

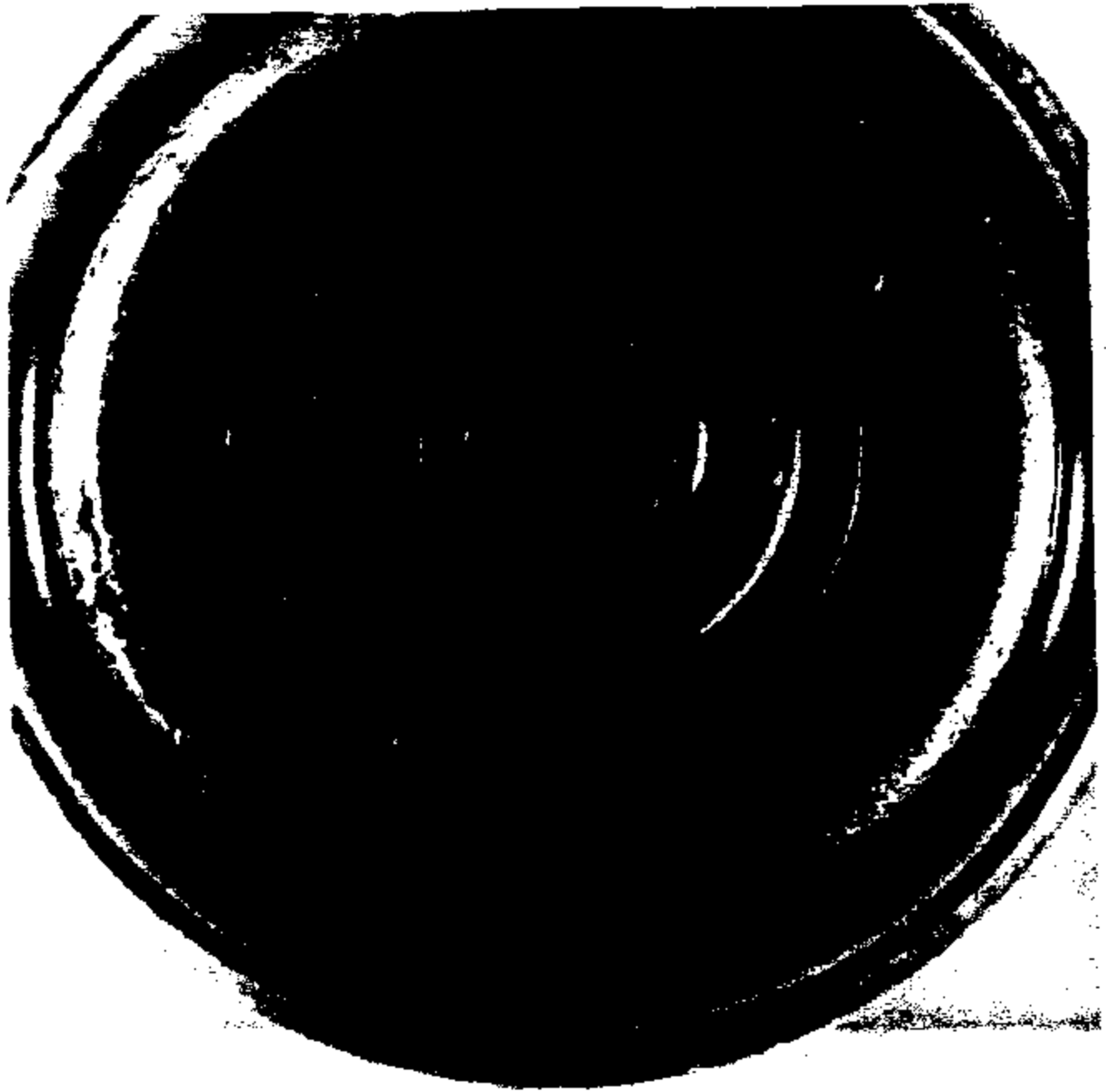
EA02-025

FORD 10/27/03

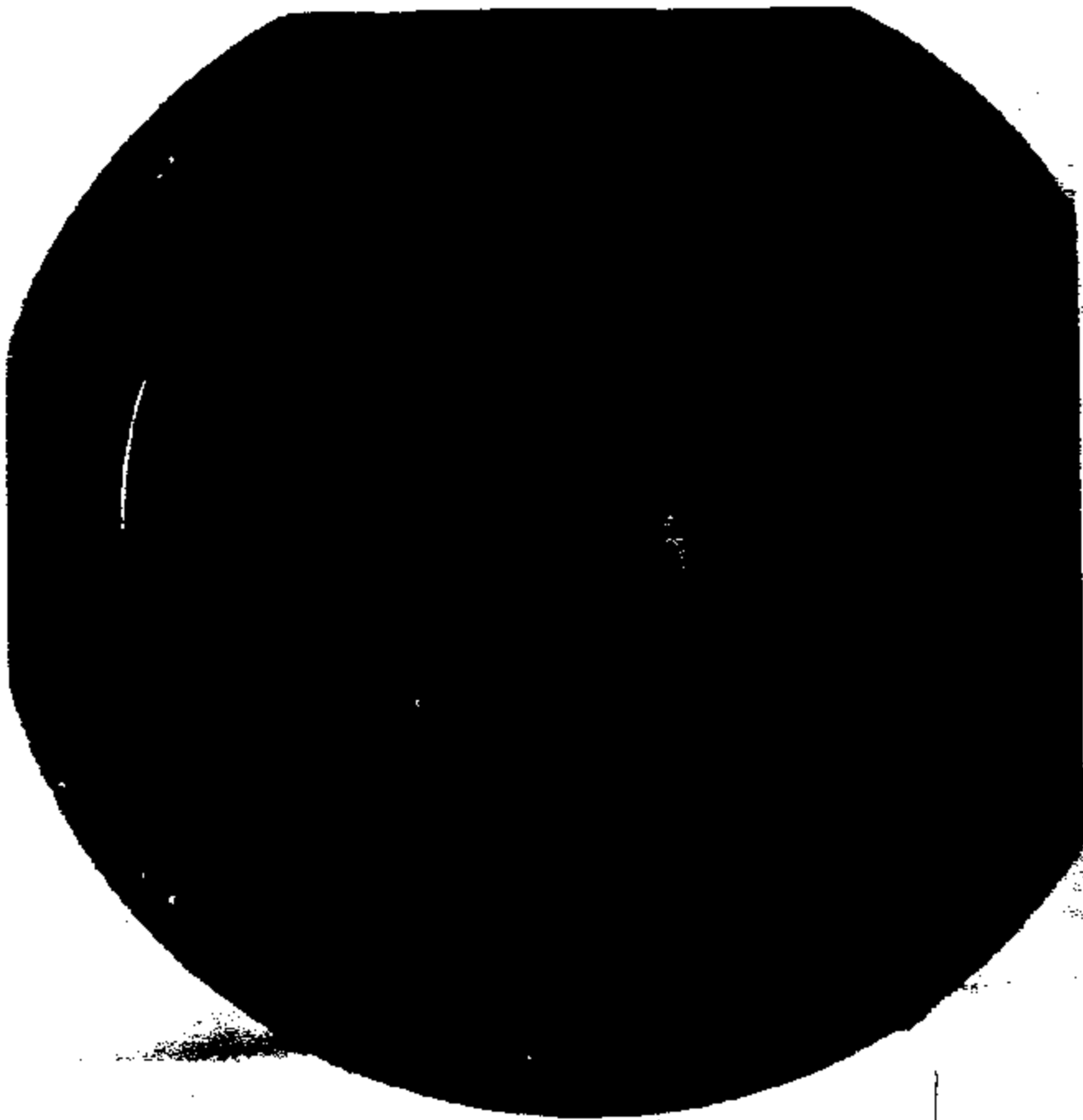
APPENDIX N

BOOK 19 OF 61

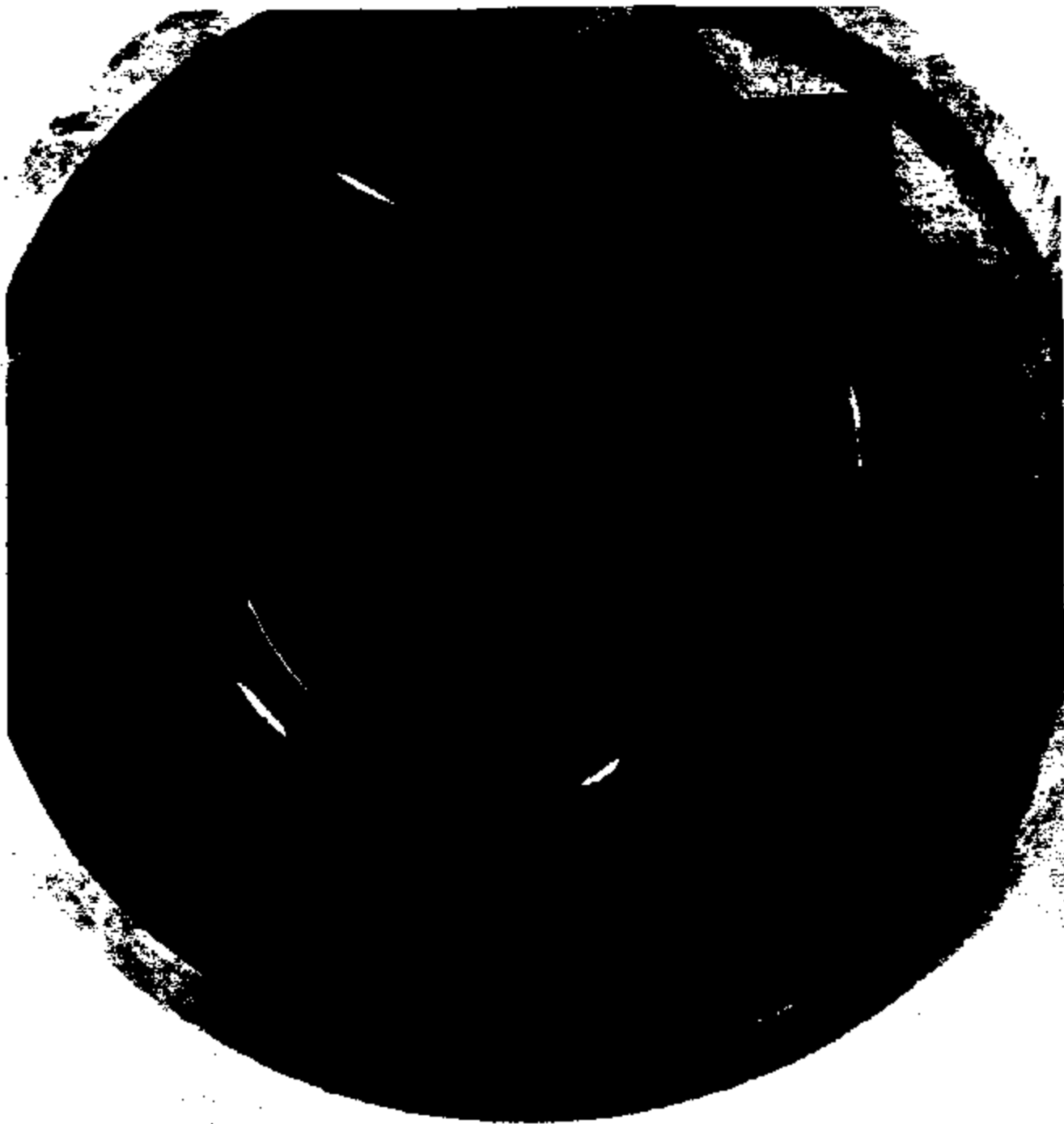
PART 2 OF 3



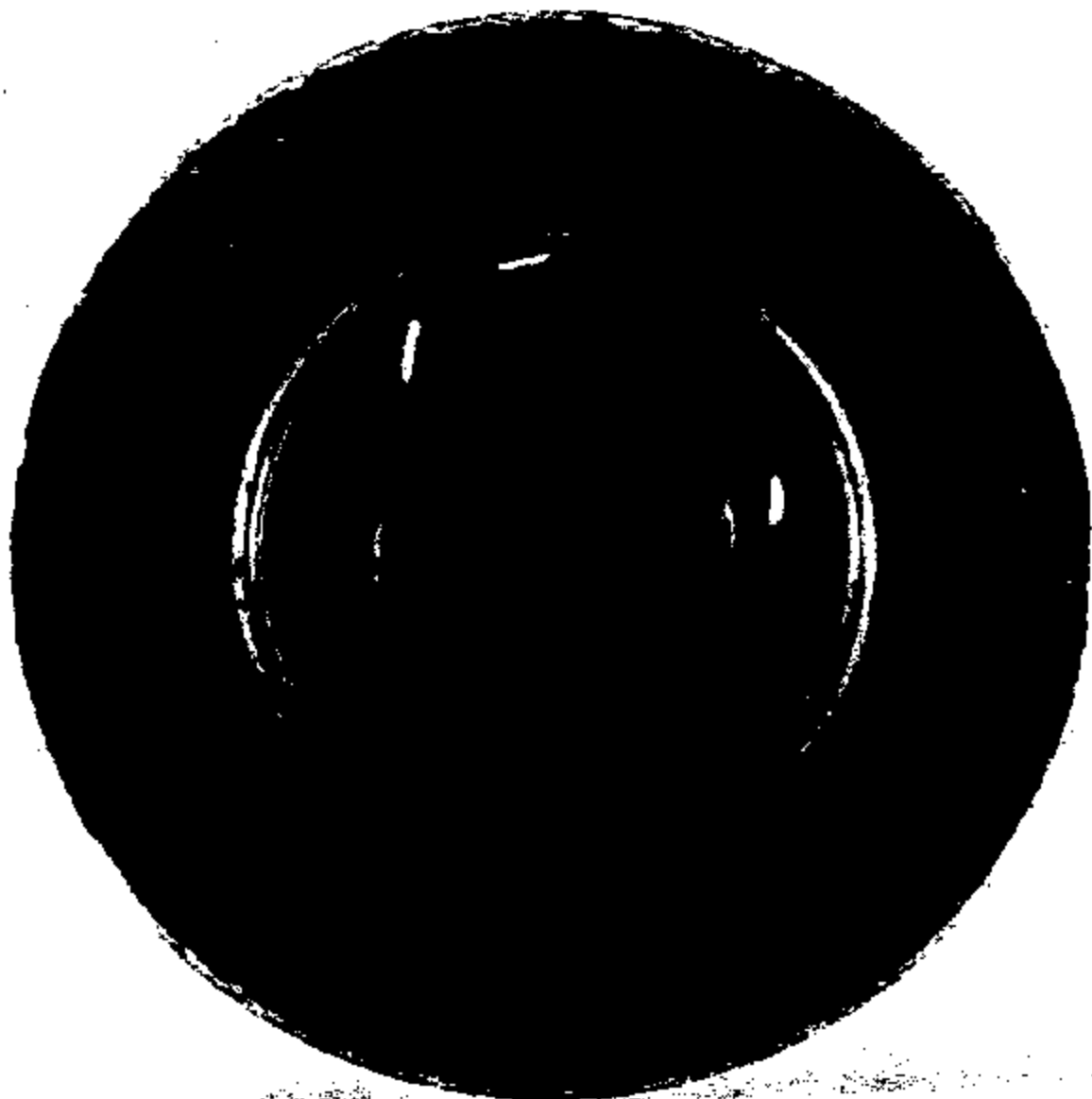
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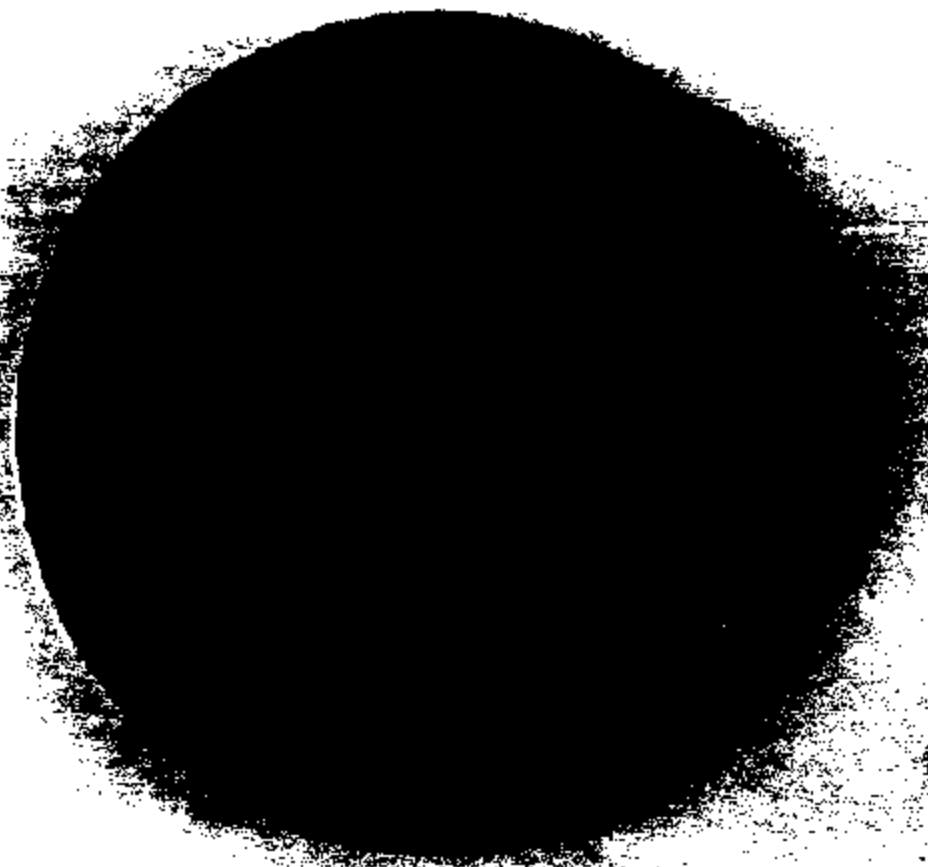
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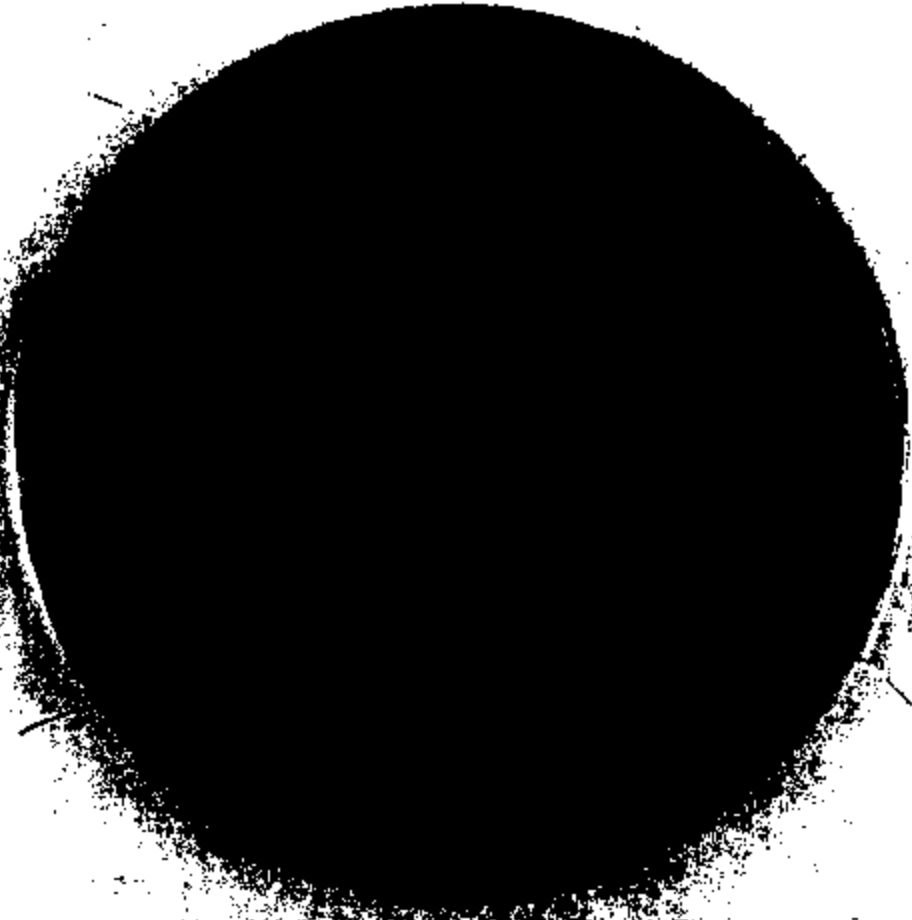
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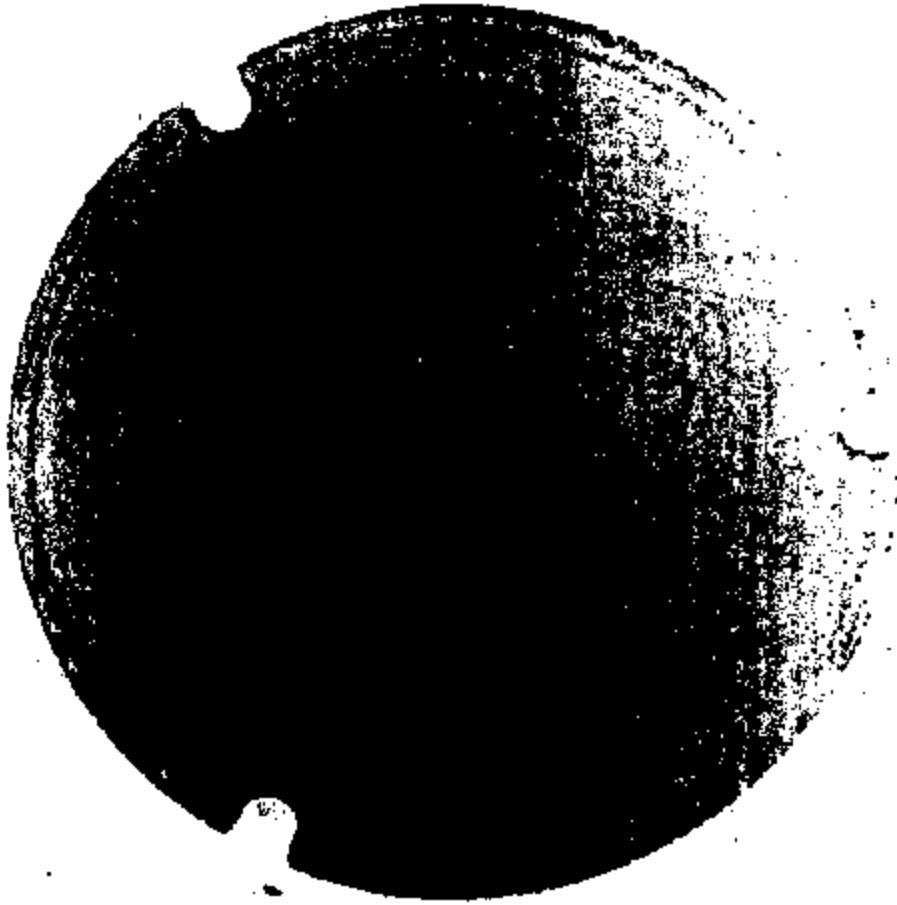
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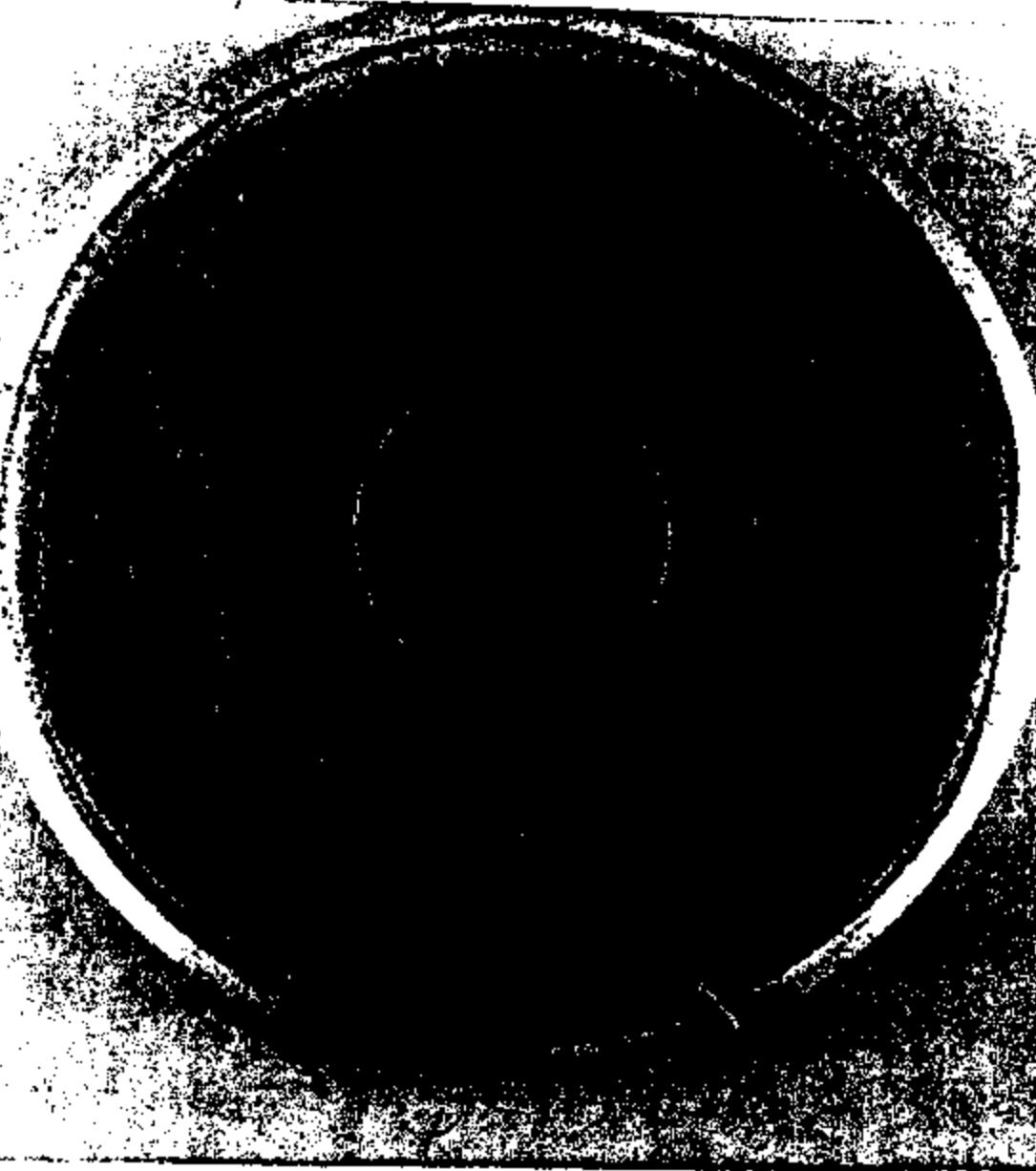
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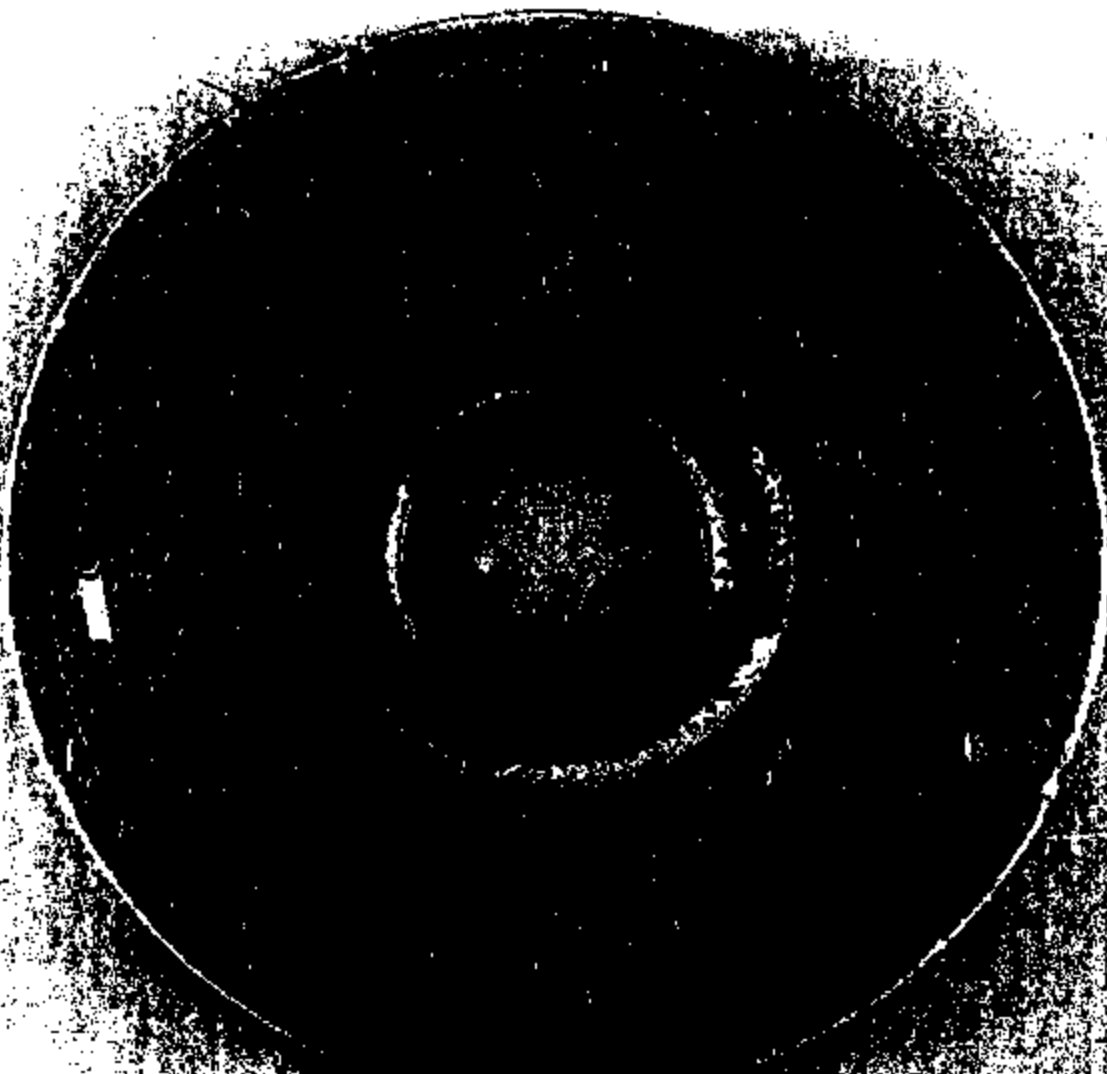
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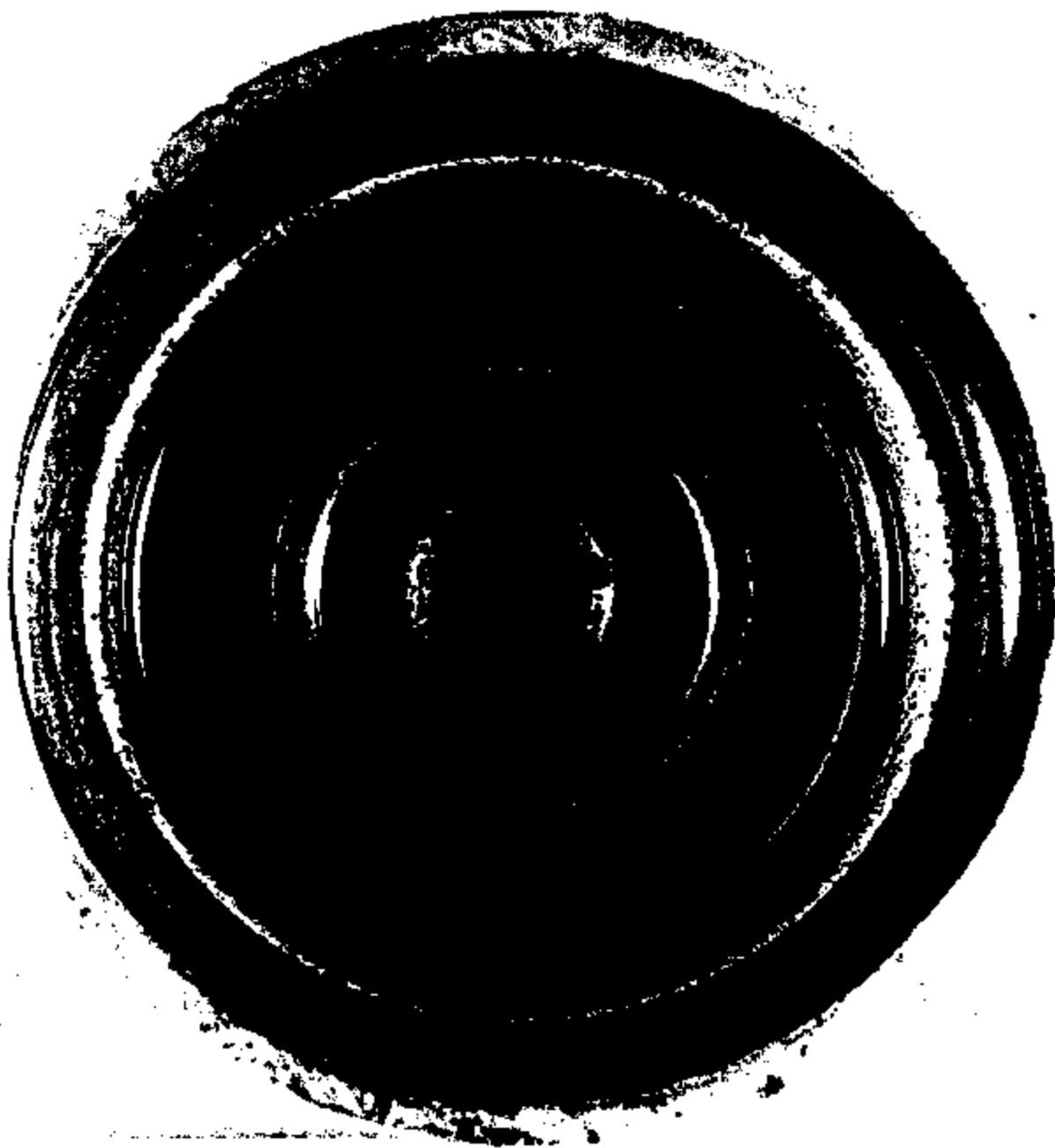
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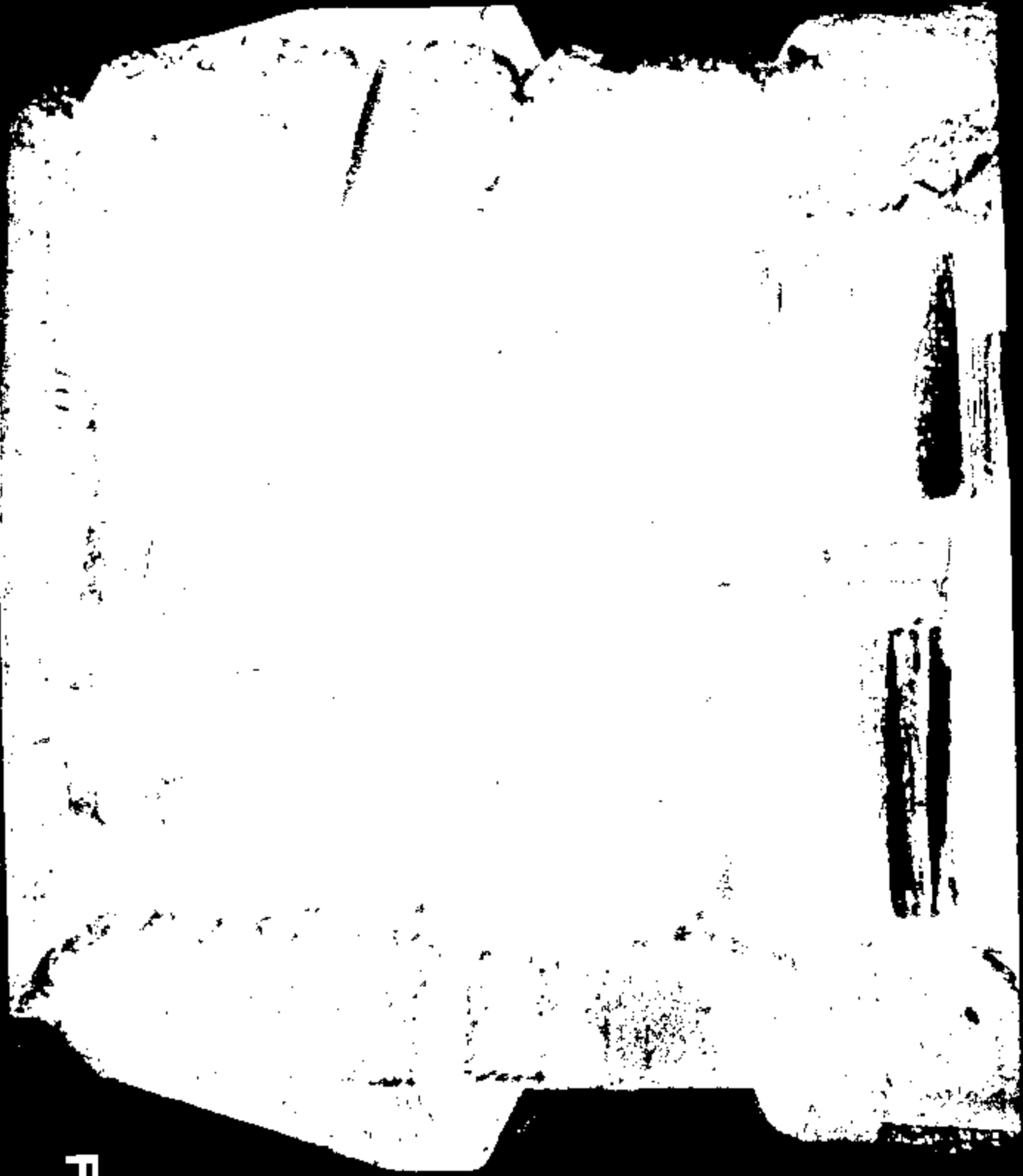
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F



