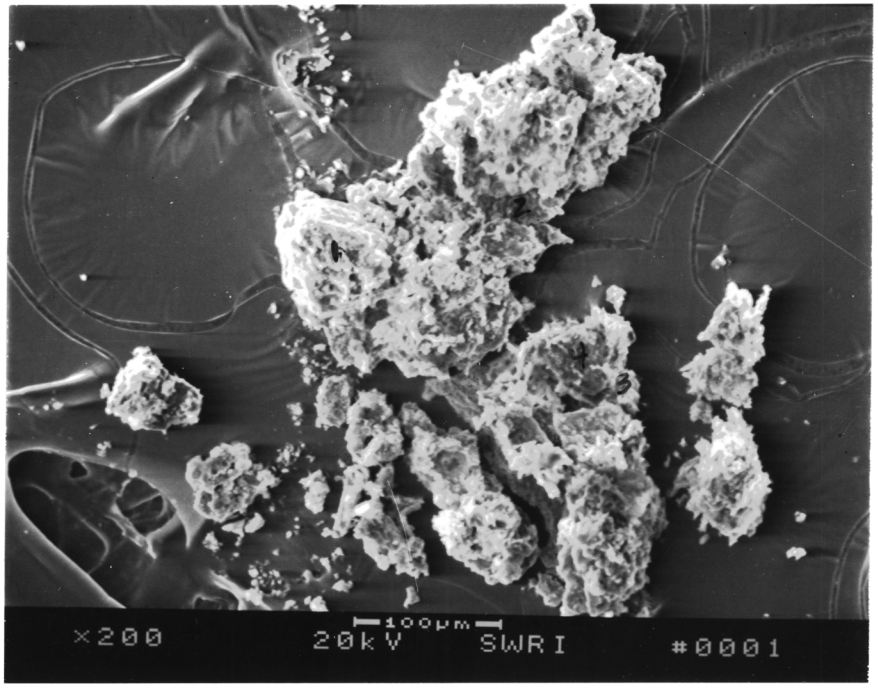
ANALYSES OF ARTIFACT

CORROSION PRODUCTS

SANTORINI, GREECE

308 --- Q200408170011
Supplemental Material, Technical Activity
Supporting Documentation: Experimental Data
for Analyses of Artifact Corrosion Products,
Santorini, Greece (10/18/1993)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SWRI
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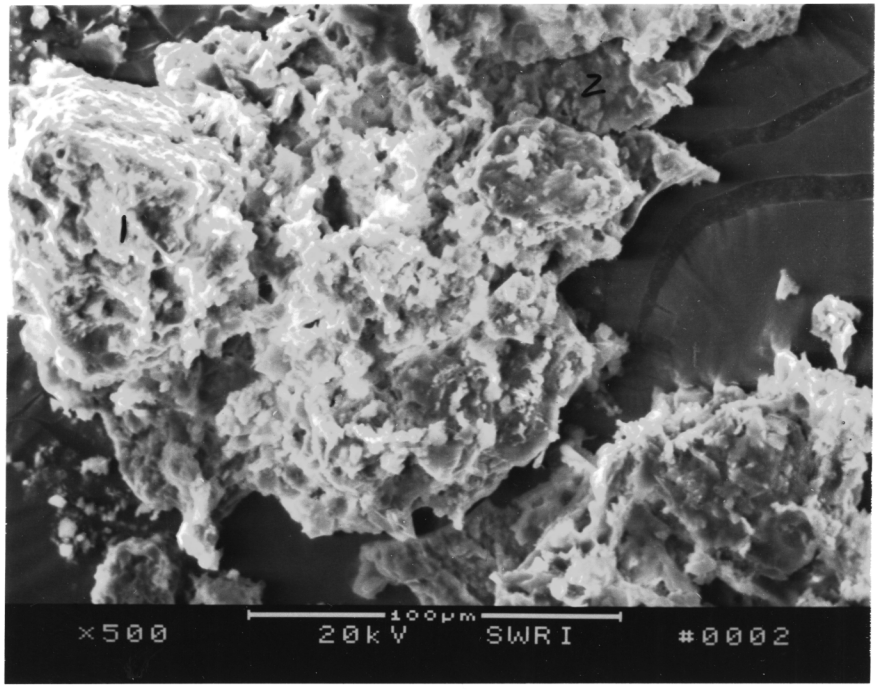
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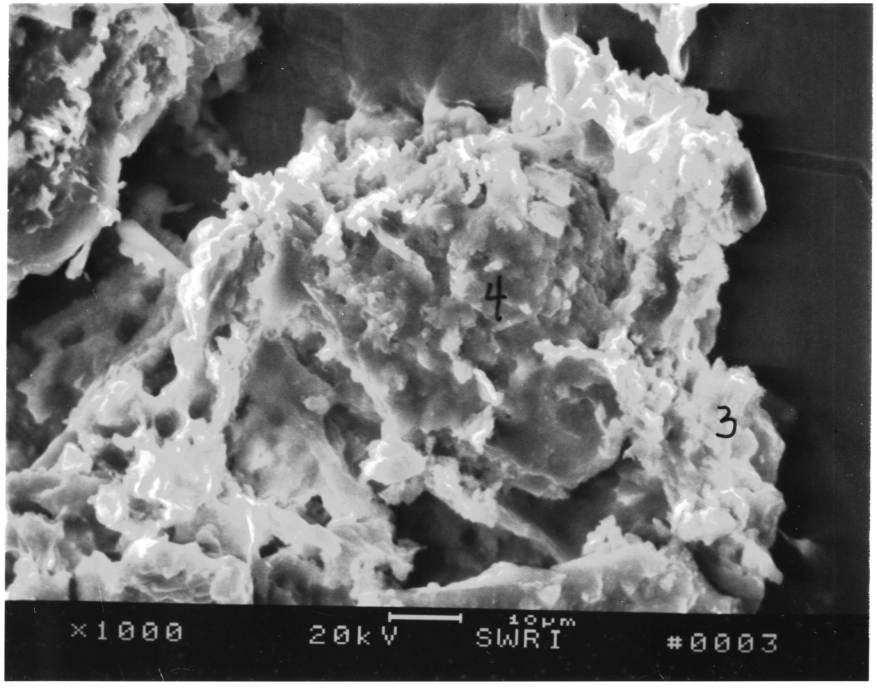
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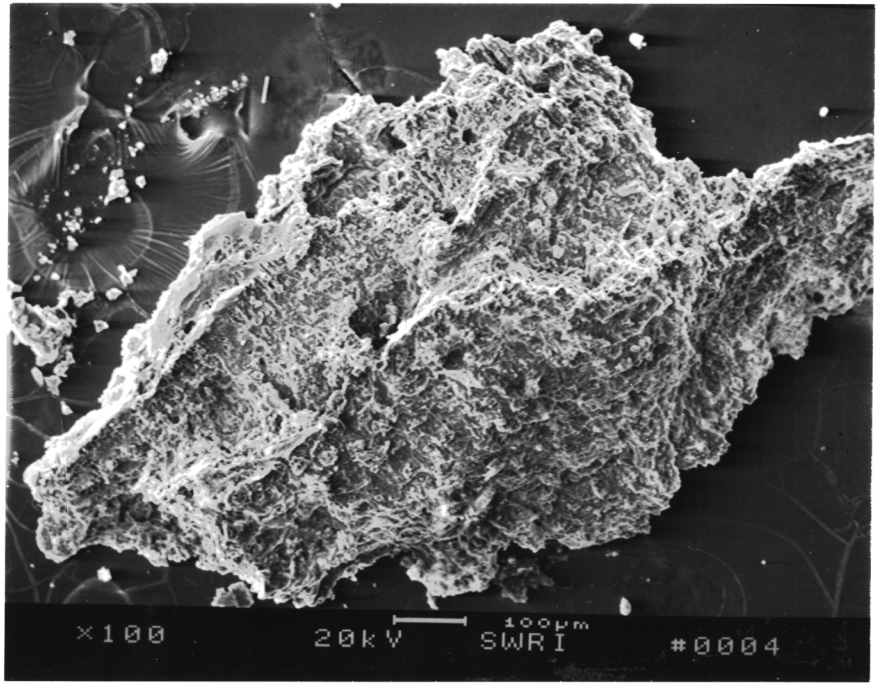
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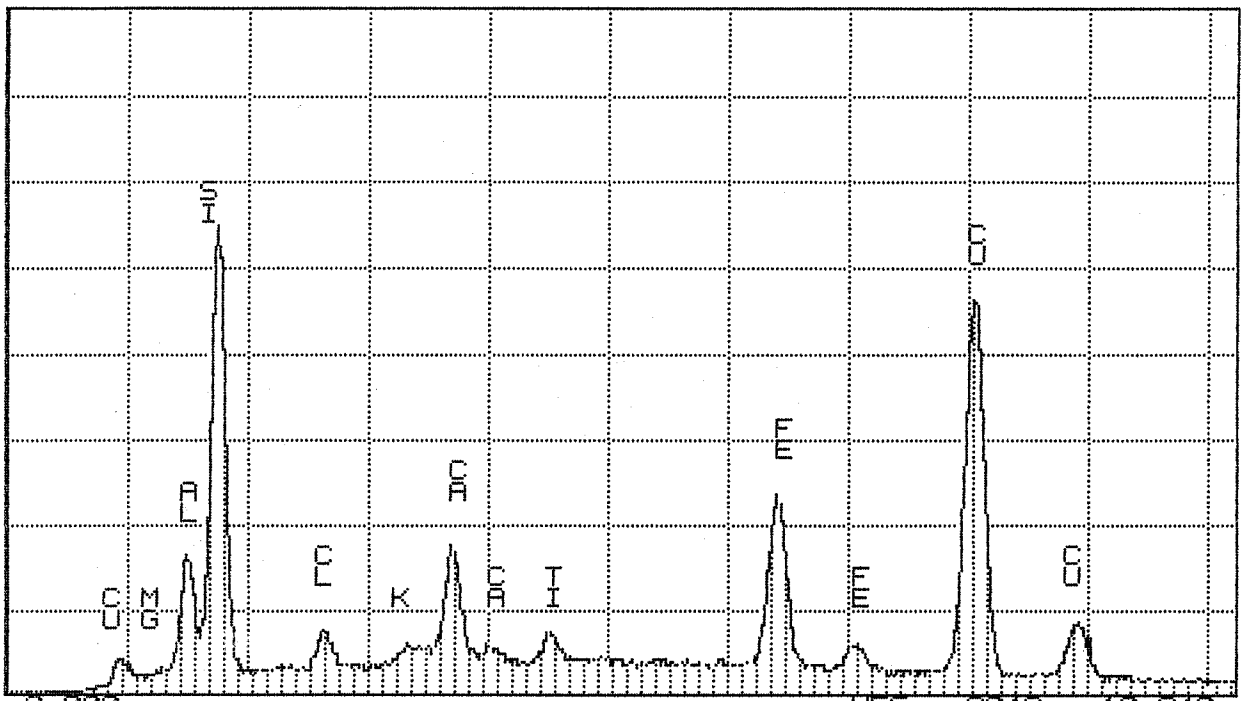

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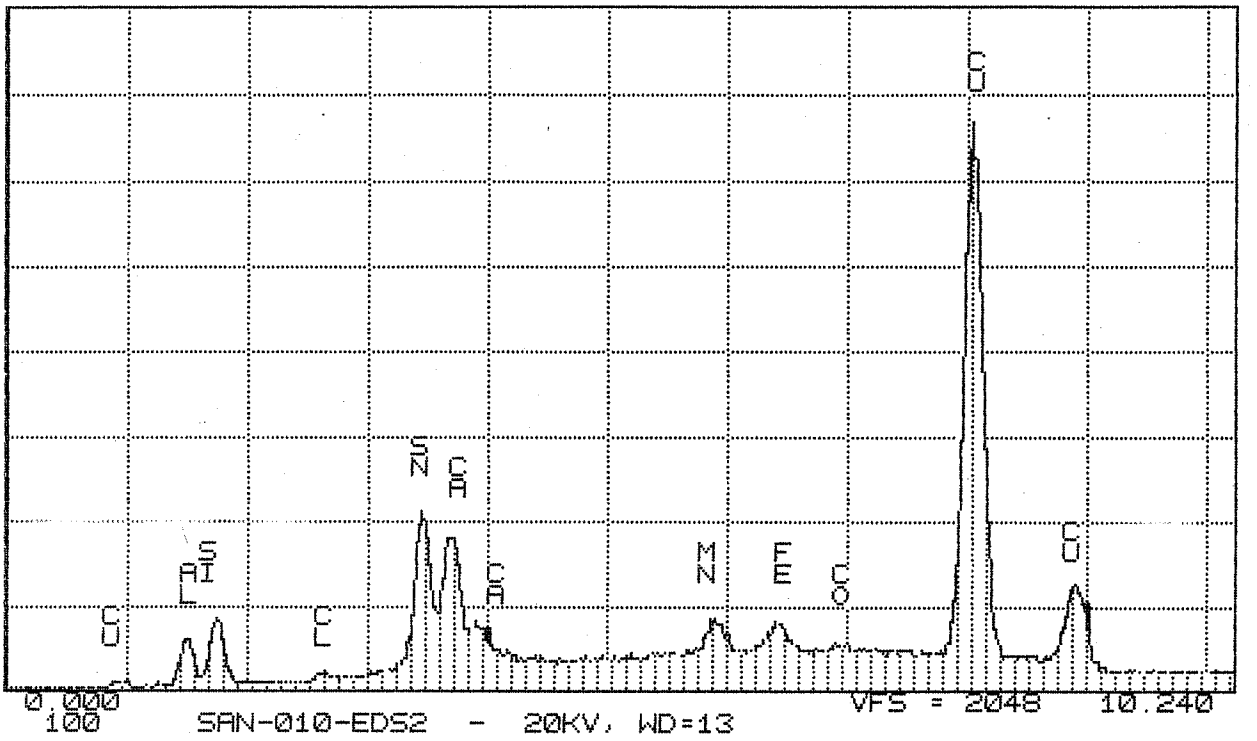

