257 wt.%
Mg	Ka	3.75	0.322 wt.%
Al	Ka	84.85	7.457 wt.%
Si	Ka	113.66	10.927 wt.%
S	Ka	3.16	0.380 wt.%
K	Ka	5.19	0.963 wt.%
Ca	Ka	1.39	0.306 wt.%
Fe	La	4.48	1.885 wt.%
100.000			Total wt.%

kV
10.0

Material Classification:

Spectrum: mesH2SO4200b

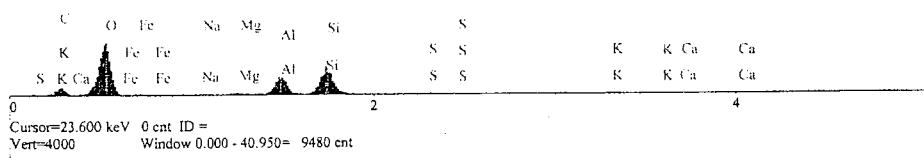


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	2.46	2.929	wt.%
O	Ka	238.09	65.859	wt.%
Na	Ka	1.06	0.145	wt.%
Mg	Ka	3.89	0.454	wt.%
Al	Ka	94.74	11.346	wt.%
Si	Ka	125.15	16.744	wt.%
S	Ka	0.70	0.118	wt.%
K	Ka	3.18	0.812	wt.%
Ca	Ka	0.60	0.181	wt.%
Fe	La	2.46	1.412	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: mesH2SO4200c



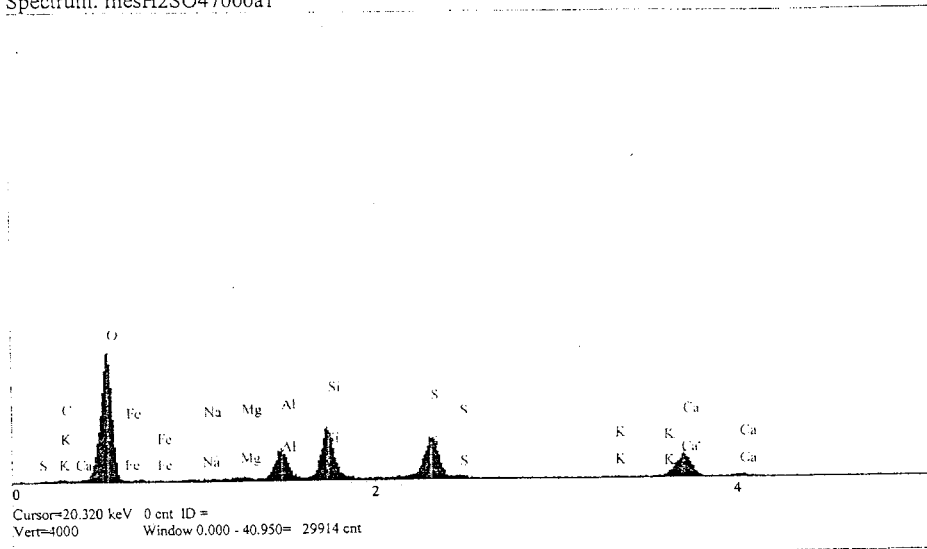
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	10.02	20.912	wt.%
O	Ka	79.63	57.078	wt.%
Na	Ka	0.72	0.206	wt.%
Mg	Ka	2.03	0.495	wt.%
Al	Ka	28.80	7.248	wt.%
Si	Ka	45.64	12.611	wt.%
S	Ka	1.08	0.377	wt.%
K	Ka	1.55	0.836	wt.%
Ca	Ka	0.37	0.237	wt.%
Fe	Ka	0.00	0.000	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: mesH2SO47000a1