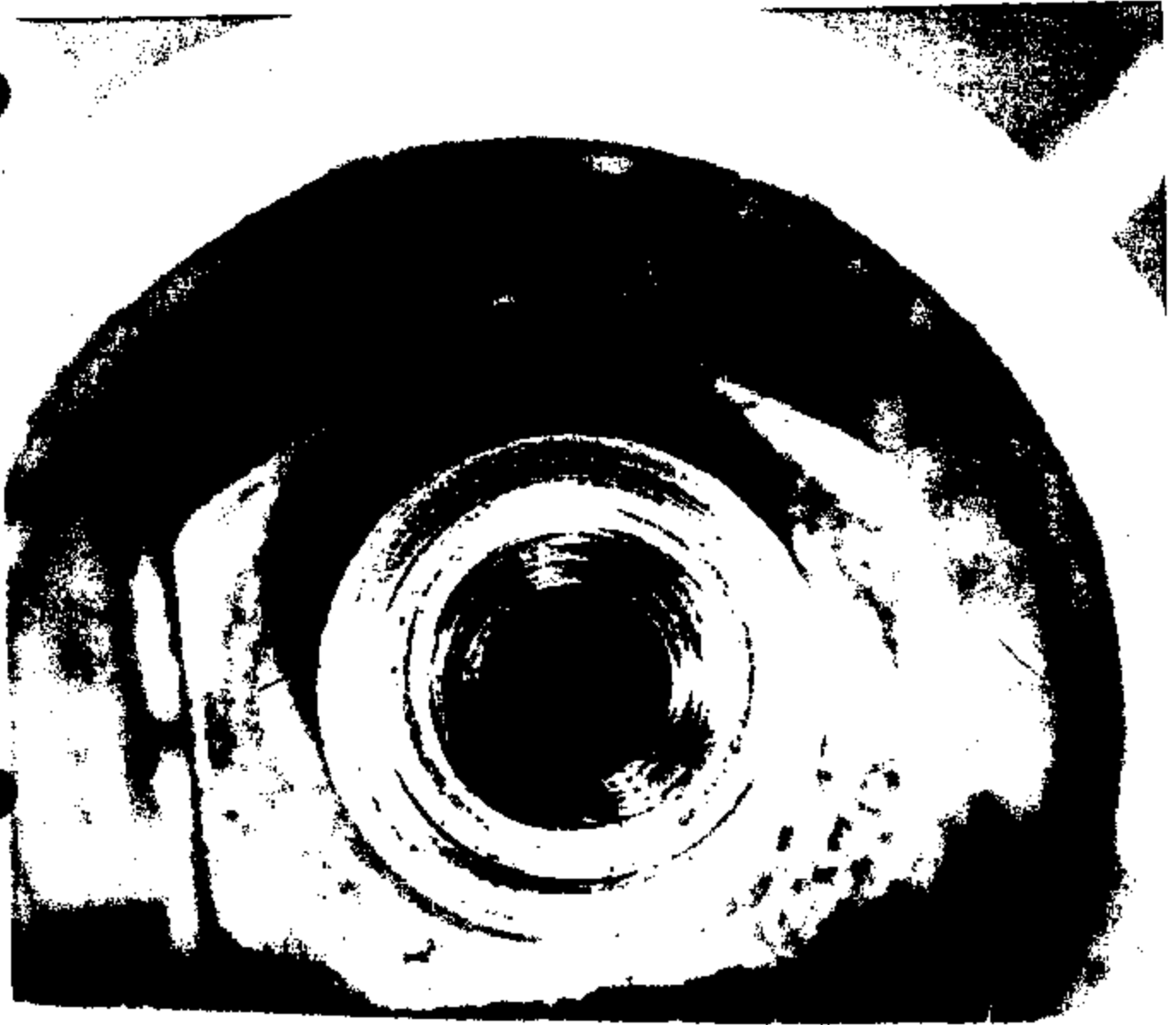
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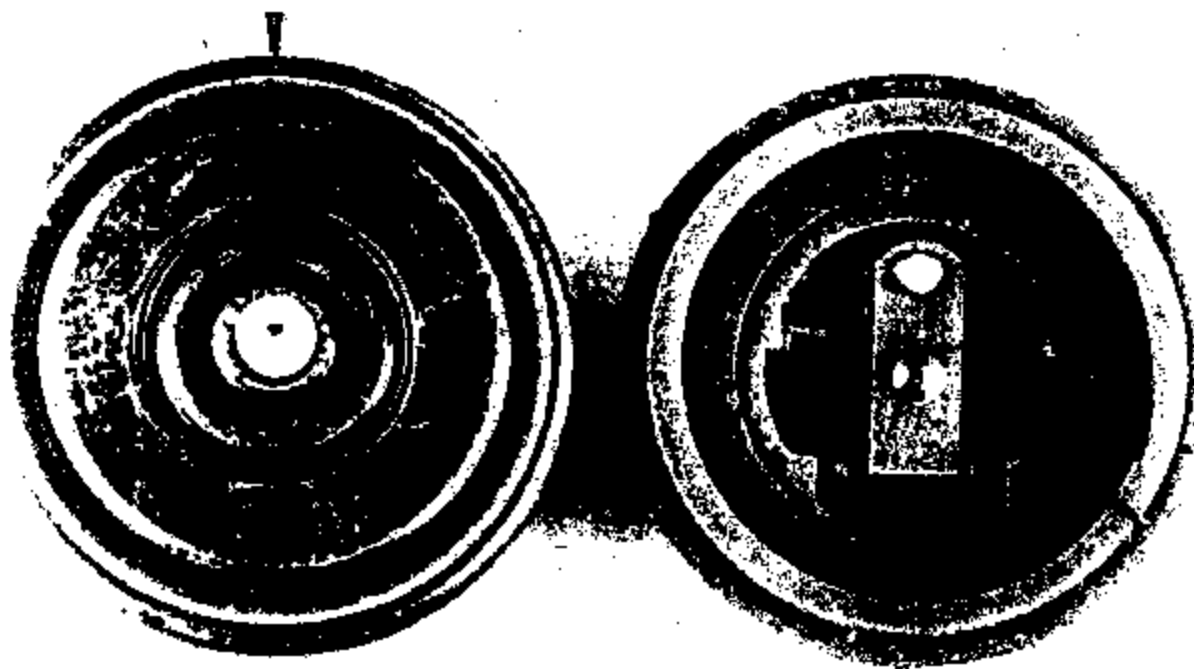
3713 2993

209026 ... 2107

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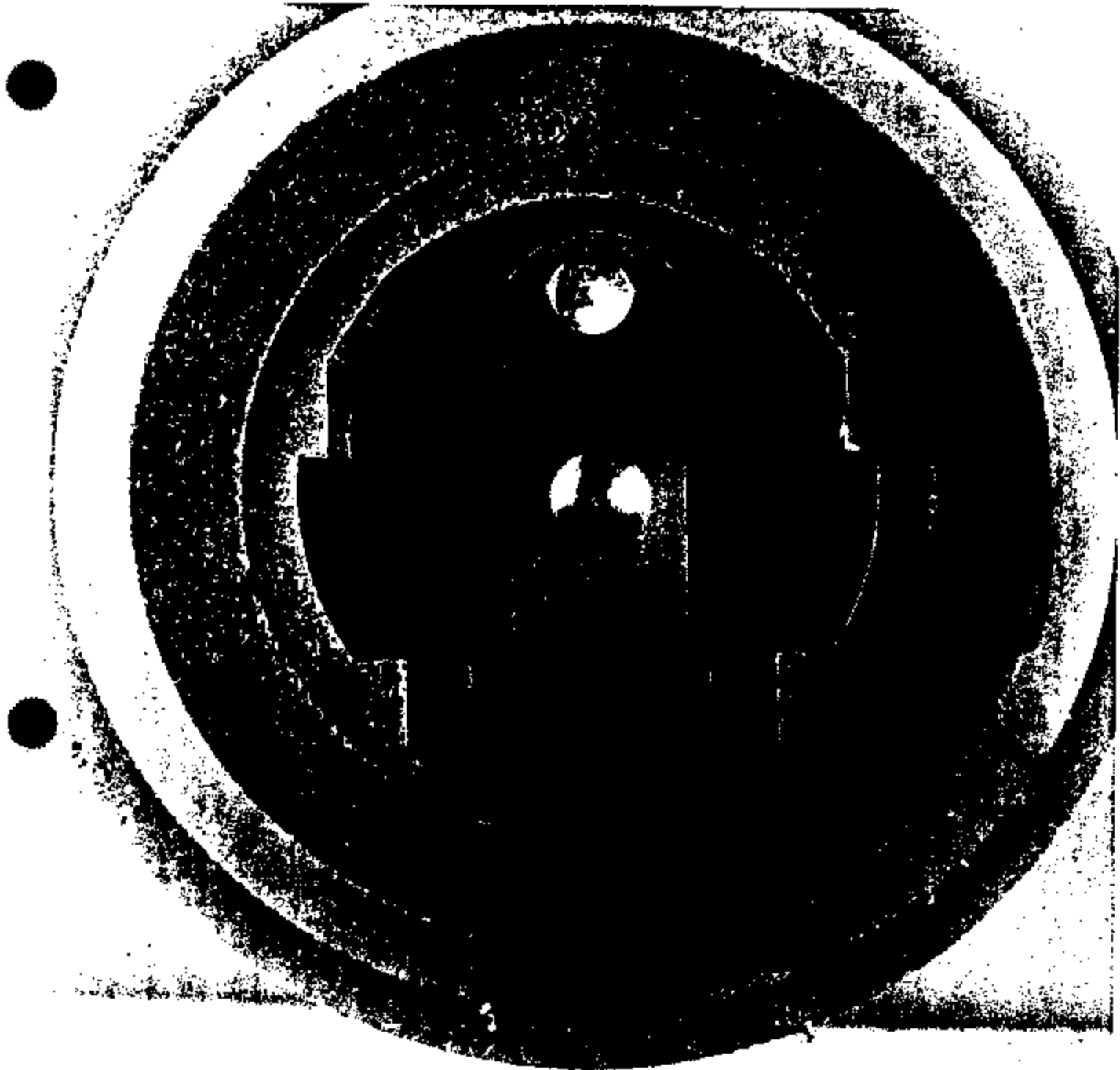
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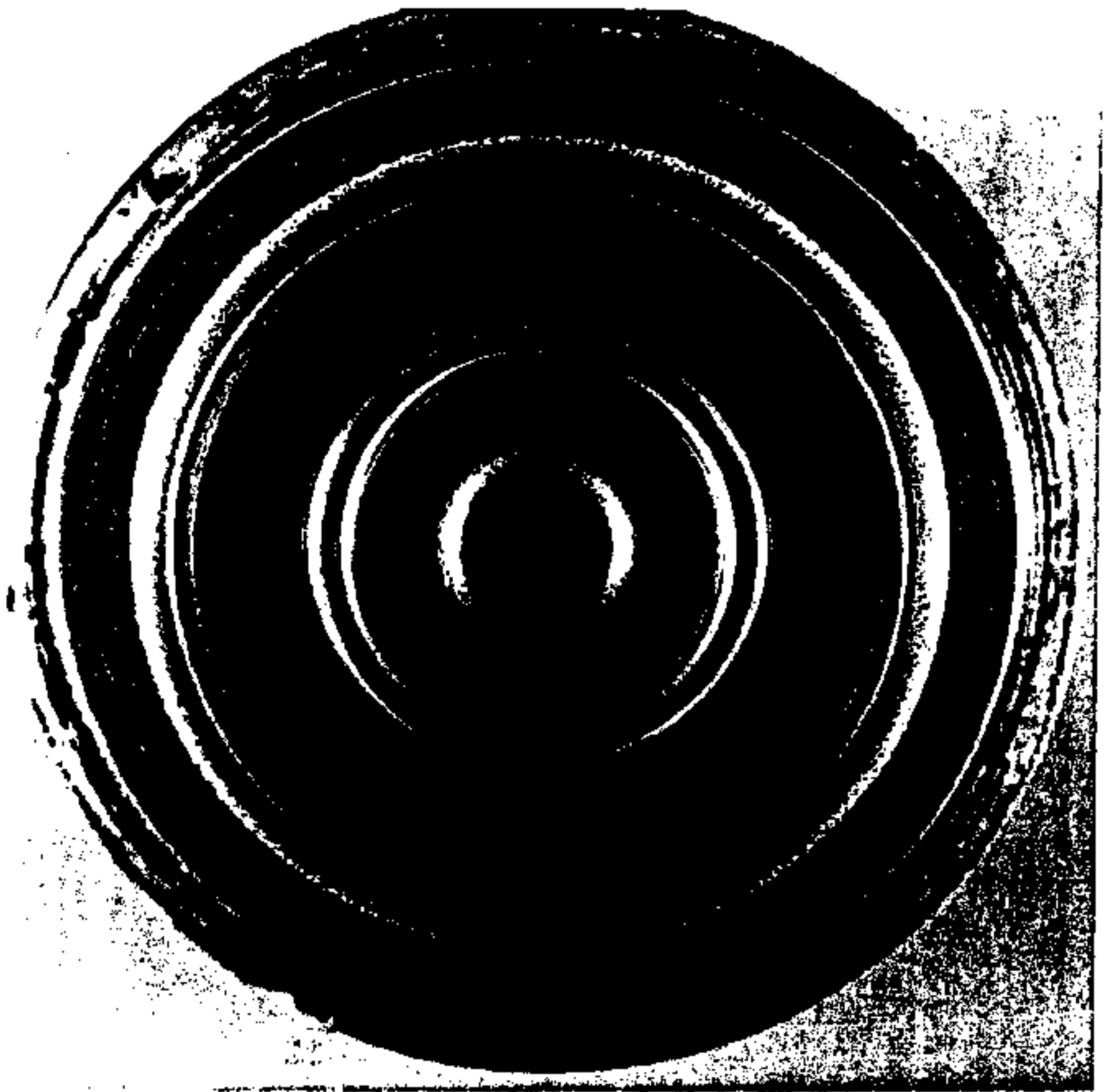
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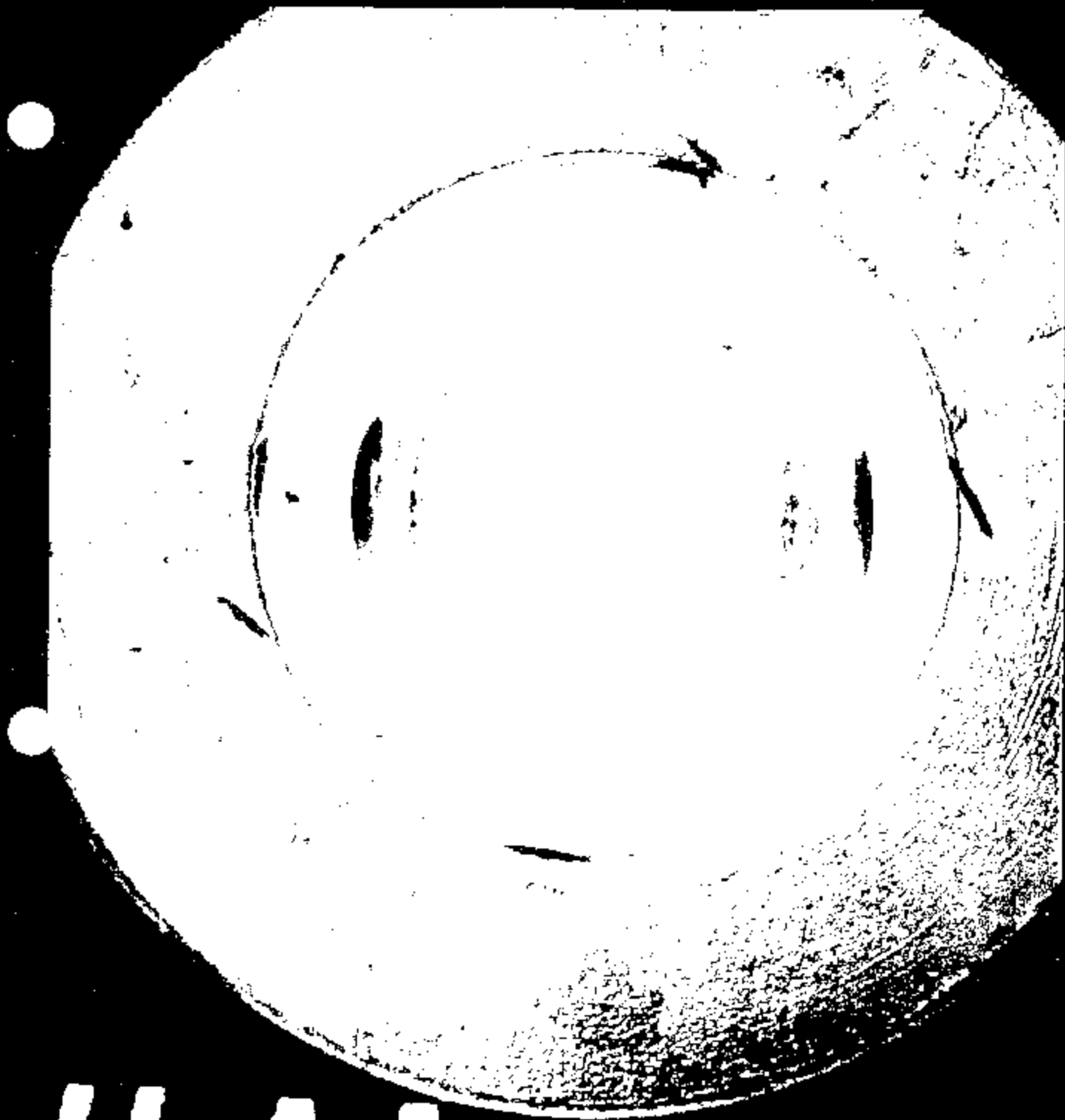
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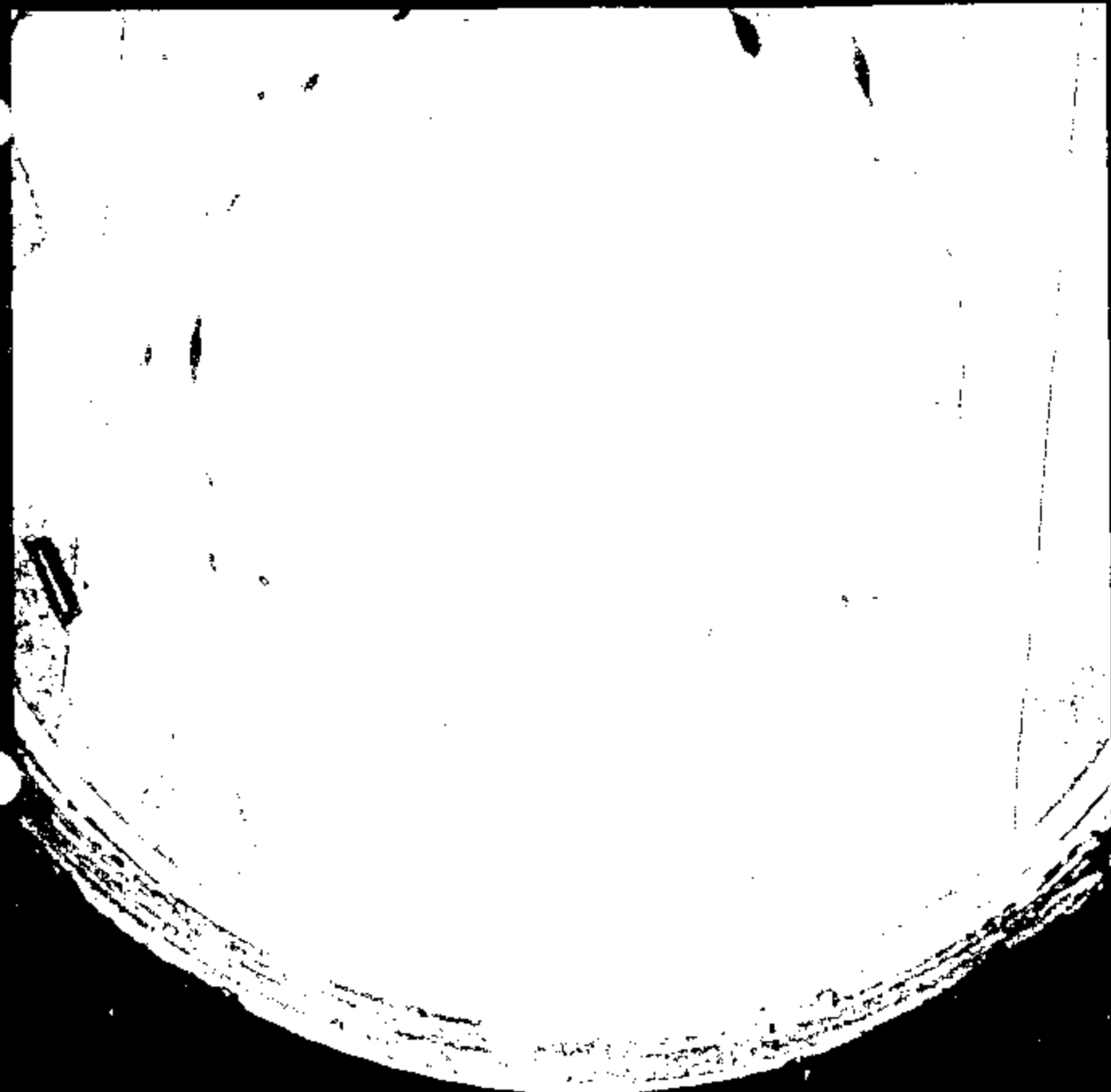
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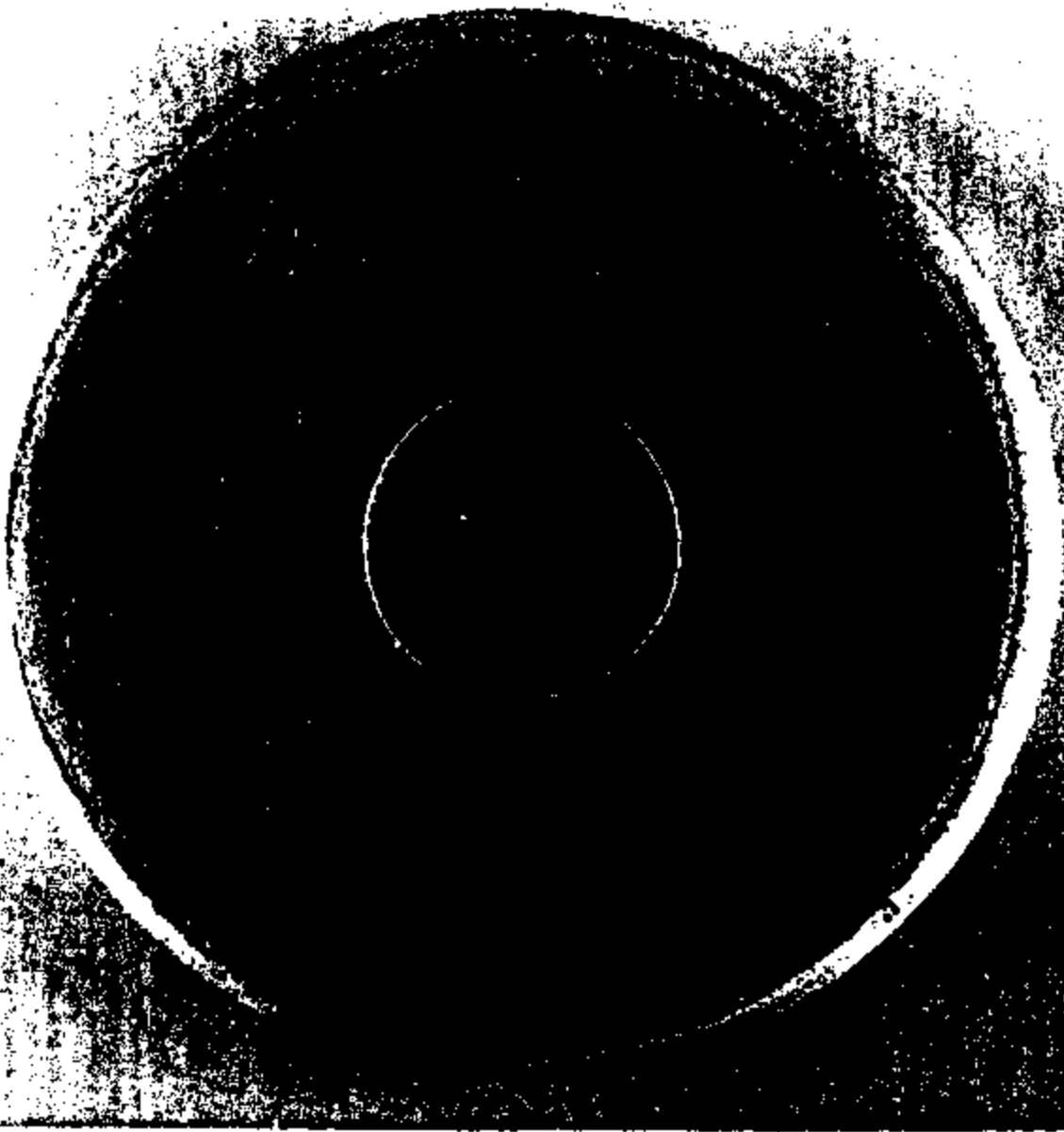
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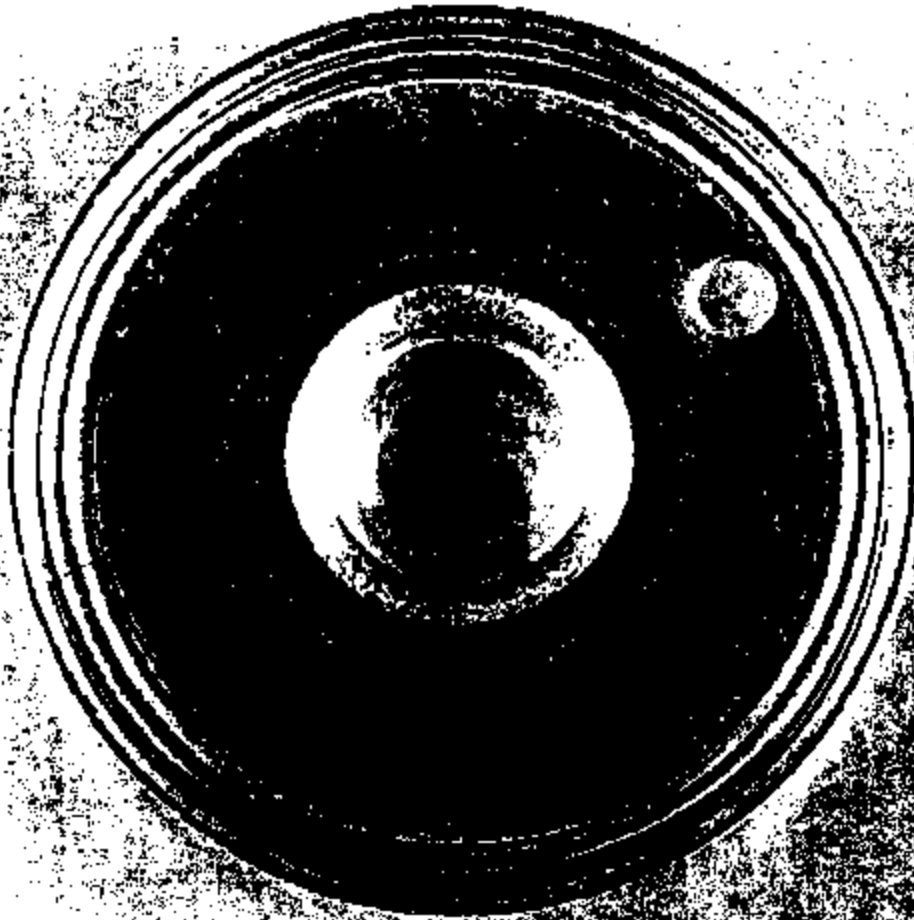
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#11



#11



#11



#11

9900607

Raw DATA

NO FINAL REPORT
YET

8514 5L

Request for Central Laboratory Service

All shaded areas must be filled in to process your request

Administrative Use Only

15000 Century Dr., Dearborn MI 48120-1207 Phone (313) 32-21678 FAX (313) 32-31614

Laboratory Number	Date
29002607	2-17-99 5L

Your Name (Send report to)	Telephone	PROPS ID	FAX
STEVENS GARCIA	313 373 6680	GSTEVEN1	313 390 7720
Secondary Contact	Telephone	PROPS ID	FAX
NILLEN LA PRUNTE	313 394 7680	NILAPRNT	313 337 8250

Room No./Mail Drop/PO Box	Department/Activity	Building	Location Code	Dept. #	Work Task # (For 5100 Loc. Only)
MD5006 26063	AVT MATERIALS	#5	SIWD	T113	X12604

Total # of Samples	Sample Handling	TOX/CAS#	Season	Supplier Code
21	<input checked="" type="checkbox"/> Store after test <input type="checkbox"/> Dispose after test <input type="checkbox"/> Dispose after 30 days			

Part/Serial Name	Sample Identification (Continue below if needed)	Part Number (if any)	Material Specification (if any)	CPSC Code	Supplier
SPEED CONTROL CUTOFF SWITCH	SEE ATTACHMENT SURE	FZVY-95921A	NA		TOM'S

Names of Investigation/Specific Tests Requested (Check all that apply) <input type="checkbox"/> Production/Plant problem <input type="checkbox"/> Further Tests as in Lab No. <input checked="" type="checkbox"/> Failure Analysis <input type="checkbox"/> Photograph (Describe below) <input checked="" type="checkbox"/> Legal <input type="checkbox"/> Use Specimens as a guide <input type="checkbox"/> Specification Compliance <input type="checkbox"/> Other (Describe below)		Requester Info. Box (For requester use)
---	--	---

Stop using upon failure? <input type="checkbox"/> No <input type="checkbox"/> Yes Does this support CAI testing? (If "Yes", what is the expected outcome?) <input type="checkbox"/> No <input type="checkbox"/> Yes	Do you need to know your CL contact and pricing? <input type="checkbox"/> Yes
---	---

Additional Sample Information/Testing Requirements

EXAMINE, DOCUMENT, AND ANALYZE SWITCHES THE PARTS
 IDENTIFIED WITH NILLEN LA PRUNTE TO ASSIST IN DETERMINING CAUSE
 OF AIRLINE SWITCH FIRE IN LOCAL
 SWITCHES ARE FROM FIVE GROUPS. THREE SWITCHES WERE
 FOUND.

Date you would like report: 2-17-99 Date you must have report: 2-17-99	Format (Check all that apply) <input type="checkbox"/> FAX preliminary results <input type="checkbox"/> FAX hard written <input type="checkbox"/> FAX typed report <input type="checkbox"/> Mail hard written <input checked="" type="checkbox"/> Mail typed report <input type="checkbox"/> Electronically transfer report <input type="checkbox"/> Please preliminary results
---	--

For information about services or assistance in completing this form please refer to the Central Laboratory WEB page. (www.gm.ford.com/central/laboratory.html)
 Laboratory number and date cannot be assigned without receipt of samples.
 Samples will be disposed of after 30 days unless otherwise indicated above.

on Page No. _____

3/79

PX75P158 (47) STILL ATTACHED TO PUMP VALVE DC 3098

CONNECTOR BUSHES FULLY EXHAUSTED
SOME DAMAGE TO WIRES INSIDE (BUSHES FIRST - FROM TERMINALS)
IMPRESSION IN PUMP VALVE IS EVEN, BUT IS NOT DEEP ON
SHARP - SOME GREAT SCUFFS AS COMPARED TO OTHER
ASSEMBLIES
CAVITY & WIRES CLEAN FROM GREASE
LITTLE OIL FROM VALVE
SLIGHT IMPROVING IN WIRES FROM VALVE
TERMINALS EXHIBIT SOME CORROSION

NY 73371 TOWN CIG (47) STILL ATTACHED TO PUMP VALVE

SWITCH BUSHES
MOST OF BUSH MISSING, CONTACTS, TERMINALS, TRADERS
PIN MISSING
CUT EXPOSED - FINE SANDS WITH TRIT & GREEN DEPOSITS

PX151140 93 C.V. (410) DC 2272

STILL ATTACHED TO PUMP VALVE
CONNECTOR APPROX FULLY EXHAUSTED
NO DAMAGE TO WIRES
IMPRESSION IN PUMP VALVE EVEN & DEEP
CAVITY & WIRES CLEAN FROM GREASE
LITTLE OIL FROM VALVE
SLIGHT IMPROVING IN WIRES FROM VALVE
TERMINALS CLEAN

PX743413 TC S-93 (410) DC 3089

CONNECTOR FULLY EXHAUSTED
NO DAMAGE TO WIRES
BLACK RESIDUE IN HOLDOUT
IMPRESSION IN PUMP VALVE EVEN & DEEP (ALL 300-300)
WIRES & CAVITY CLEAN FROM GREASE
LITTLE OIL FROM VALVE
IMPRESSIONS IN WIRES FROM VALVE
TERMINALS CLEAN

To Page No. _____

Inspected & Understood by me,	Date	Invented by	Date
		Recorded by	

From Page No. _____

PX638 910

T.S.

(4)

DC 2028

CONNECTED BLUE ENGINE

NO DAMAGE TO WIRES

BLACK RESIDUE IN HOUSING

IMPRESSION IN BOB SEAL FROM 3000

CAVITY 3 WIRES CLEAN BELOW BOB SEAL

TRACE OF OIL

IMPRESSIONS LEFT IN WIRE FROM SEAL

TERMINALS CLEAN

RX 641 593

GEN. MFG

(23)

DC 3275

CONNECTED BLUE ENGINE

SOME DAMAGE TO WIRES (EARTH, RED, GRN?)

OPER. OF BUSH CAUSED DAMAGE IN HOUSING

IMPRESSIONS IN BOB SEAL FROM 3000

CAVITY 3 WIRES CLEAN BELOW BOB SEAL

TRACE OF OIL FROM SEAL

IMPRESSIONS IN WIRES FROM SEAL

TERMINALS CLEAN

NY 757 408

G-97 T.C.

(4)

DC 2115

CONNECTED W/ BLUE ENGINE (ON WIRE NOT BUSH SEALS)

NO DAMAGE TO WIRES

BLACK RESIDUE IN HOUSING

IMPRESSION IN BOB SEAL NOT BUSH - OFF CENTER

CAVITY 3 WIRES CLEAN BELOW BOB SEAL

IMPRESSIONS IN WIRES FROM SEAL

TERMINALS CLEAN

sent to [unclear] [unclear]

To Page No. _____

Witnessed & Understood by me,

Date

Invented by

Date

Revised by

PX 1623312 C.Vic (#4) DC 3025A

ON WIRE SIDE OF CONNECTOR NOT FULL ENGAGED
WIRE TIGHT, BUT NO APPROPRIATE DAMAGE
BLACK RESIDUE WITH CORROSION NOT COMMON
IN HELICOPTER
IMPRESSIONS IN RED SW. END, DEEP, 2 CONTACTS
CAVITY 4 WIRE CROWN BEHIND SW. SW.
IMPRESSIONS OF SW. IN WIRE
TERMINALS CLEAN

NY 724366 BUNDED (#6) DC 2031

MOST OF BUNDS MISSING
CONTACTS, TERMINALS, TRANSFER PIN MISSING
NO CORROSION
PART OF FACE OF CP BUNDED & COVERED
WITH RUB. & CORROSION DEPOSITS
BLACK RESIDUE IN HELICOPTER

PX 750172 T.C. #7 DC 3081A

EXTENSIVE MARK WITH GREAT WHITE APPEARANCE TO
BE BRASS END
CONNECTED FULL ENGAGED
SOME APPEARANCE TO WIRE (HANDLING?)
BLACK RESIDUE WITH CORROSION ON JUST CONTACTS
GROUNDED IN HELICOPTER
IMPRESSIONS IN RED SW. END, DEEP
CAVITY 4 WIRE CROWN BEHIND SW. SW.
IMPRESSIONS IN WIRE FROM SW.
TERMINALS CLEAN

Inspected & Understood by me, _____

Date _____

Invented by _____

Date _____

Recorded by _____

From Page No. _____

PX 610384

T.C (#5)

DC 2063A

EVIDENCE OF HEAVY METAL (DRAWING BRASS
FLUID?)

CONNECTOR FURTHER

NO DAMAGE TO WIRE.

REPAIR TOWN DEFECT IN HEAVY

IMPRESSION IN 300 GPM FLOW & DOW - 60% ADDED

AND COVER. HAS WITNESS MARK FROM

DAMAGE TO EDGE OF SWITCH.

CAUSE 2 WIRE CROWN BEAN FROM SON.

SONG ALL FLOW SON.

IMPRESSIONS IN WIRE FROM SON.

TERMINAL CLEAN.

IN BOX = NO CONNECTORS

NX 728439

1-92 86922 (#7TX) DC 2059

TERMINAL CLEAN

TERMINAL COVER DOZ

BLACK RESIDUE IN HEAVY

PX 726066

3-93 91358 (#11TX) DC 3028

TERMINAL & COVER CLEAN & DOZ

BLACK RESIDUE IN HEAVY

PX 619375

12-92 82224 (#10TX) DC 2231

TERMINAL & COVER CLEAN & DOZ

REPAIR BRASS GLOBULES IN HEAVY

PX 628170

9-92 88087 (#4TX) DC 2048

COVER CLEAN & DOZ

ONE TERMINAL - CORROSION

IN AREA ENCLOSED BY COVER.

OTHER TERMINAL CLEAN

BLACK RESIDUE WITH TERRIBLE BRASS

GLOBULES IN HEAVY

To Page No. _____

Witnessed & Understood by me, _____

Date _____

Invented by _____

Date _____

Recorded by _____

3m Page No. _____

6/8

PX 724093 3-93 71337 (#3TX) DC 3015

TERMINALS AND CAVITY CLEAN & DRY
 BLACK RESIDUE & BROWN POLYMER RESIDUES
 IN HEADPORT.

PX 762358 7-92 77164 (#4TX) DC 2006

TERMINALS & CAVITY CLEAN & DRY
 BLACK RESIDUE IN PORT.

PX 162228 3-93 63614 (#8TX) DC 3025A

TERMINALS & CAVITY CLEAN & DRY
 BLACK RESIDUE IN HEADPORT.

PX 637746 12-92 GUN MFG (#9TX) DL 2260

TERMINALS & CAVITY CLEAN & DRY
 BLACK RESIDUE IN PORT.

DISASSEMBLY OF ^{3025A} SWITCHES

PX 163920

TERMINALS & CAVITY CLEAN & DRY.
 REMOVE GASKET FROM
 THE SWITCHES UNDER CORROSION BELOW CONTACT FROM

EXAMINE FOR DAMAGE, IN PLACE, AND RETURN
 TO ORIGINAL POSITION.

APPROX TO BE WASTED (ENCLOSURE SHEET)
 IN SWITCH CAVITY.

FIELD OF AIR COOLING WITH JUST CONTACT
 REMOVED.

TRANSFER TO PERSON IN PLACE BY CLEANLY HANDLING.

MAINTAIN CONTACT TO CONTACTS NEAR BY.

REST OF CONTACTS & JAWNS CLEAN.

REMOVE GSK

HEAT RST GASKET BLOW - APPROX TO SEAL ON

#1 KATION SEAL TIGHTEN ON FLAT SIDE TERN

NEED TO NO APPEARANCE DAMAGE TO KATION
 BLOW TERN

KATION DEFERRED TO CONFIRM TO To Page No. _____



Inspected & Understood by me, _____

Date _____

Invented by W33104

Date _____

TERMINAL TIGHT ACROSS

From Page No. 1

PX 1639.22 #2 KAPTON - DETERMINED - NO APPEARANCE DAMAGE.
NOT BROKEN

#3 KAPTON DETERMINED TO CONTINUE TO WASH - BLACK REGION WHERE IT CONTACTED CONVENTOR & WASHER.
NO APPEARANCE TERMINAL, CONTACT - NOT BROKEN.

SOME BROWN/BLACK RESIDUE ON SEAL SIDE OF WASHER & CONVENTOR
INTERNAL OF AIR SWITCH
JUST DEPOSITS ON WASHER, CONVENTOR, & PLATE
BLACK REGION IN HERAPRE CONTACT

PX 7.58158 GROSS DRY - TERMINALS CARBONIZED
REMOVED CONTACT PLATE - NO CARBONIZATION UNDER PLATE
ENV. SEAL IN TEST, INCREASED RESISTANCE TO MAKE SWITCH.
FRONT OF AIR SWITCH WITH BUST & WHITE CALCIUM DEPOSITS - WET - WASHED (SUSPENDED QUANTITY OF BATH TUB)
KAPTON PIN POSITION IN PLACE BY CONTACT PLATE
MOUNTING BRACKET DISCONNECTED FROM SW.
CONTACT & BASE CLEAN ABOUT FRONT OF CONTACT PLATE
CHECK FOR
HERAPRE CONTACT, SEAL OK

#1 KAPTON - ONE SIDE ON PLUG SIDE DEVELOPED
WASHER TO CONTACT - TO POSSIBLE TEST FOR THERMAL STRESS
DOES NOT APPEAR TO HAVE BEEN DAMAGED

To Page No

Witnessed & Understood by me,	Date	Invented by	Date
		Recorded by	

LE SEVEN CANTON CLOSER SWITCH

From Page No. _____

To Page No. 86

PX 758158 cards

#2 KARTON - DOES NOT APPEAR TO HAVE
BORN BRANCH

#3 KARTON - SAME

KARTON SIDE OF WINDOW & CORNER - LOCALIZED
BLACK DISCOLORATION

INSIDE OF CURTAIN HANGING PART OF CURTAIN, WINDOW,
COVERED WITH WHITE SOAP CURTAIN RINGS

BLACK DISCOLOR IN HENRIQUE CLOSET

LaRousse
3-4-59

To Page No. _____

Read & Understood by me,

Date

Invented by

Date

From Page No. 8514 Storm

Continuation: See Page 78

The SUTELA REID FROM OASIS

PYGAS 82L 95 TC F2VC DC 2062
LEADS

VIS 5km

BLACK REGION WITH CORON ON 305 COURSE
SLIGHTLY IN HORIZON

PROBABLY BLACK FLUID IN TERMINATION

BLACK REGION ON TERMINATION & AT BASE OF

TERMINATION WHERE THEY COME THROUGH BULKHEAD

AT CRUISE AREA

ENV 300, IMPDET, REFLECT, JON ADD TO DRAWING

CHART

EDGE OF THE CORON WITH BLACK BULKHEAD

AND FROM CORON SLIGHTLY

NEEDING FROM REFLECT TO DRAW 300

CORON REF

BLACK CORON BULKHEAD WHERE REFLECT TO

OR FROM FLUID, TERMINATION IT CORON

CORON BULKHEAD

NY 734410 92 TC F2VC 2128

LEADS

VIS 5km

BLACK REGION WITH CORON ON 305 COURSE
SLIGHTLY IN HORIZON

PROBABLY BLACK FLUID WITH BLACK REGION

IN TERMINATION AREA - BULKHEAD & BASE OF TERMINATION

TERMINATION WHERE THEY COME THROUGH BULKHEAD

AT CRUISE AREA

To Page N

Witnessed & Understood by me,

Date

Invented by

Date

Recorded by

SMALL TESTS INTEREST, IN PLACE. SOME ADH. TO INTEREST SURFACES.
BLOCKS ALIGNED WITH CORALS. ANOTHER SURFACES AT
FRONT OF CUT.

POSSIBLE CONTACT CORALS WITH SAND
POSSIBLE BLOCKS END TO BLOCKS ALIGNED WITH ADH. IN
SOME PLACES.
FRONT OF TERMINAL BLOCKS.

Lucy Raven
3-17-99

Witnessed & Understood by me,	Date	Invented by	Date
		Recorded by	

From Page No. =

Re: G. Stevens / S. LaRouche (313) 32-6286 (313) 39-0724 FA

Subject: Switch - Speed Control Cutoff
Part Number: EZVY-95924-A
Specification: Not Provided
Supplier: Texas Instruments

Received: Nine samples identified as follows:
PY614995 - cup face & hexport
NY736847 - cup face & hexport
PY605826 - cup face, hexport & cup interior
NY84410 - hexport & cup interior

Object: Determine the elemental composition of the particles

Surface Analysis

Five of the nine particles were moist. They needed to be cleaned in the ultrasonic in freon, then filtered with vacuum.
The elements detected are listed in decreasing order of intensity.
The number of particles is listed in parentheses.

PY614995 cup face (5)

NY736847 cup face (2)

Particles 1,2,2	Particle 3	Particles 4,5	All Particles
Zinc	Iron	Zinc	Zinc
Iron		Iron	Copper
Copper		Copper	Silver
Silicon		Sulfur	Iron
Calcium		Silicon	Potassium
		Calcium	Silicon
			Sulfur
			Calcium

*Spectra saved on ISSS system show Na peak labeled. WDS analysis confirmed this peak is actually Zn. The peak is mislabeled on file:
10 cup part 5, 3, 2, 1
20 cup part 3, 1
95 hex part 5, 4, 3, 2, 1
4 hex part 4, 3, 2
4 hex part 6, 5, 4, 3, 2, 1

To Page No. 22

Witnessed & Understood by me,

Date

Invented by

Date

Recorded by

8514

Project No. 9100607

Book No. 2771

TITLE

Spitch - Speed Control Cutoff

From Page No. 11

PY614995 hexant (5)

Particle 1	Particle 2	Particle 3	Particle 4	Particle 5
Iron	Iron	Iron	Iron	Zinc
Copper	Copper	Manganese		Iron
Manganese	Chromium	Aluminum		Copper
Sulfur	Potassium	Sulfur		Sulfur
	Sulfur	Silicon		Silicon
	Aluminum			Calcium
	Manganese			
	Silicon			
	Calcium			

NY7316847 hexant (5)

Particle 1	Particle 2	Particle 5
Iron	Zinc	Iron
Potassium	Copper	Potassium
Sulfur	Iron	Sulfur
	Potassium	Copper
	Silicon	
	Sulfur	

PY605826 cup fin (3)

All Particles
Copper
Silver
Zinc
Iron
Potassium

PY605826 hexant (4)

Particles 1 & 4	Particles 2 & 3
Copper	Copper
Zinc	Zinc
Potassium	Potassium
Sulfur	Sulfur
Chromium	Silicon

PY605826 cup inter (4)

All Particles
Copper
Zinc
Chromium
Iron
Potassium
Sulfur

NY734410 hexant (5)

All Particles
Copper
Zinc
Sulfur
Potassium
Silicon
Chromium
Iron

NY734410 cup inter (3)

All Particles
Zinc
Copper
Silver
Potassium
Sulfur

All Spectra saved on ISES system.
All remnants of copy of results
to Steve L. K. K.

EJ/1/89



To Page No. _____

Witnessed & Understood by me,

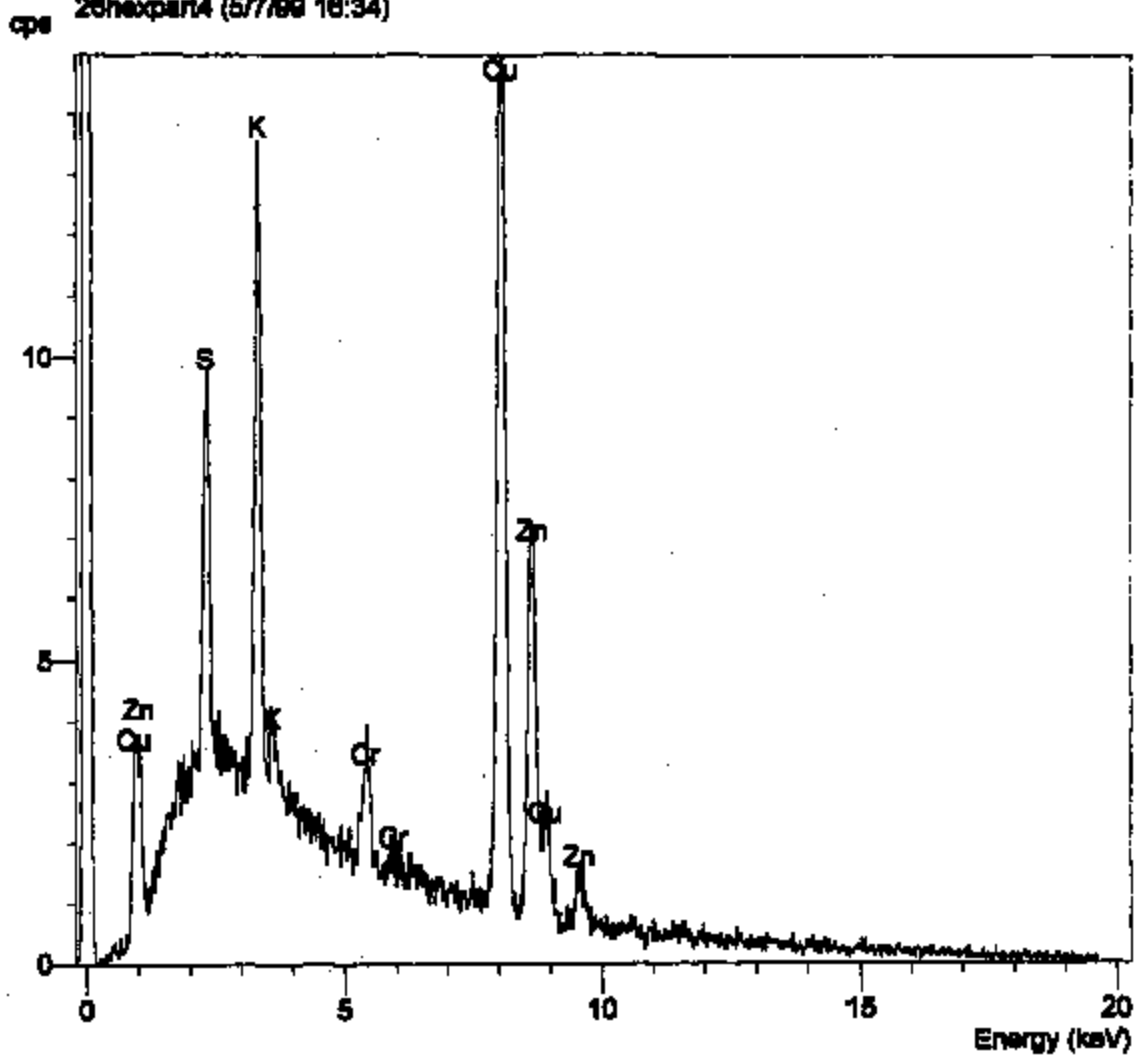
Date

Invented by

Date

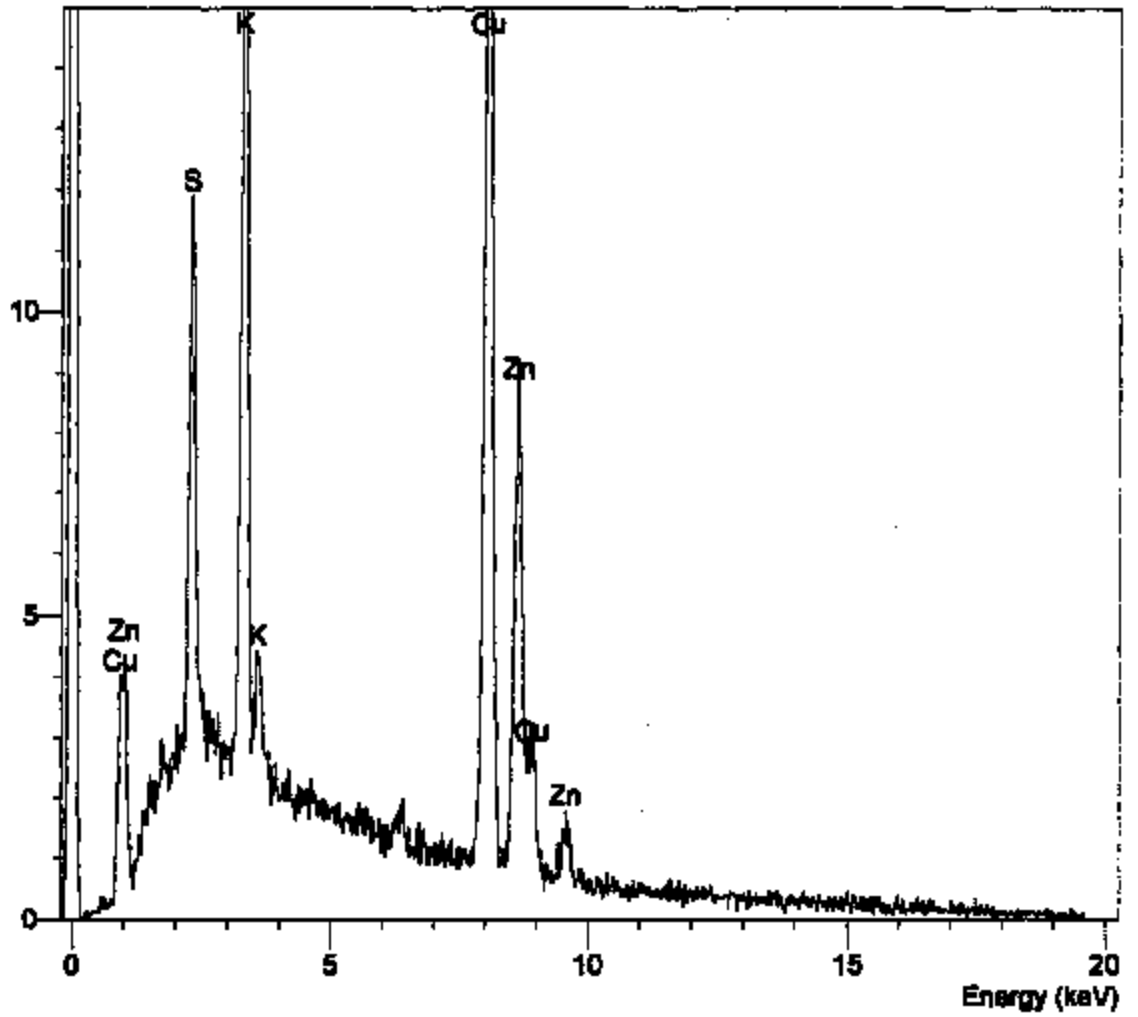
Recorded by

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Client : Greg Stevens
Job : 8900807
28hexpart4 (5/7/99 16:34)



Operator : Chantell Stevenson
Client : Greg Stevens
Job : 8900007
26hexpart3 (5/7/89 18:31)

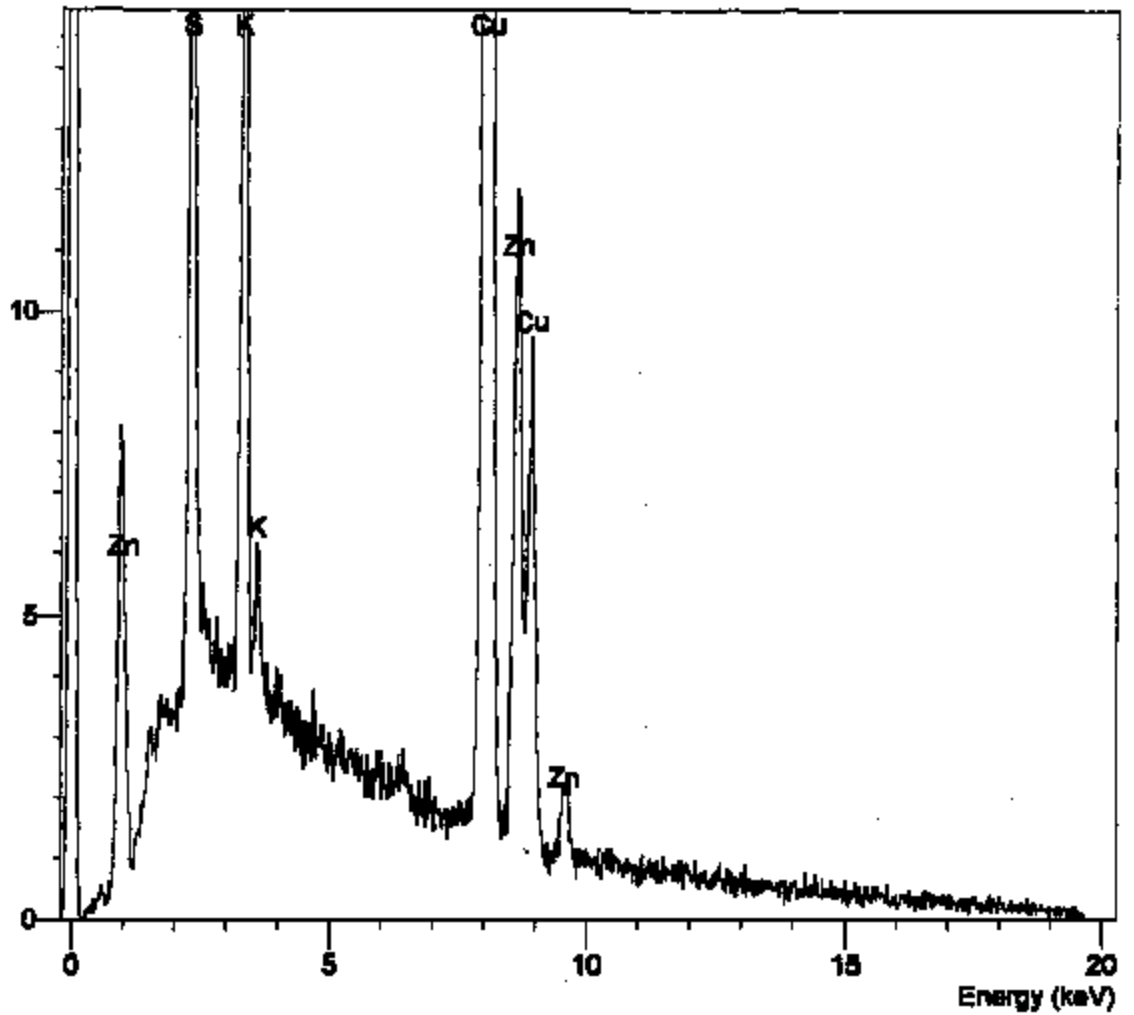
cps



3713 3020

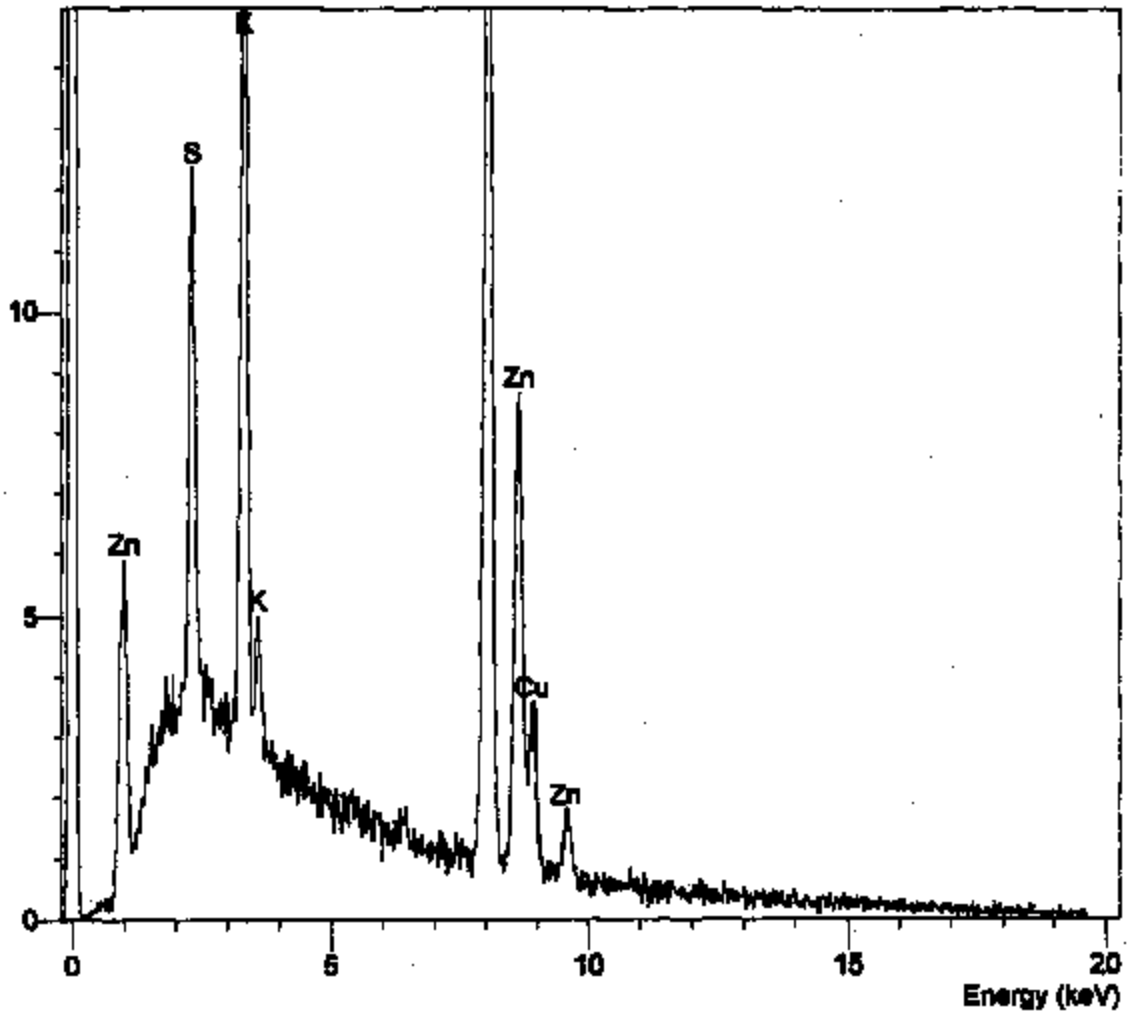
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Client : Greg Stevens
Job : 9900907
2cheoper2 (5/7/99 16:27)

cps



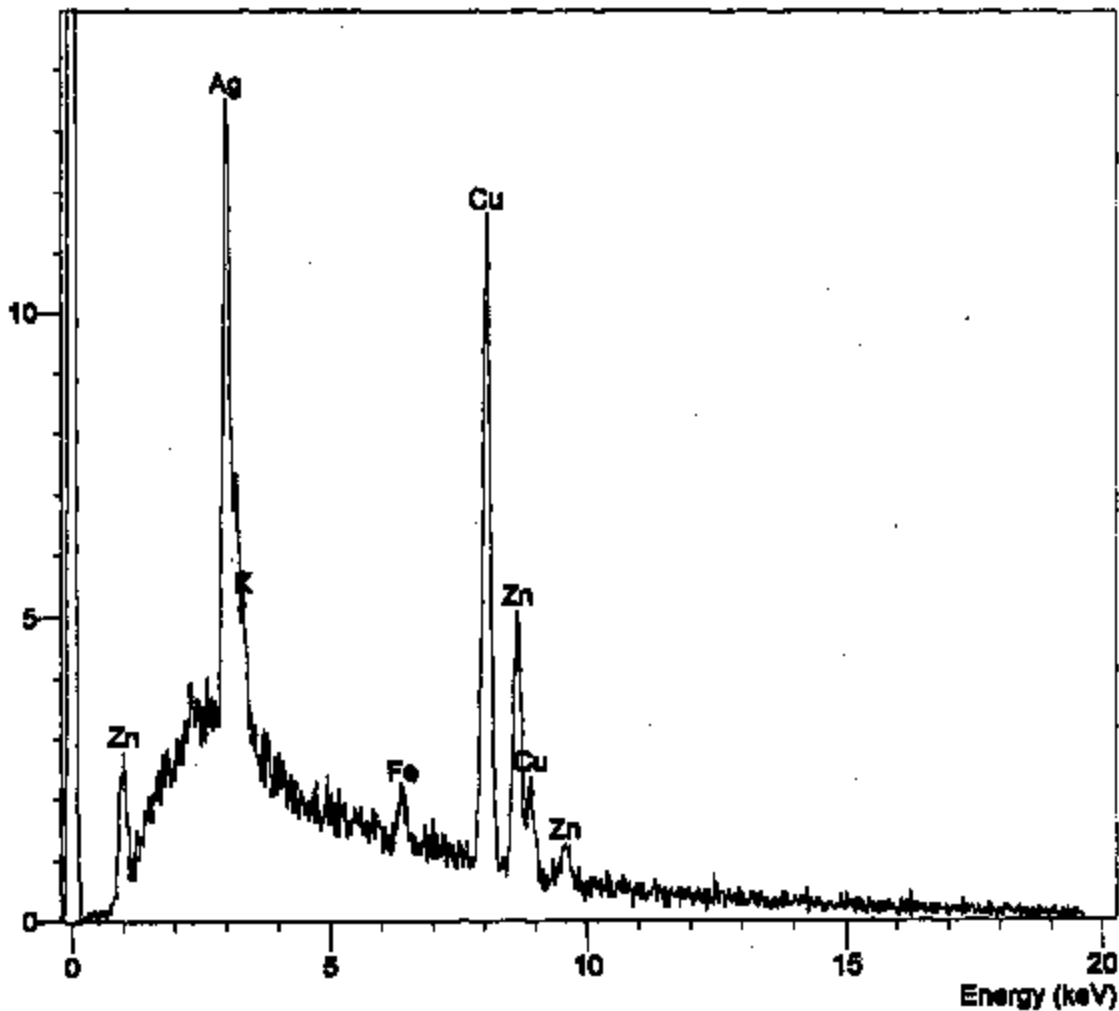
Operator : Chantell Stevenson
Client : Greg Stevens
Job : 9600607
26hexpart1 (5/7/99 16:24)

cps



Operator : Chantell Stevenson
Client : Greg Stevens
Job : 9900607
26cupfacepart3 (5/7/99 16:18)

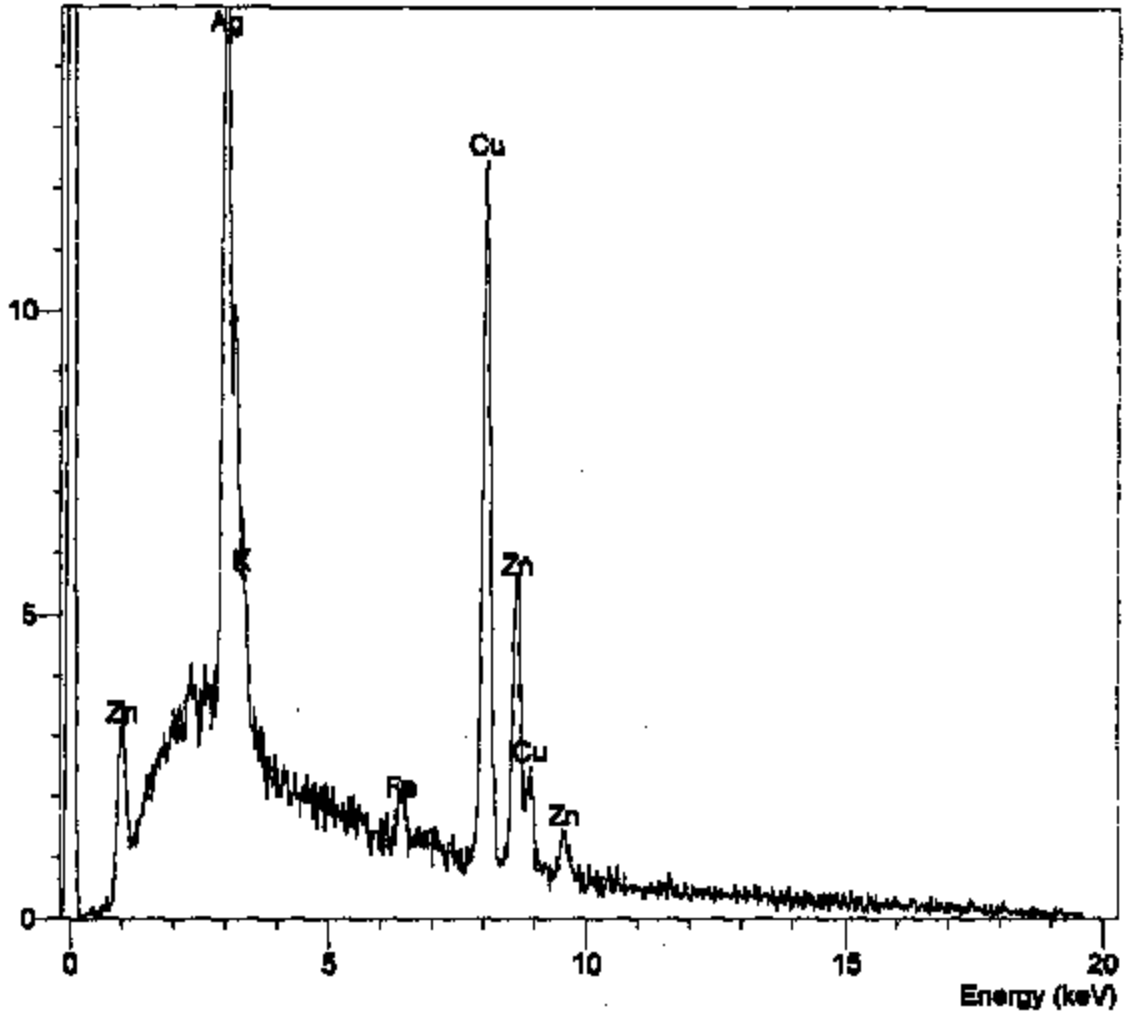
cpa



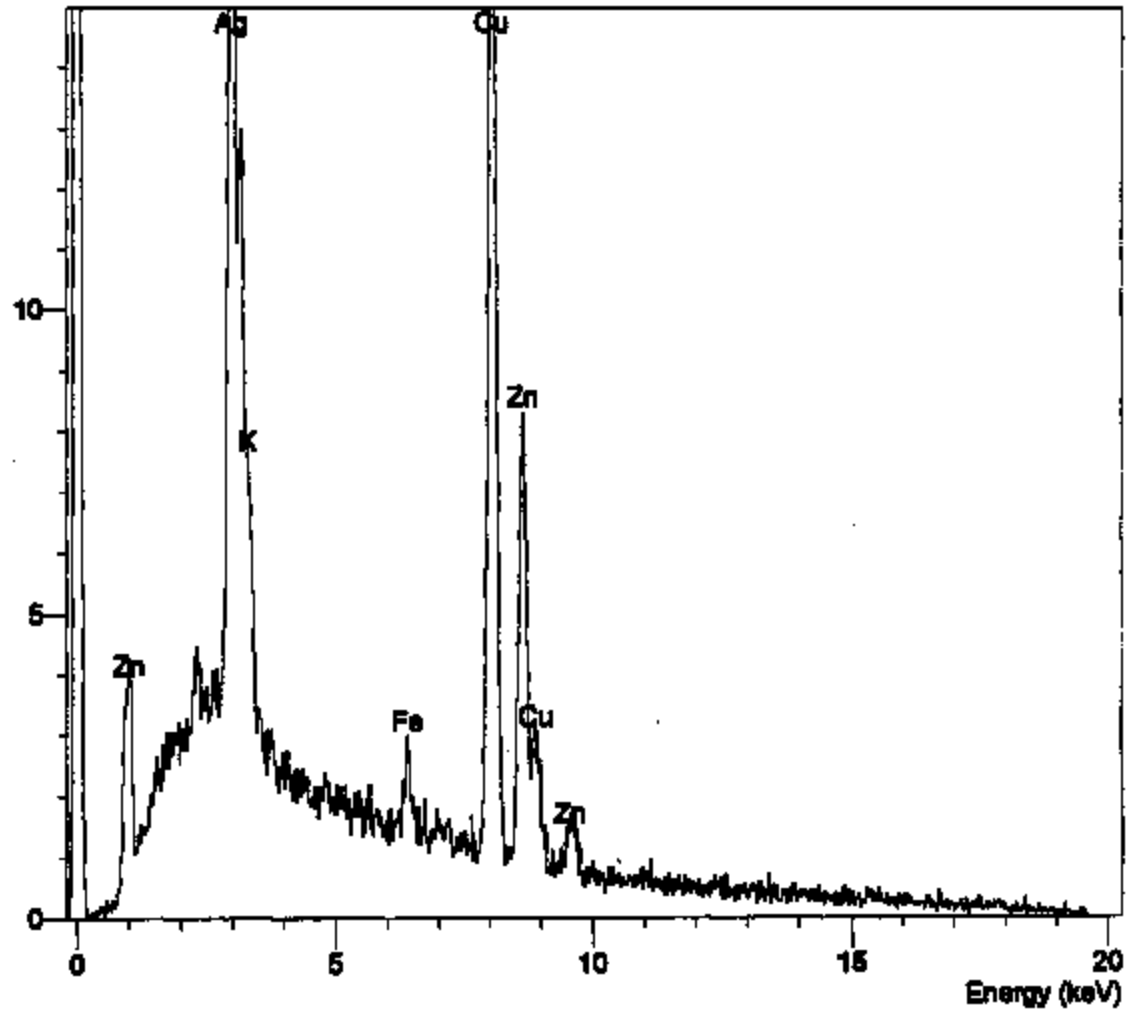
3713 3029

Operator : Chantell Stevenson
Client : Greg Stevens
Job : 9900607
26cupfacepart2 (5/7/99 16:14)

cpa

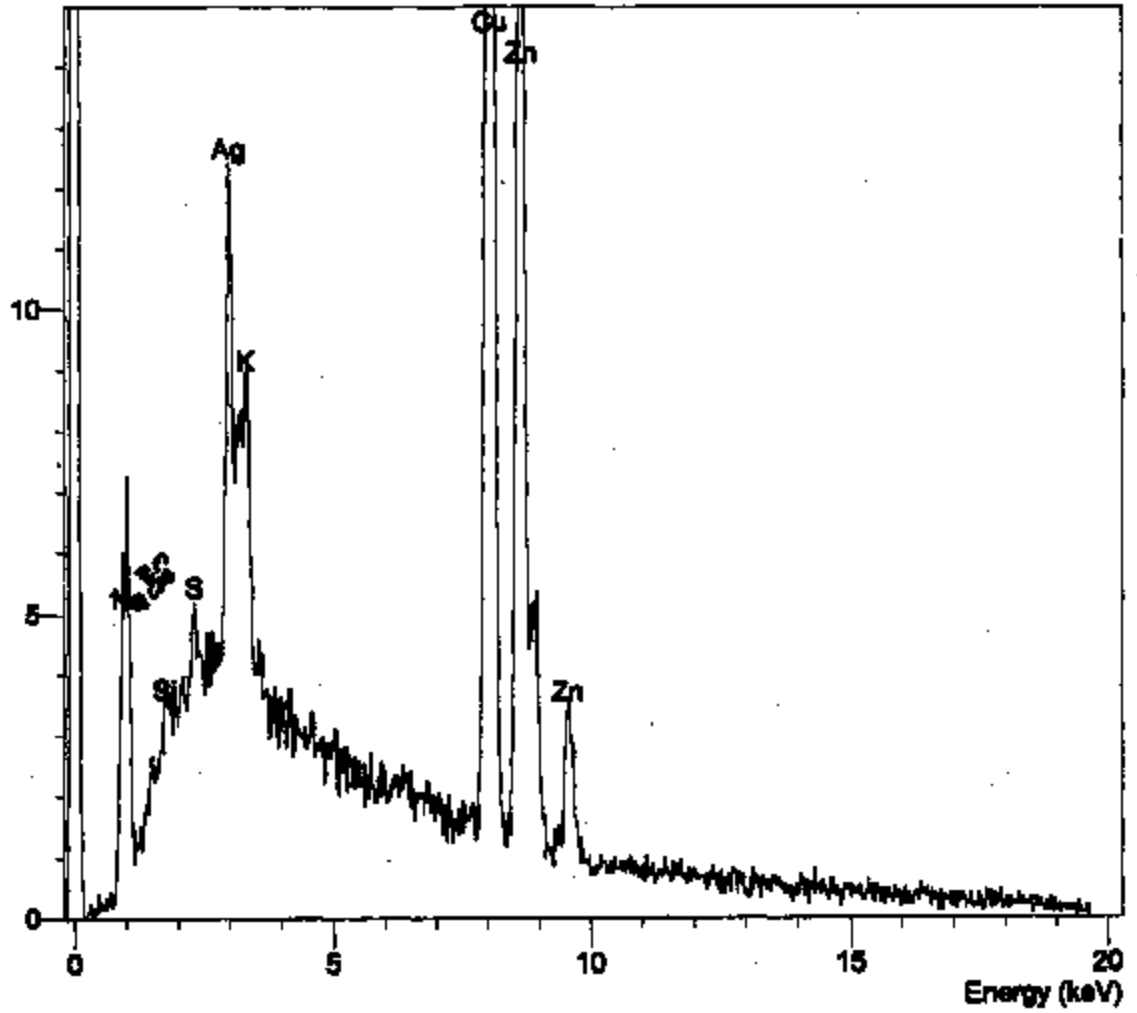


Operator : Chantell Stevenson
Client : Greg Stevens
Job : 8900807
28cupfacepart1 (5/7/99 18:11)



Operator : Chantell Stevenson
Client : Greg Stevens
Job : 9900907
10cipart5 (5/7/99 16:02)

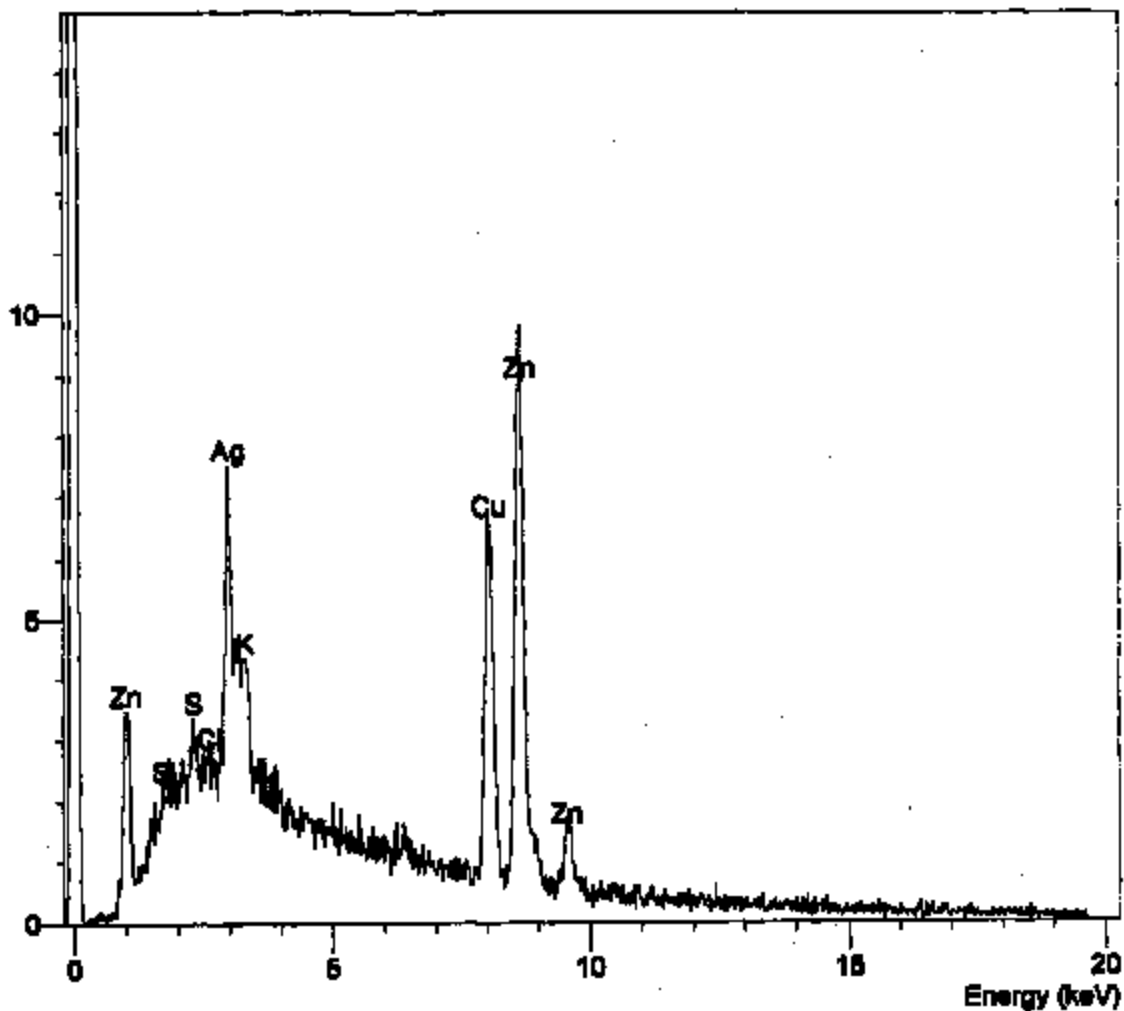
cps



3713 3026

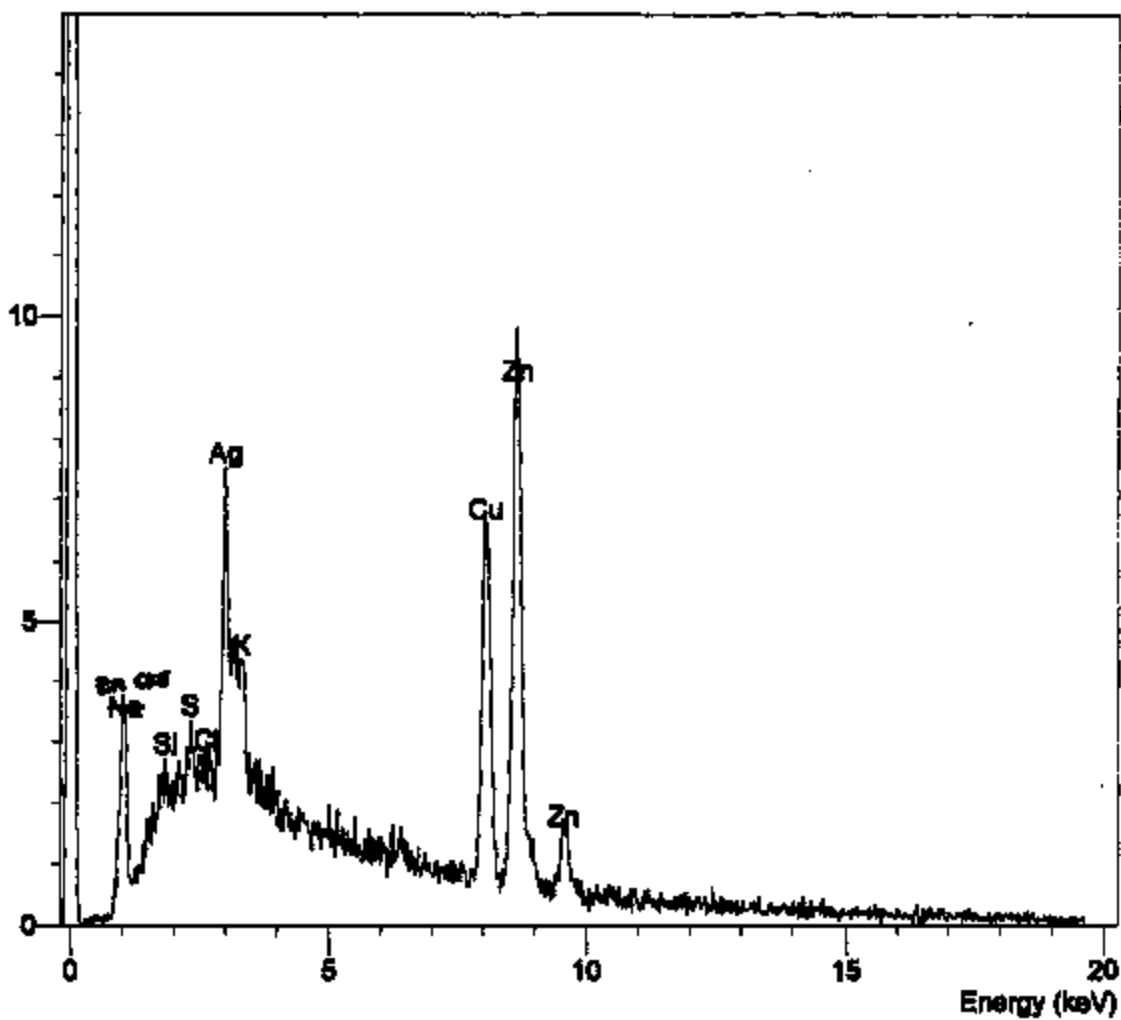
Operator : Chantell Stevenson
Client : Greg Stevens
Job : 9900607
10cipart4 (5/7/99 15:26)

cps



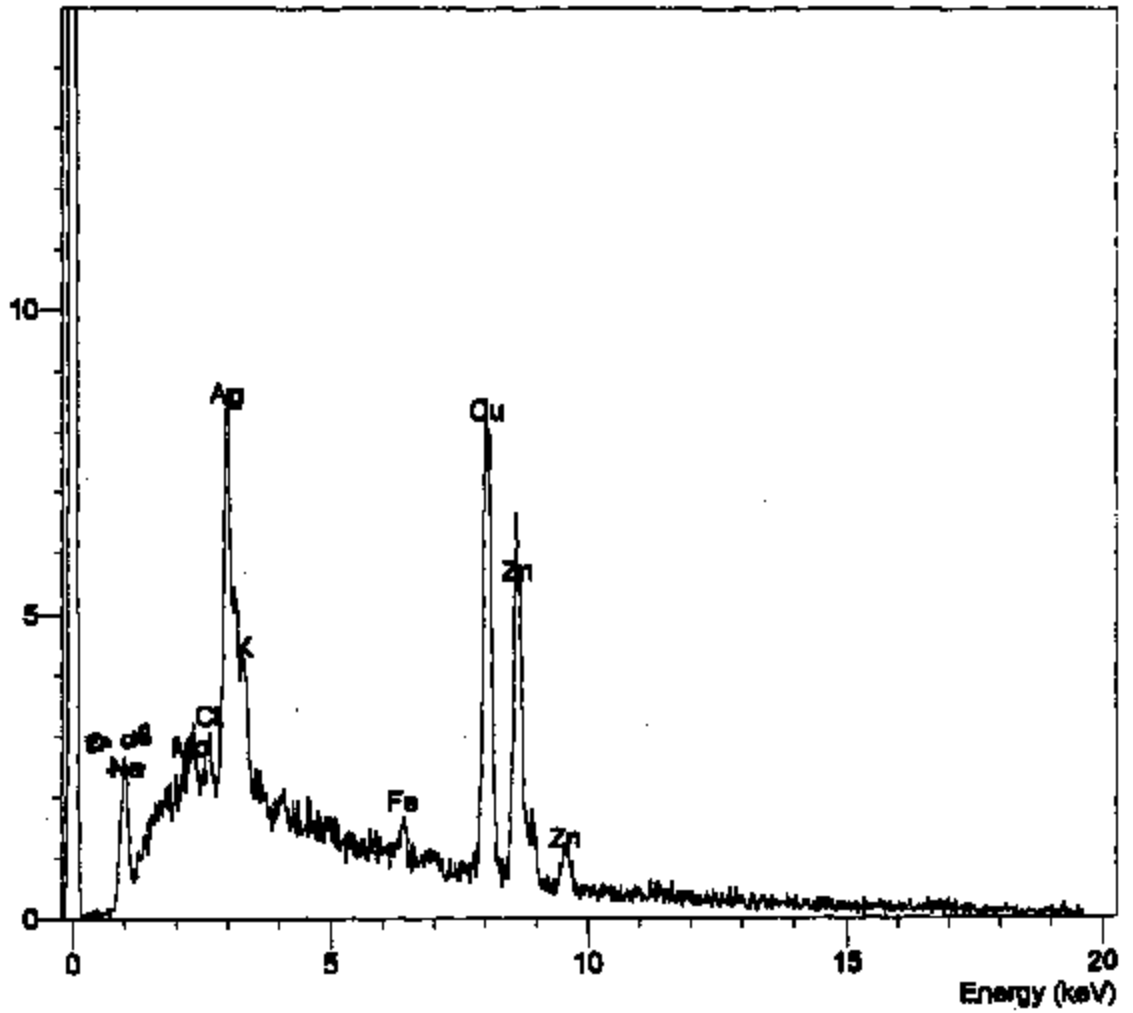
Operator : Chantell Stevenson
Client : Greg Stevens
Job : 9900807
10c1part3 (5/7/99 15:28)

cps



Operator : Chantell Stevenson
Client : Greg Stevens
Job : 9800807
10c1par2 (5/7/98 15:23)

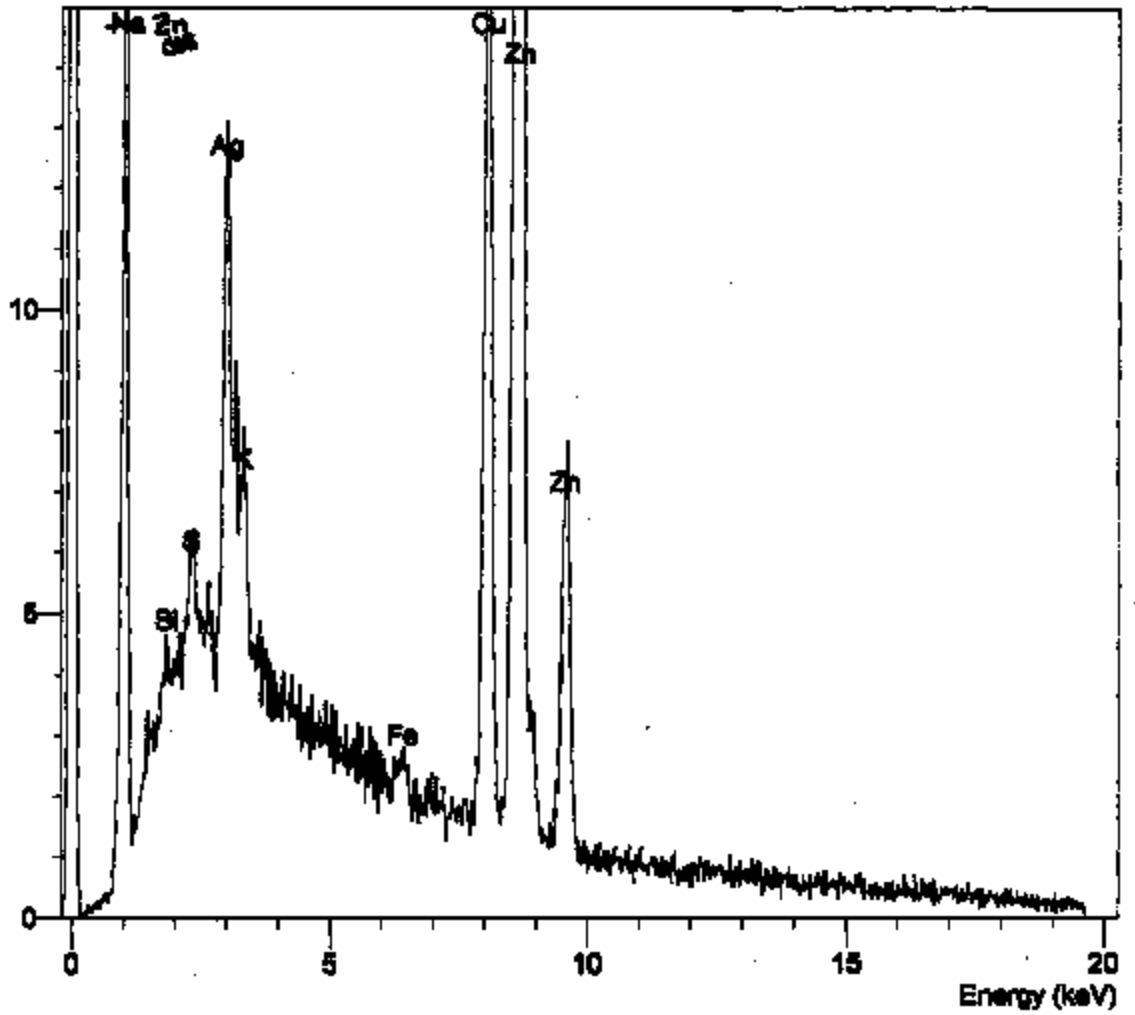
cps



3713 3029

Operator : Chantell Stevenson
Client : Greg Stevens
Job : 9900807
10cipart1 (5/7/99 15:18)

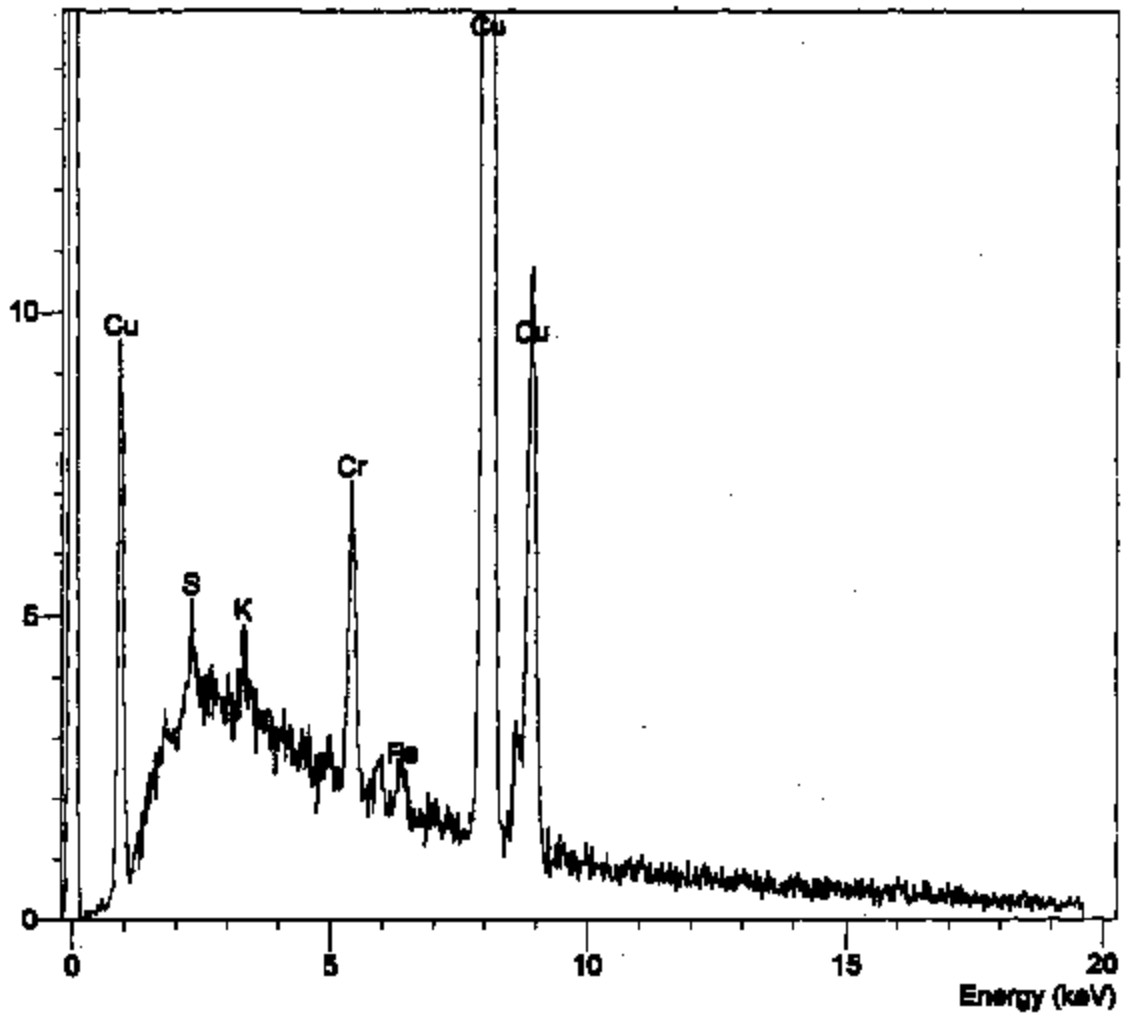
cps



3713 3050

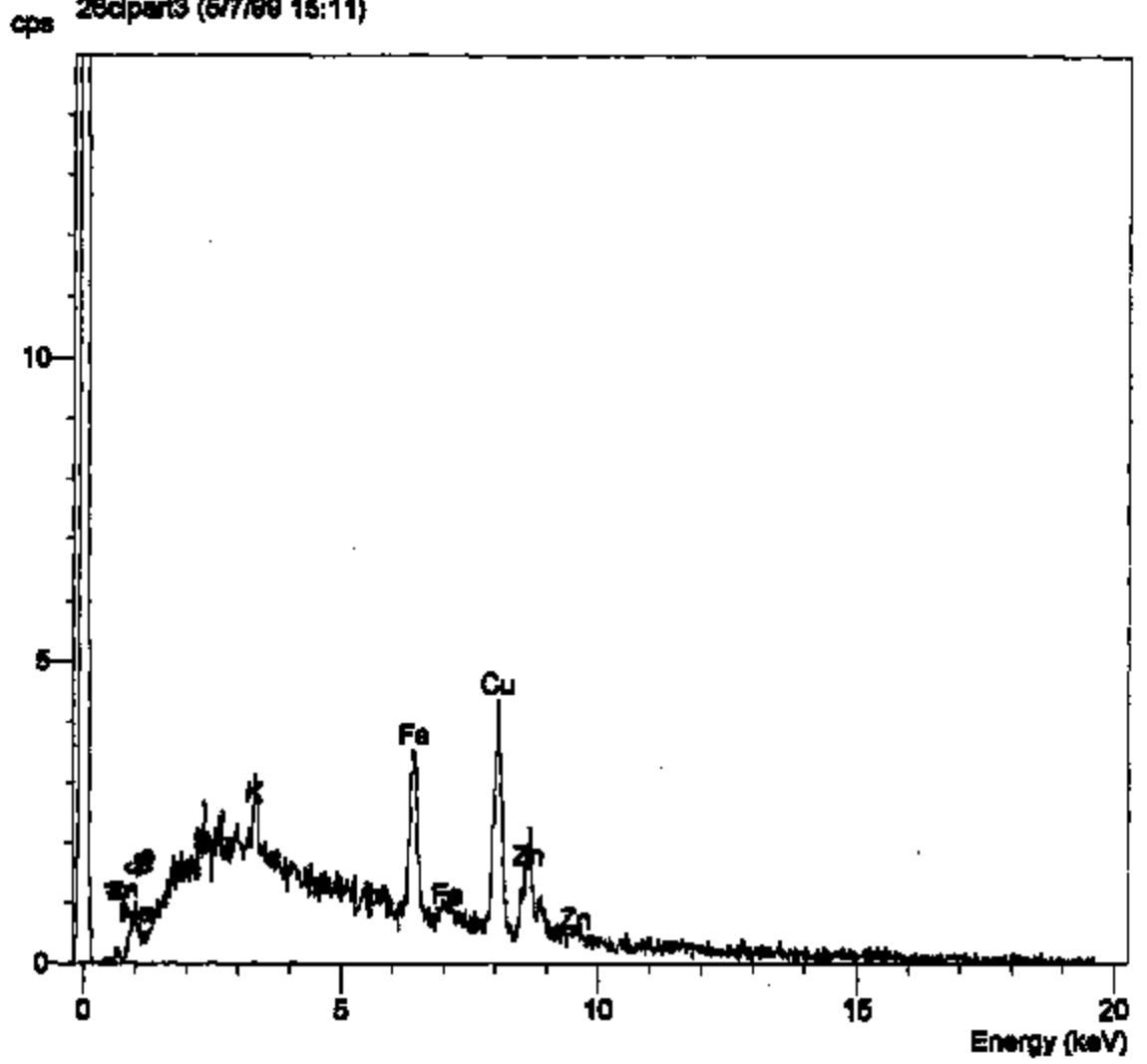
Operator : Chantell Stevenson
Client : Greg Stevens
Job : 9900607
26cpart4 (5/7/99 15:15)

cps



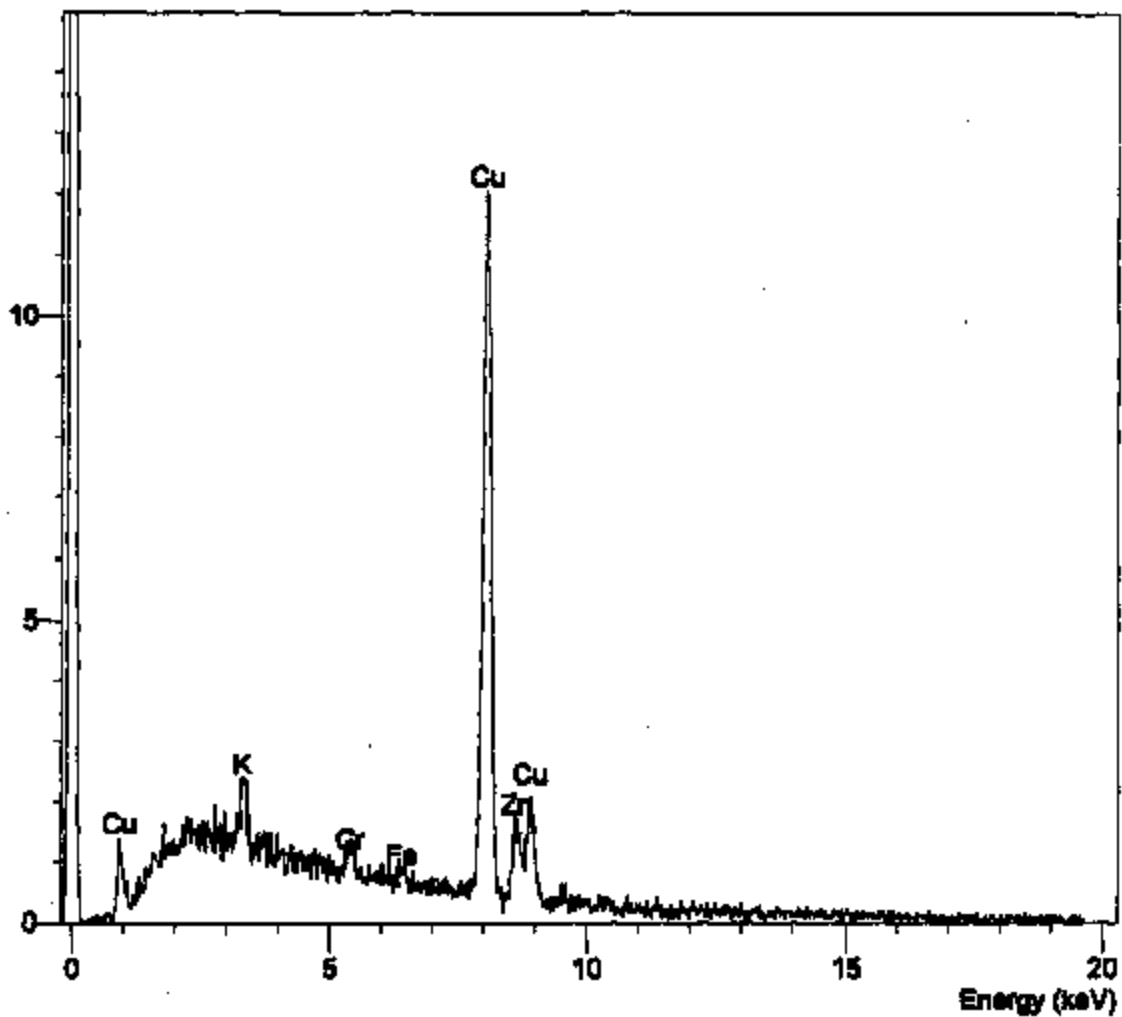
3719 3031

Operator : Chantell Stevenson
Client : Greg Stevens
Job : 9900607
26cpart3 (5/7/99 15:11)



Operator : Chantell Stevenson
Client : Greg Stevens
Job : 9900807
25cipart2 (5/7/99 15:09)

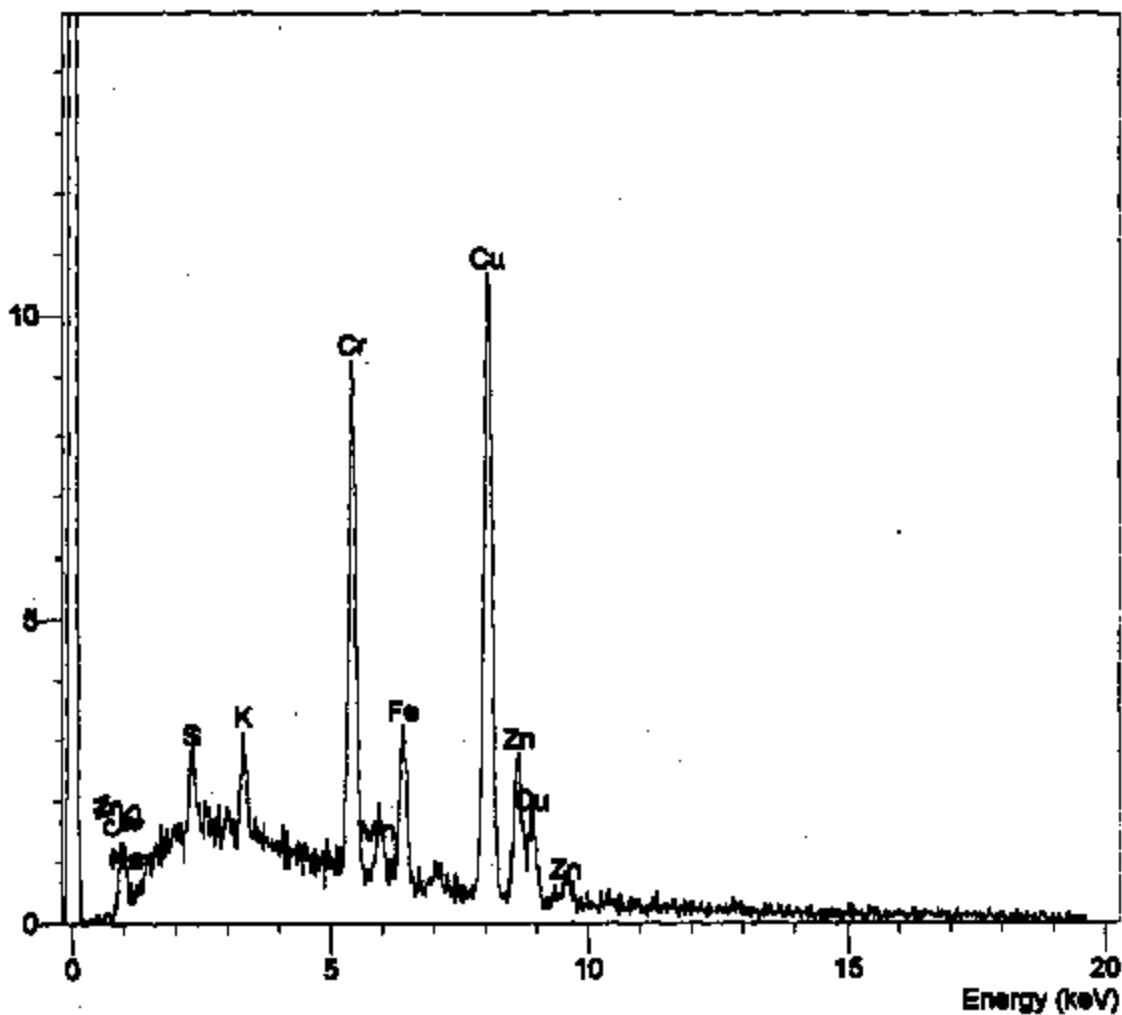
cps



3713 3033

Operator : Chantell Stevenson
Client : Greg Stevens
Job : 9900607
26cipart1 (5/7/99 15:08)

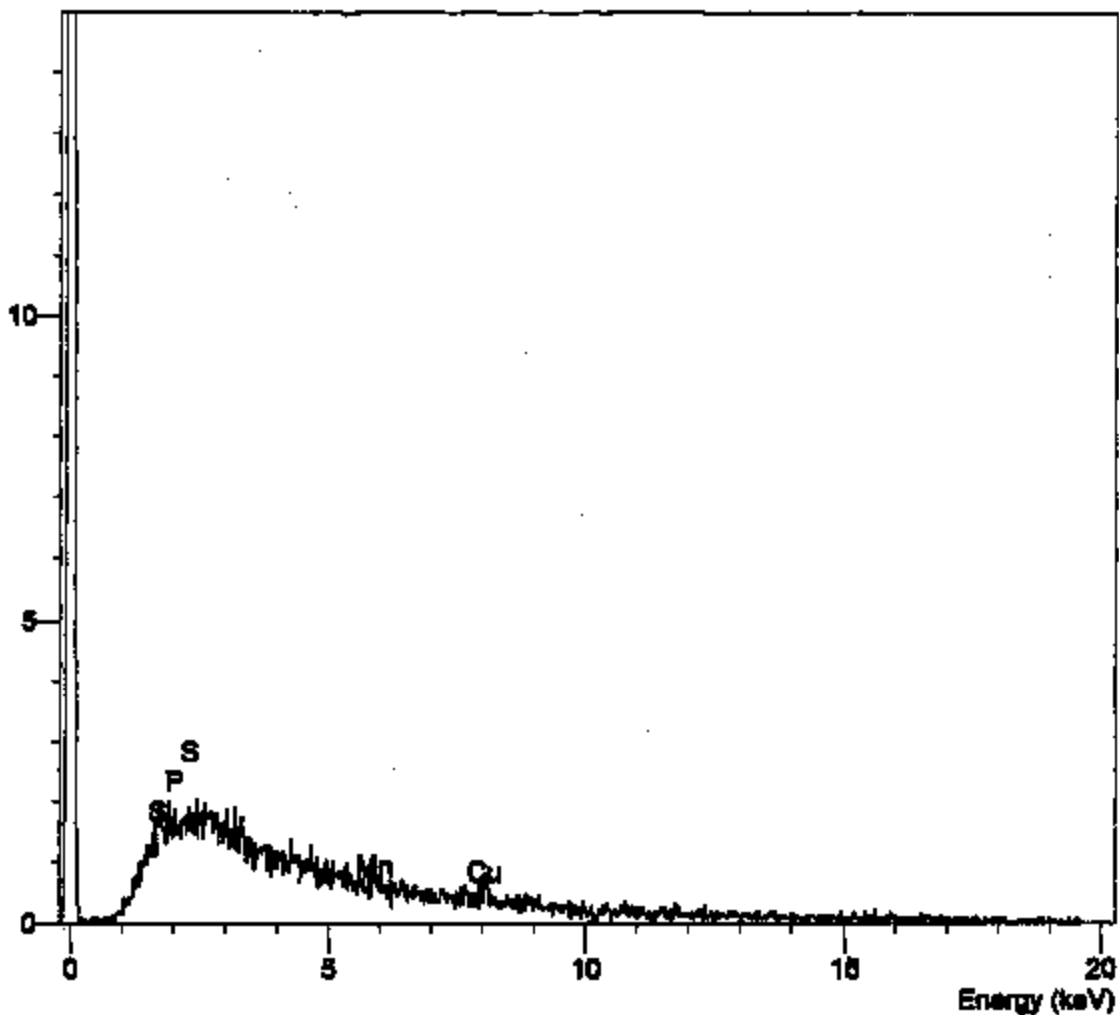
cps



3713 3034

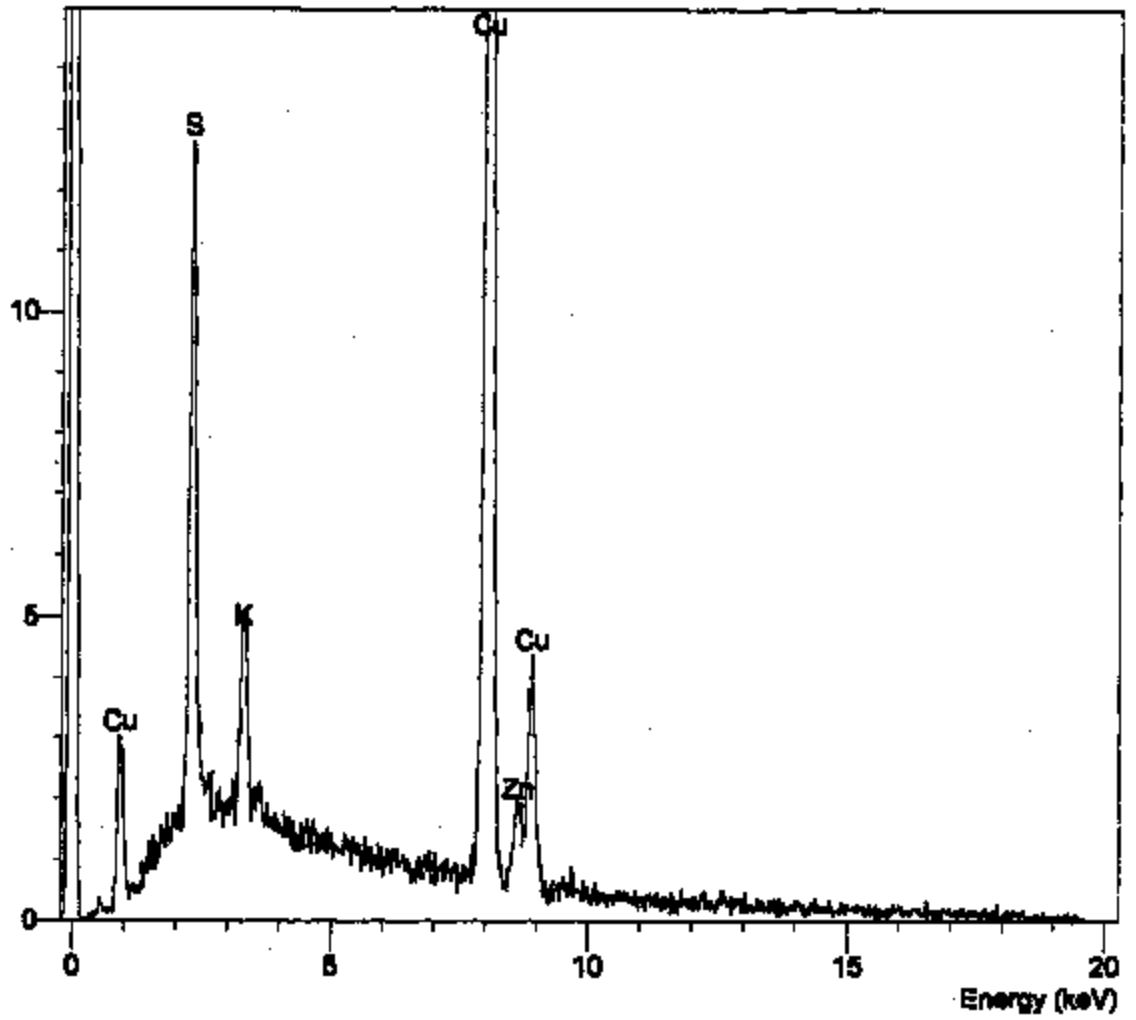
Operator : Chantell Stevenson
Client : Greg Stevens
Job : 9900607
25carbontape (5/7/99 15:02)

cps



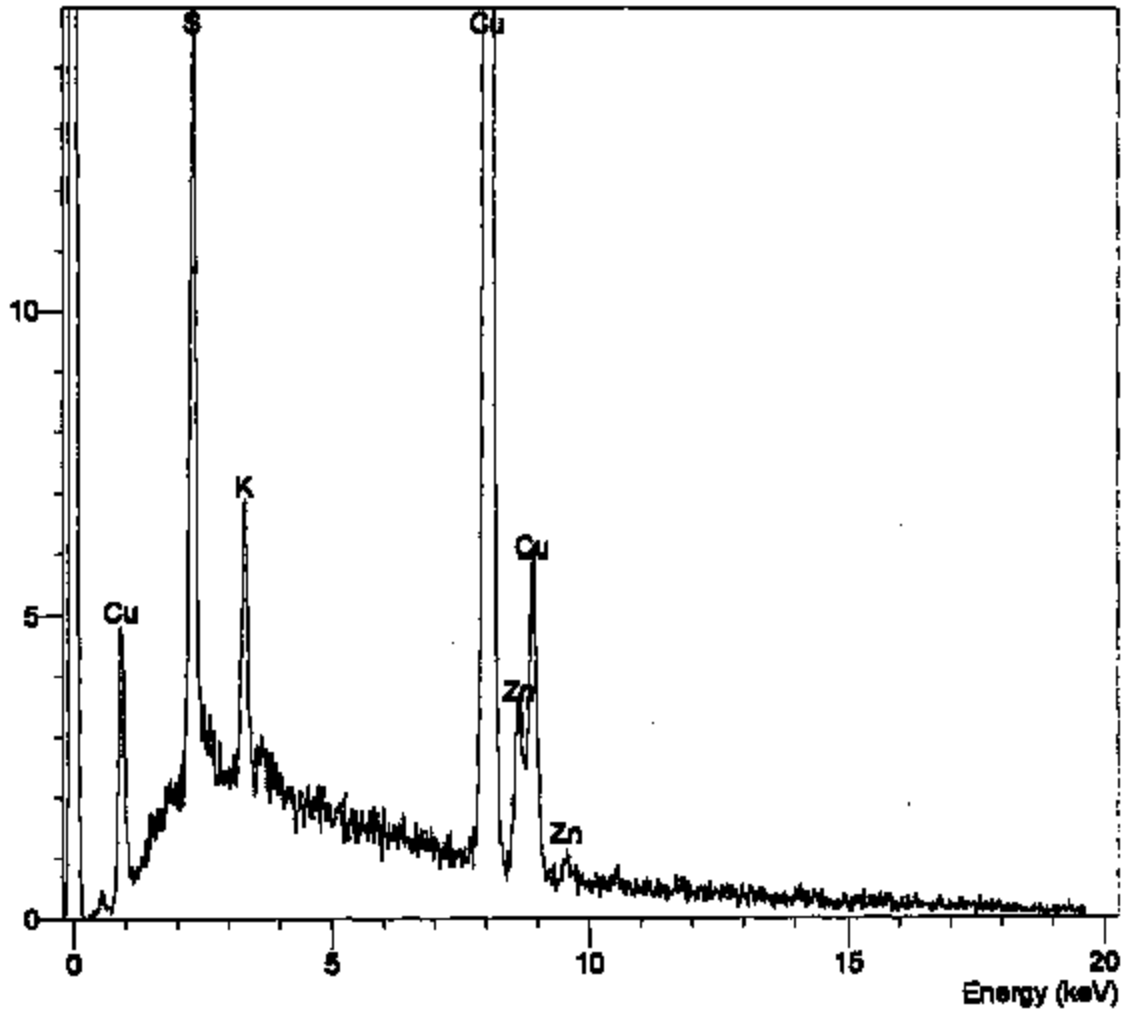
Operator : Chantell Stevenson
Client : Greg Stevens
Job : 9900607
10hexpart4 (5/7/99 14:53)

cps



Operator : Chantell Stevenson
Client : Greg Stevens
Job : 9900807
10hexpart3 (5/7/99 14:48)

cps



9713 3037

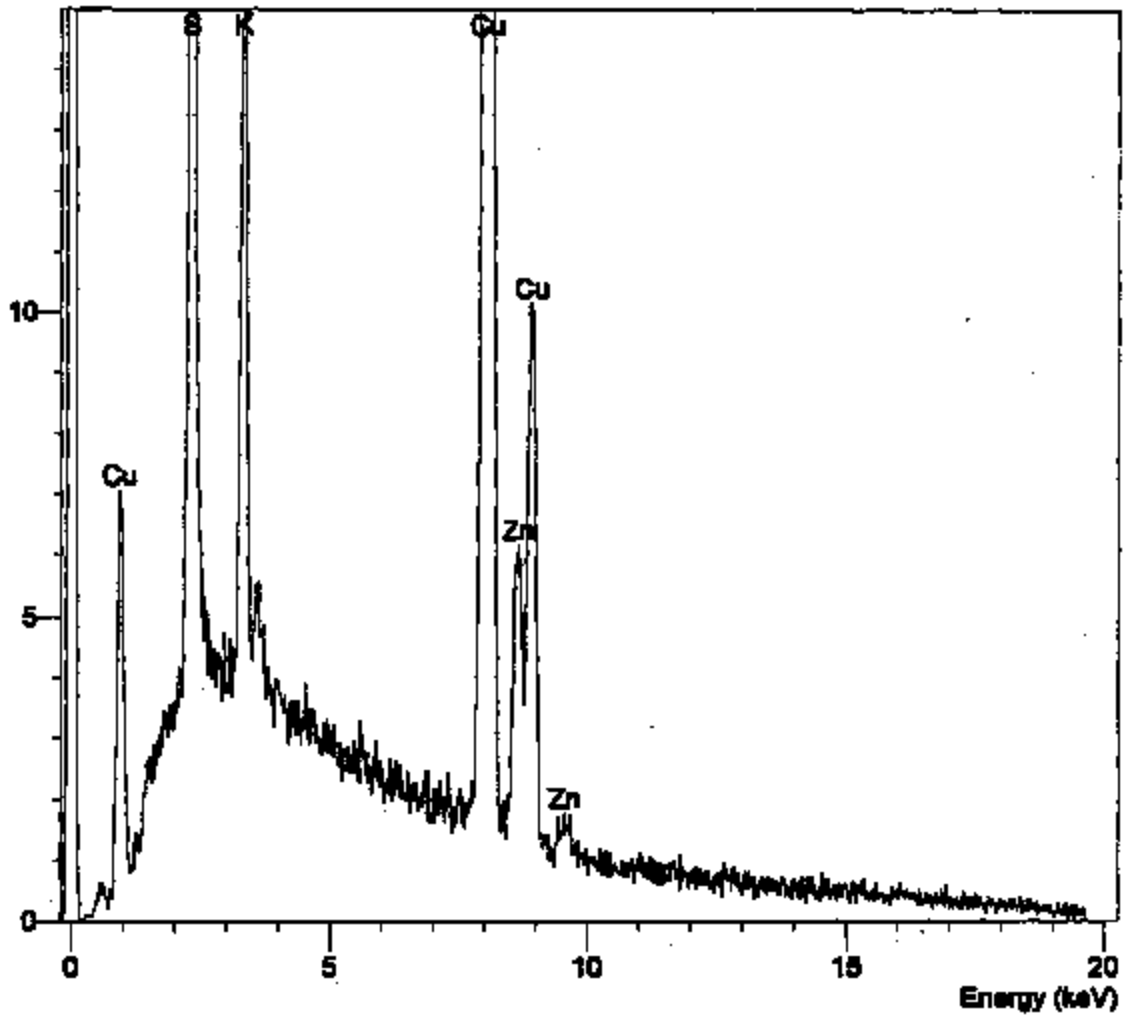
Operator : Charli Stevenson

Client : Greg Stevens

Job : 9900907

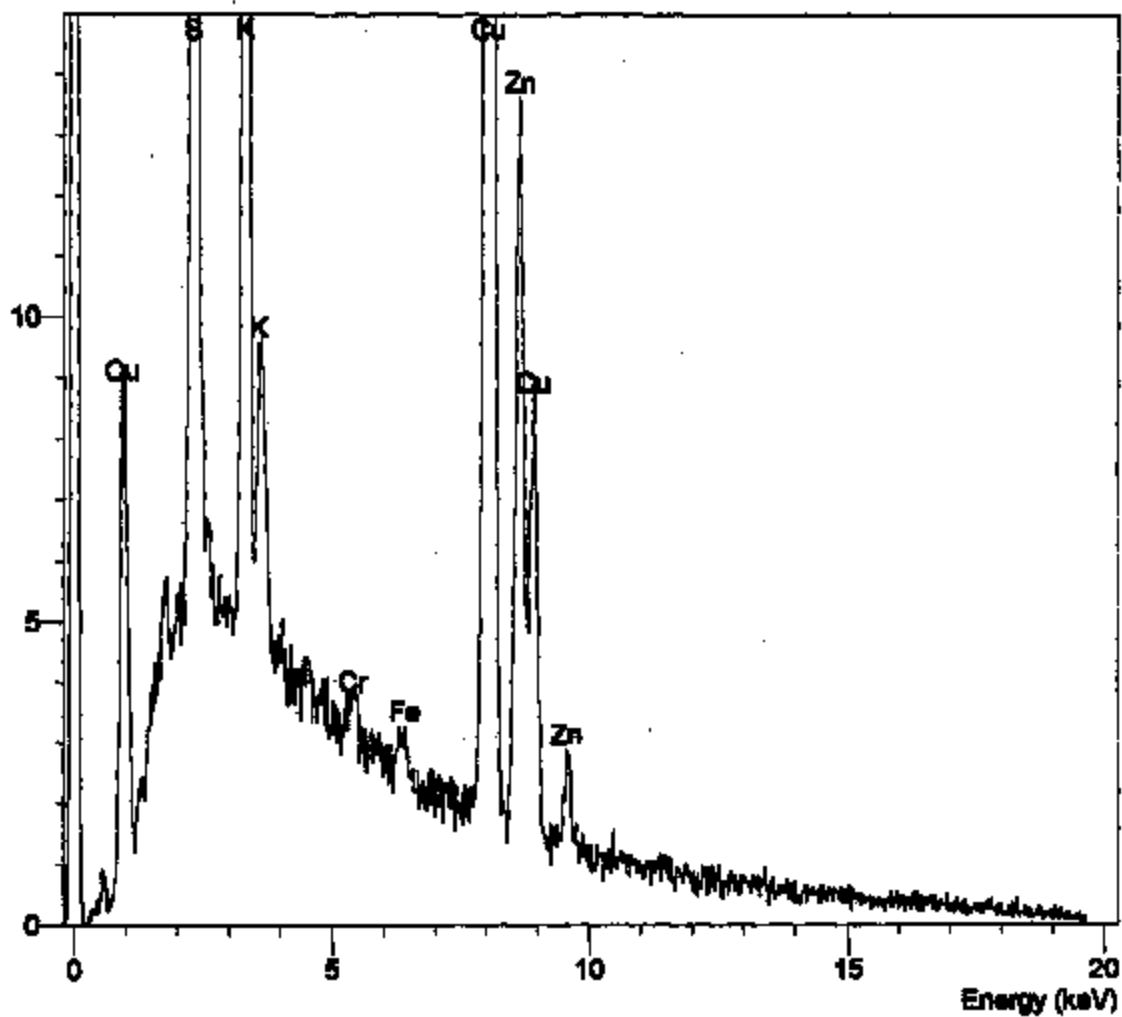
10haspart2 (5/7/99 14:48)

cps



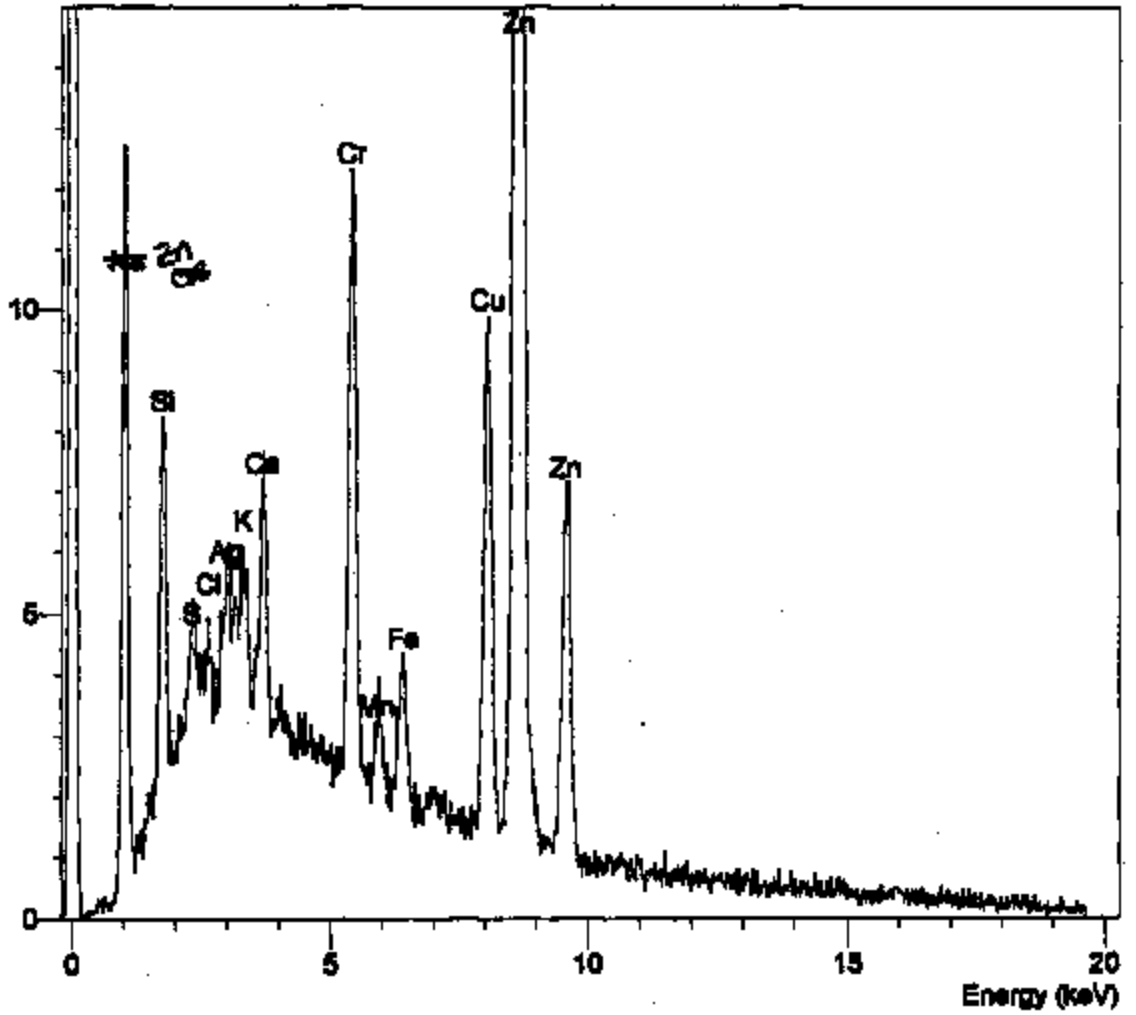
Operator : Chantell Stevenson
Client : Greg Stevens
Job : 9900807
10hexpart1 (5/8/99 11:34)

cps



Operator : Chantell Stevenson
Client : Greg Stevens
Job : 9900607
477acapanB (5/6/99 11:07)

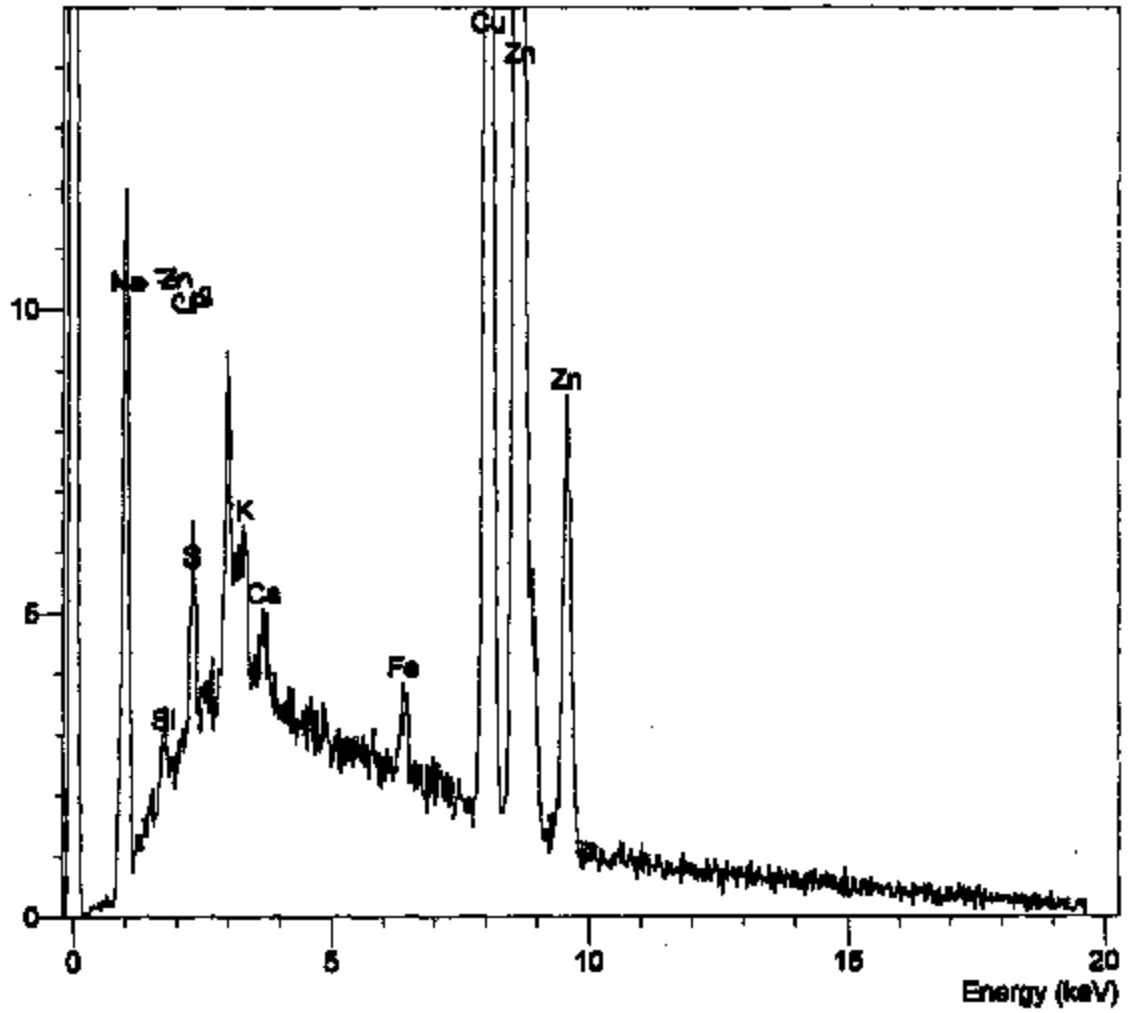
cps



3713 9040

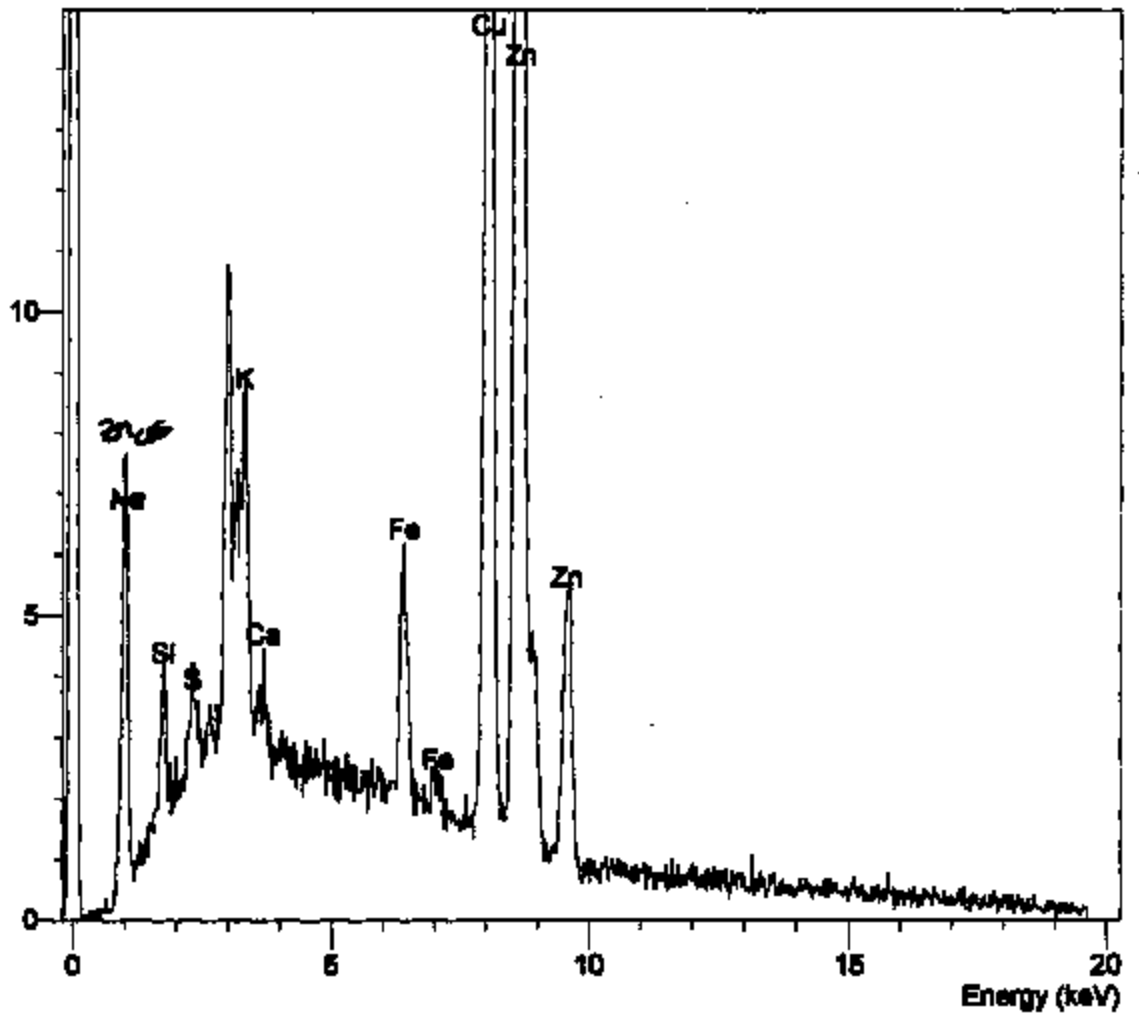
Operator : Chantell Stevenson
Client : Greg Stevens
Job : 8900807
471acepart5 (5/8/99 11:04)

cps



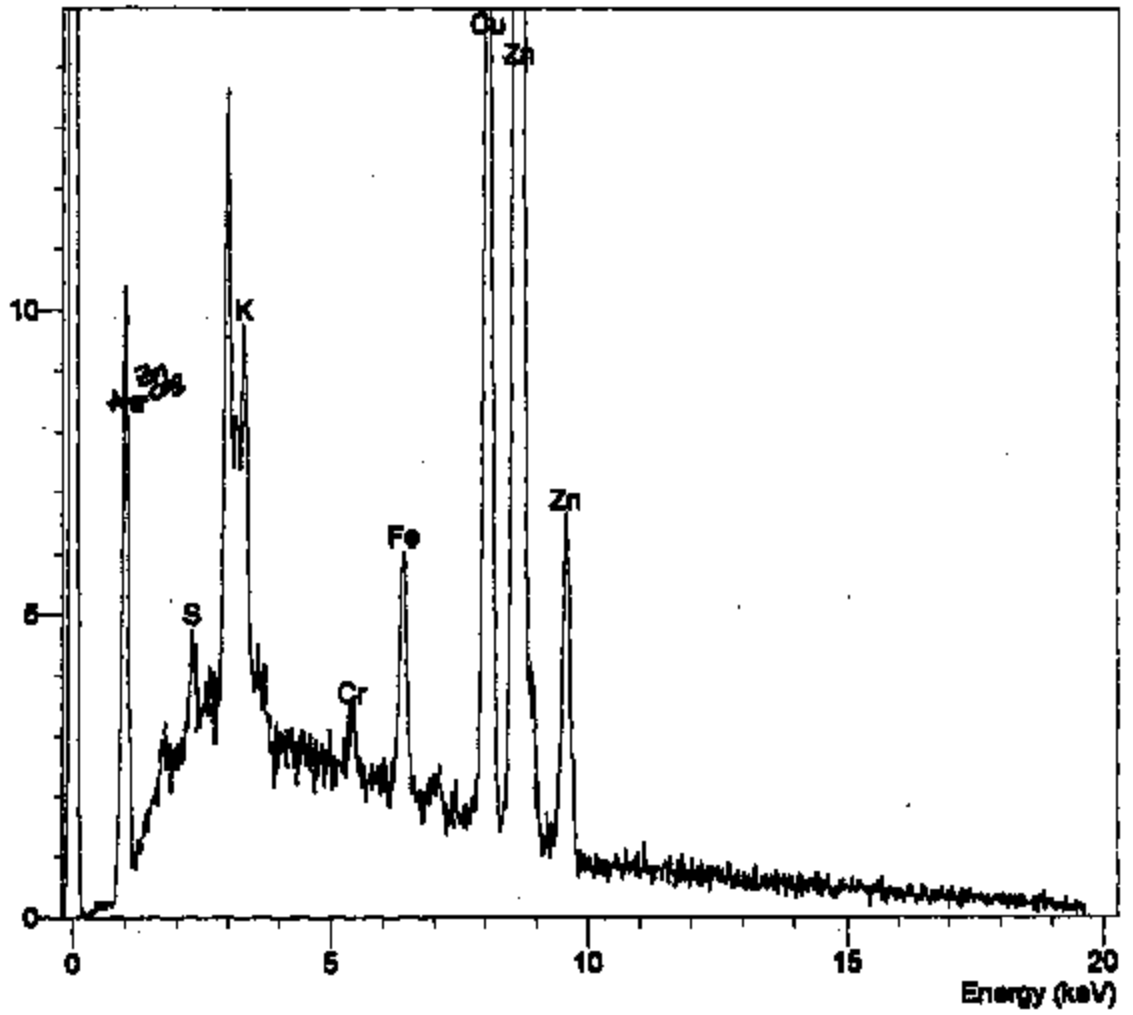
Operator : Chantell Stevenson
Client : Greg Stevens
Job : 9900607
47facepart4 (5/8/99 11:00)

cpa



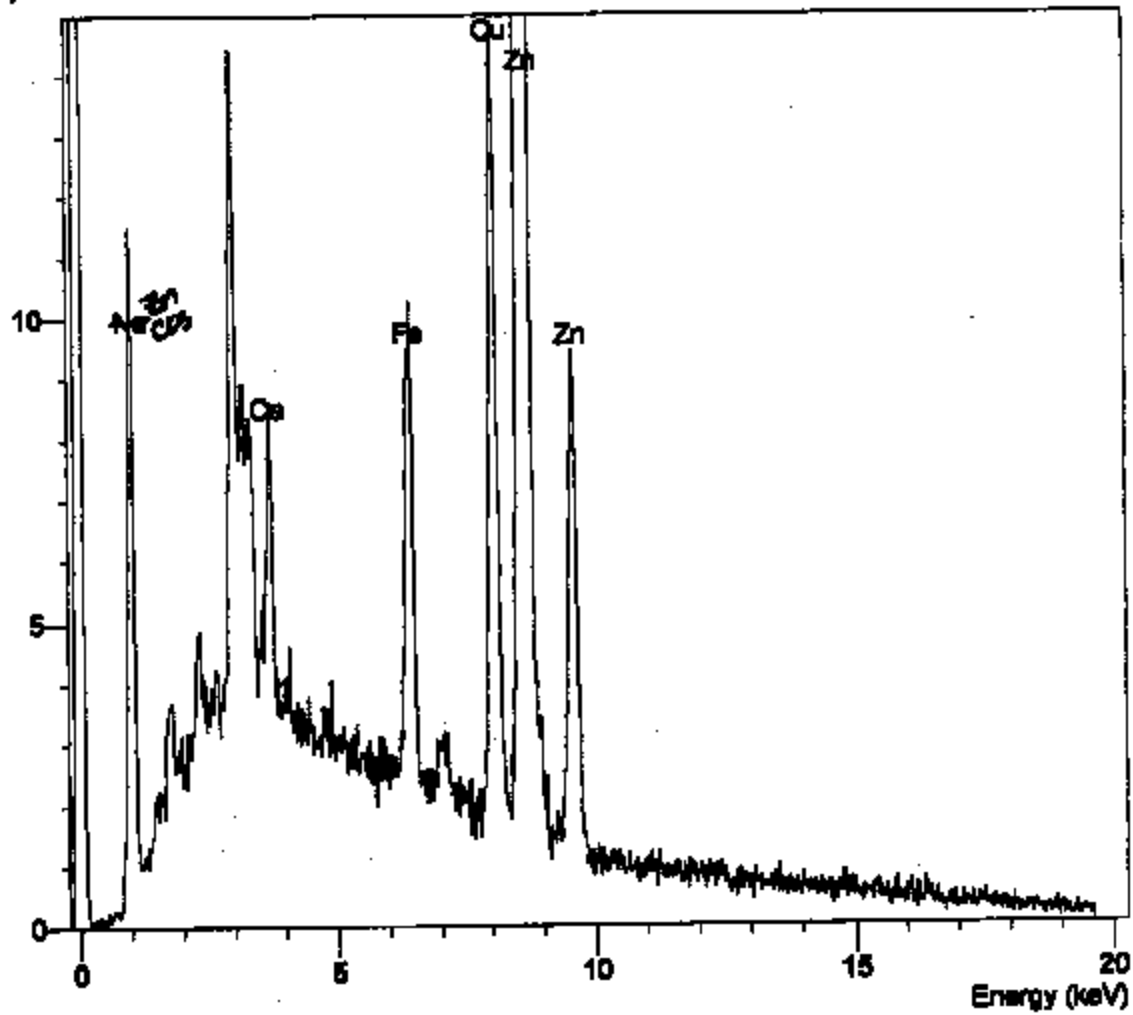
Operator : Chantell Stevenson
Client : Greg Stevens
Job : 9900807
47facspart3 (5/8/99 10:57)

cps



Operator : Chantell Stevenson
Client : Greg Stevens
Job : 9900807
47fsoepart2 (5/6/99 10:54)

cps



3713 3044

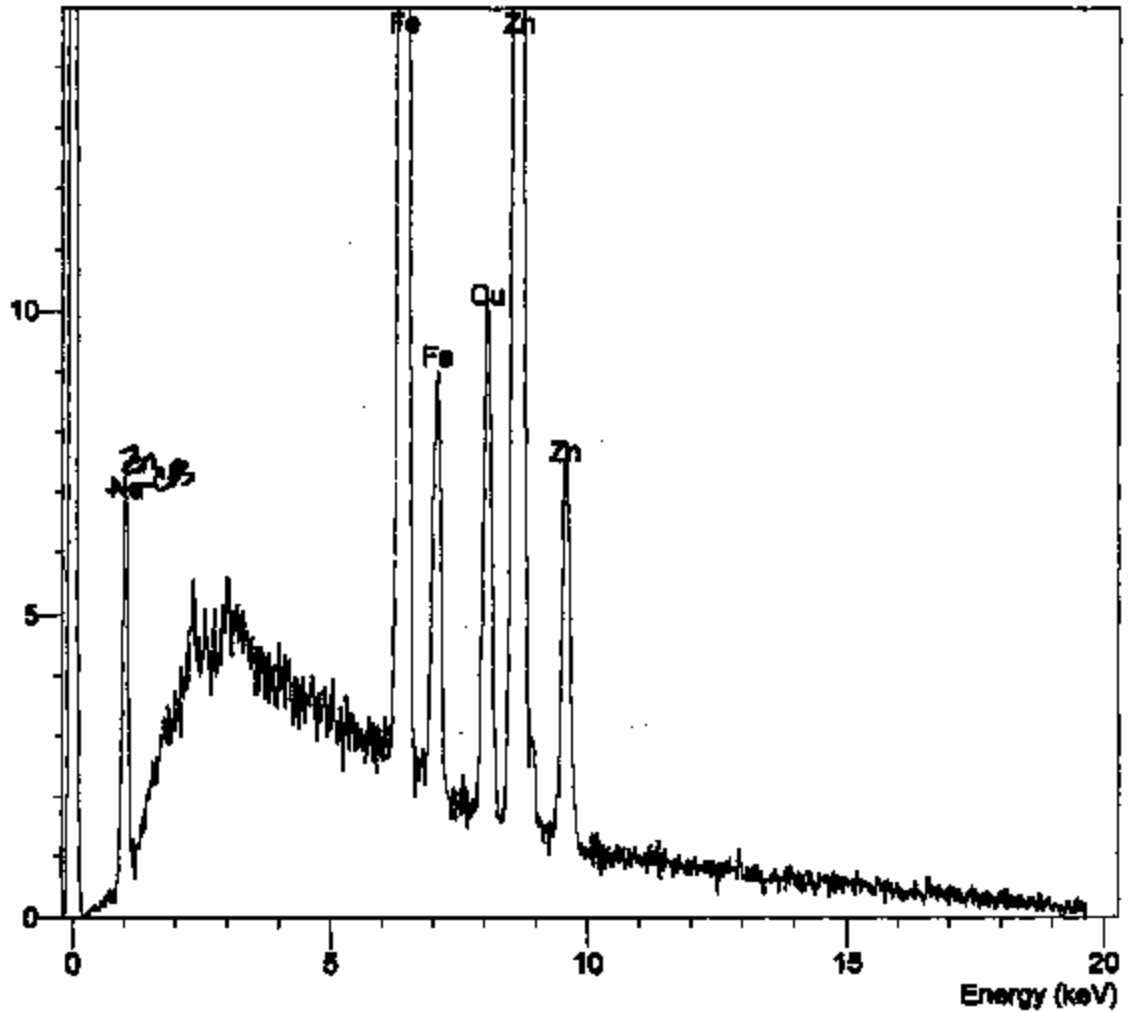
Operator : Chantell Stevenson

Client : Greg Stevens

Job : 9800507

47facepart1 (5/8/99 10:51)

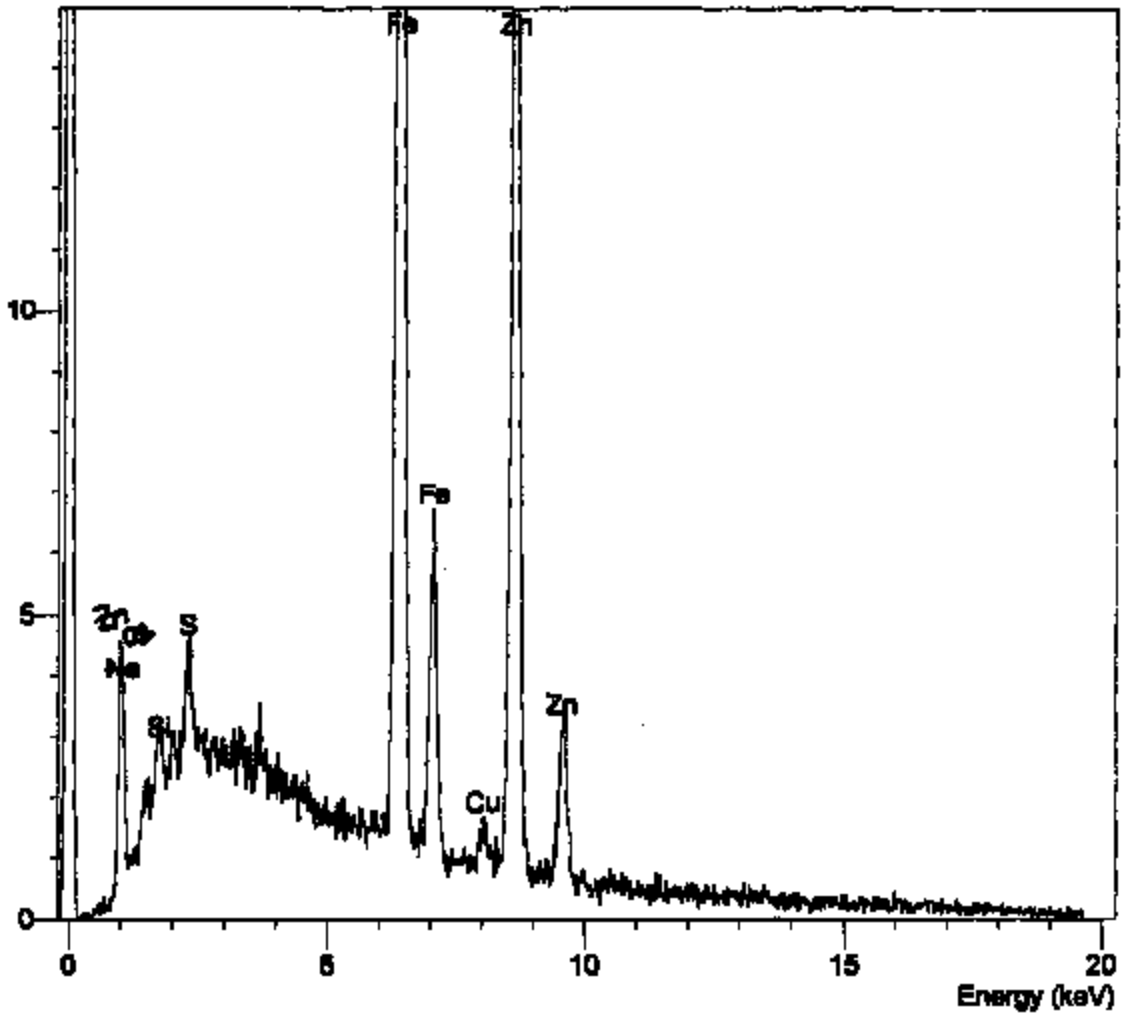
cps



3713 3045

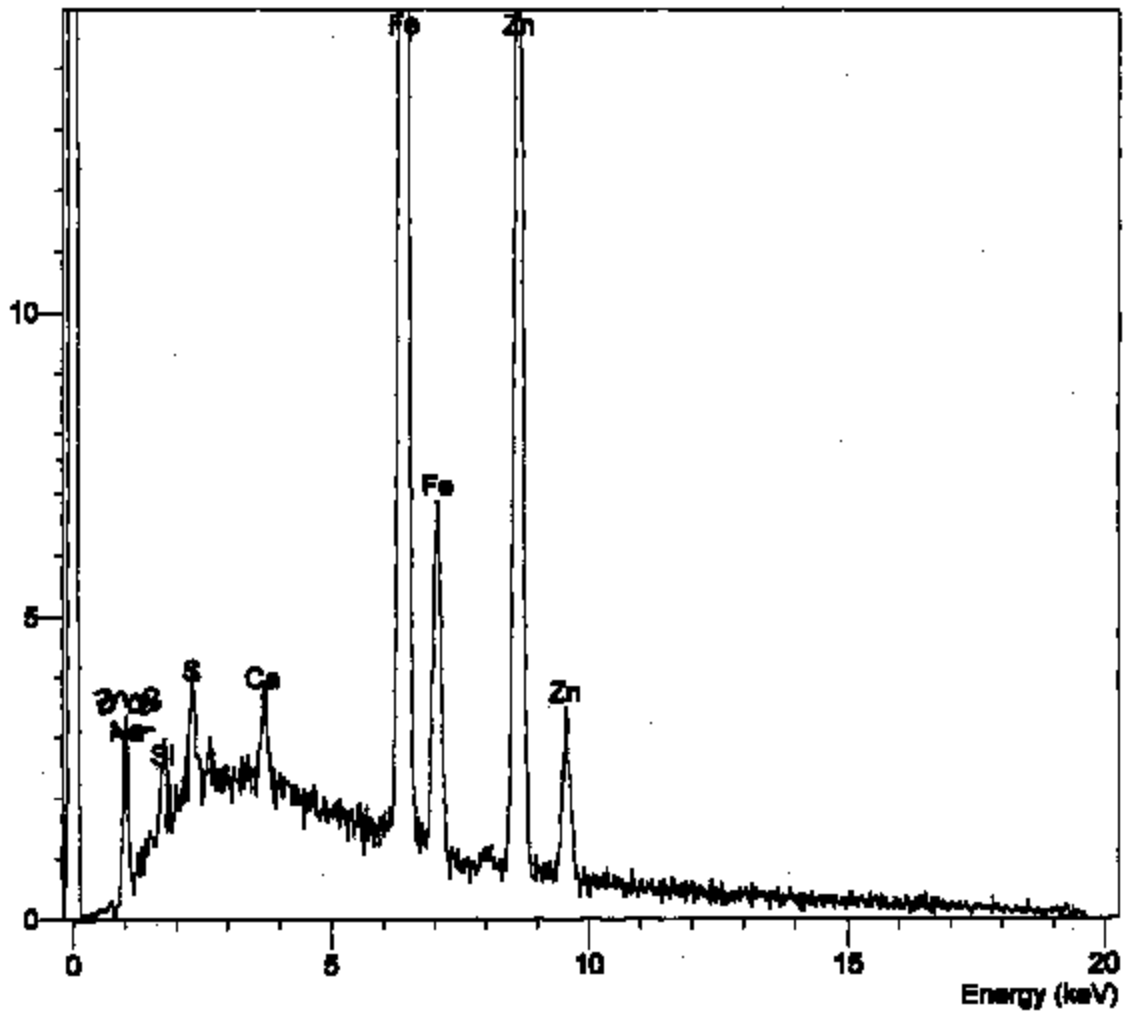
Operator : Chantell Stevenson
Client : Greg Stevens
Job : 9900907
98facepart5 (5/8/99 10:49)

cps



Operator : Chantell Stevenson
Client : Greg Stivers
Job : 9900607
95facepat4 (5/6/99 10:46)

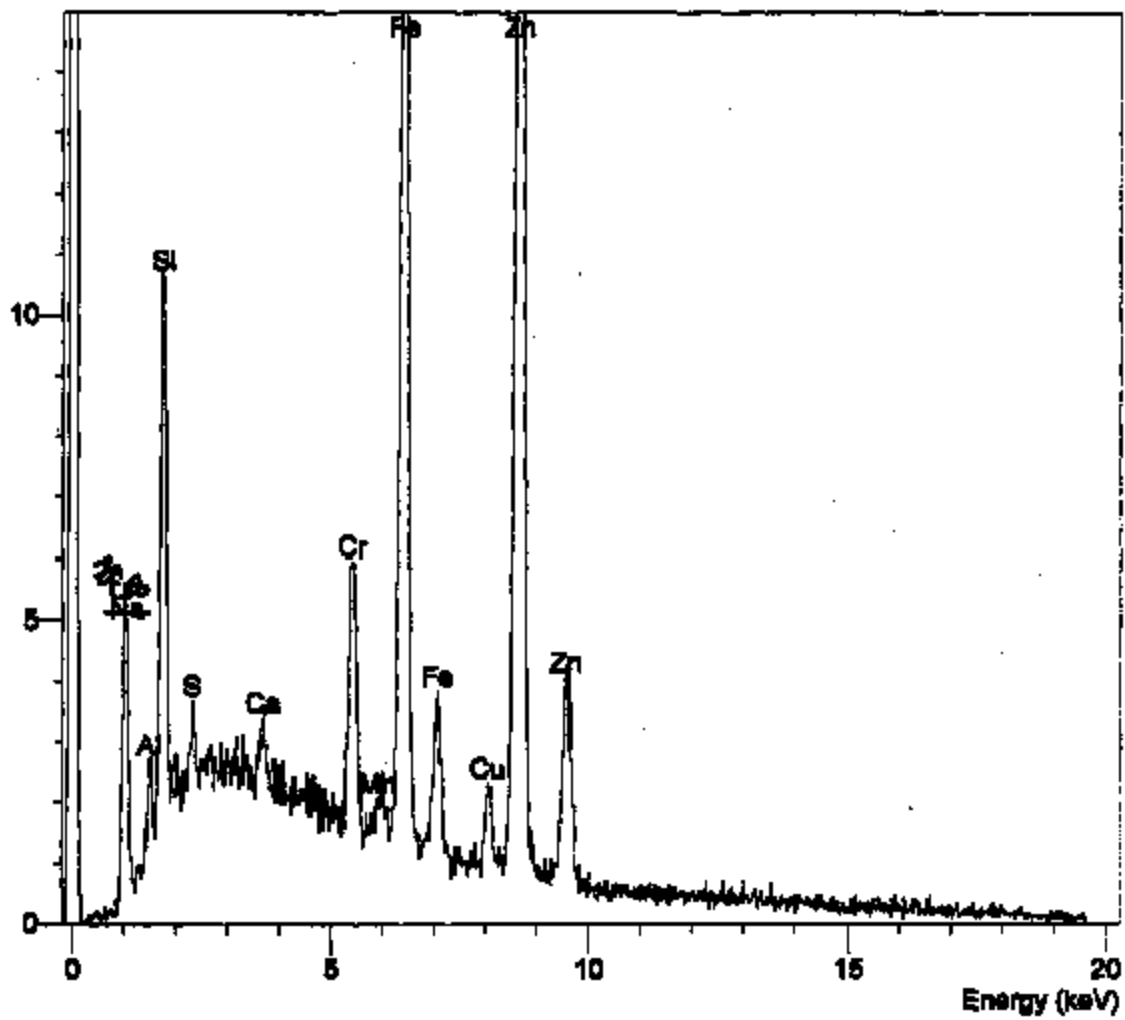
cps



3713 3047

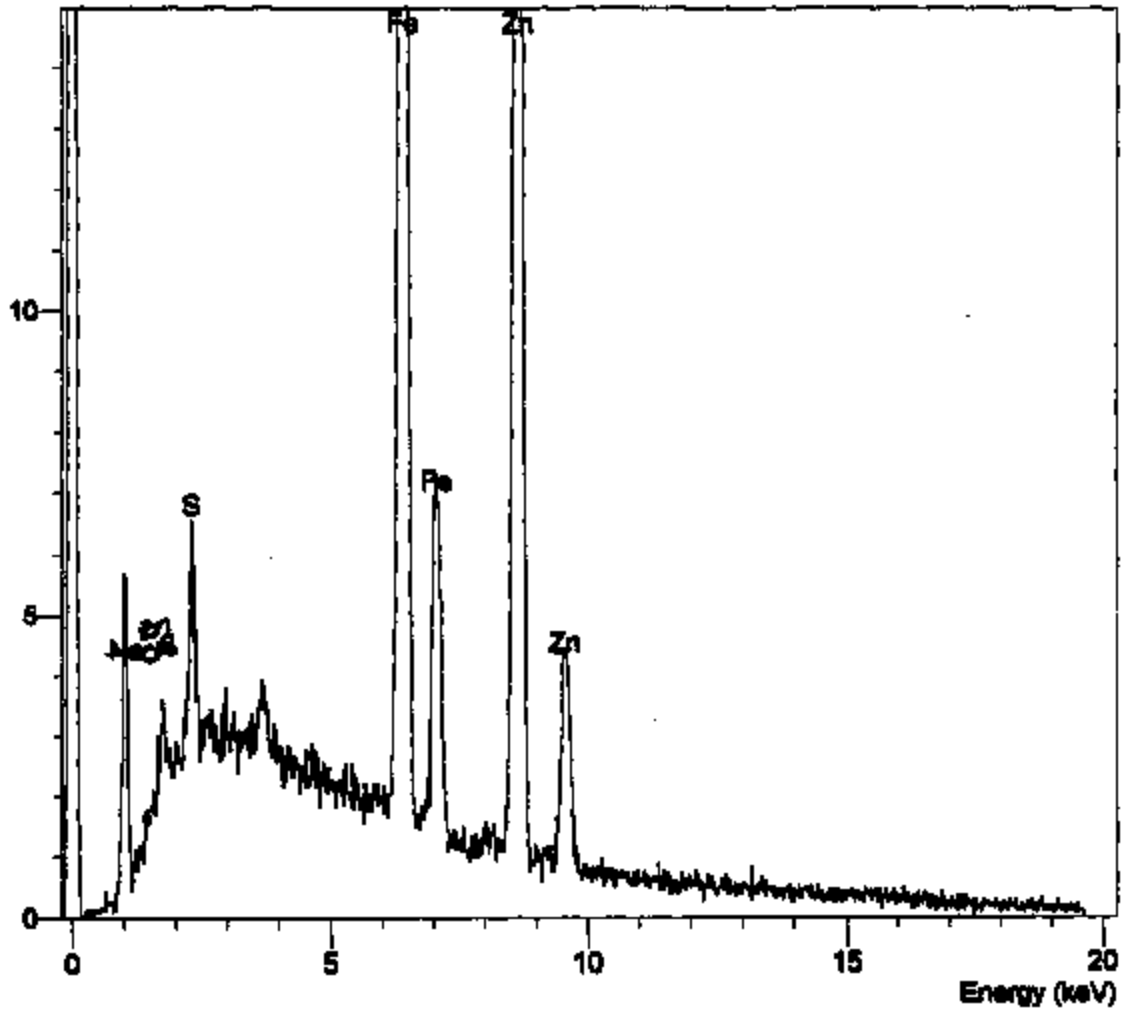
Operator : Chantell Stevenson
Client : Greg Stevens
Job : 9900807
95facepart3 (5/8/99 10:41)

cps

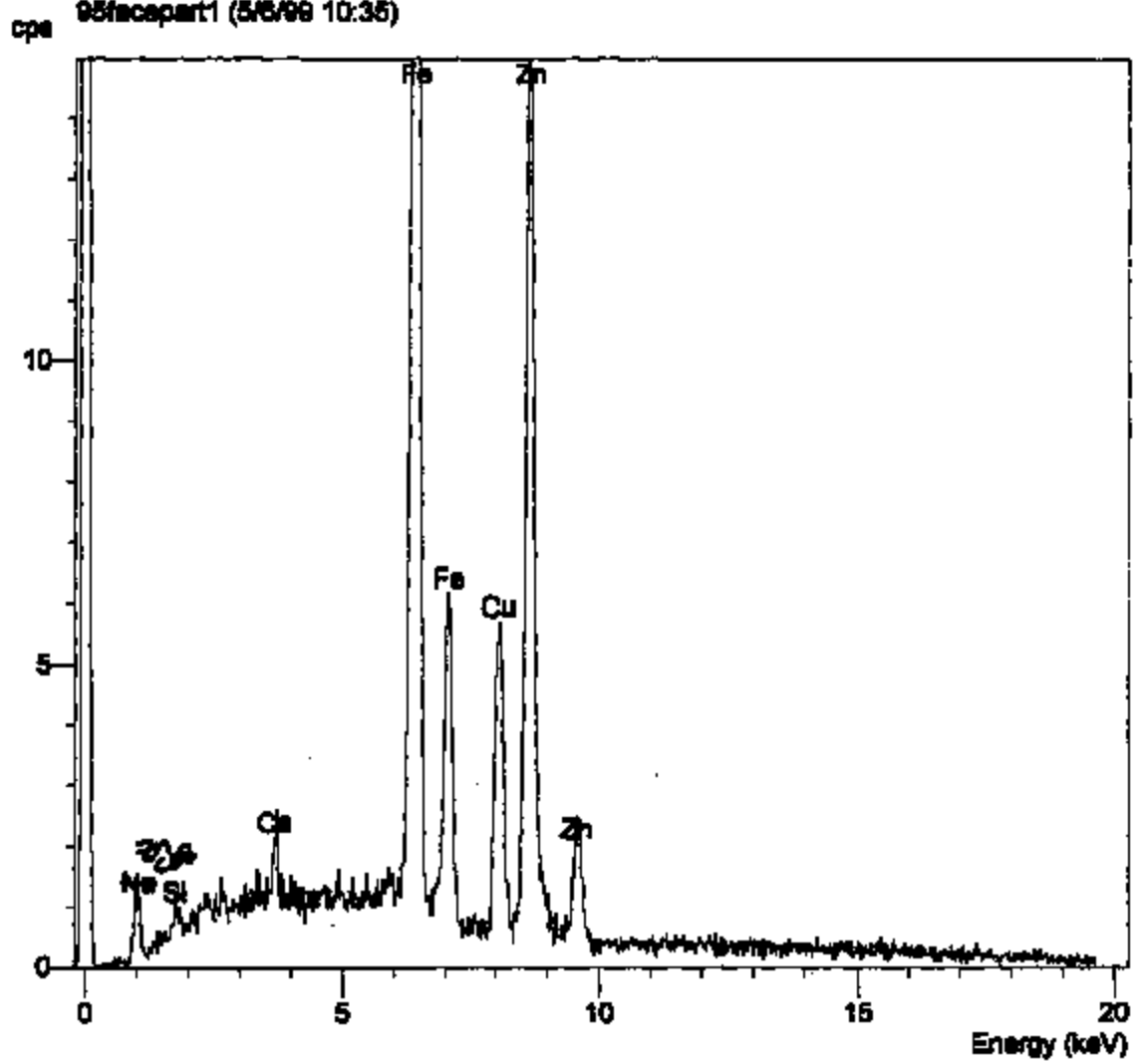


Operator : Chantell Stevenson
Client : Greg Stevens
Job : 9900807
95facspart2 (5/6/99 10:38)

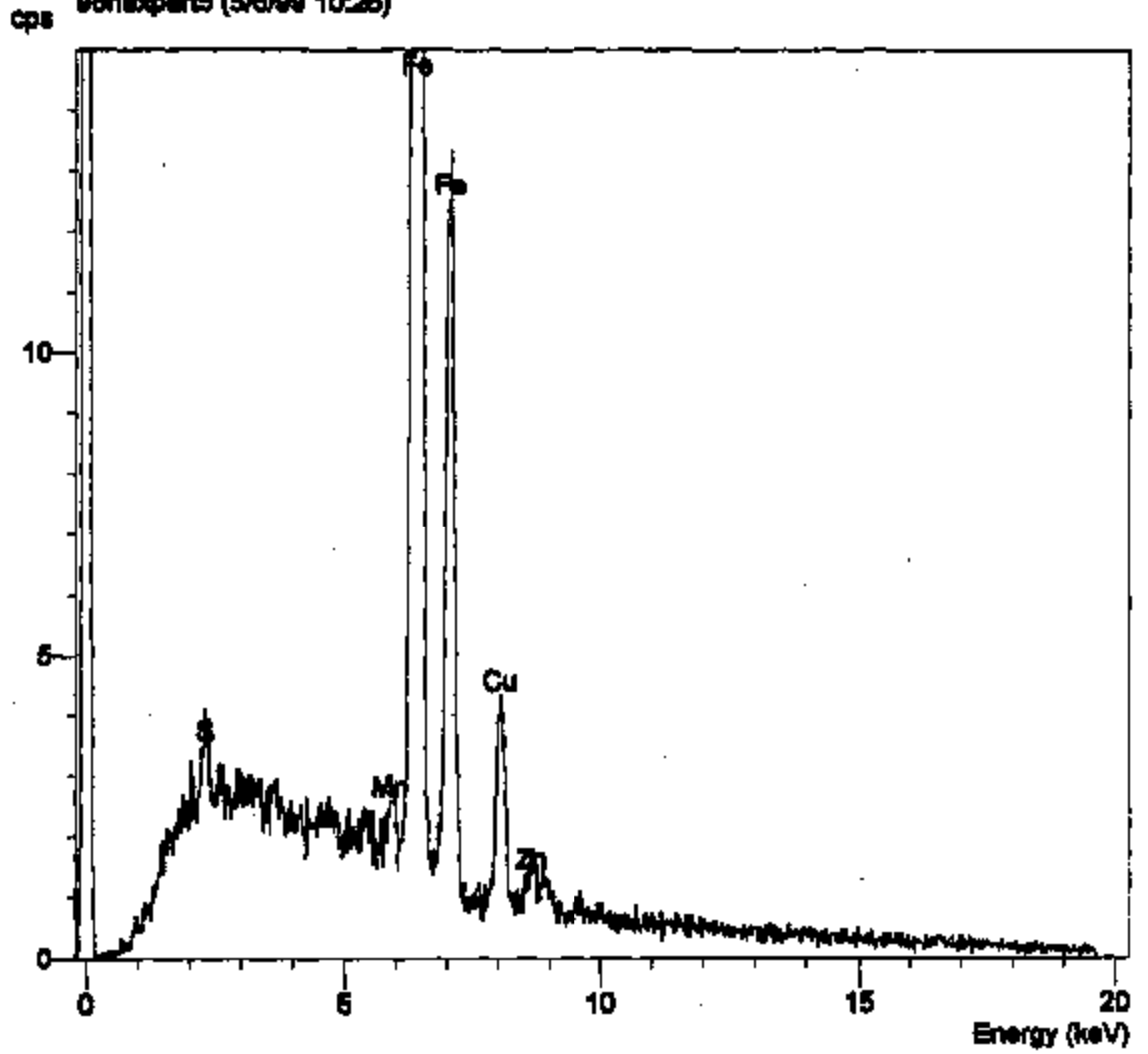
cps



Operator : Chantall Stevenson
Client : Greg Stevens
Job : 9900607
95facpart1 (5/5/99 10:35)

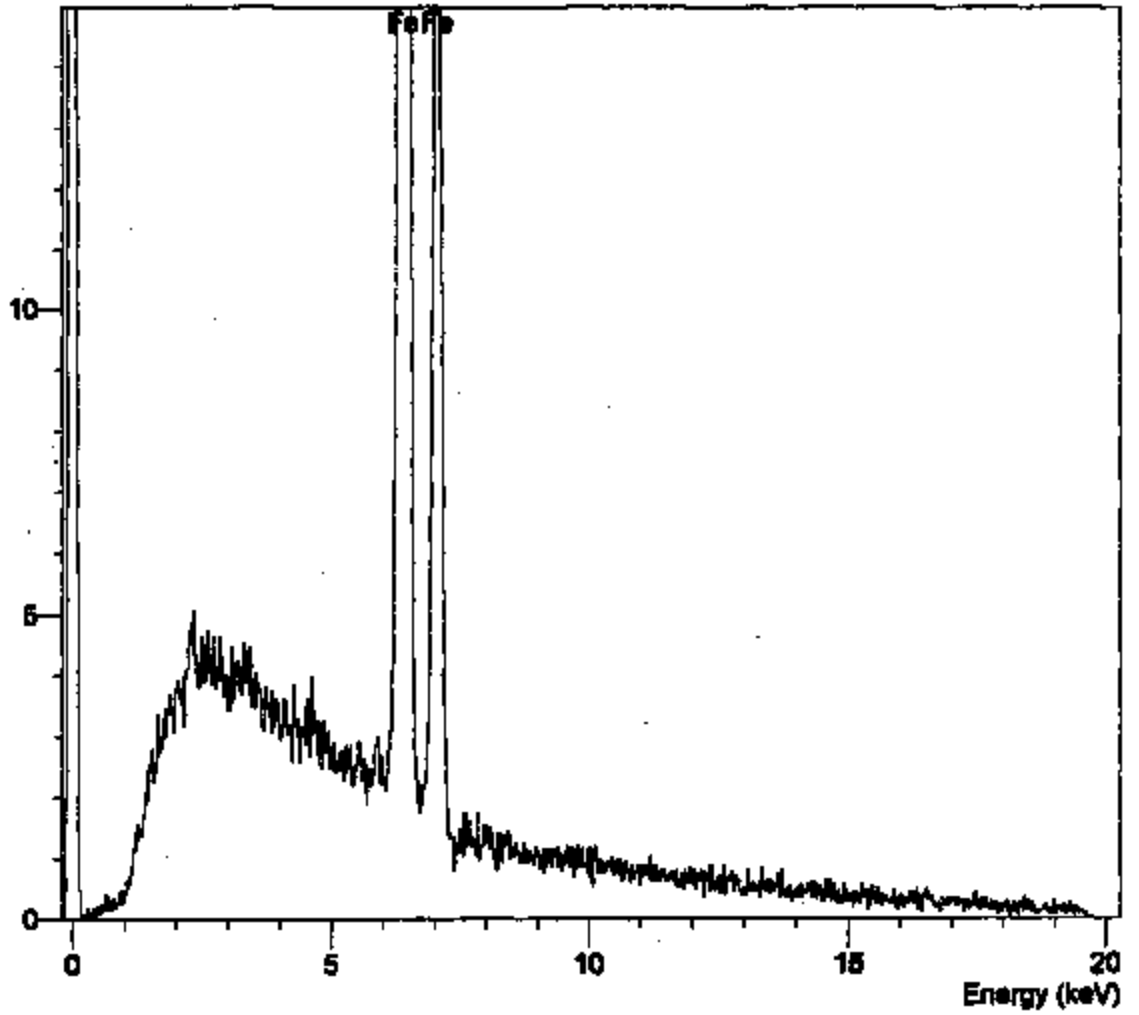


Operator : Chantell Stevenson
Client : Greg Stevens
Job : 9900807
95hexpert5 (5/8/99 10:26)



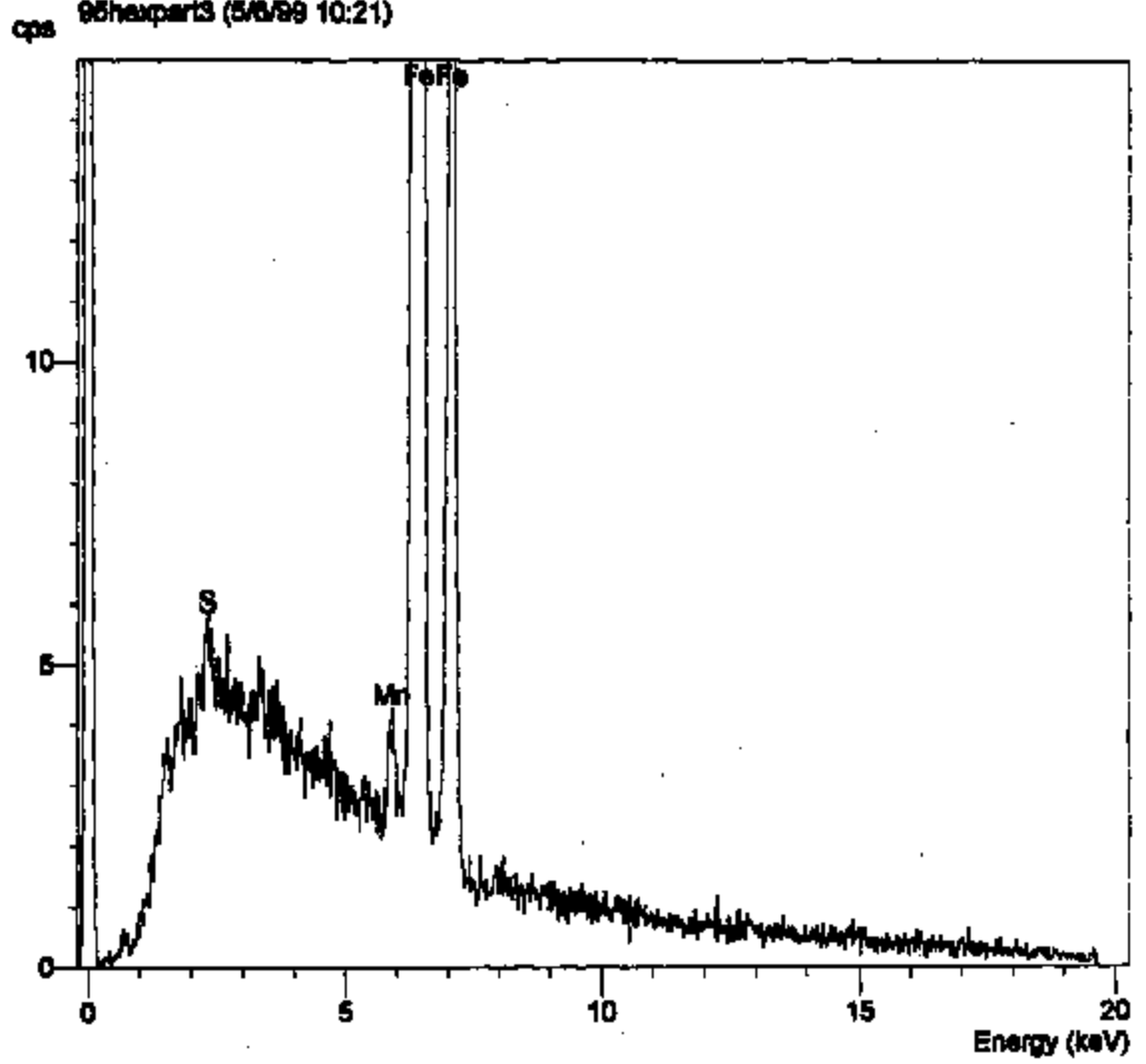
Operator : Chantall Stevenson
Client : Greg Stevens
Job : 9800807
95hexpart4 (5/5/99 10:23)

cps



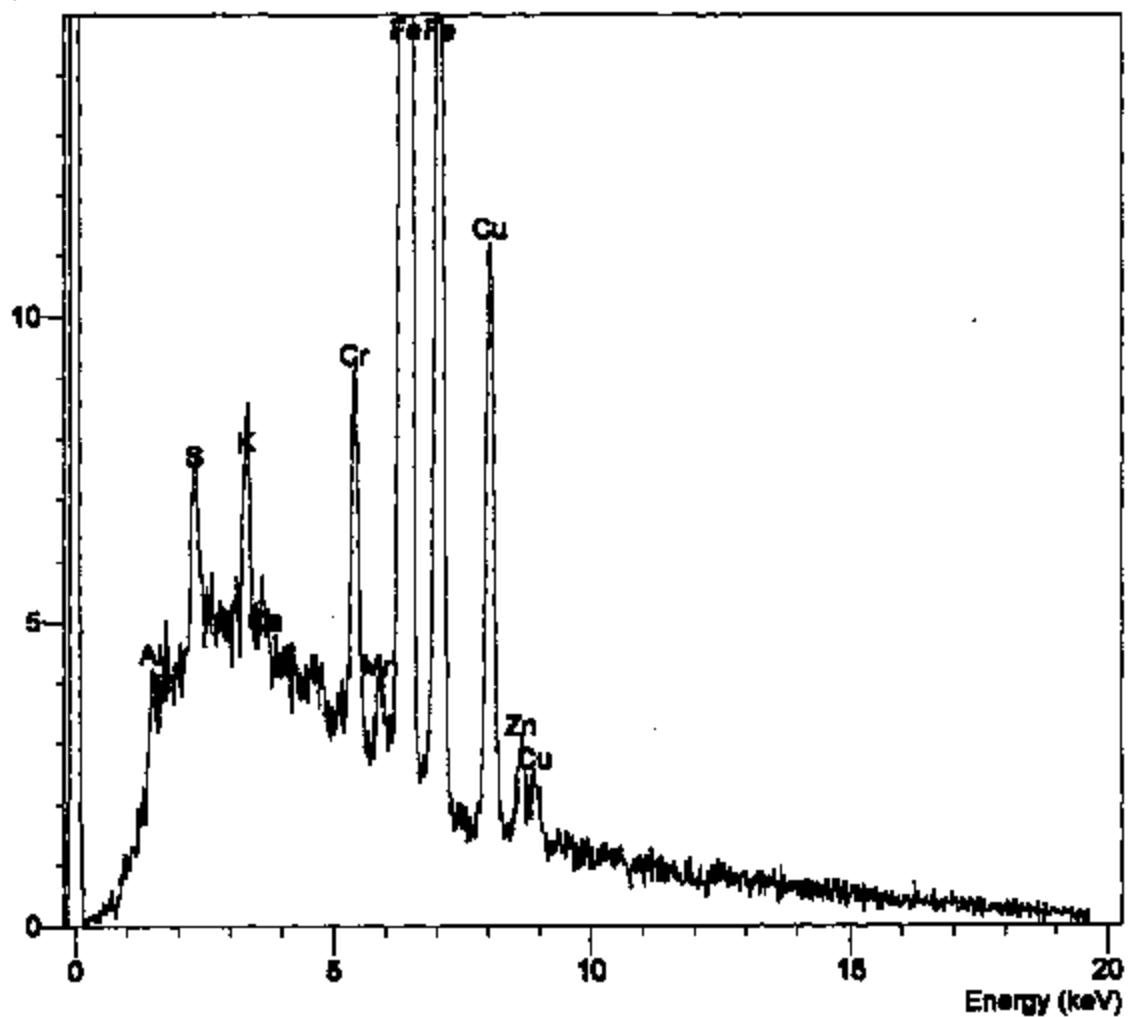
3719 3082

Operator : Chantell Stevenson
Client : Greg Stevens
Job : 9900607
95hexpart3 (5/6/99 10:21)



Operator : Chantell Stevenson
Client : Greg Stevens
Job : 9900807
95hexpart2 (5/6/99 10:18)

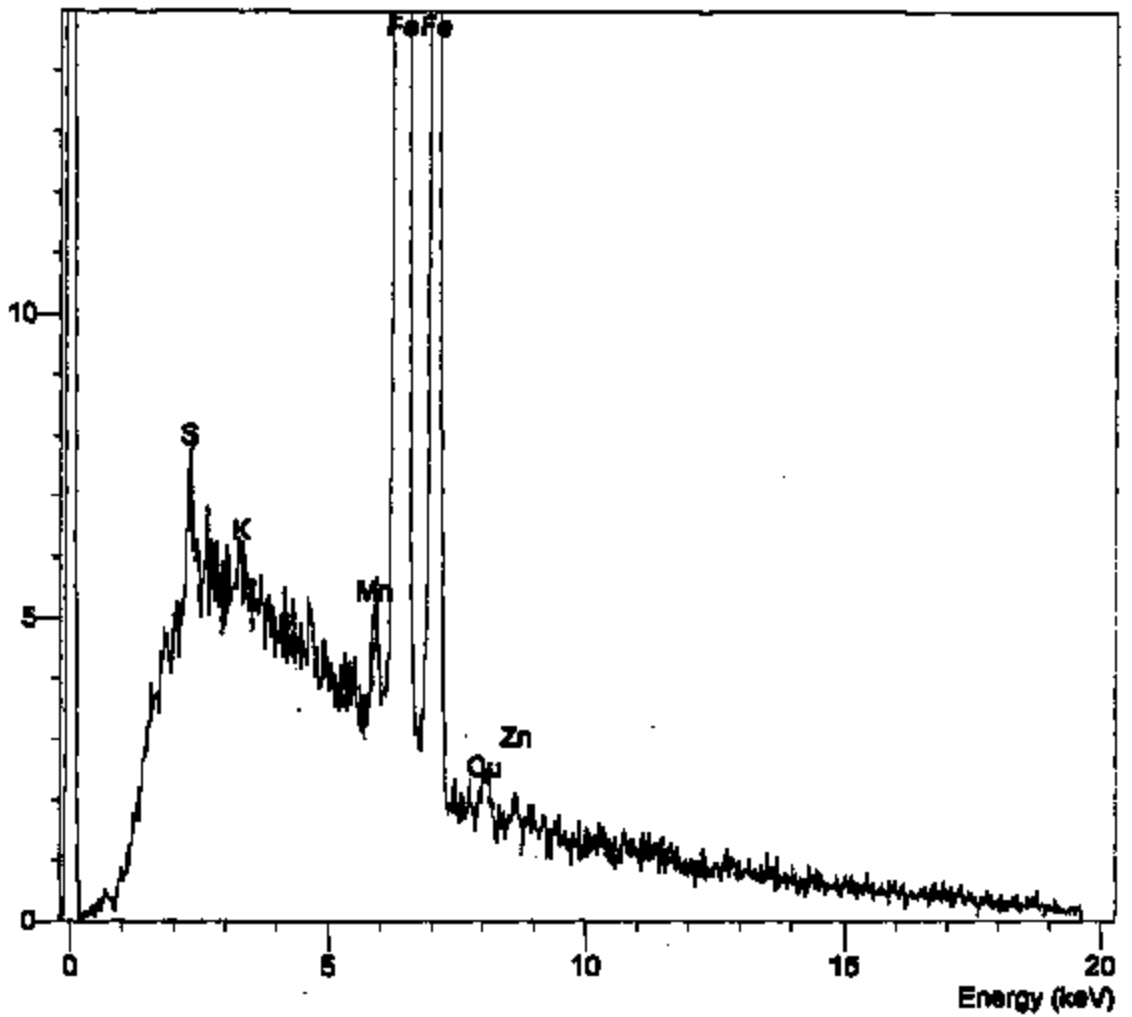
cps



3713 3054

Operator : Chantel Stevenson
Client : Greg Stevens
Job : 9900907
99hexpart1 (5/8/99 10:16)

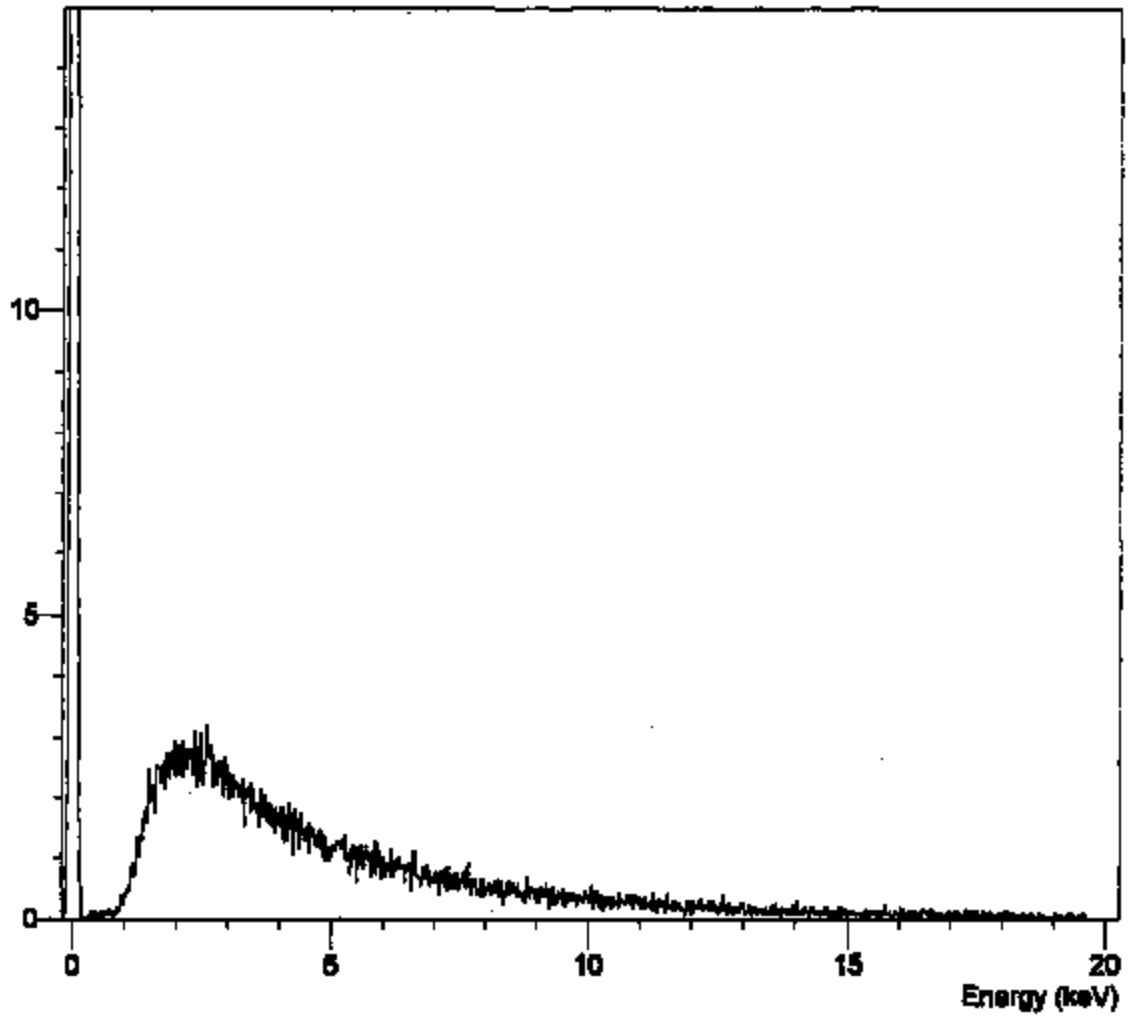
cps



3713 3055

Operator : Chantell Stevenson
Client : Greg Stevens
Job : 9900807
carbon tape (5/8/99 10:12)

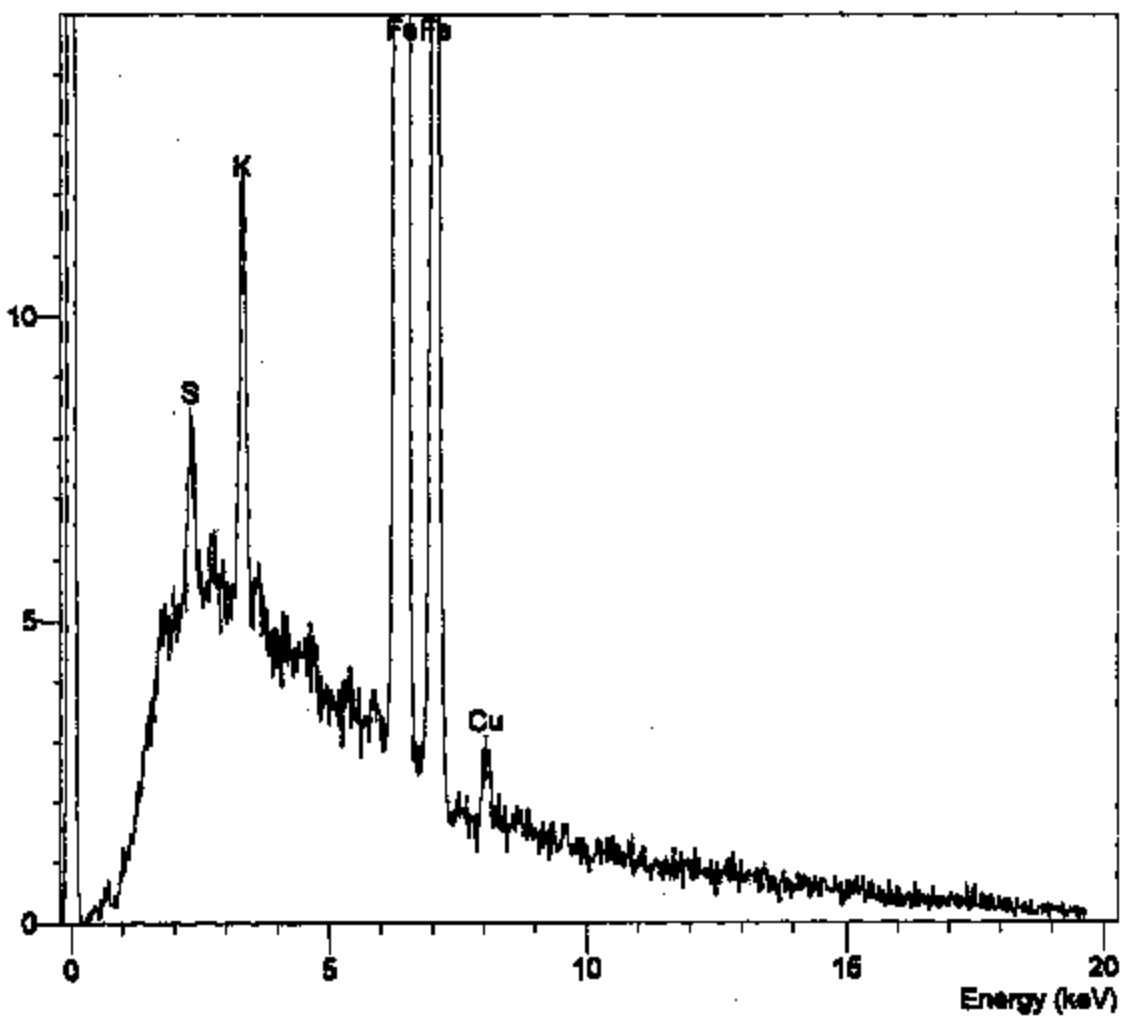
cpa



3713 3056

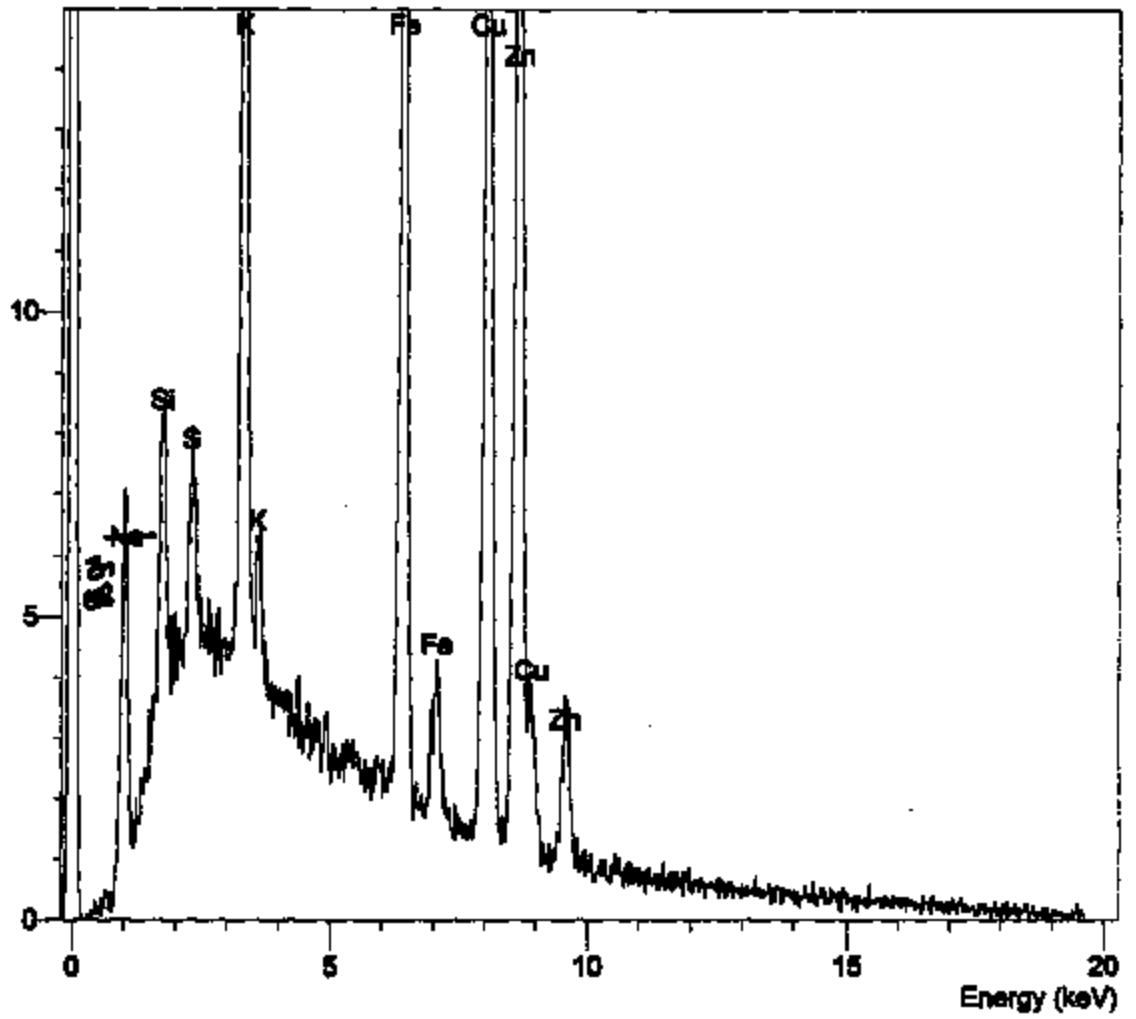
Operator : Chantell Stevenson
Client : Greg Stevens
Job : 9900807
47hexpart5 (5/8/99 10:07)

cps



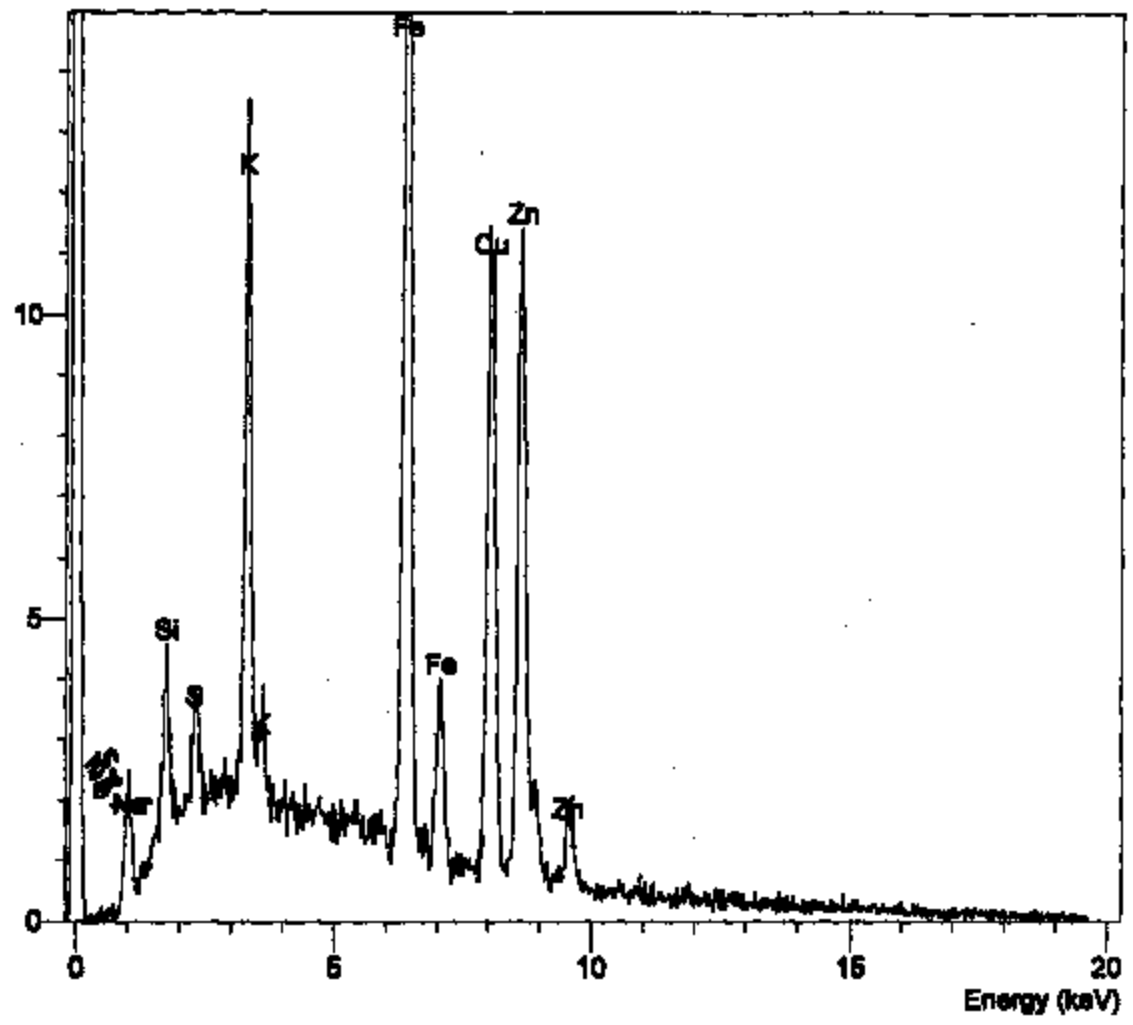
Operator : Chantell Stevenson
Client : Greg Stevens
Job : 9900807
47hexpert4 (5/8/99 10:05)

cps

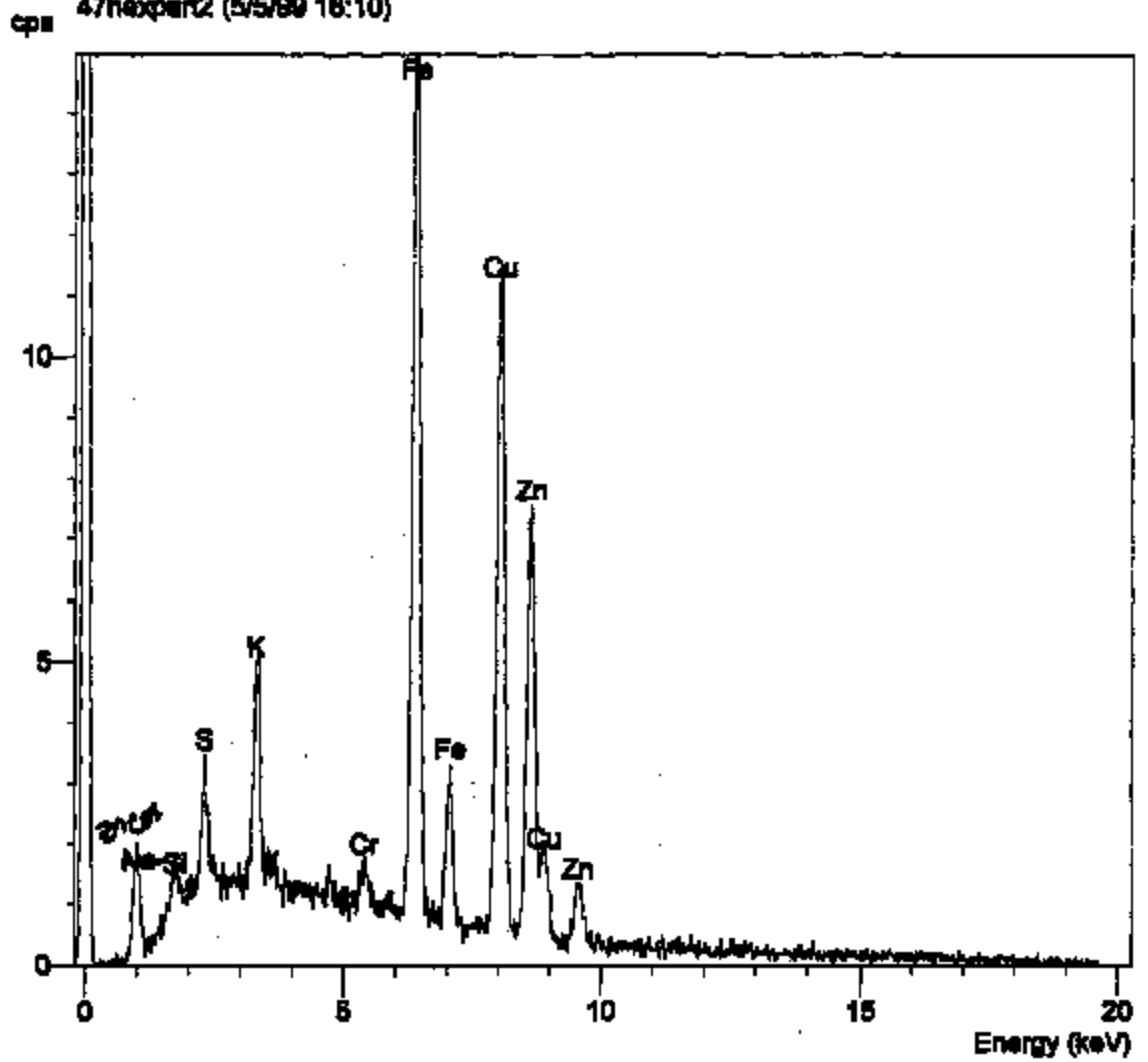


Operator : Chantell Stevenson
Client : Greg Stevens
Job : 9900607
47hexpert3 (5/5/99 10:02)

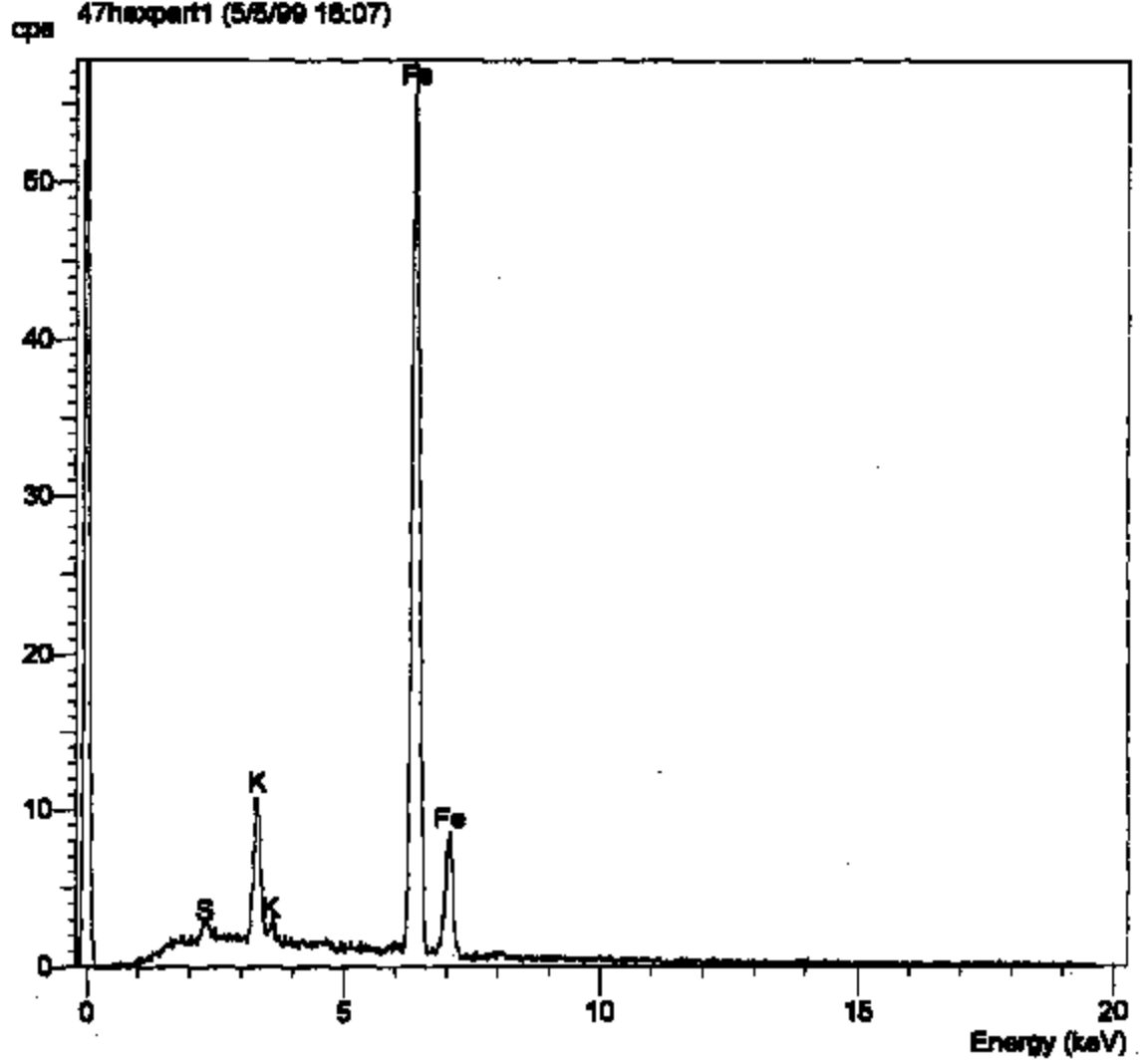
cps



Operator : Chantell Stevenson
Client : Greg Stevens
Job : 9800607
47hexper2 (5/5/99 16:10)



Operator : Charrell Stevenson
Client : Greg Stevens
Job : 9900607
47hexpart1 (5/5/99 18:07)





April 13, 1999

To: G. Stevens/S... (313) 32-38886 (313) 38-07224 FAX
From: Gayle D. Gulen (313) 32-27322
Subject: Deposits - Speed Control Switch
Source: NY734410 and PY605828

Received: The following items were received on March 25, 1999, from S. LaRouche:
• NY689063, Top, ~4mL green fluid labeled- "Brake fluid reservoir top, 3/1/99, NY689063, 92TC"
• NY689063, Master Cylinder, ~5mL green fluid labeled - "Master cylinder front port, 3/1/99, NY689063"
• PY605828 Cup
• PY605828 Hexport
• NY734410 Cup
• NY734410 Hexport

Object: Determine if oxalate and/or brake fluid is present in the cup and hexports and what the nature of the black residue is in the fluids.

Conclusion: Brake fluid was found in all the samples tested. Oxalate-type materials were found in both the NY734410 hexport [hydrocarbon may also be present in both this hexport and cup sample] and the PY605828 hexport samples. Both of the NY689063 brake fluid samples showed evidence of nitrogenous and/or carboxylic acid salt material as well as possibly some hydrocarbon. The darker residue in these fluids could not be separated, however, these fluids contain elevated levels of zinc and copper as well as probably sulfur [which may account for the darker color]. The zinc and copper may have been absorbed from the metallic constituents and be present as the metallic portions of the carboxylic acid salt while the sulfur may indicate the presence of a sulfur-based material [possibly such as a mineral oil-based (hydrocarbon) material, i.e. lubricating oil]. Based on the boron levels and the infrared, neither of these two brake fluids appears to be factory fill Dow HD 50-4.

Data and Analysis:

Molecular Characterization
(FTIR, Qualitative)

PY605828 Deposit

Spectra of the cup are characteristic of essentially a glycol ether-based material.

Spectra of the hexport are characteristic of essentially a glycol ether-based material and an oxalate.

NY734410 Deposit

Spectra of the cup are characteristic of essentially a glycol ether-based material [some hydrocarbon may also be possible].

Spectra of the hexport are characteristic of essentially a glycol ether-based material, an oxalate, and other material [possibly including a hydrocarbon].

NY689063 Fluids

Spectra of the reservoir top brake fluid are characteristic of a glycol ether based material and other material [possibly including nitrogenous and/or carboxylic acid salt and hydrocarbon].

Spectra of the master cylinder brake fluid are characteristic of a glycol ether-based material and other [possibly including nitrogenous and/or carboxylic acid salt and possibly hydrocarbon].



Elemental Analysis, mg/kg
(ASTM D 5185-93)¹

	<u>Top</u>	<u>Master Cylinder</u>	<u>Unused Dow HD 50-4</u>
Aluminum	1	2	<1
Boron	22	12	138
Barium	<1	<1	<1
Calcium	1	2	<1
Cadmium	1	1	<1
Chromium	1	1	<1
Copper	465	500	<1
Iron	4	8	1
Magnesium	2	3	<1
Manganese	1	1	<1
Molybdenum	1	1	<1
Sodium	392	393	589
Nickel	<1	<1	<1
Phosphorus	11	11	6
Lead	22	25	1
Sulfur	163	164	<1
Silicon	4	4	<1
Tin	9	9	5
Titanium	<1	<1	<1
Zinc	501	562	<1

Water Content of Fluids, % by weight
(ASTM E 203)

NY889063 - Reservoir Top
1.4

NY889063 - Master Cylinder
1.4

Particulates

Both the NY889063 reservoir top and master cylinder fluids were filtered through an 6µm nylon filter over a 40 Whatman filter. No particulates were gathered.

The precision and accuracy of results obtained by this method are within ±5% at 99% confidence level.

Contributor:

Concur: _____

Mary Haga
Organic Section

By: _____


Gayle D. Guillen (GGULLEN)
Product Materials Engineer

Request for Central Laboratory Service

Receipt - Copy

Lab Request Number: 002200507

Date of Request: 02/22/1999 08:17:31 AM

Print Date: 03/25/1999 02:43:49 PM

Request Description: SPEED CONTROL CUTOFF SWITCH

Requester Information:

Primary Contact: STEVENS, GREG - 10008

Phone: (313) 323-6888

PROFS ID: GSTEVEN1

Fax: (313) 390-7224

Secondary Contact: LA POINTE, NORM - 10075

Phone: (313) 594-2686

PROFS ID: NLAPPOINT

Fax: (313) 337-8256

Send Report to:

MD 6006/20066, AVT MATERIALS, BLDG. #5

Bill to:

Acctg Location: 5109

Dept: T113

Work Task: XOG04

Sample Information:

Total Number of Containers: 21

Sample Handling: Return after test

Source: Not specified

Supplier Code: Not specified

Part/Material Name	Qty	Sample Identification	Part Number	Material Spec	CPSC Code	Supplier
SPEED CONTROL CUTOFF SWITCH	21	SEE ATTACHED SH EET	F2VY-8F824-A	NA	00.00.00	TEXAS INST FLUMEN TS

Investigation Information:

Nature of Investigation: Requestor Info. Box Mail typed report

Additional Sample Information/Testing Requirements:

EXAMINE, DOCUMENT, AND ANALYZE SWITCHES PER PROTOCOL ESTABLISHED BY N. LAPOINTE TO ASSIST IN DETERMINING CAUSE OF POSSIBLE SWITCH FIRE OR LEAKAGE. SWITCHES ARE FROM FIELD SURVEYS. MORE SWITCHES MAY FOLLOW.

Reporting Directions:

Date customer would like report: 04/01/1999

Date customer must have report: 04/01/1999

Report Format(s):

Log-to Information:

Initial Routing: Metallurgy

Accepted for Central Laboratory by: LaFouche, Steve

Phone: 84-54678

View your test status at: [HTTP://bd4web.pdf.ford.com/kali/](http://bd4web.pdf.ford.com/kali/)

Program Name: KALISLab Engr Module

Program Version: Version: 2.0.6

PLEASE DETERMINE THE FOLLOWING:

CUP & HEXAPORT SAMPLES
PRESENCE OF BRAKE FLUID
PRESENCE OF OXALATES, ETC.

BRAKE FLUID SAMPLES
PRESENCE OF OXALATES, ETC.
WATER CONTENT IF POSSIBLE

Thanks

Steve LaFouche



April 13, 1999

To: G. Stevens/S. LaRouche (313) 32-3666 (313) 39-0724 FAX

From: Gayle D. Gullen (313) 32-27322

Subject: Deposits - Speed Control Switch
Source: NY734410 and PY605826

Received: The following items were received on March 25, 1999, from S. LaRouche:

- NY669063, Top, -4mL green fluid labeled- "Brake fluid reservoir top, 3/1/99, NY669063, 92TC"
- NY669063, Master Cylinder, -5mL green fluid labeled - "Master cylinder front port, 3/1/99, NY669063"
- PY605826 Cup
- PY605826 Hexport
- NY734410 Cup
- NY734410 Hexport

Object: Determine if oxalate and/or brake fluid is present in the cup and hexports and what the nature of the black residue is in the fluids.

Conclusion: Brake fluid was found in all the samples tested. Oxalate-type materials were found in both the NY734410 hexport [hydrocarbon may also be present in both this hexport and cup sample] and the PY605826 hexport samples. Both of the NY669063 brake fluid samples showed evidence of nitrogenous and/or carboxylic acid salt material as well as possibly some hydrocarbon. The darker residue in these fluids could not be separated, however, these fluids contain elevated levels of zinc and copper as well as probably sulfur [which may account for the darker color]. The zinc and copper may have been absorbed from the metallic constituents and be present as the metallic portions of the carboxylic acid salt while the sulfur may indicate the presence of a sulfur-based material [possibly such as a mineral oil-based (hydrocarbon) material, i.e. lubricating oil]. Based on the boron levels and the infrared, neither of these two brake fluids appears to be factory fill Dow HD 50-4.

Data and Analysis:

Molecular Characterization
(FTIR, Qualitative)

PY605826 Deposit

Spectra of the cup are characteristic of essentially a glycol ether-based material.

Spectra of the hexport are characteristic of essentially a glycol ether-based material and an oxalate.

NY734410 Deposit

Spectra of the cup are characteristic of essentially a glycol ether-based material [some hydrocarbon may also be possible].

Spectra of the hexport are characteristic of essentially a glycol ether-based material, an oxalate, and other material [possibly including a hydrocarbon].

NY669063 Fluids

Spectra of the reservoir top brake fluid are characteristic of a glycol ether based material and other material [possibly including nitrogenous and/or carboxylic acid salt and hydrocarbon].

Spectra of the master cylinder brake fluid are characteristic of a glycol ether-based material and other [possibly including nitrogenous and/or carboxylic acid salt and possibly hydrocarbon].

**Elemental Analysis, mg/kg**
(ASTM D 5185-93)¹

	<u>Top</u>	<u>Master Cylinder</u>	<u>Unused Dow HD 50-4</u>
Aluminum	1	2	<1
Boron	22	12	139
Barium	<1	<1	<1
Calcium	1	2	<1
Cadmium	1	1	<1
Chromium	1	1	<1
Copper	499	500	<1
Iron	4	8	1
Magnesium	2	3	<1
Manganese	1	1	<1
Molybdenum	1	1	<1
Sodium	392	393	589
Nickel	<1	<1	<1
Phosphorus	11	11	8
Lead	22	25	1
Sulfur	183	184	<1
Silicon	4	4	<1
Tin	9	8	5
Titanium	<1	<1	<1
Zinc	501	562	<1

Water Content of Fluids, % by weight
(ASTM E 203)**NY869063 - Reservoir Top**
1.4**NY869063 - Master Cylinder**
1.4**Particulates**

Both the NY869063 reservoir top and master cylinder fluids were filtered through an 8µm nylon filter over a 40 Whatman filter. No particulates were gathered.

The precision and accuracy of results obtained by this method are within ±5% at 99% confidence level.

Contributor:**Concur:**

Mary Hage
Organic Section

By:

Gayle D. Gulen (GGULLEN)
Product Materials Engineer



Central Laboratory
 15000 Century Drive
 Dearborn, MI 48120-1267
 FAX (313) 322-1814

Report 9900607

April 9, 1999

To: M. Haga
From: D. Schumacher 313 845 6039
Subject: Brake Fluid
 Part Number: Not Provided
 Specification: Not Provided
 Supplier: Not Provided

Received: On February 22, 1999, two brake fluid aliquots were received.

Object: Determine the elemental concentration of the elements listed below in each aliquot.

Data and Analysis:

Elemental Analysis, mg/kg
 (ASTM D 5185-93)¹

	<i>Top</i> 9900807-1	<i>White Cap</i> 9900607-2
Aluminum	1	2
Boron	22	12
Barium	<1	<1
Calcium	1	2
Cadmium	1	1
Chromium	1	1
Copper	498	500
Iron	4	8
Magnesium	2	3
Manganese	1	1
Molybdenum	1	1
Sodium	392	393
Nickel	<1	<1
Phosphorus	11	11
Lead	22	26
Sulfur	163	164
Silicon	4	4
Tin	9	9
Titanium	<1	<1
Zinc	501	562

The precision and accuracy of results obtained by this method are within $\pm 5\%$ at 95% confidence level.

Concur: _____
 James R. Manor, Supervisor
 Analytical Chemistry Section

By: _____
 Daniel E. Schumacher
 Laboratory Engineer



Central Laboratory
15000 Century Drive
Dearborn, MI 48120-1287
FAX (313) 322-1614

Report 9900813

March 2, 1999

To: M. Hega/Greg Stevens
From: D. Schumacher 313.845.5039
Subject: Brake fluid
Part number: N.A.
Source: N.A.

Received: Two brake fluid samples were received on February 22, 1999.

Object: Determine the elemental concentration of the elements listed below in the samples.

Data and Analysis:

Concentration, weight percent¹
(ARL 3580B ICP-AES)

	<u>New</u>	<u>Used</u>
Aluminum	<1	<1
Boron	138	150
Barium	<1	<1
Calcium	<1	18
Cadmium	<1	<1
Chromium	<1	3
Copper	<1	318
Iron	1	10
Magnesium	<1	1
Manganese	<1	1
Molybdenum	<1	5
Sodium	589	570
Nickel	<1	<1
Phosphorus	6	13
Lead	1	4
Sulfur	<1	19
Silicon	<1	31
Tin	6	9
Titanium	<1	<1
Zinc	<1	287

¹ The precision of this technique for this matrix is estimated to be $\pm 5\%$ at a 95% confidence level.

Concur: _____
James R. Manor, Supervisor
Analytical Chemistry Section

By: _____
Daniel E. Schumacher
Laboratory Engineer

From Page No. _____

NY 72140 3-3-59

	Reservoir - 30 NY 913	Master Cylinder - 30 NY 913
	NY 73-46 3024	NY 605326 3189
3	1.1477	1.123
2	1.70	1.18
	1.215	1.1
		1.1

Notes

NY 72140

Reservoir - glycol ether based material + oxalate + possibly other hydrocarbon
essentially glycol ether based material = hydrocarbon

NY 605326

Reservoir - glycol ether based material + oxalate
essentially glycol ether based material

Master Cylinder - NY 605326

Reservoir - glycol ether based material + oxalate (possibly including nitrogenation)
carboxylic acid salt + hydrocarbon

Master cylinder - Reservoir: glycol ether based material (possibly including nitrogenous & carboxylic acid salt) + hydrocarbon

No apparent insolubles were present in the brake fluid (filtered thru 5µm + 4µm filters) - Sent for ICP - 4/8/59
Mr. C. H. ...

To Page No. _____

Witnessed & Understood by me,	Date	Invented by	Date
		Recorded by	

Request for Central Laboratory Service

Receipt - Copy

Lab Request Number: 009900607
Date of Request: 02/22/1999 09:17:31 AM
Print Date: 03/25/1999 02:43:48 PM

Request Description: SPEED CONTROL CUTOFF SWITCH

Requester Information:

Primary Contact: STEVENS, GREG - 10006
Secondary Contact: LA POINTE, NORM - 10075

Phone: (313) 323-8888
Phone: (313) 584-2888

PROPS ID: GSTEVEN1
PROPS ID: MLAPPOINT

Fax: (313) 390-7224
Fax: (313) 337-8258

Send Report to: MD 5008230065, AVT MATERIALS, BLDG. #5
Bill to: Acqg.Location: 5100
Dept: T113
Work Task: X0XG04

Sample Information:

Total Number of Containers: 21
Source: Not specified

Sample Handling: Return after test
Supplier Code: Not specified

Part/Model Name	Qty	Sample Identification	Part Number	Material Spec	CPSC Code	Supplier
SPEED CONTROL CUTOFF SWITCH	21	SEE ATTACHED SH EET	F2VY-8F824-A	NA	00.00.00	TEXAS INST FUMEN TS

Investigation Information:

Nature of Investigation: Requester Info. Box Mail typed report

Additional Sample Information/Testing Requirements:

EXAMINE, DOCUMENT, AND ANALYZE SWITCHES PER PROTOCOL ESTABLISHED BY N. LAPOINTE TO ASSIST IN DETERMINING CAUSE OF POSSIBLE SWITCH FIRE OR LEAKAGE. SWITCHES ARE FROM FIELD SURVEYS. MORE SWITCHES MAY FOLLOW.

Reporting Directions:

Date customer would like report: 04/01/1999
Date customer must have report: 04/01/1999

Report Format(s):

Log-in Information:

Initial Routing: Metallurgy
Accepted for Central Laboratory by: LaFouche, Steve

Phone: 84-54878

View your test status at: [HTTP://bd4web.pd7.lord.com/falls](http://bd4web.pd7.lord.com/falls)

Program Name: KALISLab Engr Module
Program Version: Version: 2.0.0

PLEASE DETERMINE THE FOLLOWING:

Cup & Hexaport Samples
Presence of Brake Fluid
Presence of OXALATES, ETC.

Brake Fluid Samples
Presence of OXALATES, ETC.
Water Content if possible

Thanks

Steve LaFouche

Request for Central Laboratory Service

Receipt - Copy

Lab Request Number: 009900607
Date of Request: 02/22/1999 08:17:31 AM
Print Date: 03/25/1999 02:43:49 PM

Request Description: SPEED CONTROL CUTOFF SWITCH

Requester Information:

Primary Contact: STEVENS, GREG - 10006

Phone: (313) 323-6686

PROFS ID: GSTEVEN1

Fax: (313) 390-7224

Secondary Contact: LA POINTE, NORM - 10075

Phone: (313) 594-2686

PROFS ID: NLAPONT

Fax: (313) 337-8258

Send Report to:
Bill to:

MD 5008/2G065, AVT MATERIALS, BLDG. #5
Acqy. Location: 5100
Dept: T113
Work Task: XQG04

Sample Information:

Total Number of Containers: 21
Source: Not specified

Sample Handling: Return after test
Supplier Code: Not specified

Particular Name
SPEED CONTROL
CUTOFF SWITCH

Qty
21

Sample Identification
SEE ATTACHED SH
EET

Part Number
F2VY-9F924-A

Material Spec
NA

CPSC Code
00.00.00

Supplier
TEXAS
INST
ELEMEN
TS

Investigation Information:

Nature of Investigation: Requester Info. Box: Mail typed report

Additional Sample Information/Testing Requirements:

EXAMINE, DOCUMENT, AND ANALYZE SWITCHES PER PROTOCOL ESTABLISHED BY N. LAPONTE TO ASSIST IN DETERMINING CAUSE OF POSSIBLE SWITCH FIRE OR LEAKAGE. SWITCHES ARE FROM FIELD SURVEYS. MORE SWITCHES MAY FOLLOW.

Reporting Directions:

Date customer would like report: 04/01/1999
Date customer must have report: 04/01/1999

Report Format(s):

Log-in Information:

Initial Routing: Metallurgy

Accepted for Central Laboratory by: LaRouche, Steve

Phone: 84-54876

View your test status at: [HTTP://hd4web.pd7.lord.com/tales](http://hd4web.pd7.lord.com/tales)

Program Name: KALISLab Engr Module
Program Version: Version: 2.0.0

PLEASE DETERMINE THE FOLLOWING:

CLIP & HEXURER SAMPLES NY 7344/0
PY 605 826
PRESENCE OF BRAKE FLUID
PRESENCE OF OXALATES, ETC.

BRAKE FLUID SAMPLES

PRESENCE OF OXALATES, ETC.

WATER CONTENT IF POSSIBLE

after in I.D. of yellow particles
if too small - if sufficient
transfer in ICP
Steve LaRouche

3713 8071

Project No. _____

Book No. _____

TITLE _____

is No. _____

990607

Drey Stevens / S. La. Prod

3/25

~ 4w Lagoon fluid Brake fluid reservoir copy

3/1/99 NY 669063 92TC"

~ 5ml Lagoon fluid 9 Motors engine front panel

3/1/99 NY 669063

2 units removed from PY 605826

Face copy

report

1 unit removed NY 73440 face copy

NY 73440 report

To Page No. _____

& Understood by me.

D. Miller

Date

4/13/99

Invented by

Date

From Page No. _____

~~W-2~~ W-2 by ul-

B. 3. 1. 57
Fl. 5. 2. 7

2
10
7

Reservoir Fla NY 1963
NY 73440 5. 1. 64
1. 1477
1. 710
1. 2303

Master Cylinder Front Fla
Fla 605526 3. 1. 65
1. 523
1. 108
1. 568
1. 124

ET 125

NY 73440

Report - glycol ether based material + oxalate + possibly other hydrocarbon
cap: essentially glycol ether based material

NY 605526

Report - glycol ether based material + oxalate
cap: essentially glycol ether based material

Bentley Fla NY 1963

Reservoir Fla - glycol ether based material +
other (possibly including nitrogenous +
carboxylic acid salt + hydrocarbon)

Master cylinder - front part glycol ether based
material + other (possibly including
nitrogenous + carboxylic acid salt)

No apparent pinulculates were present in the
brake fluid (E-test then 800 rpm + 405 ft/min)

- send for ICP - 4/8/55
Mr. C. [Signature]

To Page No. _____

Inspected & Understood by me, _____

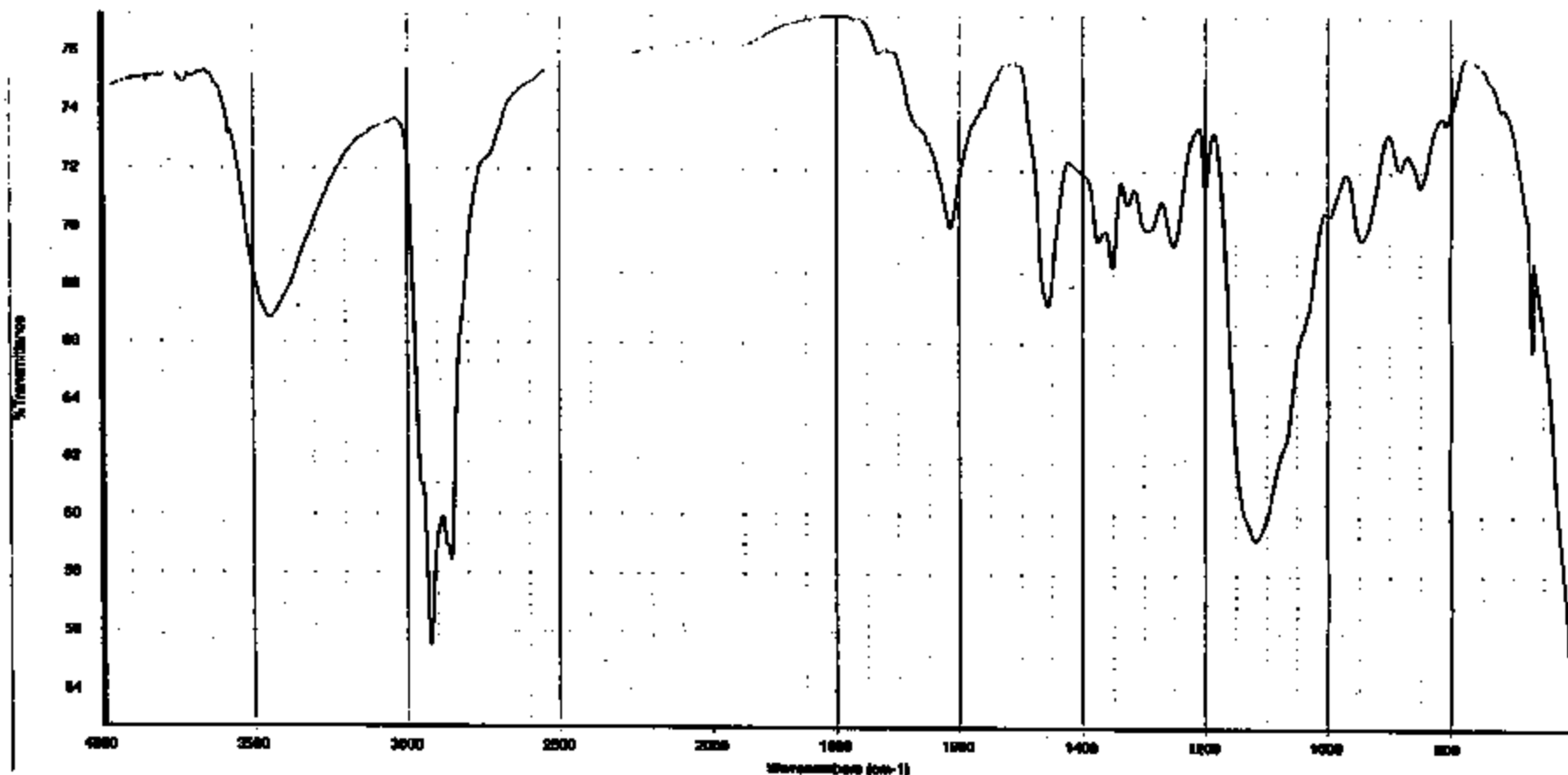
Date _____

Invented by _____

Date _____

9900607

Wed Apr 07 13:06:36 1999



Collection time: Wed Apr 07 12:55:08 1999

9900607b

MCH

SPEED CONTROL CUT OFF SWITCH
 NY 734410 HEXPORT
 AS RECEIVED
 BETWEEN PLATES

*Signal of the band
 marked with
 possibly with
 hydrocarbon*

Number of sample scans: 32
 Number of background scans: 32
 Resolution: 4.000
 Sample gate: 2.0
 Mirror velocity: 0.6329
 Aperture: 75.00

5713 3074