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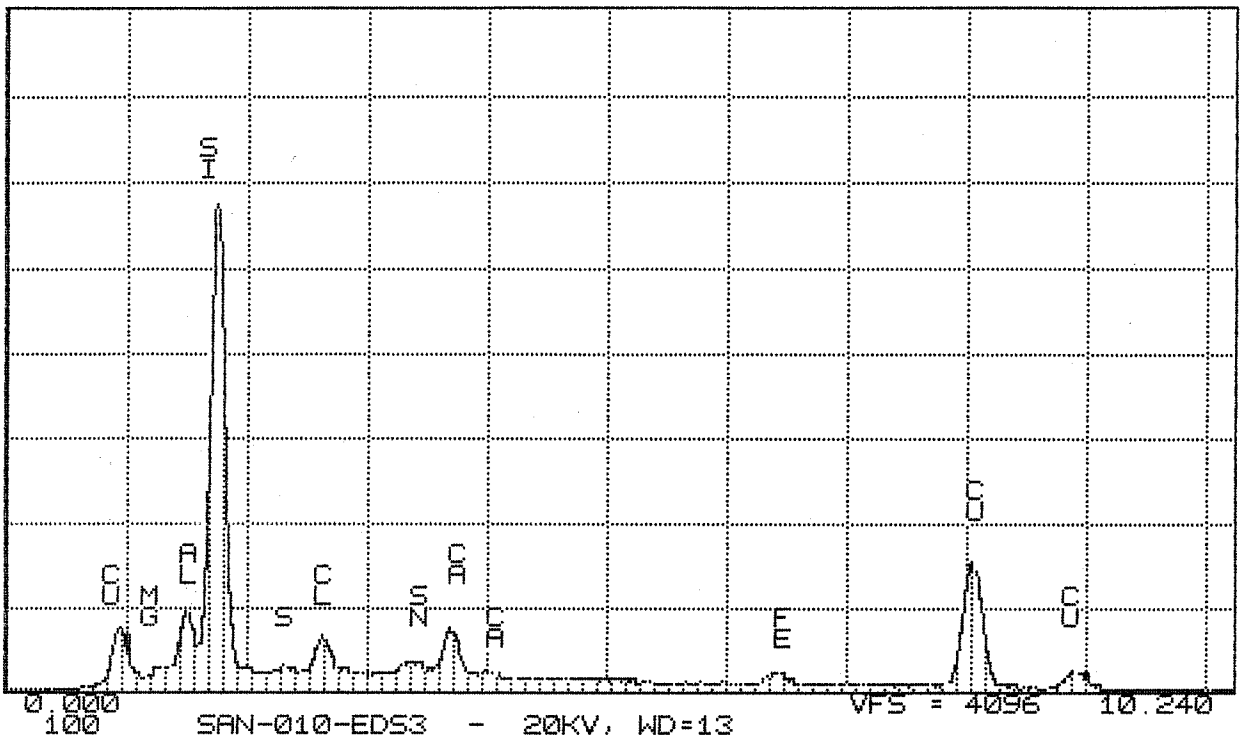

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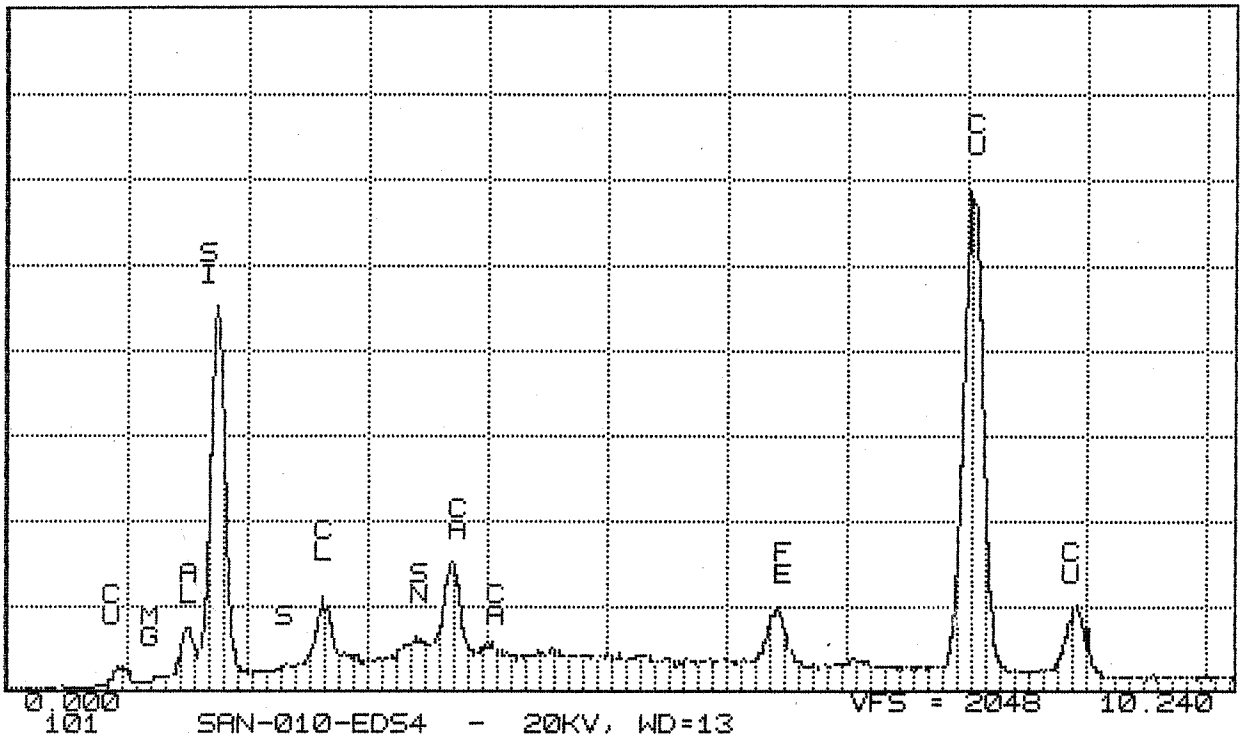

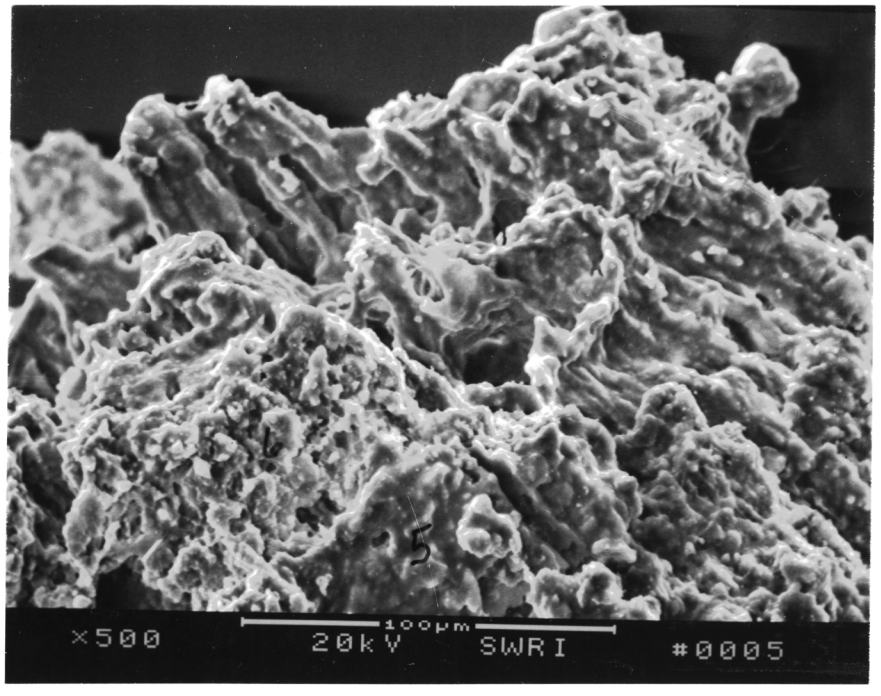
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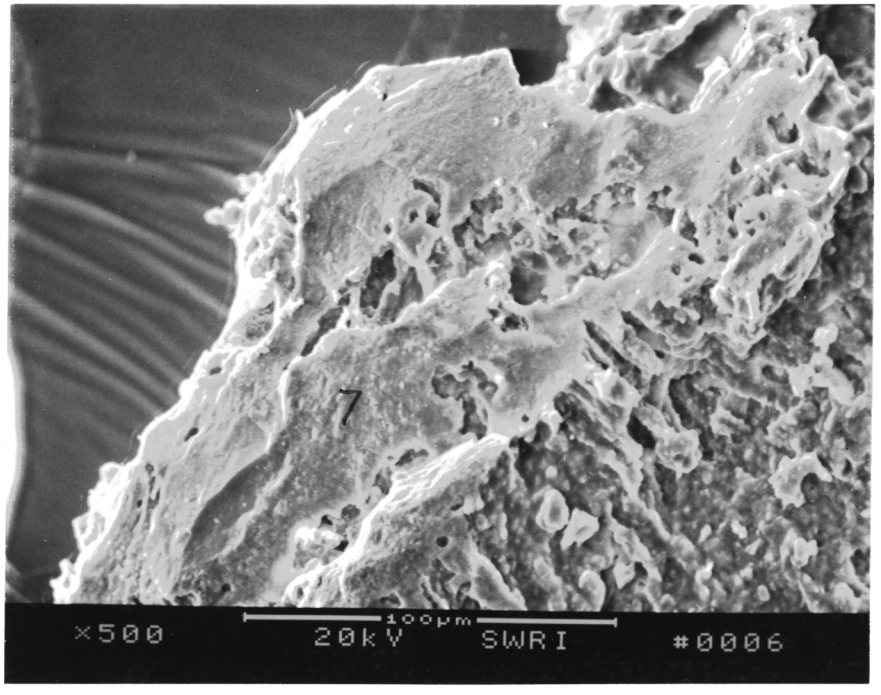
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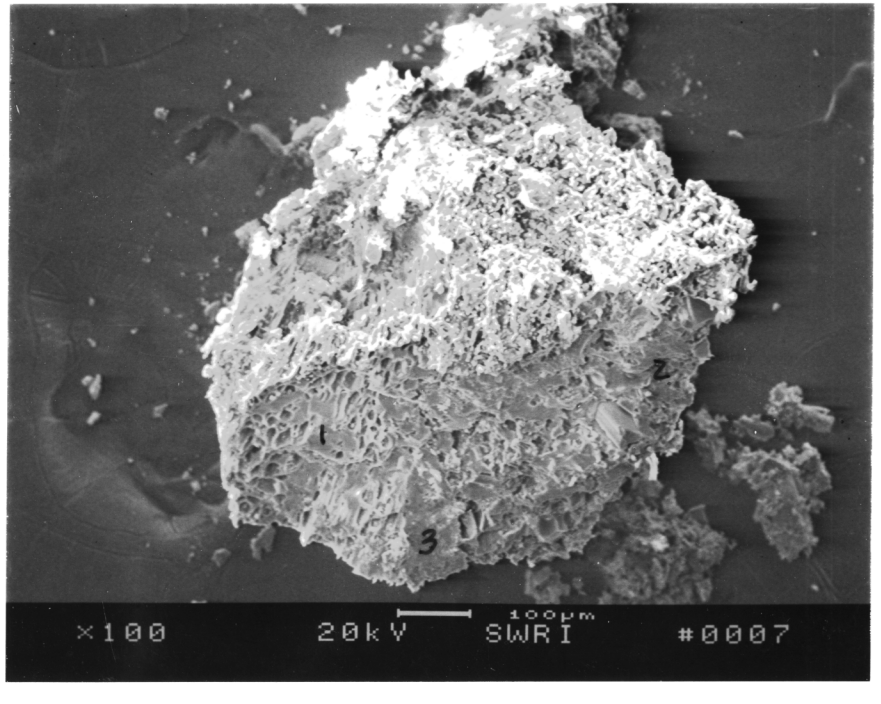
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2
3
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20kV
100μm
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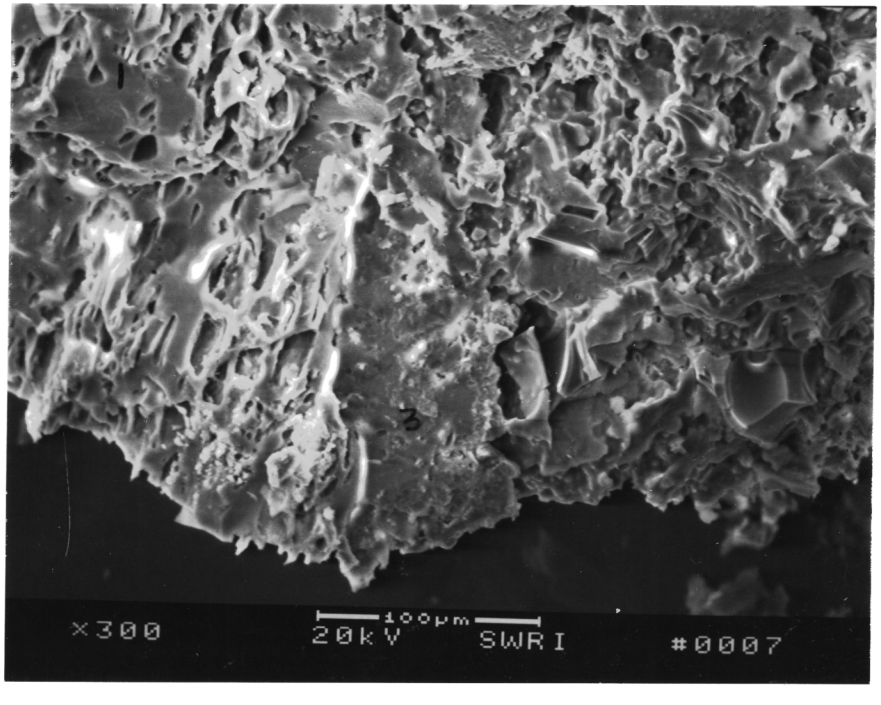
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3
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20kV
100μm
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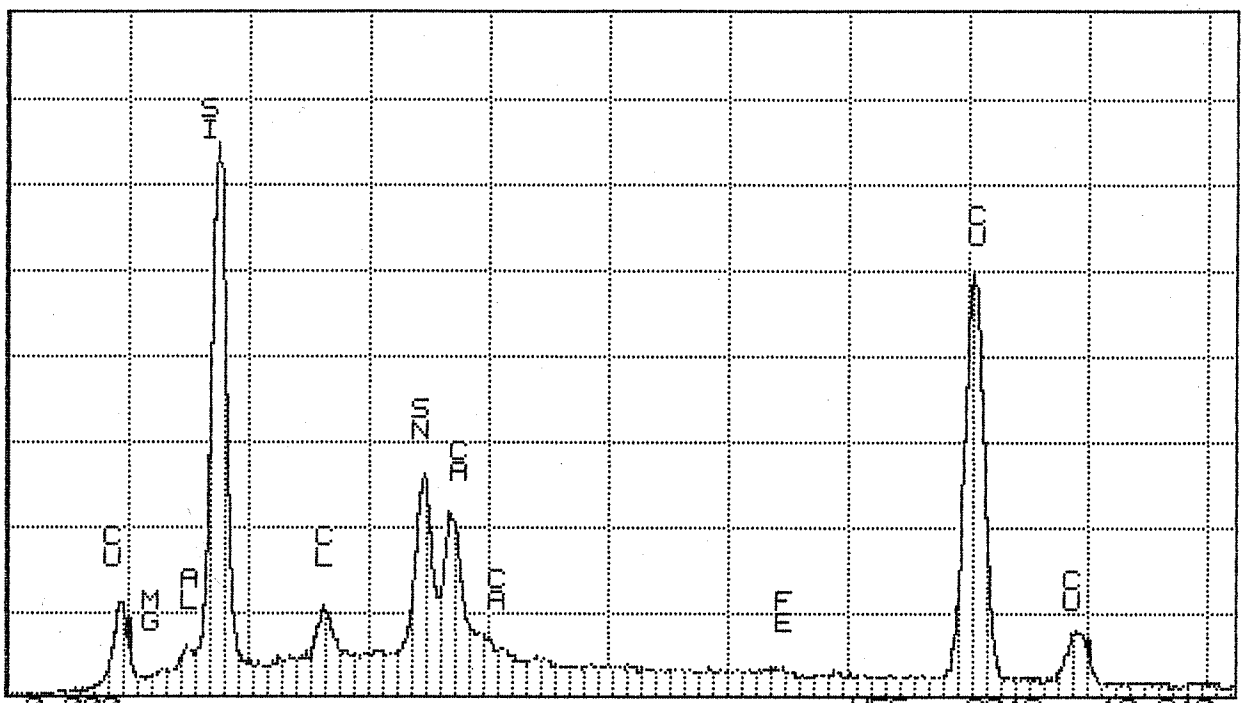

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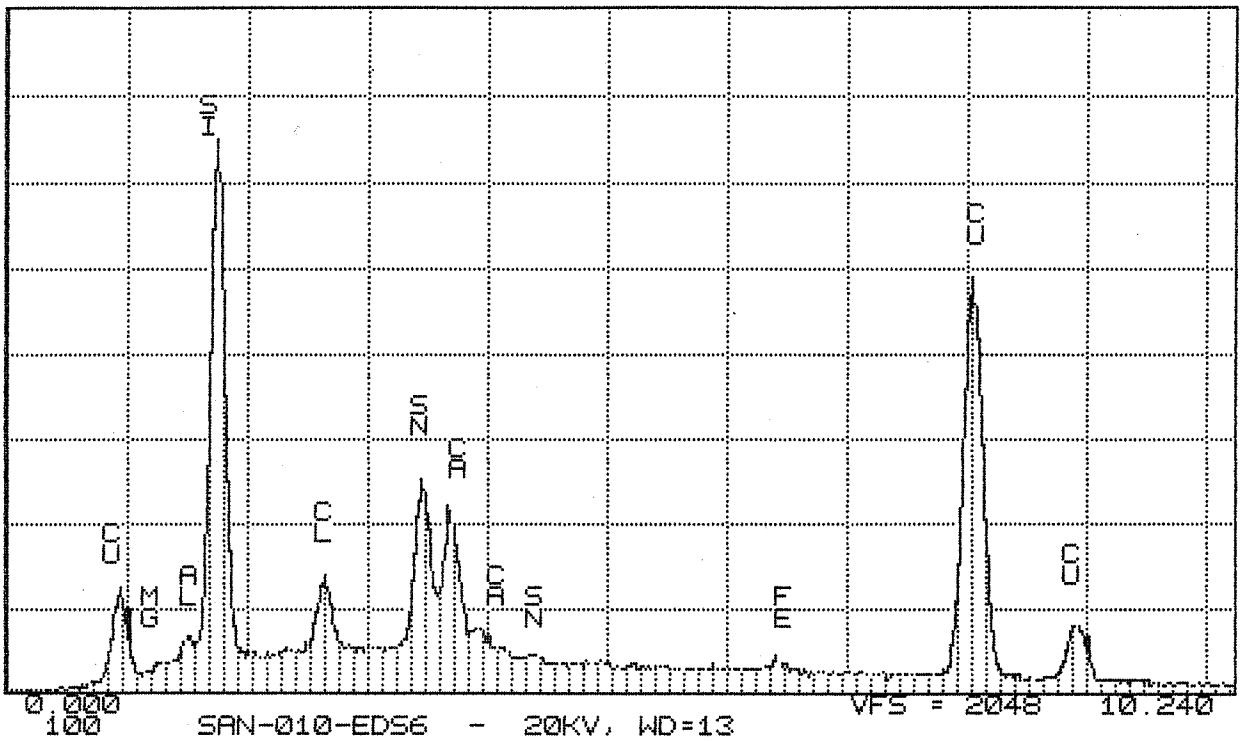

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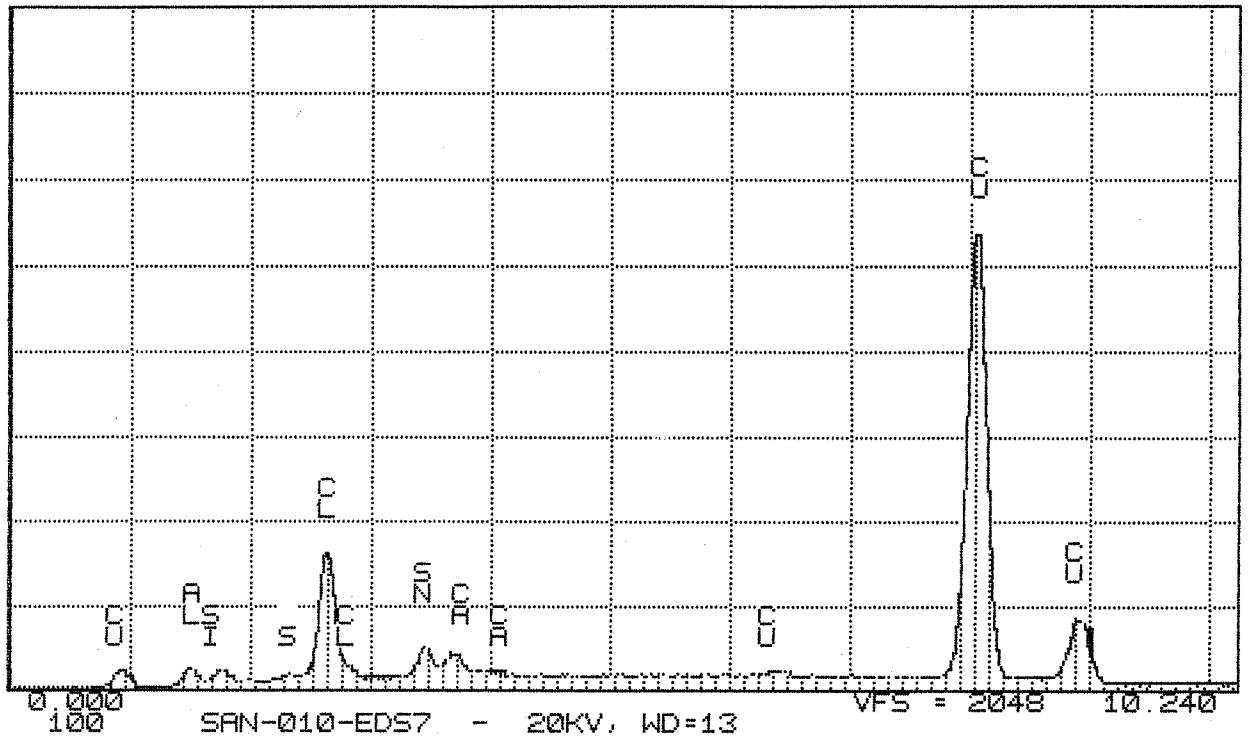

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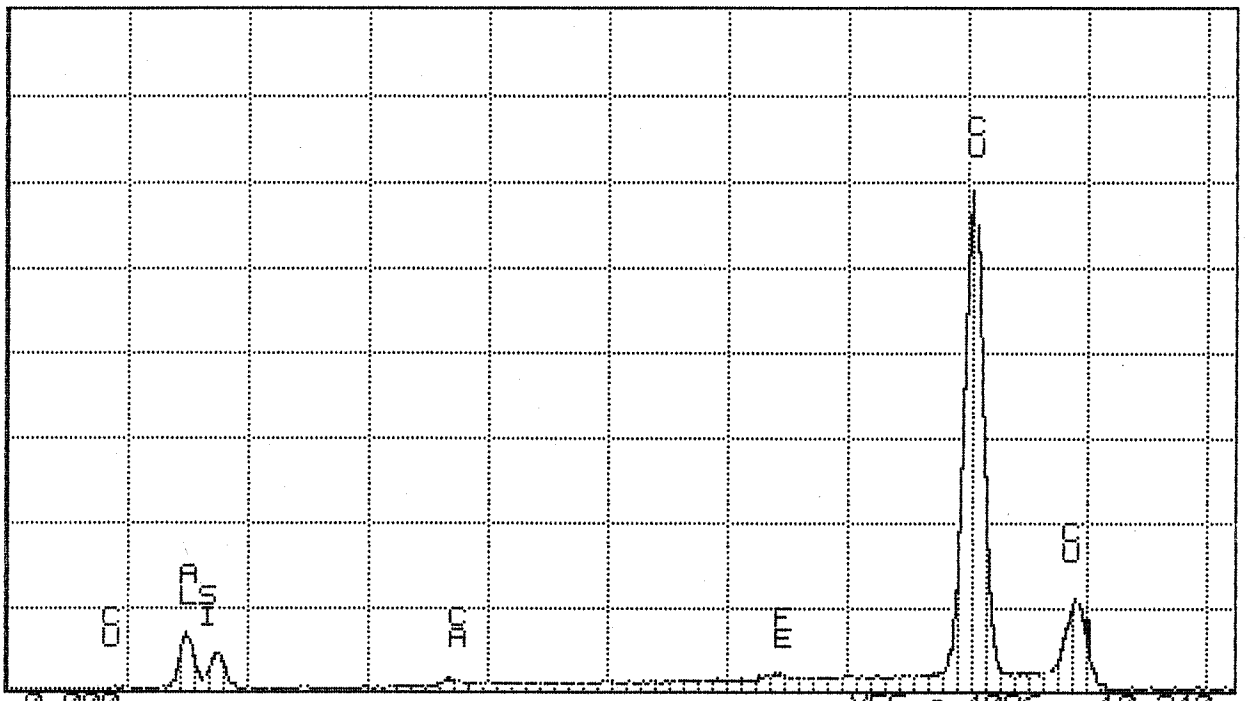

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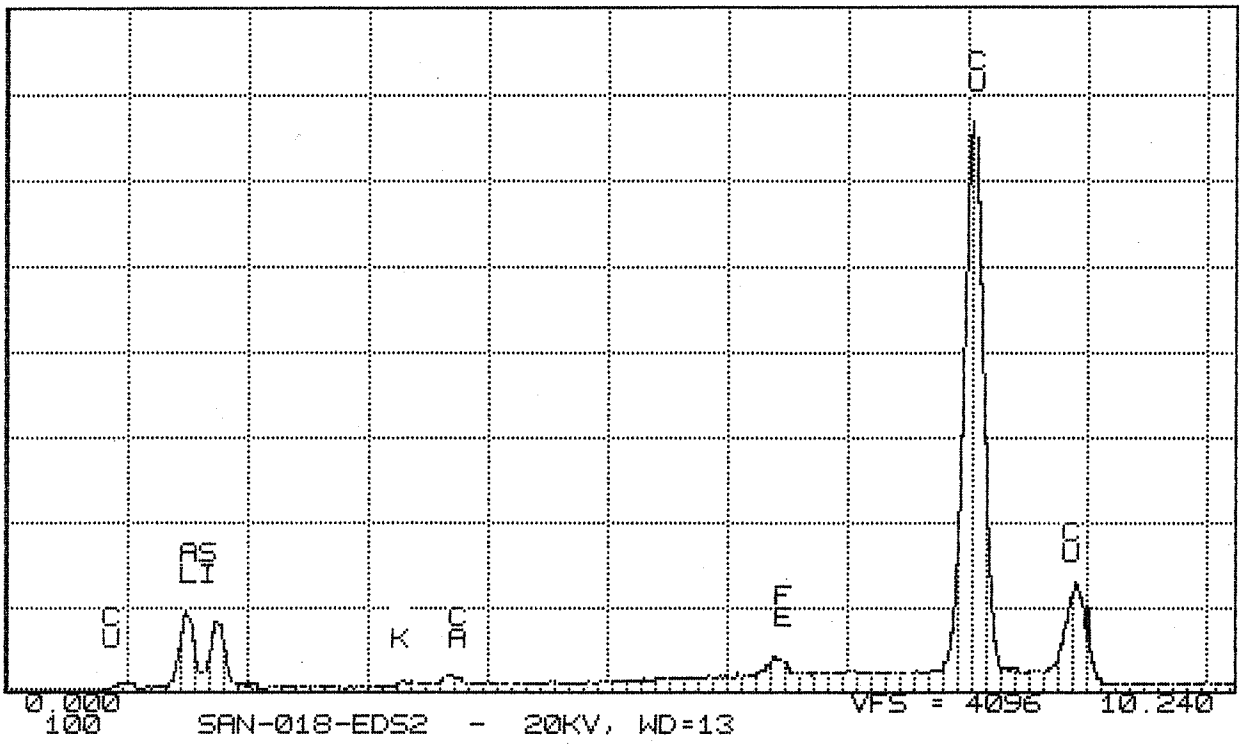

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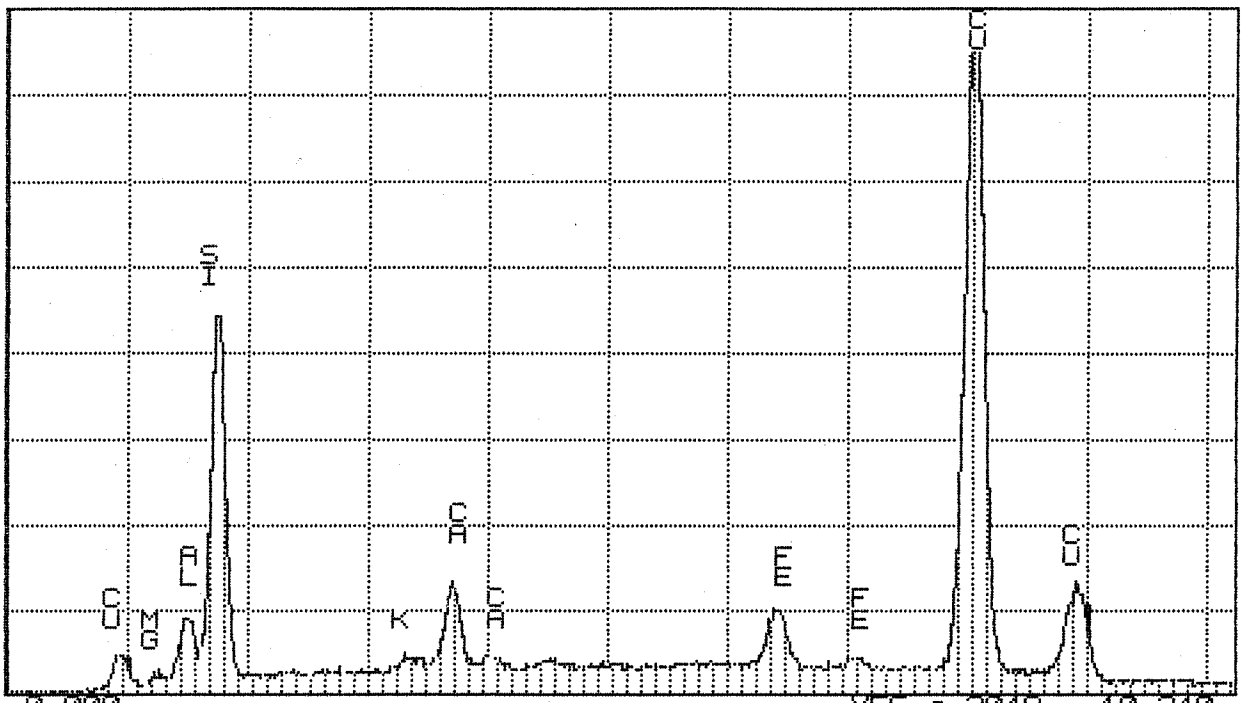

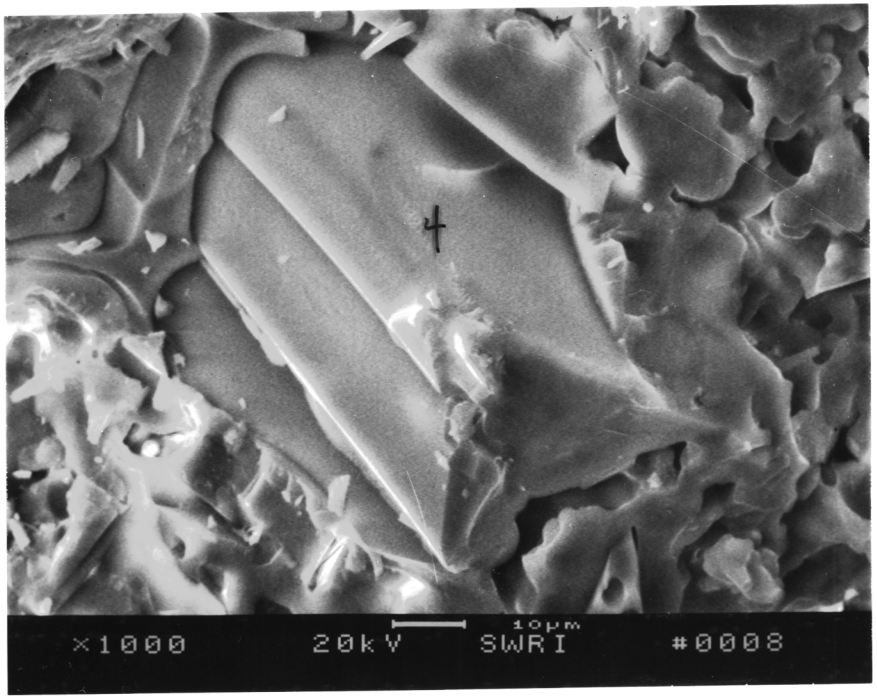
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20kV
10μm
SWRI
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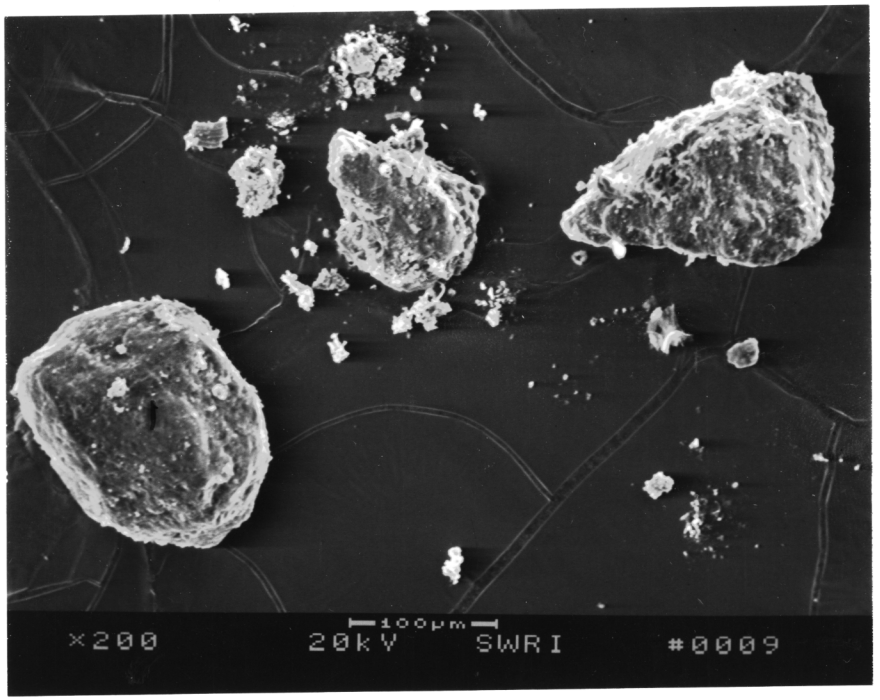
1
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20kV
100μm
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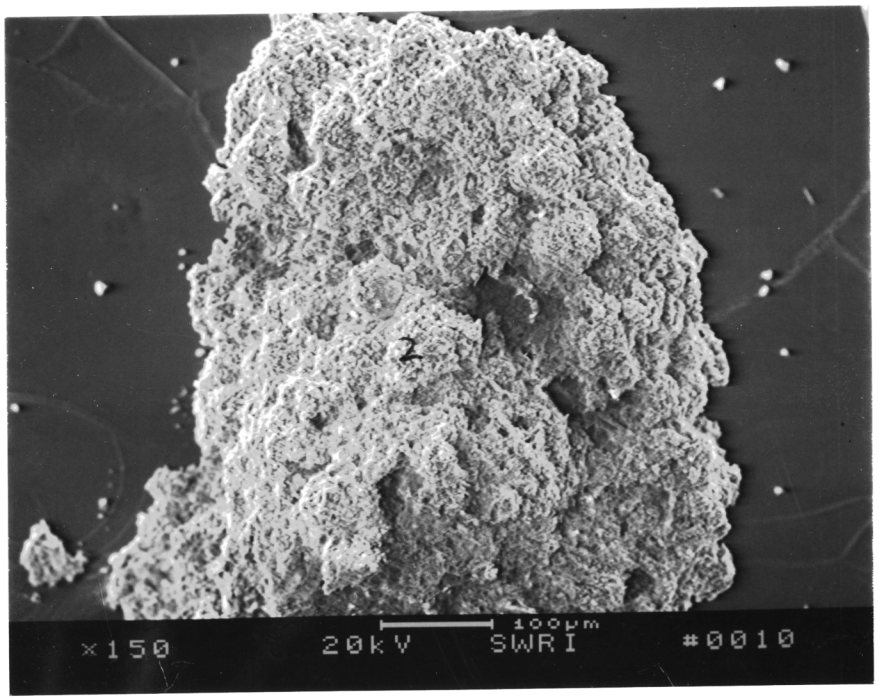
2
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20kV
100μm
SWRI
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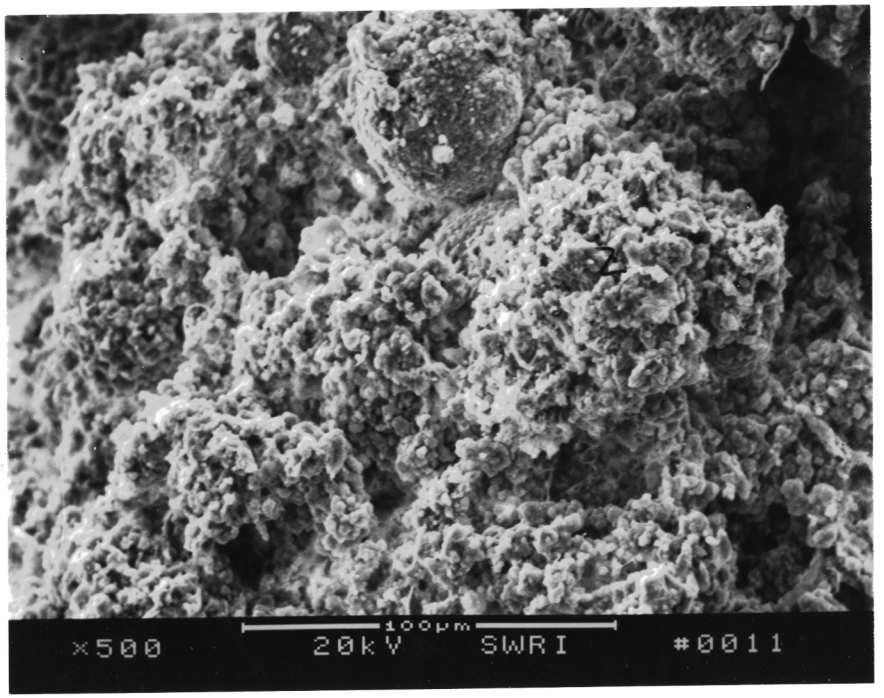
2
×500
20kV
100μm
SWRI
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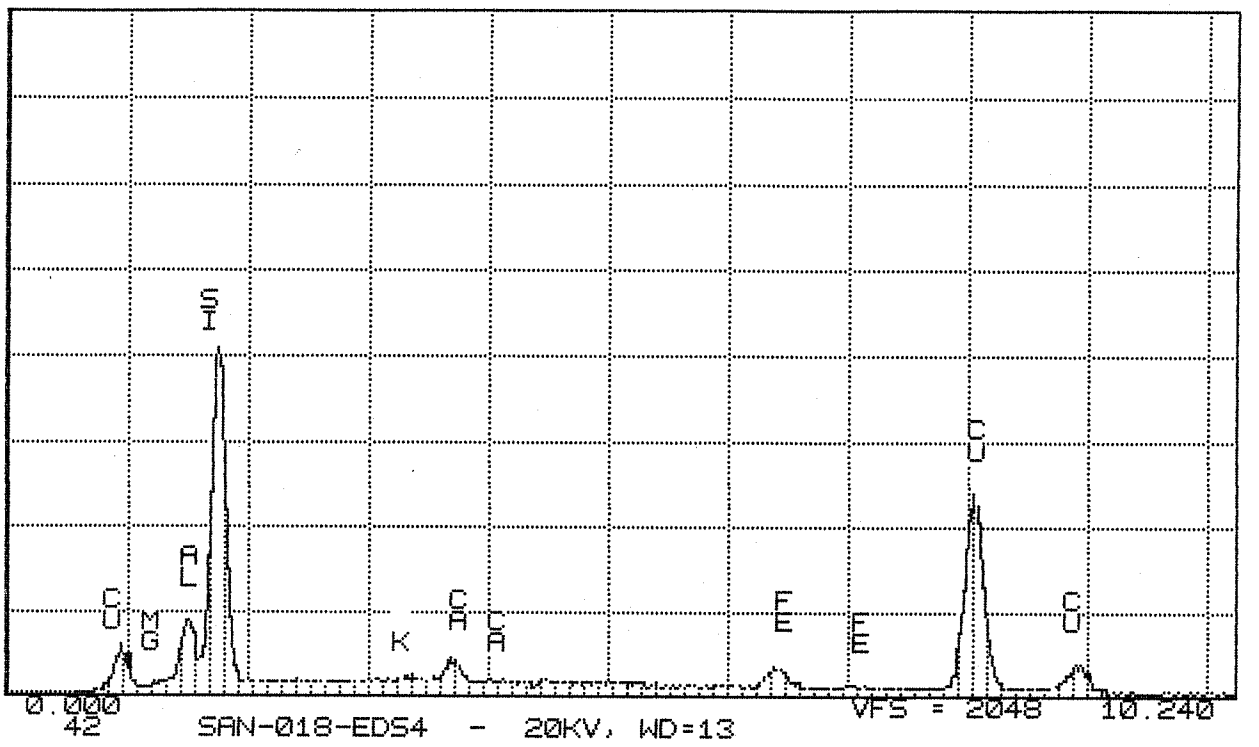

SAN-018-EDS4 - 20KV, WD=13

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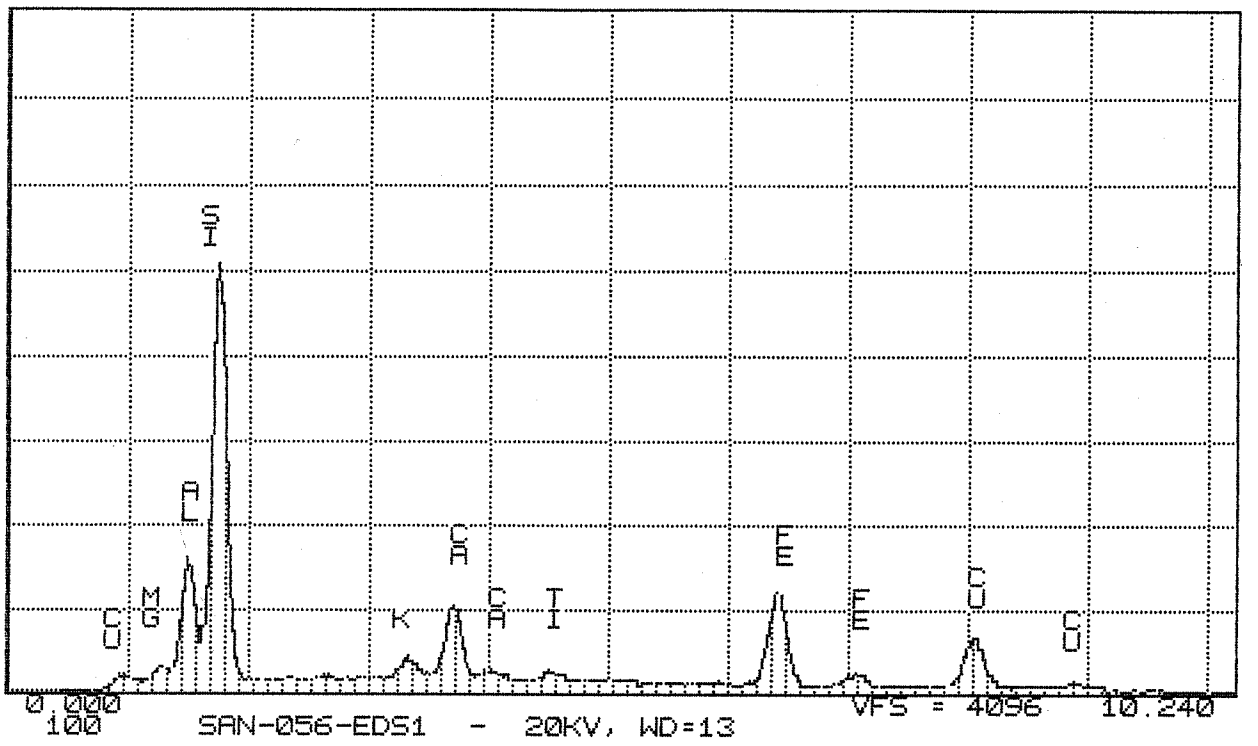

Series II Southwest Research Institute WED 03-NOV-93 15:00
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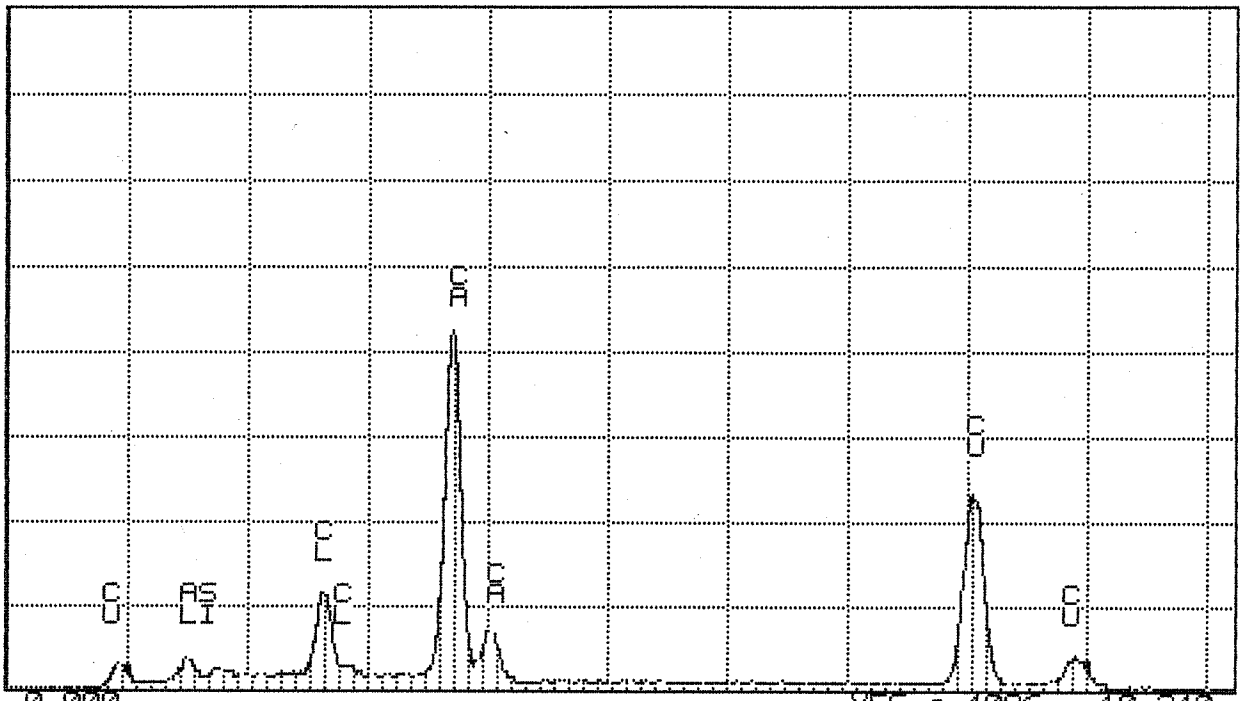
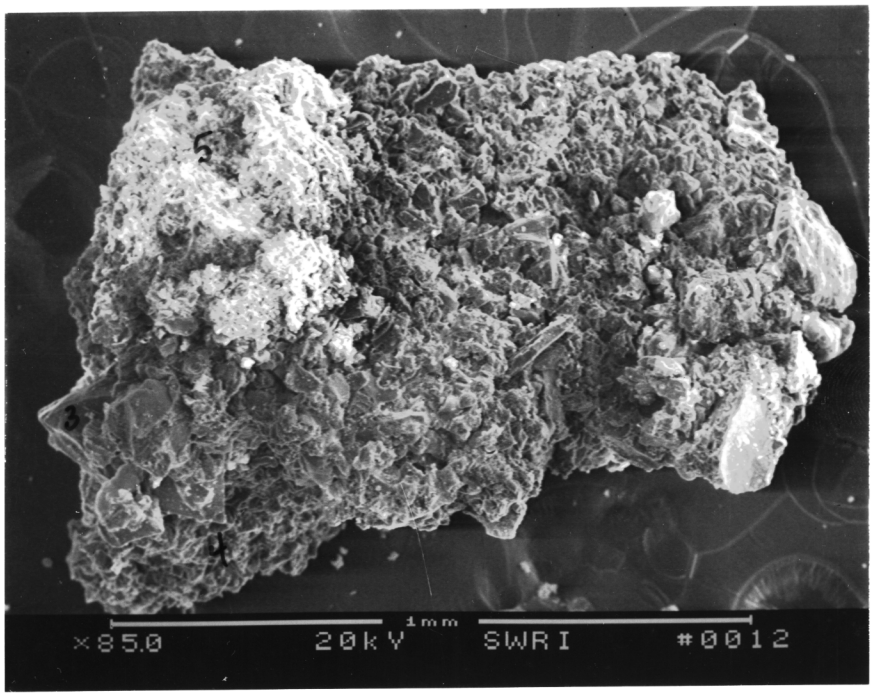
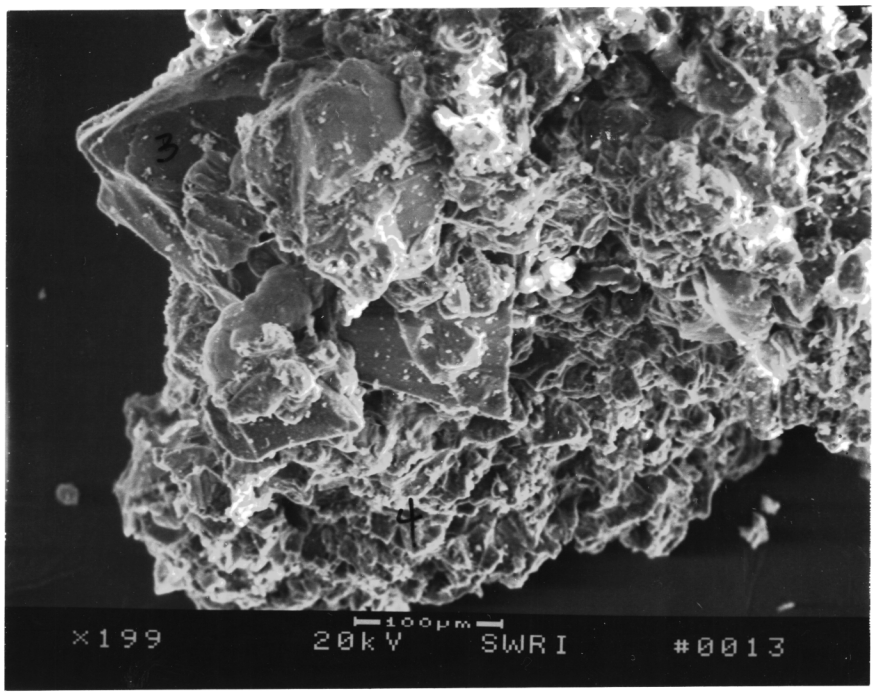
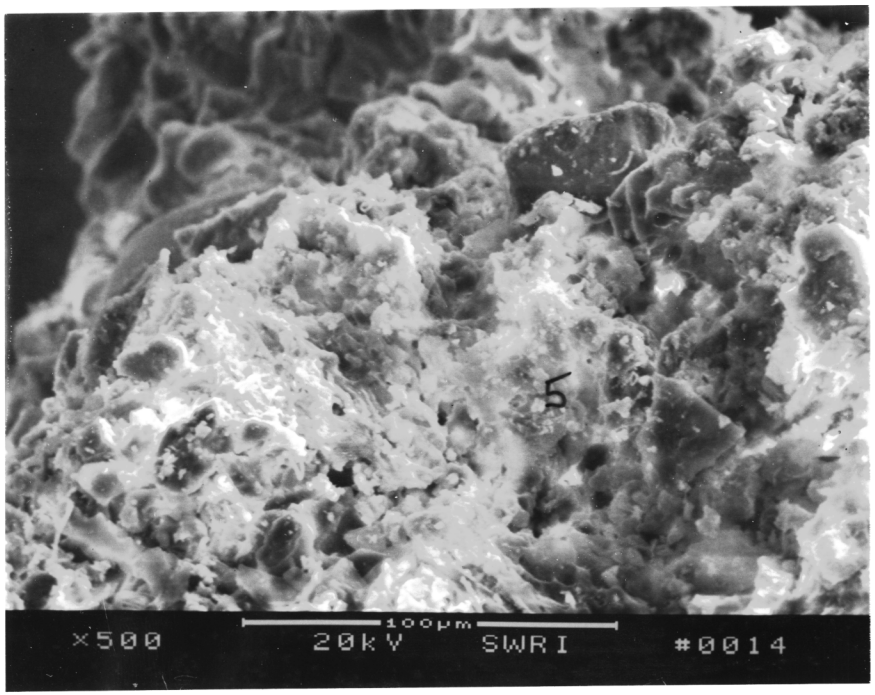
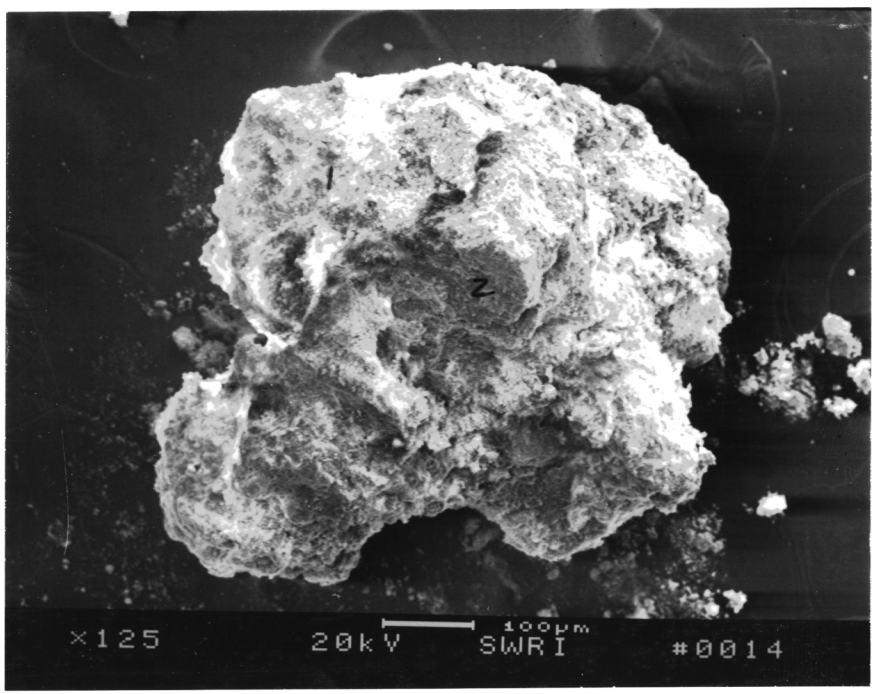



5
3
4
×85.0
1mm
20kV
SWRI
#0012


3
4
×199
100μm
20kV
SWRI
#0013


5
×500
100μm
20kV
SWRI
#0014


1
2
×125
100μm
20kV
SWRI
#0014

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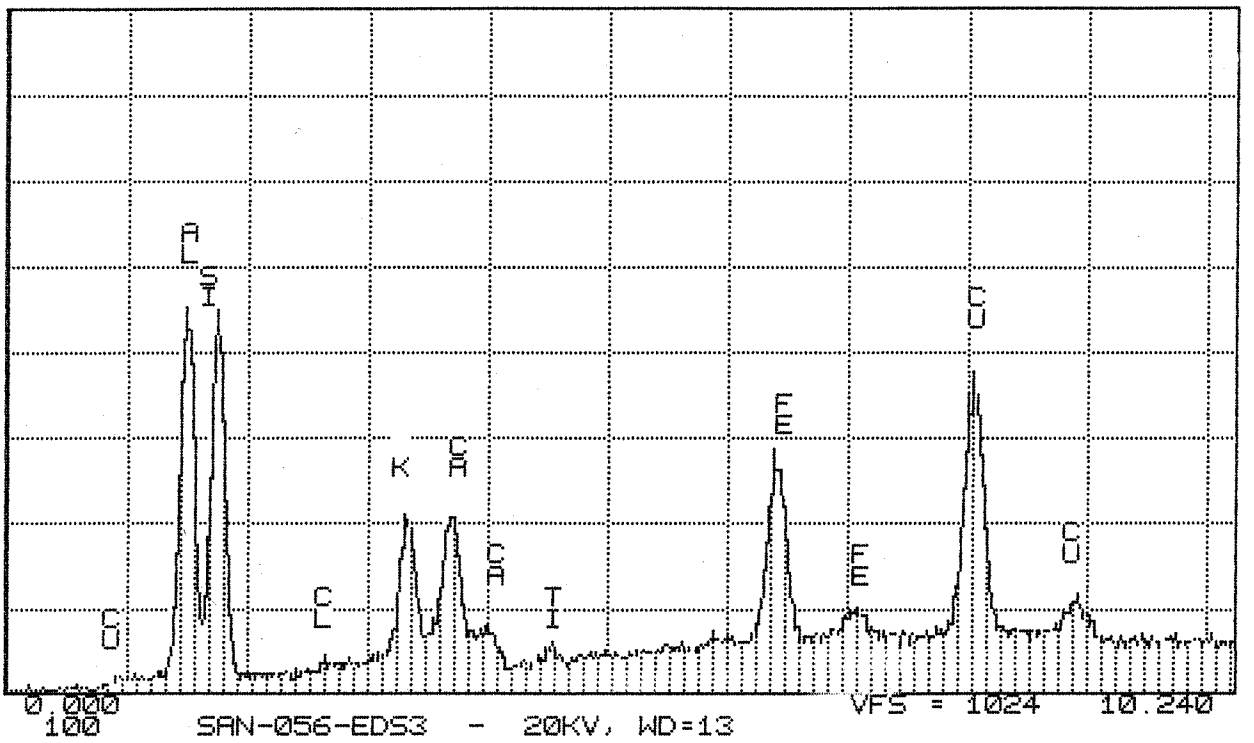

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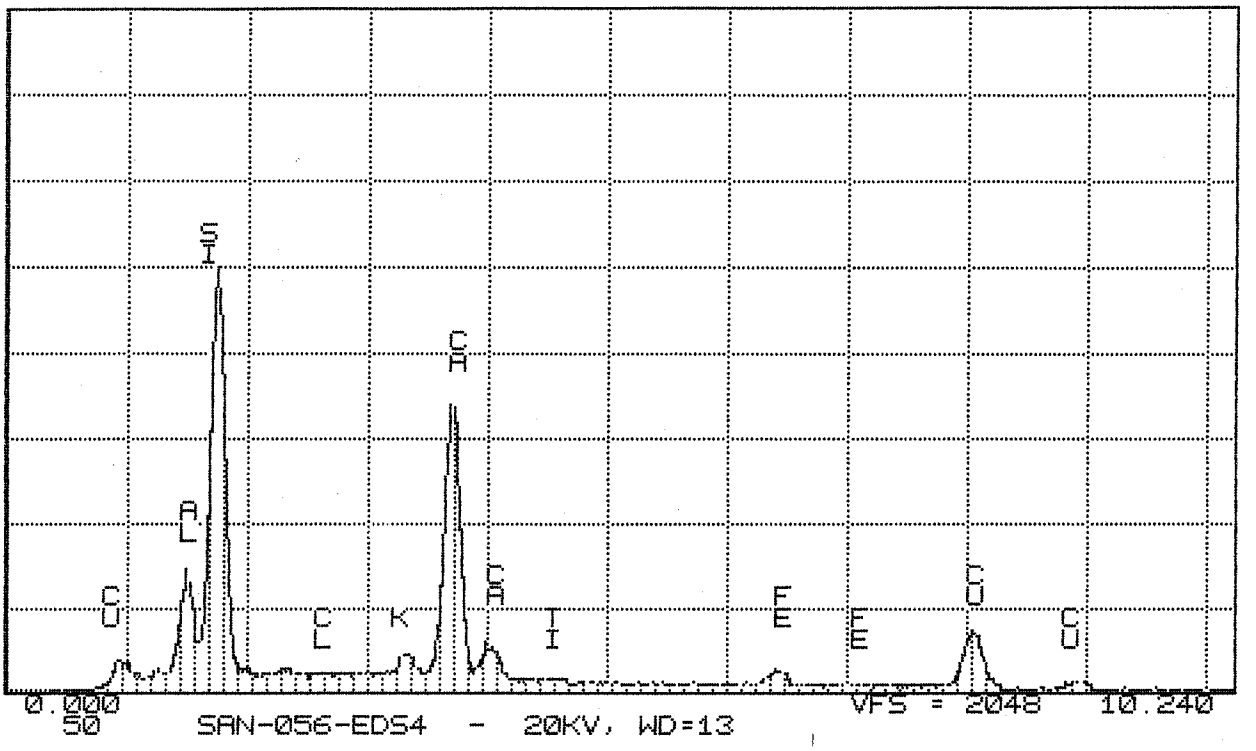

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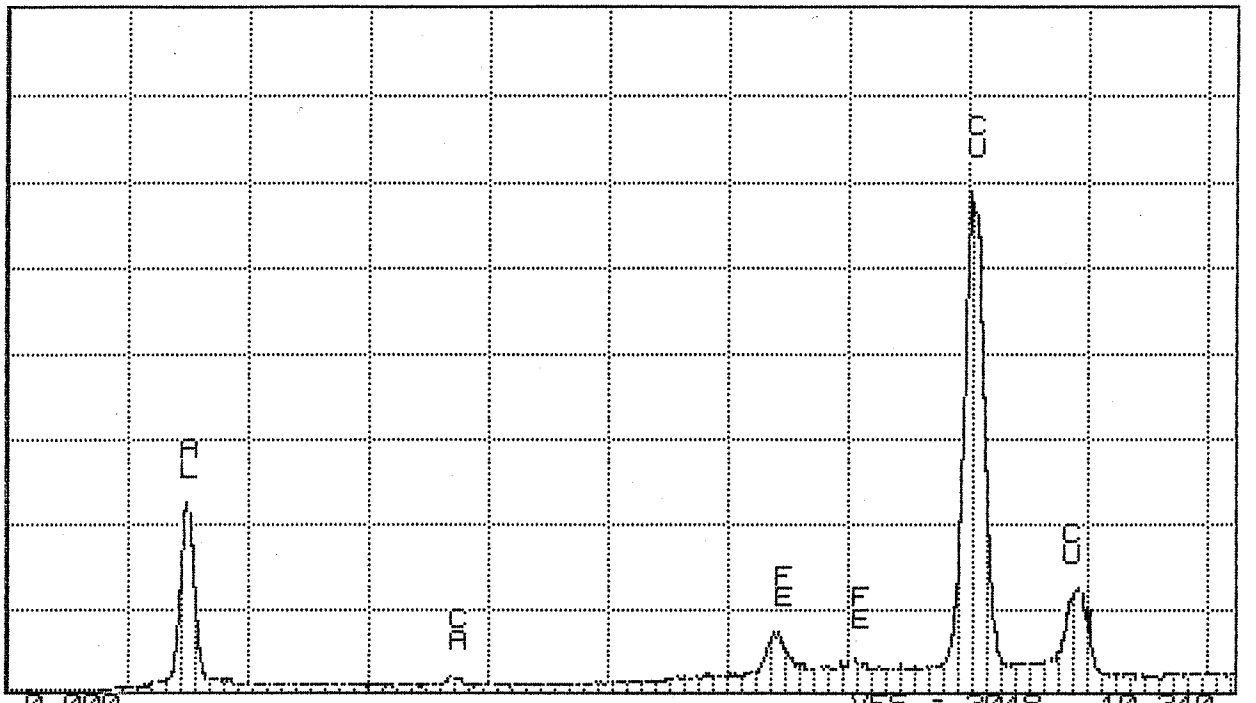

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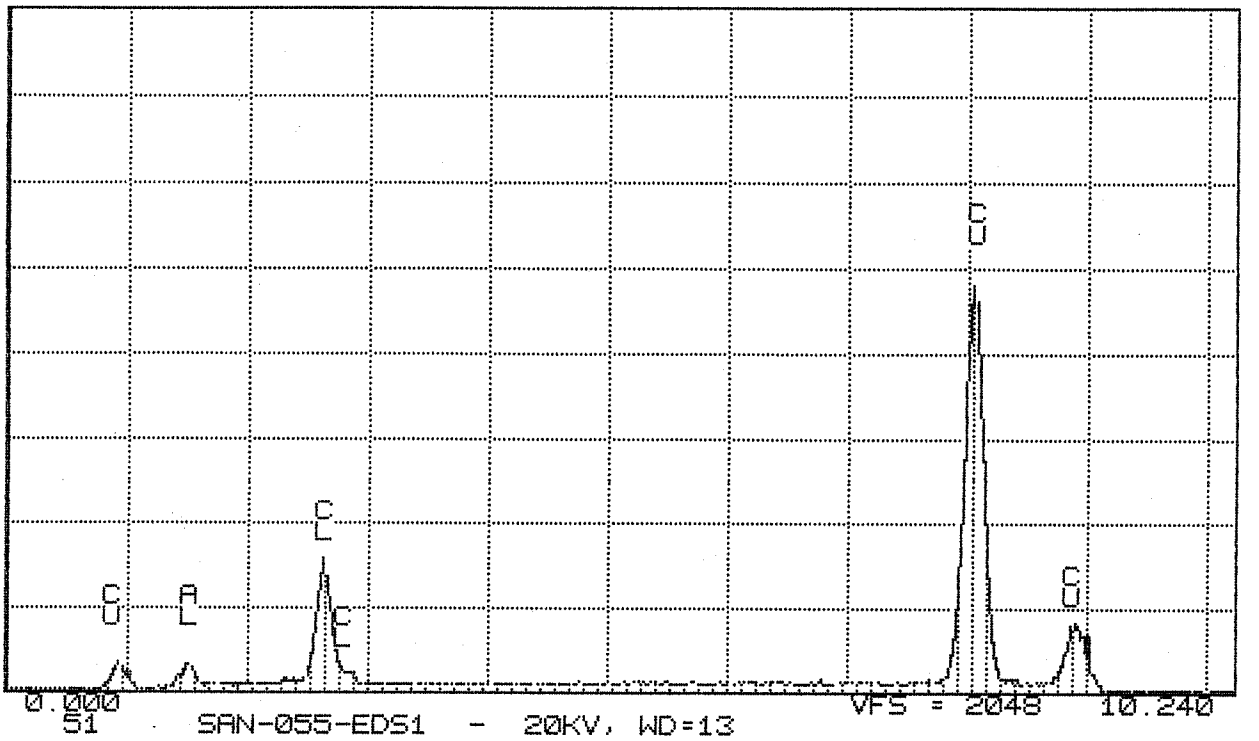

51 SAN-055-EDS1 - 20KV, WD=13

Series II Southwest Research Institute WED 03-NOV-93 15:07
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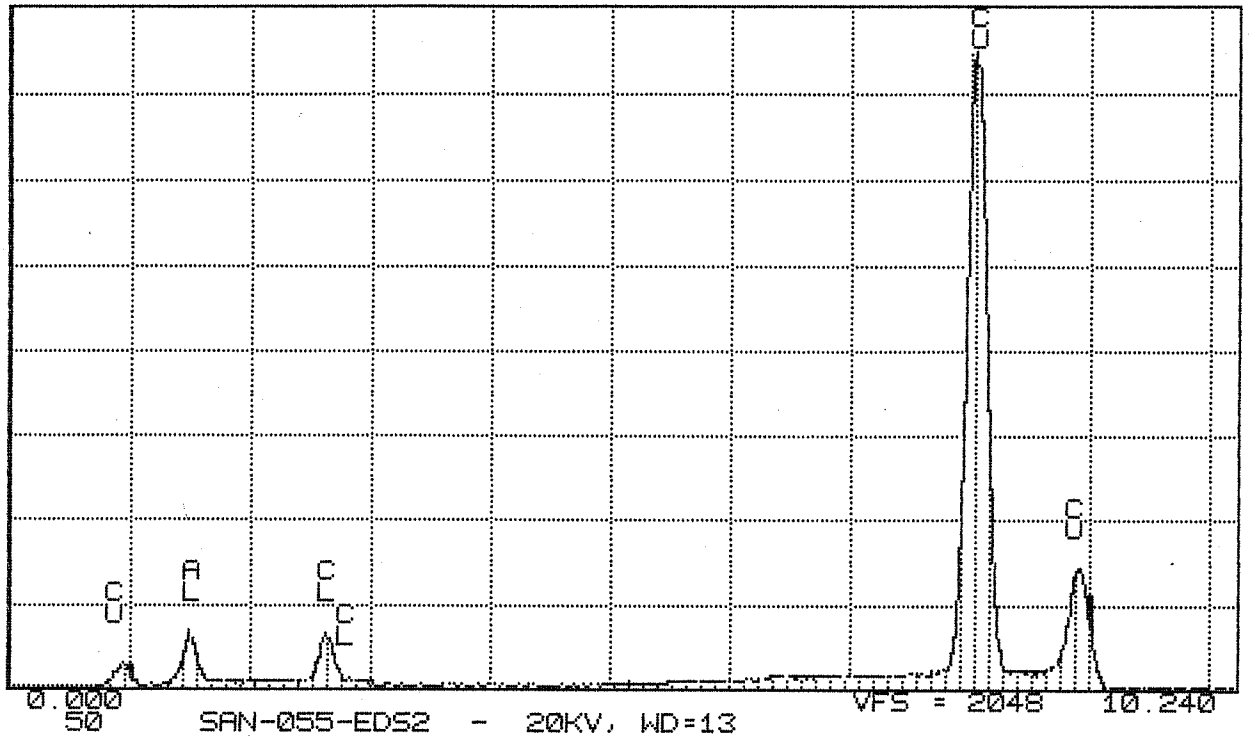
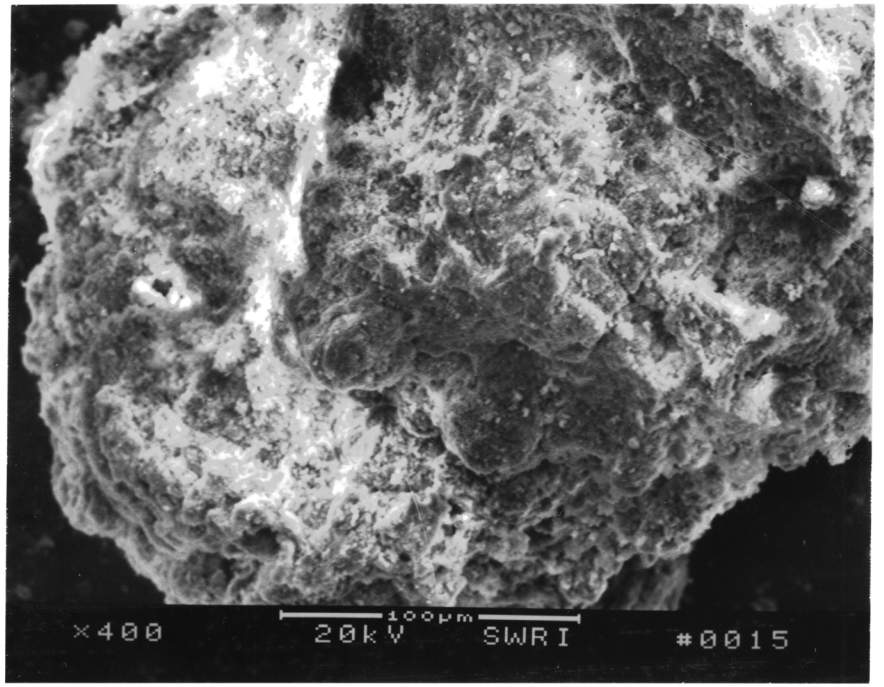
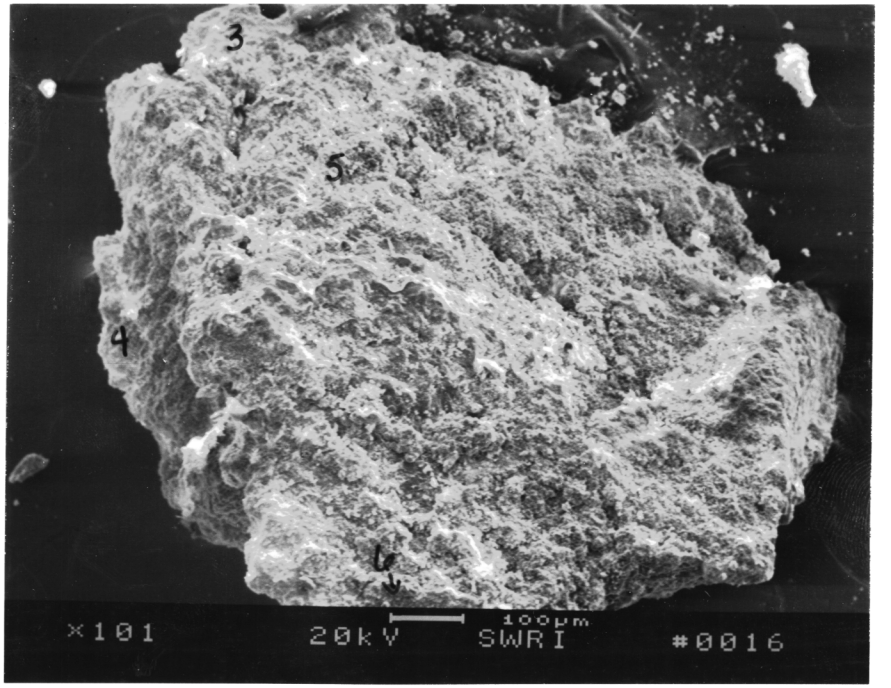
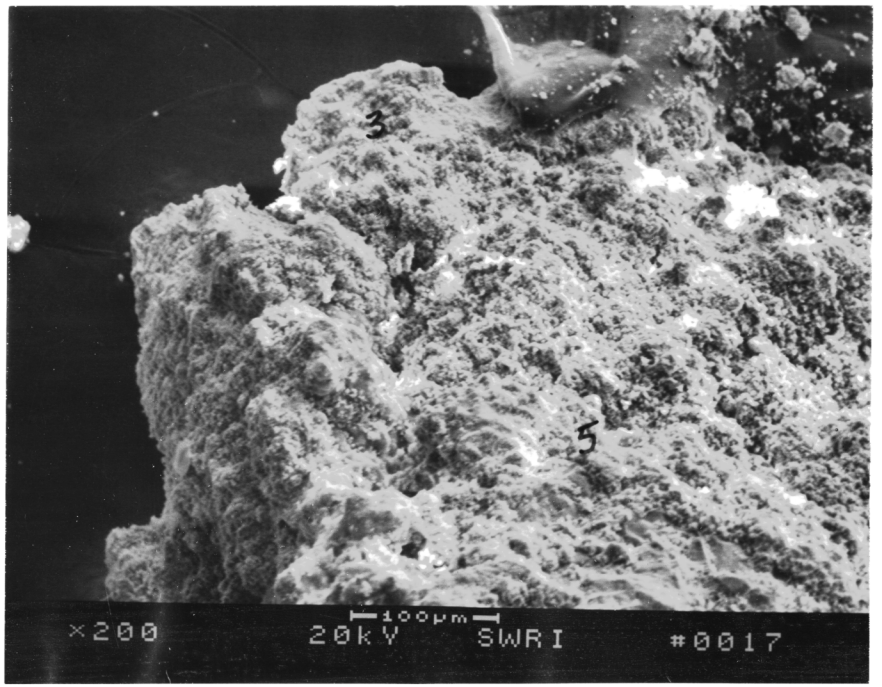
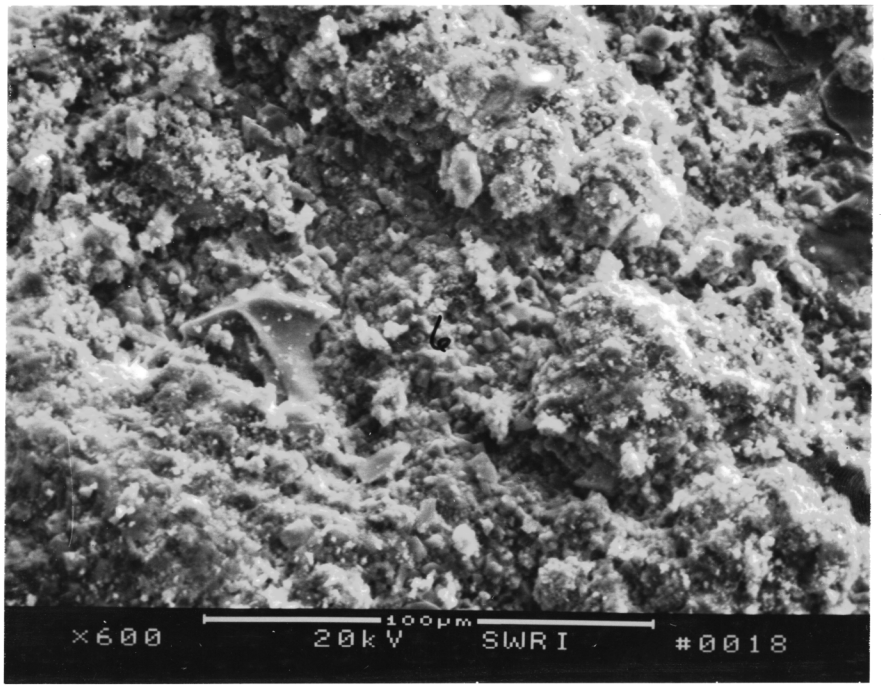



×400
100µm
20kV SWRI
#0015


3
5
4
6
×101
100µm
20kV SWRI
#0016


3
5
×200
100µm
20kV SWRI
#0017


6
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100µm
20kV SWRI
#0018

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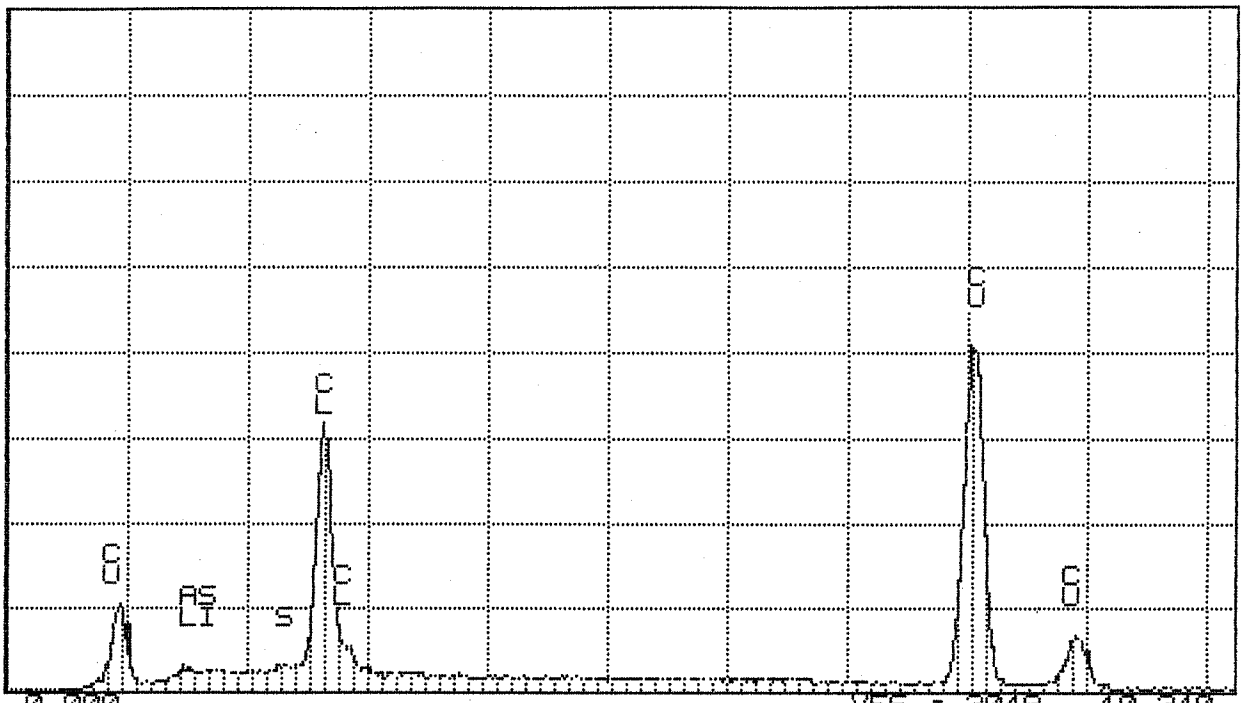

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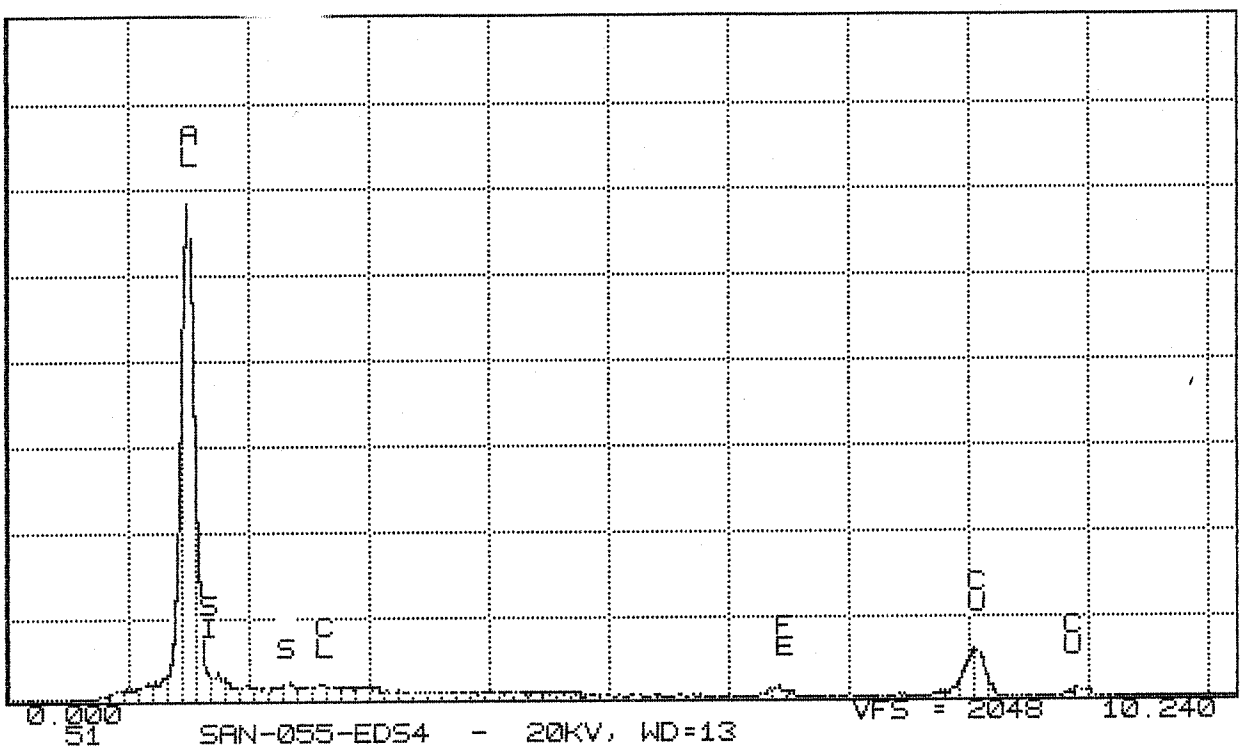

51 SAN-055-EDS4 - 20KV, WD=13

Series II Southwest Research Institute WED 03-NOV-93 15:11
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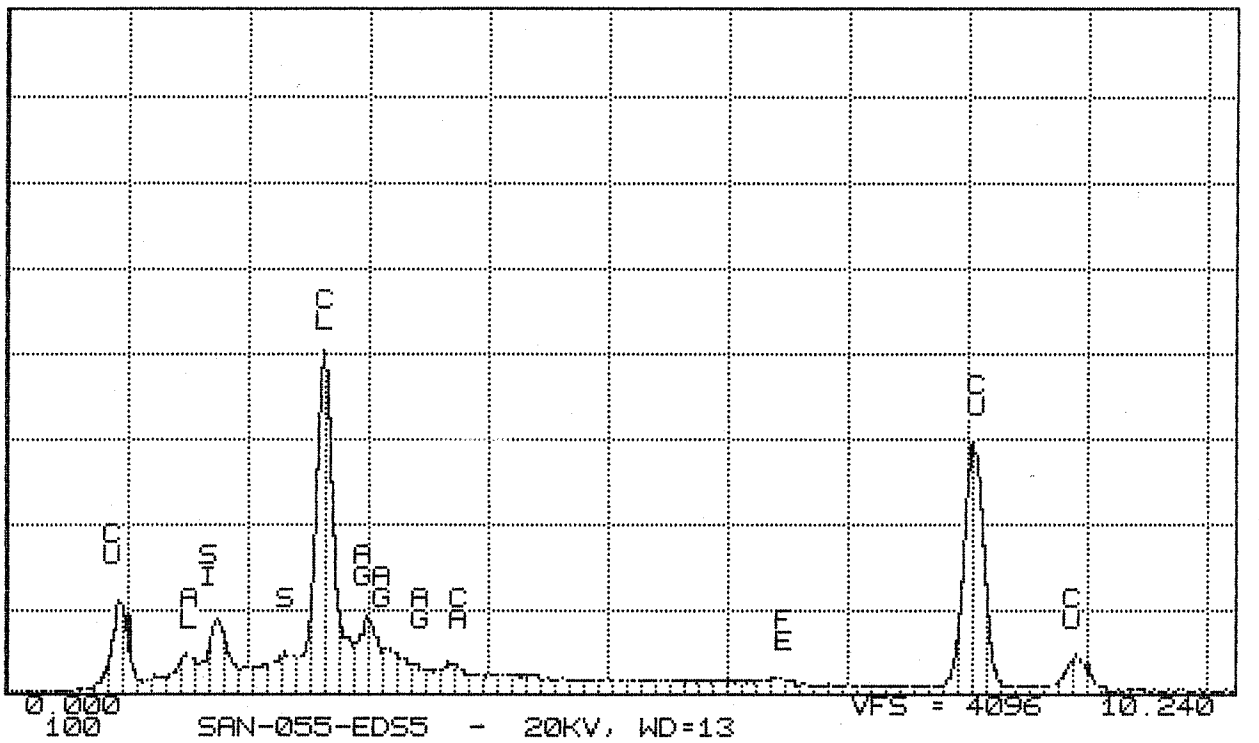

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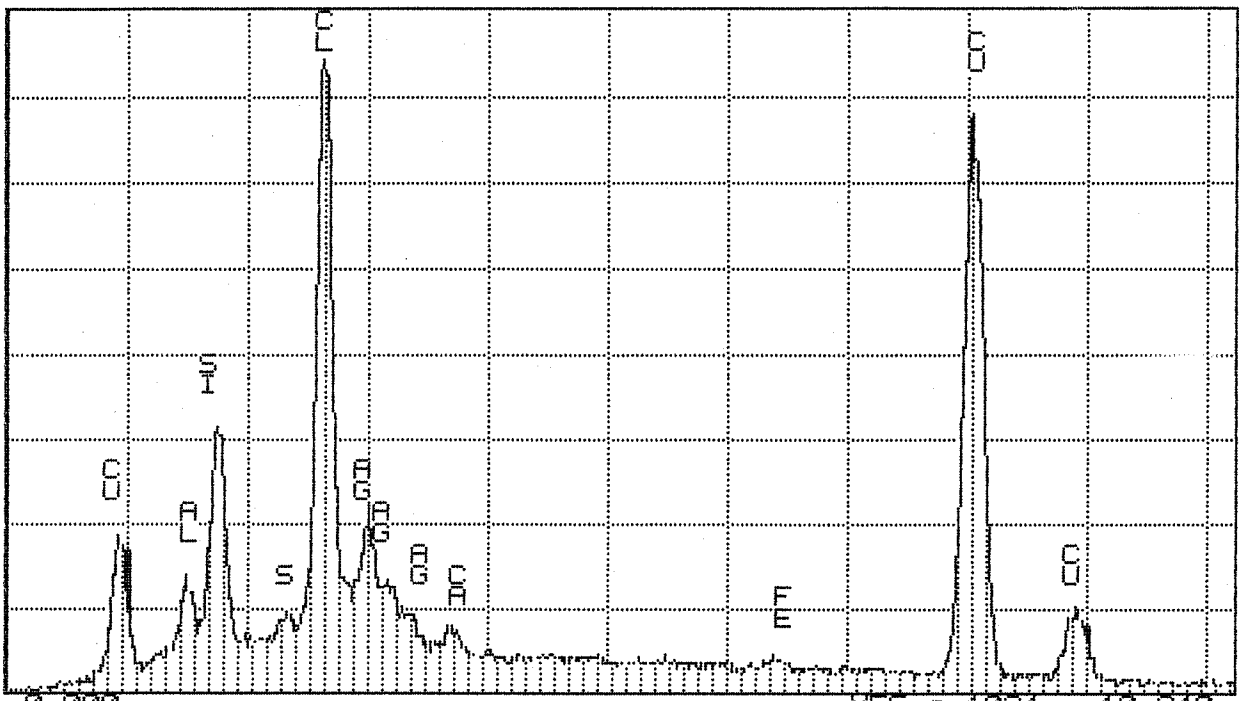


#1 -

Group of small particles (bronze in color) adjacent to large green particle.

SAN-010

Photo 1 - cluster of brass particles

Photo 2 - closeup of photo 1

SAN-010-EDS1 - Cu coating

SAN-010-EDS2 - cleaner bronze area

Photo 3 - closeup of photo 2

SAN-010-EDS3 - corrosion coating

SAN-010-EDS4 - cleaner brown area

Photo 4 - large green particle

Photo 5 - closeup of 4

SAN-010-EDS5 - smooth area on photo 5

SAN-010-EDS6 - rough area

SAN-010-EDS7 - very smooth area at edge

Photo 6 - closeup of 4 showing very smooth area at edge.

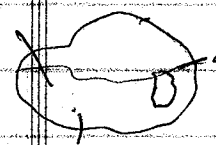
#2

SAN-018

Dark brown with green coating

Photo 1 - overview of whole pumice

SAN-018 EDS1 - dark red brown area



SAN-018 EDS2 - green area

~~SAN-0~~ SAN-018 · EDS3 - dark red smoky

Photo 2 - closeup of ~~#1~~ Photo 1

Photo 3 - closeup of euhedral crystal

SAN-018 EDS4 Euhedral crystal

#4

SAN-056 EDS 1

Small brown particle between larger particle

Photo 1 - 3 brown particle - (EDS1)

Photo 2 - Long green particle

SAN-056 EDS2 of green material

Photo 3 - close up of photo 2

Photo 4 - large brown particle with green coating

SAN-056 EDS3 very dark material - smooth surface

SAN-056 EDS4 grainy stuff below. EDS3

Photo 5 - photo showing EDS area 3+4

SAN-056 EDS5 grainy material at top

Photo 6 - photo of EDS5 area.

#3

SAN-055

Smaller particle

SAN-055 EDS1 - CuCl

SAN-055 EDS2 - mostly Cu - smooth inside area.

Photo 1 overview

Photo 2, closeup of #1

Larger particle

Photo 3 - overview

SAN-055 EDS3 gray

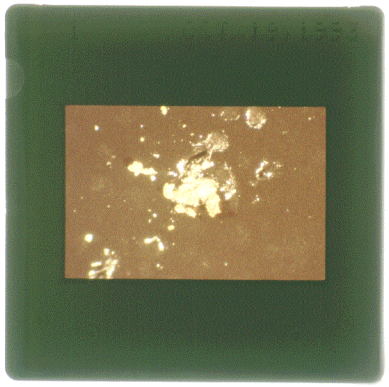
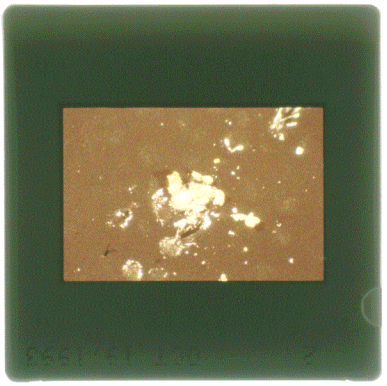
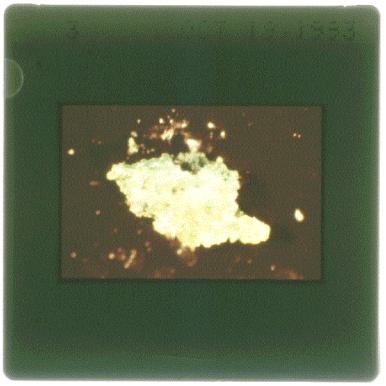
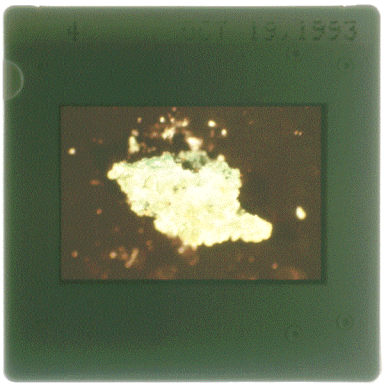
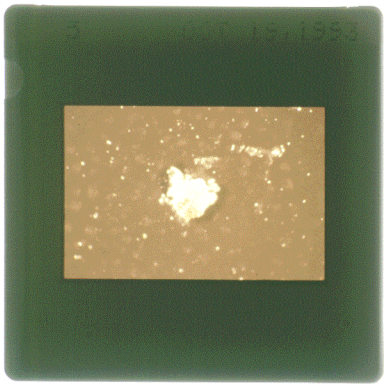
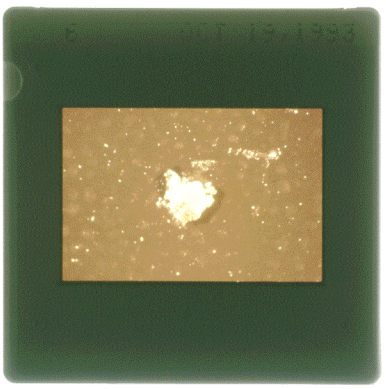
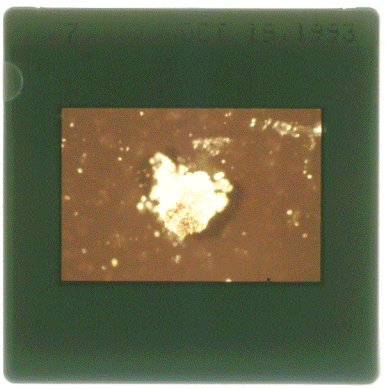
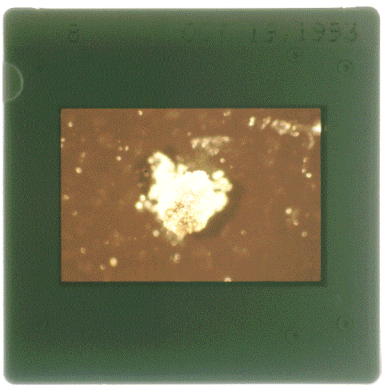
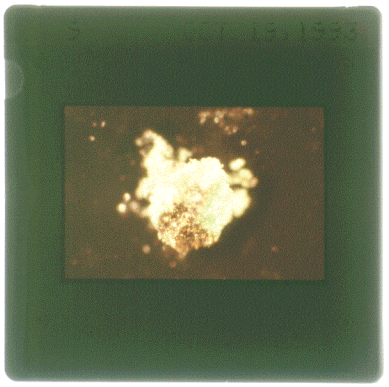
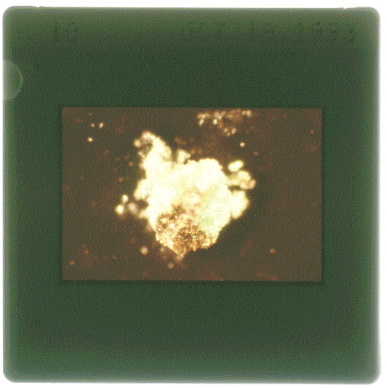
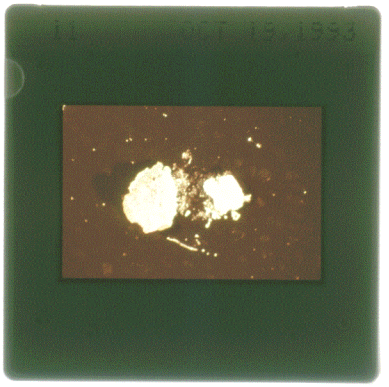
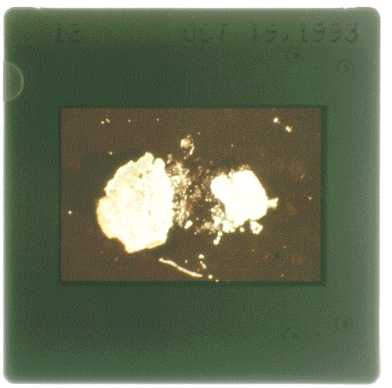
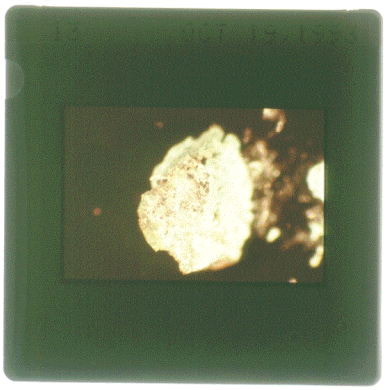
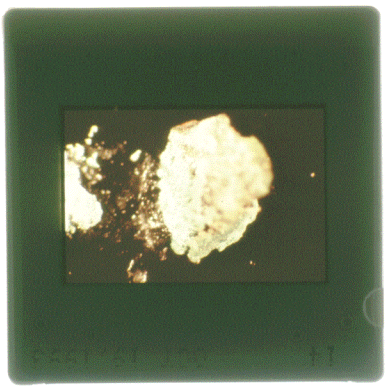
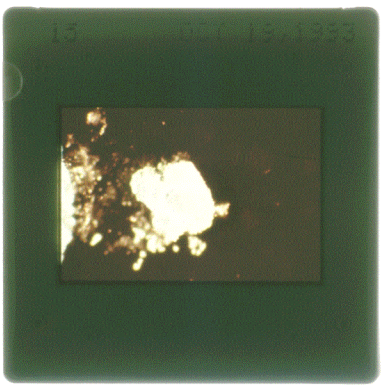
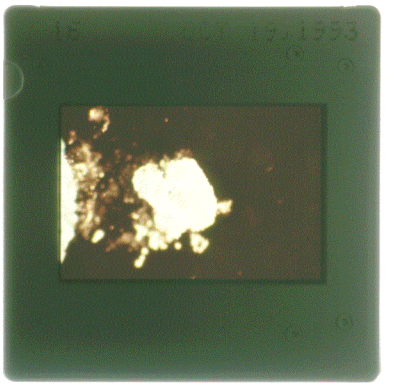
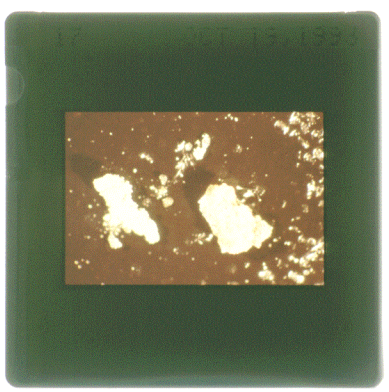
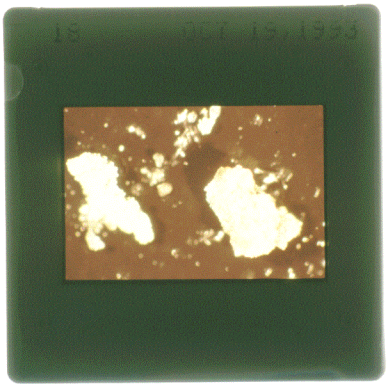
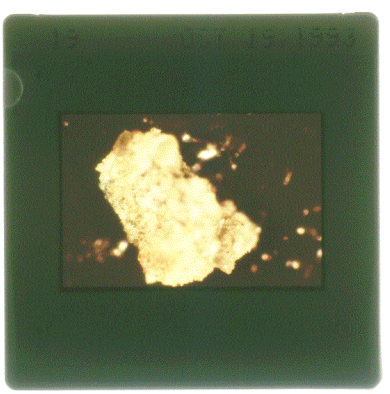
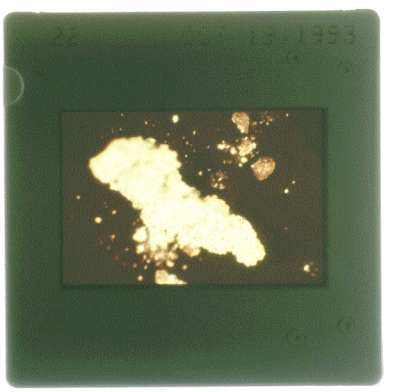
SAN-055 EDS4 smooth edge

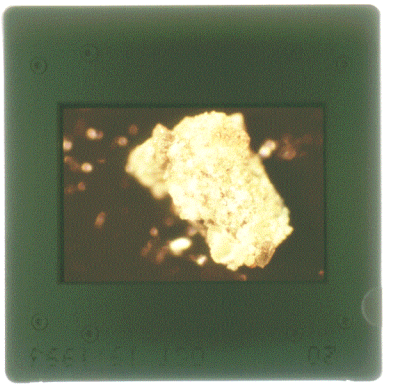
SAN-055 EDS5 middle area

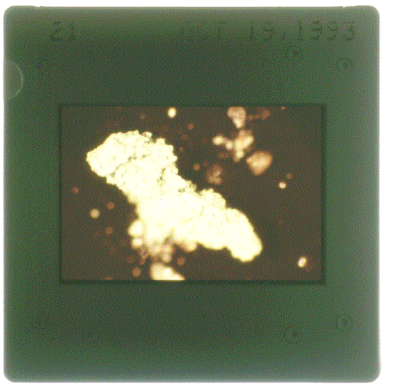
Photo 4 - closeup of 3 with 3 areas EDSed previously

SAN 055-ED6 lower area of particle

Photo 5 closeup of lower part of particle





PHOTOGRAPHY

Photographer: JP

Type of photography: Santorini Corrosion Fragments for SEM

Date: 10/18/93

Microscope: Nikon

Camera: Nikon

Film: Elite slide

Photo No.	Sample No. and description		Obj. FOV	Light
1	SAN-010	Green and gold-brown corrosion products.	3.7x(10x)	
2	"	"	4.2x(10x)	
3	"	Gold-brown material	6.3x(10x)	
4	"	"	6.3x(10x)	
5	"	Green material	6.3x(10x)	
6	"	"	6.3x(10x)	
7	SAN018	Green and red-brown material	2.8x(10x)	
8	"	"	2.8x(10x)	
9	"	"	4.2x(10x)	
10	"	"	4.2x(10x)	
11	"	"	6.3x(10x)	
12	"	"	6.3x(10x)	

Lost

1 ↓ 2 ↓

PHOTOGRAPHY

Photographer: Microscope:

Type of photography: Camera:

Date: Film:

Photo No.	Sample No. and description		Obj. FOV	Light
13	SAN055	Green + brown material	3.0x (10x)	
14	"	"	4.2x (10x)	
15	"	large particle with brown material	6.3x (10x)	
16	"	"	6.3x (10x)	
17	"	Green particle smaller	6.3x (10x)	
18			6.3x (10x)	
19	SAN056	Green + brown particle	2.8x (10x)	
20	"		3.6x (10x)	
21	"	Brown particle	6.3x (10x)	
22	"	"	6.3x (10x)	
23	"	Green particle	6.3x (10x)	
24	"	" with small brown particles in clay	6.3x (10x)	