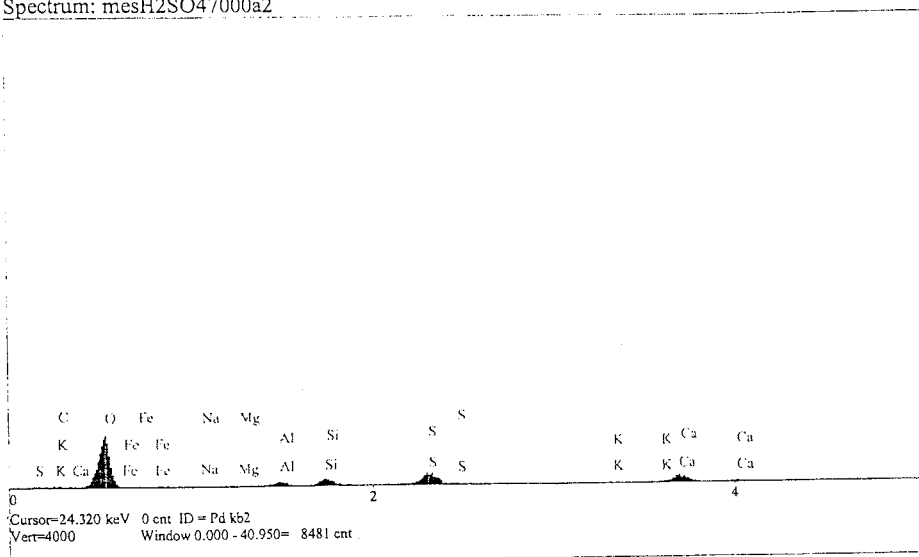


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	1.17	1.931	wt.%
O	Ka	115.81	58.721	wt.%
Na	Ka	0.37	0.068	wt.%
Mg	Ka	2.68	0.419	wt.%
Al	Ka	31.29	4.984	wt.%
Si	Ka	54.63	9.302	wt.%
S	Ka	51.79	11.016	wt.%
K	Ka	1.23	0.406	wt.%
Ca	Ka	31.54	12.497	wt.%
Fe	La	0.83	0.656	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: mesH2SO47000a2

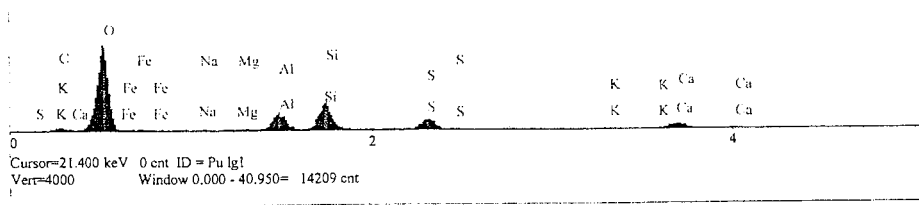


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.00	0.000	wt.%
O	Ka	169.72	69.807	wt.%
Na	Ka	0.89	0.151	wt.%
Mg	Ka	0.94	0.134	wt.%
Al	Ka	14.56	2.078	wt.%
Si	Ka	28.51	4.245	wt.%
S	Ka	53.12	9.742	wt.%
K	Ka	1.15	0.329	wt.%
Ca	Ka	37.91	13.120	wt.%
Fe	La	0.52	0.394	wt.%
			100.000	Total wt.%

kV
10.0

Material Classification:

Spectrum: mesH2SO47000a3

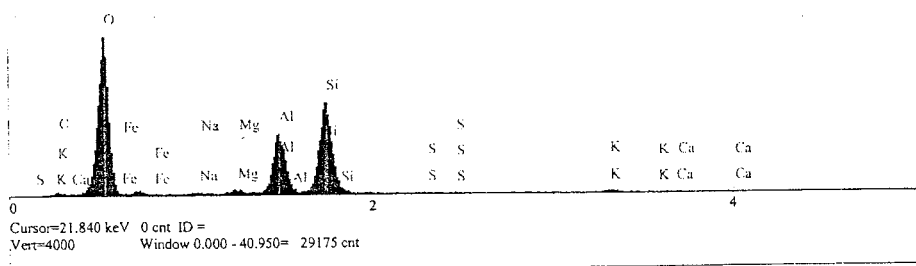


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	5.09	5.595	wt.%
O	Ka	198.24	65.762	wt.%
Na	Ka	1.20	0.172	wt.%
Mg	Ka	2.19	0.267	wt.%
Al	Ka	46.02	5.696	wt.%
Si	Ka	74.38	9.898	wt.%
S	Ka	32.40	5.382	wt.%
K	Ka	1.61	0.414	wt.%
Ca	Ka	19.36	5.928	wt.%
Fe	La	1.42	0.885	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: mesH2SO47000b

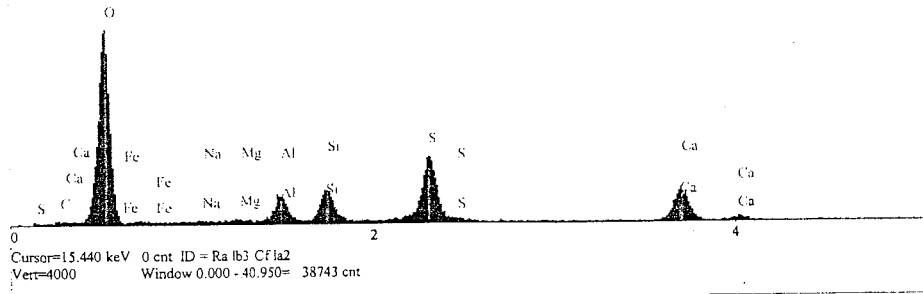


Elt.	Line	Intensity (c/s)	Conc (wt.%)	
C	Ka	2.64	3.624	wt.%
O	Ka	197.93	62.407	wt.%
Na	Ka	1.40	0.211	wt.%
Mg	Ka	4.58	0.590	wt.%
Al	Ka	80.45	10.626	wt.%
Si	Ka	126.90	18.666	wt.%
S	Ka	0.95	0.177	wt.%
K	Ka	3.68	1.036	wt.%
Ca	Ka	0.48	0.159	wt.%
Fe	La	4.07	2.504	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: mesH2SO47000c



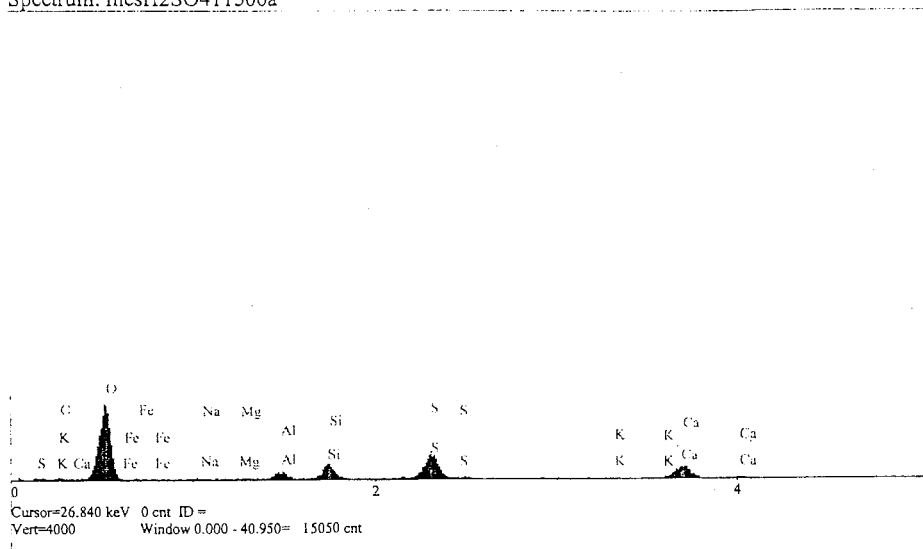
Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.59	0.794	wt.%
O	Ka	152.33	65.375	wt.%
Na	Ka	0.76	0.128	wt.%
Mg	Ka	1.59	0.225	wt.%
Al	Ka	22.06	3.161	wt.%
Si	Ka	29.62	4.463	wt.%
S	Ka	67.75	12.590	wt.%
Ca	Ka	35.70	12.523	wt.%
Fe	La	1.01	0.741	wt.%
			100.000	wt.%
				Total

kV

10.0

Material Classification:

Spectrum: mesH2SO411500a

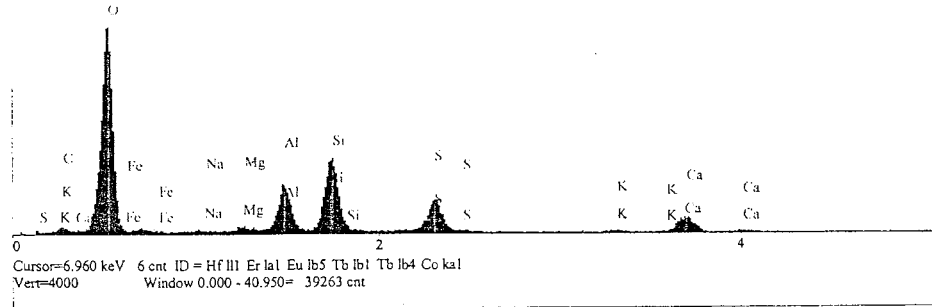


Elt.	Line	Intensity (c/s)	Conc	
C	Ka	0.74	2.220	wt.%
O	Ka	64.54	65.201	wt.%
Na	Ka	0.39	0.153	wt.%
Mg	Ka	0.28	0.093	wt.%
Al	Ka	6.14	2.031	wt.%
Si	Ka	13.63	4.714	wt.%
S	Ka	27.80	11.901	wt.%
K	Ka	0.58	0.386	wt.%
Ca	Ka	15.83	12.824	wt.%
Fe	La	0.28	0.476	wt.%
			100.000	wt.%
				Total

kV
10.0

Material Classification:

Spectrum: mesH2SO411500c



Elt.	Line	Intensity (c/s)	Conc (wt.%)
C	Ka	2.52	3.489 wt.%
O	Ka	166.20	64.854 wt.%
Na	Ka	0.77	0.130 wt.%
Mg	Ka	3.54	0.508 wt.%
Al	Ka	40.02	5.844 wt.%
Si	Ka	66.92	10.506 wt.%
S	Ka	33.02	6.474 wt.%
K	Ka	1.96	0.592 wt.%
Ca	Ka	16.56	5.978 wt.%
Fe	La	2.25	1.626 wt.%
			100.000 wt.%
			Total

kV
10.0

Material Classification:

