Contents

1. Introduction

Since May 1981, the National Aeronautics and Space Administration (NASA) has used aircraft to collect cosmic dust (CD) particles from Earth's stratosphere. Specially designed dust collectors are prepared for flight and processed after flight in an ultraclean (Class-100) laboratory constructed for this purpose at the Lyndon B. Johnson Space Center (JSC) in Houston, Texas. Particles are individually retrieved from the collectors, examined and cataloged, and then made available to the scientific community for research. Cosmic dust thereby joins lunar samples and meteorites as an additional source of extraterrestrial materials for scientific study.

This catalog summarizes preliminary observations on 468 particles retrieved from collection surfaces L2021 and L2036. These surfaces were flat plate Large Area Collectors (with a 300 cm^2 surface area each) which was coated with silicone oil (dimethylsiloxane) and then flown aboard a NASA ER-2 aircraft during a series of flights that were made during January and February of 1994 (L2021) and June 7 through July 5 of 1994 (L2036). Collector L2021 was flown across the entire southern margin of the US (California to Florida), and collector L2036 was flown from California to Wallops Island, VA and on to New England. These collectors were installed in a specially constructed wing pylon which ensured that the necessary level of cleanliness was maintained between periods of active sampling. During successive periods of high altitude (20 km) cruise, the collectors were exposed in the stratosphere by barometric controls and then retracted into sealed storage containers prior to descent. In this manner, a total of 35.8 hours of stratospheric exposure was accumulated for collector L2021, and 26 hours for collector L2036.

2. Processing of Particles

Particle mounts designed for the JEOL 100CX scanning transmission electron microscope (STEM) are currently the standard receptacles for CD particles in the JSC laboratory. Each mount consists of a graphite frame (size ~3x6x24 mm) onto which a Nucleopore filter (0.4µm pore size) is attached. A conductive coat of carbon is vacuum evaporated onto the mount and then a microscopic reference pattern is "stenciled" onto the carbon-coated filter by vacuum evaporation of aluminum through an appropriately sized template. Particles are individually removed from collectors using glass-needle micromanipulators under a binocular stereo- microscope. Each particle is positioned on an aluminum-free area of a Freon-cleaned (Freon 113), carbon-coated filter and washed in place with hexane to remove silicone oil. Each mount is normally limited to 16 particles. All processing and storage of each particle is performed in a Class-100 clean room.

This catalog is the fifth to be produced from the Large Area Cosmic Dust Collectors (LACs). These collectors have approximately one order of magnitude more collection surface area than the conventional collectors used for Cosmic Dust Catalogs 1-10.

3. Preliminary Examination of Particles

Each rinsed particle is examined, before leaving the Class-100 clean room processing area, with a petrographic research microscope equipped with transmitted, reflected and oblique light illuminators. At a magnification of 500X, size, shape, transparency, color, and luster are determined and recorded for each particle.

After optical description, each mount (with uncoated particles) is examined by scanning electron microscopy (SEM) and X-ray energy-dispersive spectrometry (EDS). Secondary-electron imaging of each particle is performed with a JEOL-35CF SEM at an accelerating voltage of 20 kV. Images are therefore of relatively low contrast and resolution due to deliberate avoidance of conventionally applied conductive coats (carbon or gold-palladium) which might interfere with later elemental analyses of particles. EDS data are collected with the same JEOL-35CF SEM equipped with a Si(Li) detector and PGT 4000T analyzer. Using an accelerating voltage of 20 kV, each particle is raster scanned and its X-ray spectrum recorded over the 0-10 keV range by counting for 100 sec. No system (artifact) peaks of significance appear in the spectra.

It should be pointed out that the SEM/EDS procedure used in preparing this catalog is different than that used in preparing Cosmic Dust Catalogs, Volumes 1-3 and 8. In these catalogs, EDS analysis was performed using the JEOL 100CX STEM operated at 40 kV. Only the EDS spectra exhibit differences that are likely to be noticed. These differences are a slightly higher background and more efficient excitation of high atomic number elements for EDS spectra collected at 40kV relative to those collected at 20kV. However, each catalog includes spectra of the same selected comparison standards, which allows comparison of spectra from one catalog to the next to be made. Please refer to Section 5 for a more complete discussion.

Following SEM/EDS examination, each particle mount is stored in a dry nitrogen gas atmosphere in a sealed cabinet.

4. Catalog Format

Each page in the main body of the catalog is devoted to one particle and consists of an SEM image, an EDS spectrum, and a brief summary of preliminary examination data obtained by optical microscopy. The unique identification number assigned to the particle appears at the top of the page. Sources of the descriptive data are as follows:

SIZE (µm) is measured using the original SEM image and its known magnification factor. For an irregularly shaped particle, the minimum dimension in the plane of the field of view is located and determined; then a second (maximum) dimension is measured at a right angle to the first. For a spherical or equidimensional particle, only a single size is recorded.

SHAPE is generalized to be spherical (S), equidimensional (E), or irregular (I). Particles having shape intermediate between S and E, or E and I, are not uncommon and may be denoted as S/E or E/I, etc.

TRANSPARENCY (abbreviated TRANS.) is determined by optical microscopy to be transparent (T), translucent (TL), or opaque (O). Significant variations in transparency within a particle are annotated on the SEM image.

COLOR is determined by optical microscopy using oblique (fiber optic, quartz halogen) illumination supplemented with normal reflected (tungsten-lamp) illumination. The distinction of dark (Dk.) from light (Lt.) particles is unambiguous, although the distinction of colorless (CL) from pale-colored conditions is sometimes problematical. Complex colorations of individual particles may be noted in the "COMMENTS" column and annotated on the SEM image.

LUSTER is determined by optical microscopy using reflected normal (tungsten-lamp) illumination and supplemented with oblique (fiber optic, quartz halogen) illumination. Commonly applied descriptions, adopted from mineralogical usage, include dull (D), metallic (M), submetallic (SM), subvitreous (SV), vitreous (V), and resinous (R). Lusters transitional between categories or difficult to identify are indicated accordingly (D/SM, SV/V, etc.).

TYPE indicates a provisional first order identification of each particle based on its morphology (from SEM image), elemental composition (from EDS spectrum), and optical properties. We emphasize that, for catalog purposes, types are defined for their descriptive and curatorial utility, not as scientific classifications. These tentative categorizations, which reflect judgments based on the collective experience of the CDPET, should not be construed to be firm identifications and should not dissuade any investigator from requesting any given particle for detailed study and more complete identification. The precise identification of each particle in our inventory is beyond the scope and intent of our collection and curation program. Indeed, the reliable identification and scientific classification of cosmic dust is one of many important research tasks that we hope this catalog will stimulate. We indicate particle "TYPE" only to aid the users of this catalog (especially those new to small particle analysis) in distinguishing possible cosmic dust particles from other particles which are invariably collected during stratospheric dust sampling. In this catalog, particles are organized according to their type. Categories used in this catalog are defined as follows:

C: Cosmic dust (variety unspecified) or other extraterrestrial material. In the strict sense, "cosmic dust" refers only to those particles which have not been modified during passage from interplanetary space to Earth's stratosphere. In this catalog, though, particle type "C" is used to conveniently group together all particles which are judged to be of extraterrestrial origin, including those that have apparently experienced strong ablational heating or melting. Type "C" particles are provisionally identified as those having one of the three following sets of attributes:

(a) irregular to spherical, opaque, dark-colored particles composed mostly of Fe with minor S and/or Ni.
(b) irregular to spherical, translucent to opaque, dark-colored particles containing various proportions of Mg, Si, and Fe with traces of S and/or Ni.
(c) irregular to faceted or blocky, transparent to translucent particles containing mostly Mg, Si, and Fe but with traces S and/or Ni.

Category (a) and (b) particles commonly display either complex, porous aggregate type morphologies or distinctively spherical shapes and dull to metallic lusters which distinguish them from terrestrial minerals. Their EDS spectra are reminiscent of those exhibited by meteoritic Fe-NiS minerals, or combinations of Fe-Ni-S phases with olivine and/or pyroxene. Category (c) particles display morphologies and EDS spectra which suggest that they are fragments of olivine or pyroxene crystals, neither of which are significant components of stratospheric volcanic ash. Particles which do not fall easily into categories (a), (b), or (c) but which possess some of the same attributes may be classified here as "C?".

TCA: Terrestrial contamination (artificial or man-made). Particles included in the "TCA" category are commonly irregular in shape (though a few may be spherical) and may be transparent, translucent, or opaque. Their EDS spectra commonly show Al, Fe, or Si as the principal peaks but with a variety of minor peaks including those of Cd, Ti, V, Cr, Mn, Ni, Cu, or Zn and at abundances which are frequently much greater than those expected in common minerals. However, such compositions are similar to those expected for certain metal alloys. In some cases, a high intensity (relative to intensities of characteristic X-ray peaks) of continuum radiation occurs in the EDS spectrum, suggesting that low atomic number elements not detectable by the EDS (e.g., H, C, N, O) are abundant in the particle. Such "TCA" particles are tacitly inferred to by synthetic carbon based materials. (This category probably includes particles produced by or derived from aircraft operation or collector hardware, or possibly spacecraft debris. However, some of these particles are worthy of additional research and may represent true extraterrestrial "low Z" material).

TCN: Terrestrial contamination (natural). "TCN" particles may be transparent to opaque and may exhibit a variety of colors. However, they are commonly irregular in shape and distinctively rich in Si and Al with minor abundances of Na, K, Ca, or Fe. Some Fe-S particles are classified as TCN despite the fact that they may well be extraterrestrial. This action is due to the lack of conclusive investigations regarding these particular particles. Many particles containing only low-Z elements are also classified TCN for the same reason. Morphologies and EDS spectra of most "TCN" particles compare favorably with respective properties of silica polymorphs, feldspar, or silicic volcanic glass, three materials which are principal components of stratospheric volcanic ash. In addition, platy or porous aggregate-type particles of light color and Si, Al rich composition may be silicic clay minerals, common phases in Earth's surface soils. Irregular, reddish Fe rich particles may also be products of terrestrial rock weathering. Recognition of these and other phases as "TCN" particles is based mostly on CDPET's collective mineralogical experience and comparison with reference samples. Less commonly, the "TCN" category may include distinctive particles with apparently non-random shapes which are rich in low atomic number elements (as inferred from their EDS spectra having high levels of continuum x radiation and relatively small peaks for characteristic X-rays). Those rare particles are distinguished from "TCA" particles by their unusual, organized morphologies and probably represent biological contaminants.

AOS: Aluminum or aluminum oxide sphere. An AOS is transparent, subvitreous, vitreous to metallic in luster, colorless to pale yellow and at least approximately spherical. However, shape may range from nearly perfect sphericity to pronounced ellipticity and surface texture may range from very smooth to rough. Other spheres or irregularly shaped material may be attached to its surface. Al is the distinctively dominant (or only) peak in its EDS spectrum. A sphere displaying the attributes of an AOS except with major elements in addition to Al may be listed as "AOS?" or "?". Transparent Al rich particles of irregular shape would probably be listed as "TCA". Most AOS particles are products of solid fuel rocket exhausts.

Again, this system for provisional classification of particles is presented only as a first order attempt to distinguish particles which are probably extraterrestrial in origin from those which are probably contaminants. All particles will require careful research examination before they can be satisfactorily identified.

COMMENTS are included for particles with special features or histories. Any large cluster particles, which have broken apart on the LAC plate, have small portions present in the catalog as different "sibling" grains; the comments reflect these relationships. For example, any particle with a cluster number designation in the comments field represents a much larger parent particle remaining on the LAC plate, which is also available for allocation in part or in whole.

5. Analyses of Reference Materials

The usefulness of the SEM images and EDS spectra provided for particles in this catalog is enhanced by comparison with similar data products obtained for mineral standards of known composition. Accordingly, a typical EDS spectrum is presented for each of three standard minerals prepared as polished grain mounts (San Carlos olivine, USNM 111312/444; diopside JLC 99 63; Kakanui hornblende, USNM 143965; Allende Meteorite Bulk Powder, NMNH 3529). Analyses of these optically flat surfaces eliminate inter-sample geometrical variations so that effects of detection limits and compositional variations, in general, on relative peak heights in the raw spectra can be more readily assessed. Even so, the polished grain spectra should not be over interpreted because no corrections have been attempted for atomic number, absorption, or fluorescence effects. The spectra are presented simply as additional aids to the meaningful use of the sample particle EDS spectra. Investigators who might wish to compare performance characteristics of their EDS analytical systems with those of the system used by CDPET in preparing these catalog data should contact Curator/Cosmic Dust at the address given in Section 6. A short-term loan of a polished grain mineral standard can then be arranged.

As pointed out in Section 3, the EDS spectra included in this catalog were obtained using a primary electron energy of 20 kV whereas spectra in Catalogs 1-3 and 8 were obtained with a different instrument operated at 40 kV. Although the effects on EDS spectra to be expected from such a change are well known from X-ray spectrometric analysis, they are worth pointing out to avoid confusion among the readers of this catalog. The major effects of concern to Cosmic Dust

Catalog users can be seen by comparing the two "Allende (CV3) Meteorite Bulk Powder" spectra, one of which was obtained at 20 kV and the other at 40 kV, as presented in Cosmic Dust Catalogs 1-3 and 8 (only spectra collected at 20kV are presented in this catalog). In the 20 kV spectrum, the Si peak is more intense than the principal peak of Fe whereas the opposite is true for the 40 kV spectrum. In general, the 20 kV spectra in this catalog will show peaks of light elements enhanced relative to peaks of heavy elements when compared with 40kV spectra published in Catalogs 1-3 and 8. The explanation is based both on geometrical differences between X-ray paths in the two EDS systems (the JEOL-35CF system is actually more favorable for light element analysis) and on electron and X-ray physics (X-ray emission by heavy elements is more intense at 40 kV than at 20 kV). Thus, readers are cautioned against attempting to quantitatively intercompare 40 kV spectra with 20 kV spectra. Still, the spectra in each catalog should continue to serve as originally intended. Namely, the sample and standard spectra in any given catalog will represent a self consistent data set.

6. Sample Requests

Scientists desiring to perform detailed research on particles described in this catalog should apply in writing to:

Curator/Cosmic Dust
Telephone: (281) 483-5128
Code SN2
NASA/Johnson Space Center
FAX: (281) 483-5347
Houston, Texas 77058
U.S.A.

Sample requests should refer to specific particle identification numbers and should describe the research being proposed as well as the qualifications and facilities of the investigator making the request. Publication reprints are frequently useful in sample allocation considerations. Additionally, requests for particles not yet passed through preliminary examination will be considered if the requester can demonstrate a strong need for them. NASA will arrange for a review of the scientific merits of each request and will inform the requester of the results. Approval of a sample request does not imply or include funding for the proposed research. Questions about NASA funding should be directed to:

Dr. Joseph Boyce
Discipline Scientist
Planetary Materials and Geochemistry Program
Code SR
NASA Headquarters
Washington, DC 20546

Although foreign scientists are welcome to request samples, NASA cannot provide funds to be spent outside the U.S.A. by citizens of other countries.

7. Acknowledgements

The ER-2 flight personnel at NASA/Ames Research Center, Moffett Field, California) performed the loading and unloading of the cosmic dust collectors on the ER-2 aircraft and provided flight log data and other critical assistance.

Eugene Jarosewich (Smithsonian Institution, Washington, D.C.) kindly provided mineral standards and the Allende chondrite powder.

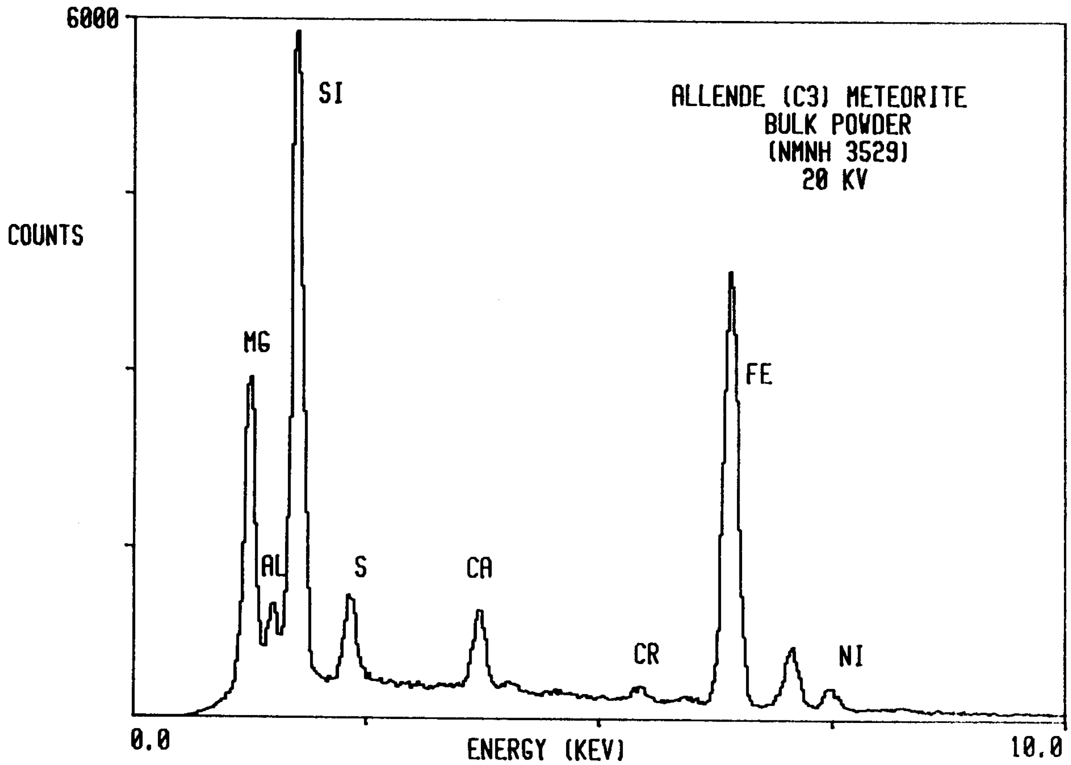
8. Particle Table of Contents

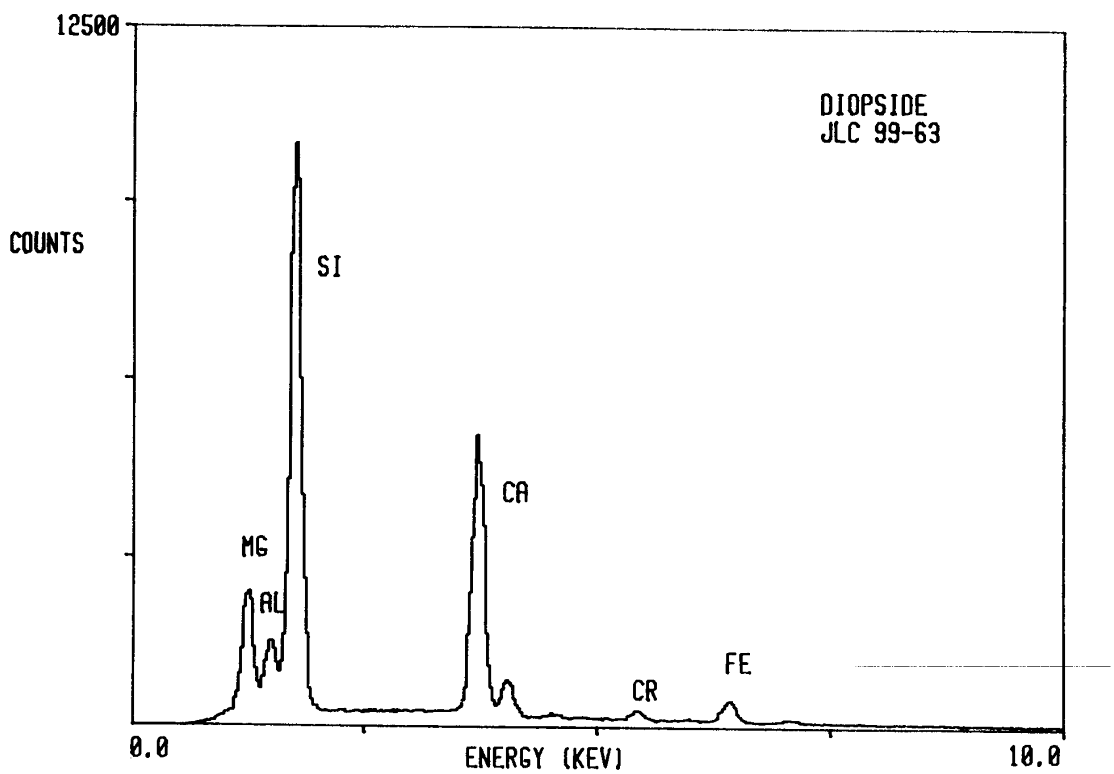
Since particles are arranged in this catalog by type, rather than sequentially by mount and number as in some previous catalogs, we include a sequential listing of particles and the page on which they may be found, for the user's reading pleasure.

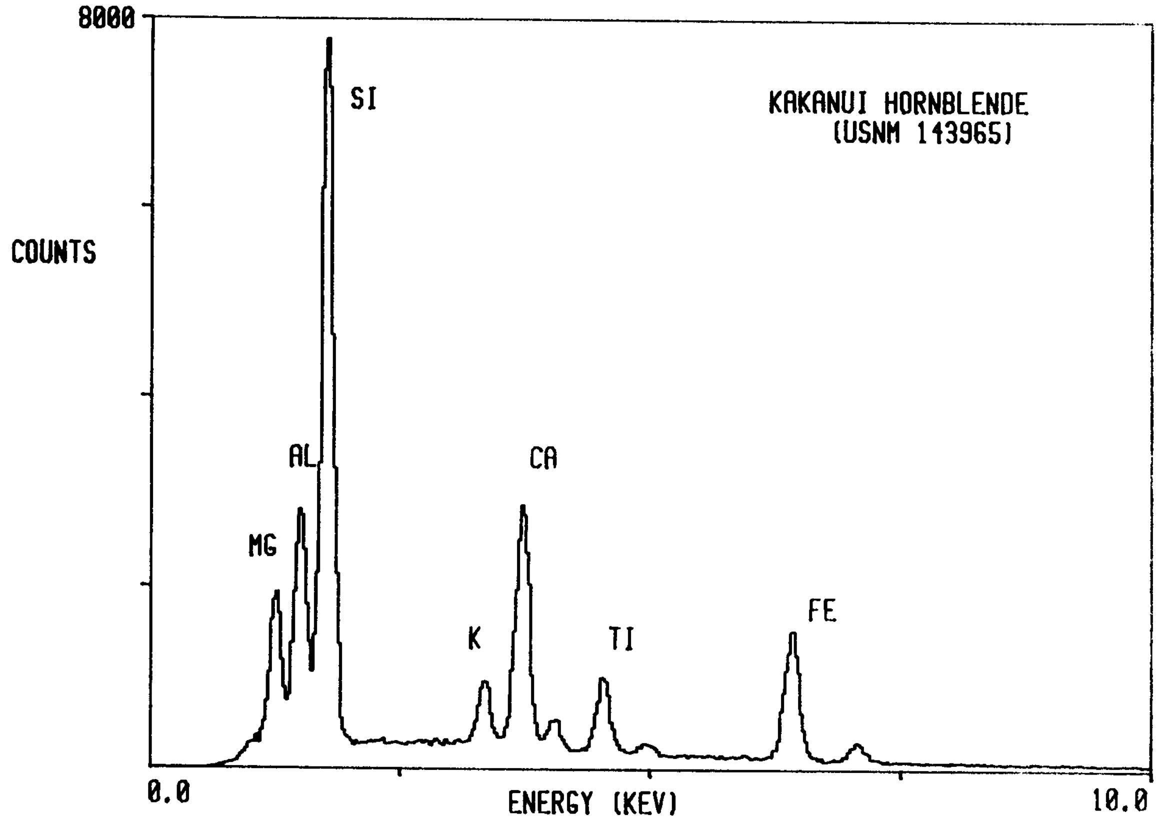
L2021

L2036

Standard Spectra



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KAKANUI HORNBLENDE
(USNM 143965)
AL
CA
MG
K
TI
FE
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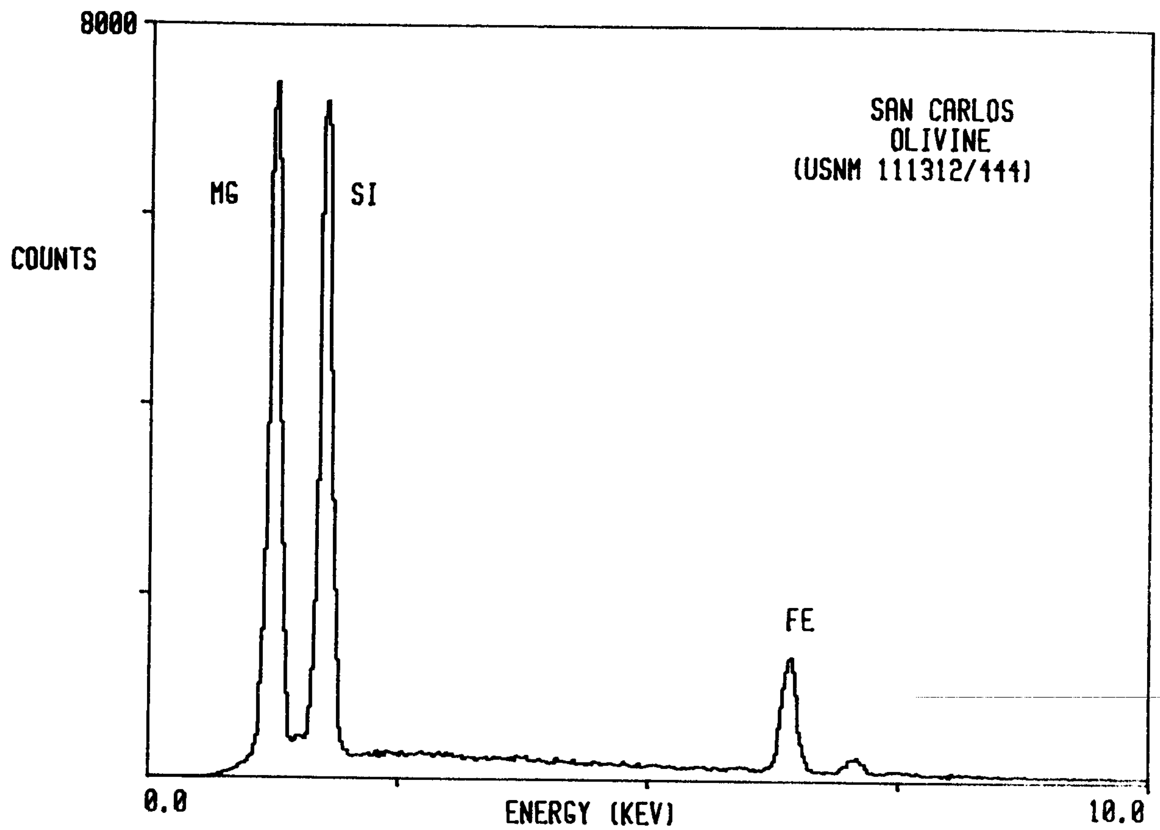
ENERGY (KEV)
10.0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Particle Descriptions
C Type

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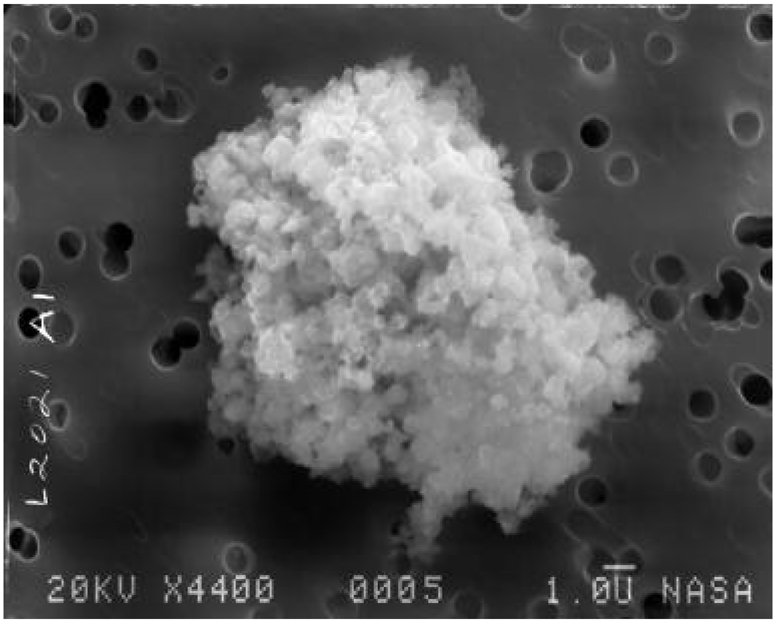

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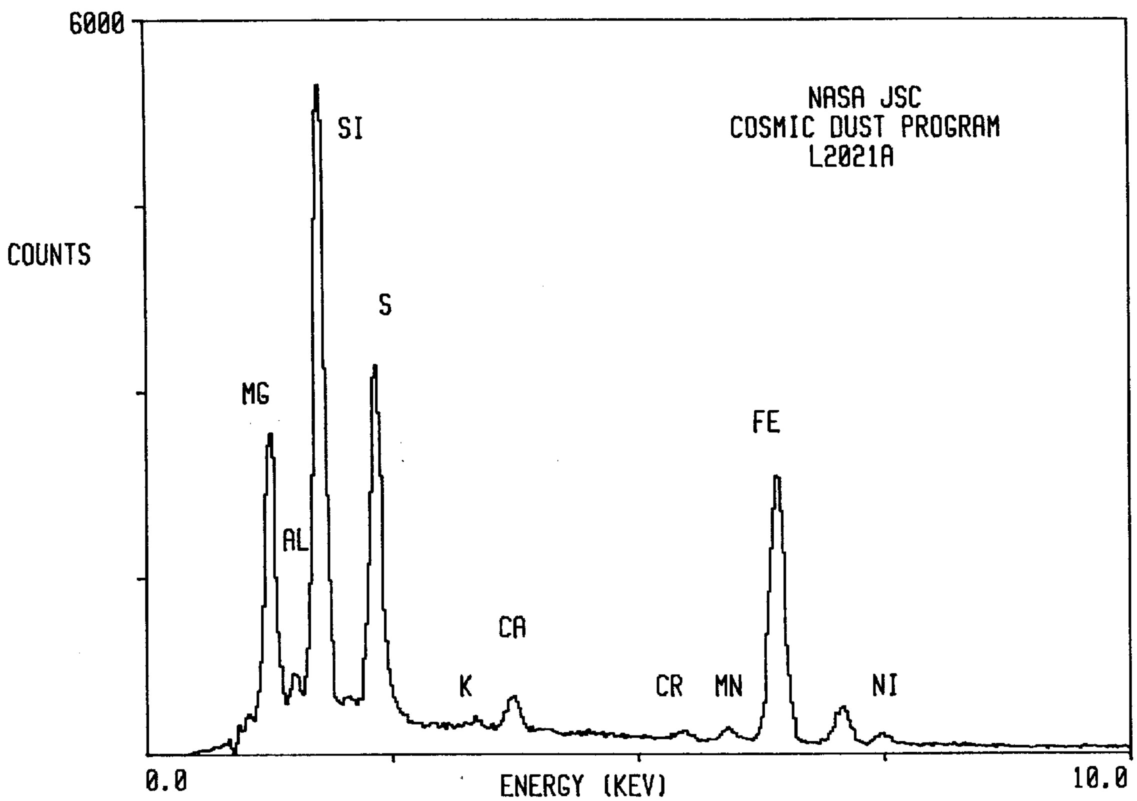

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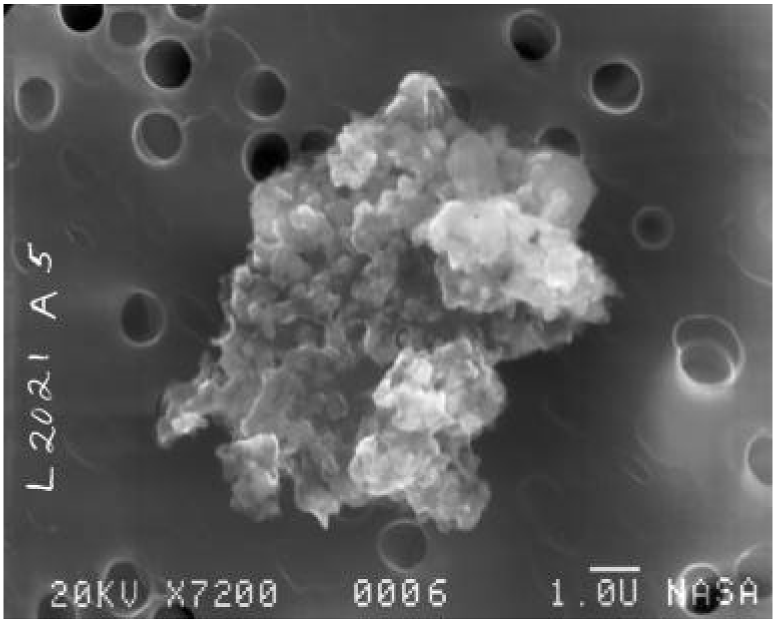

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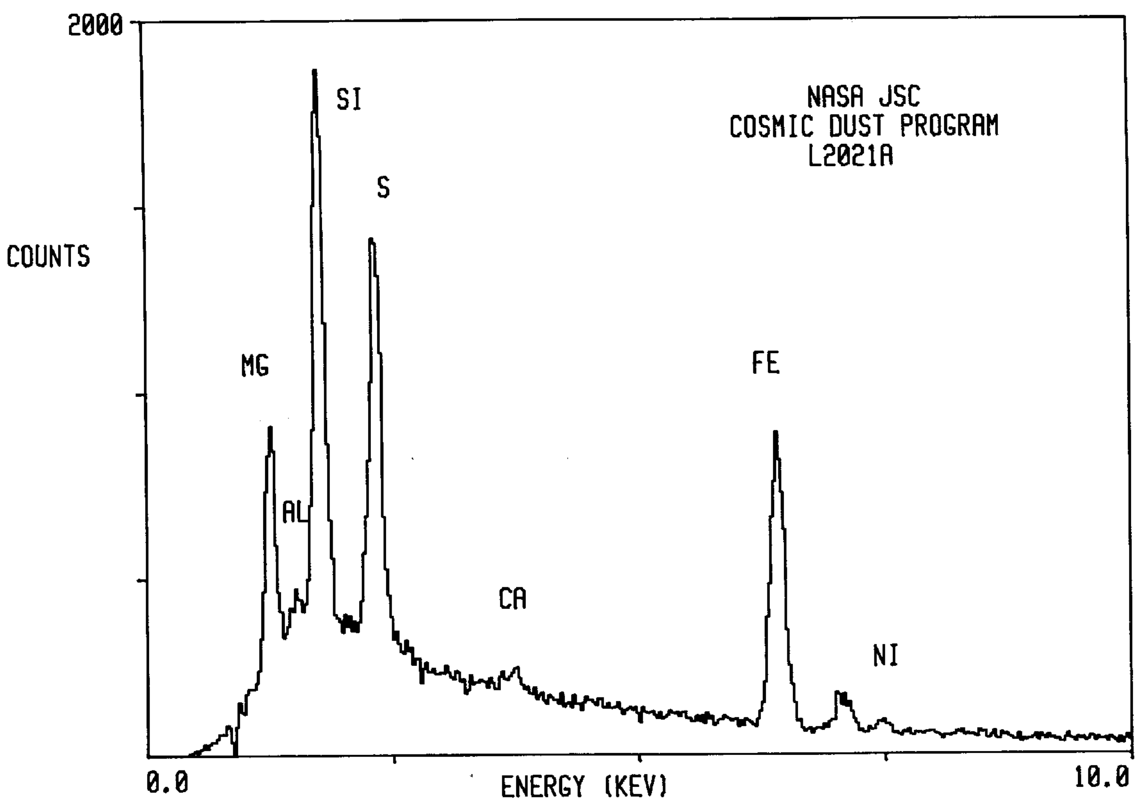

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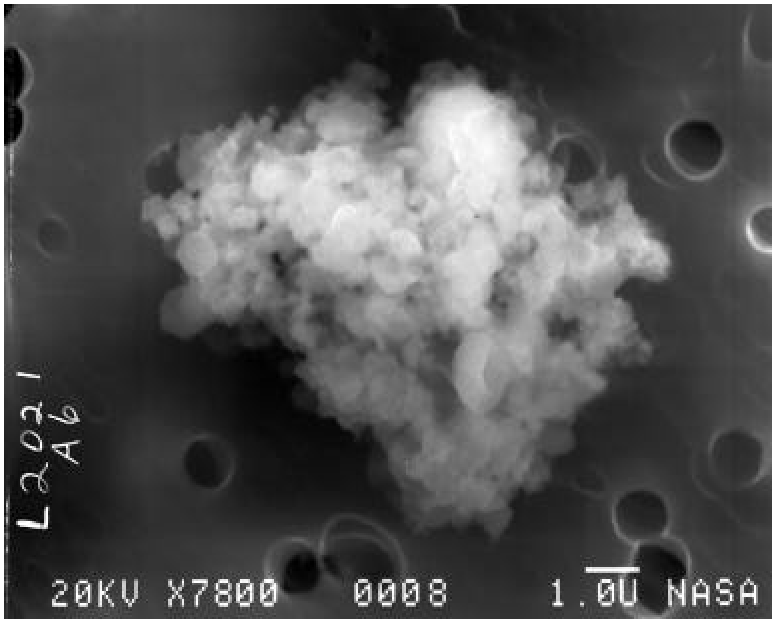

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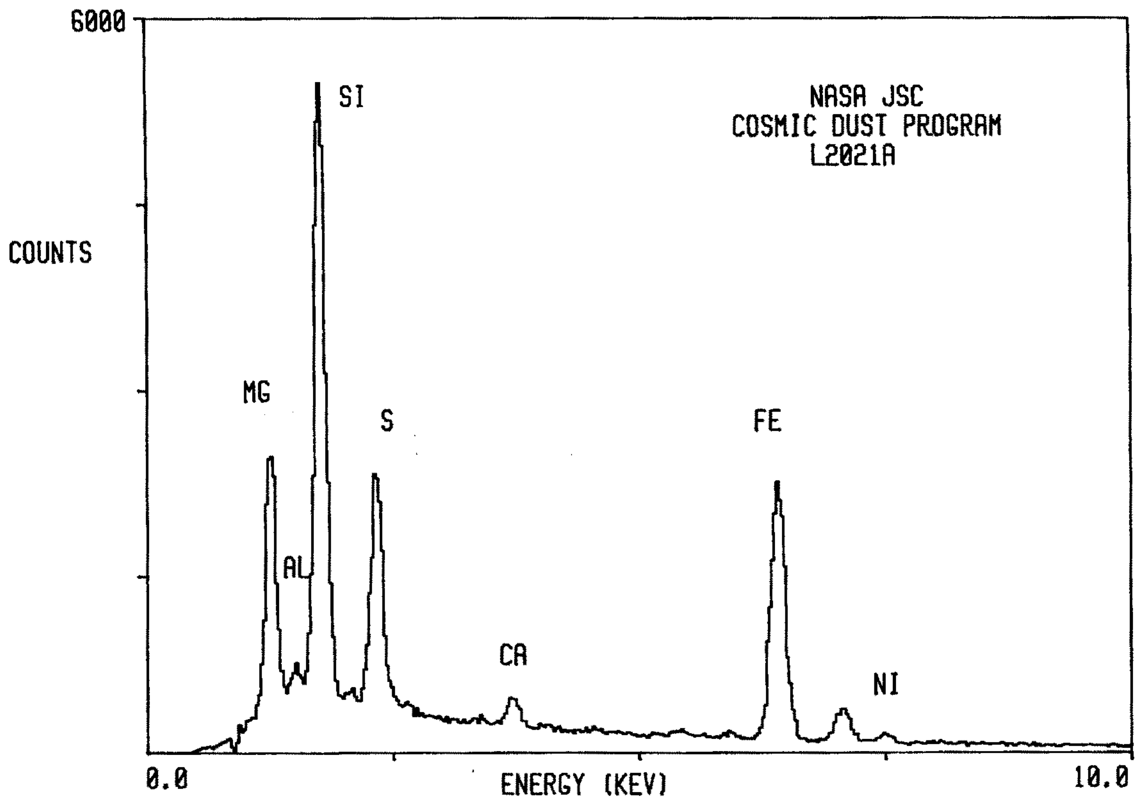

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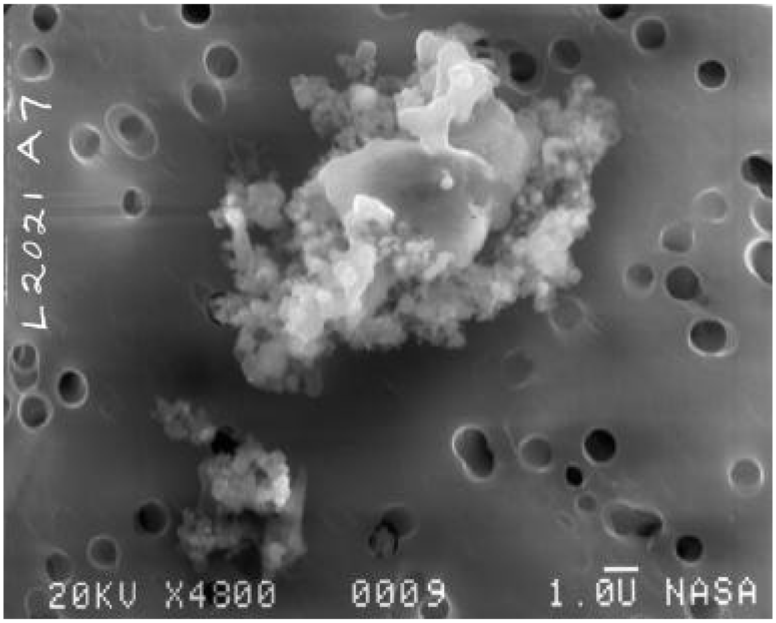

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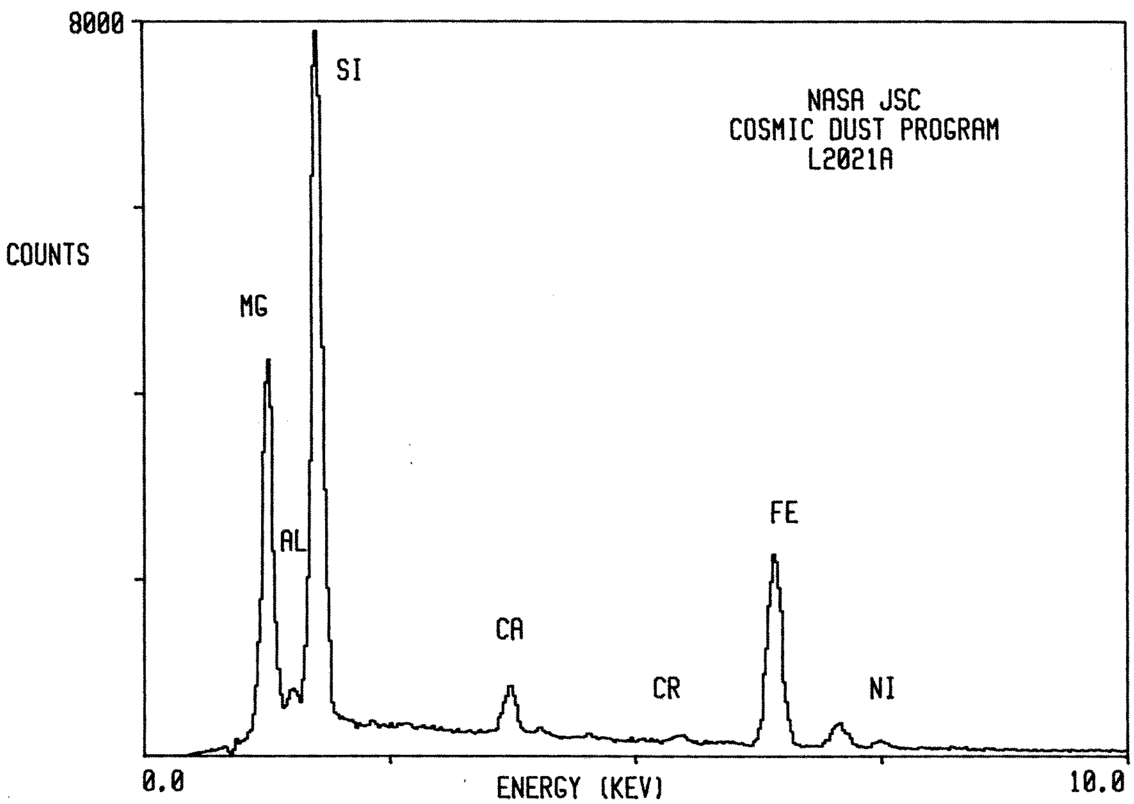

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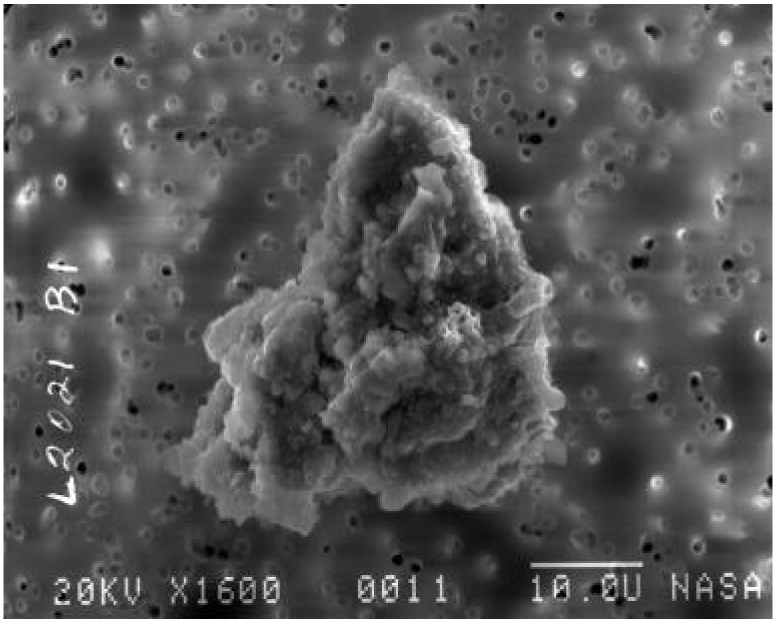

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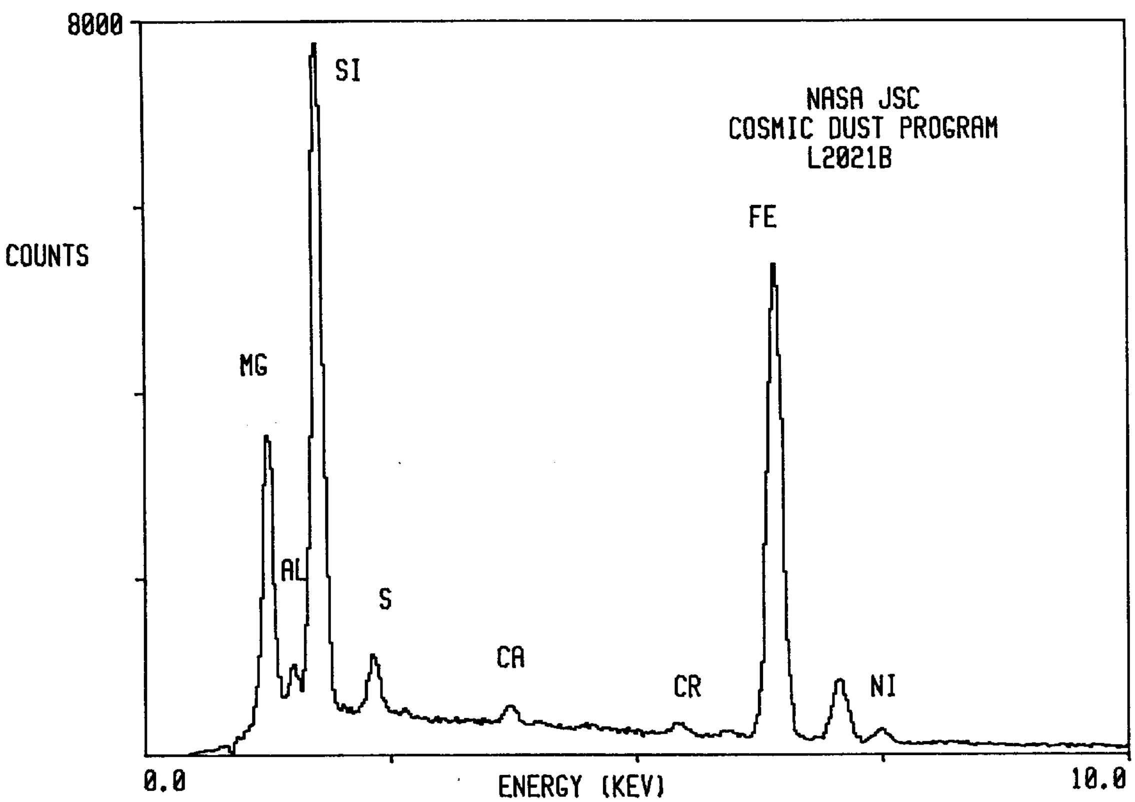

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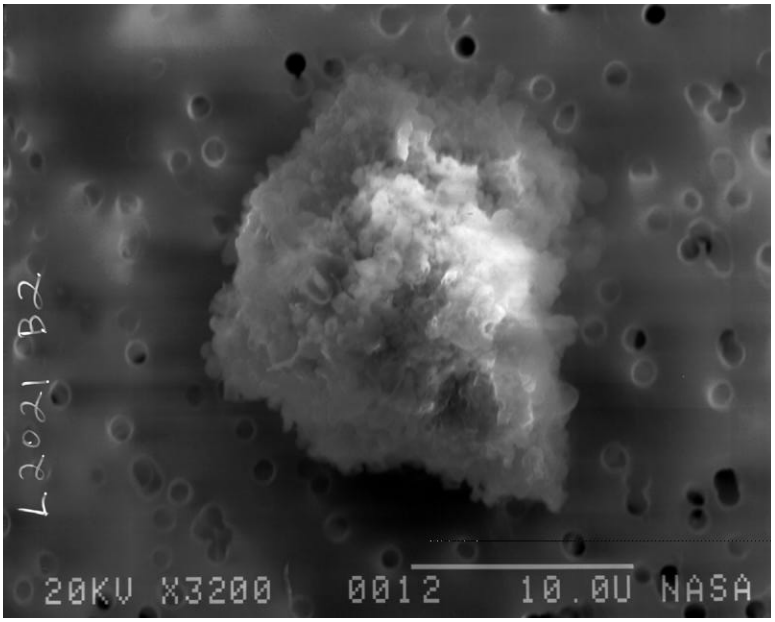

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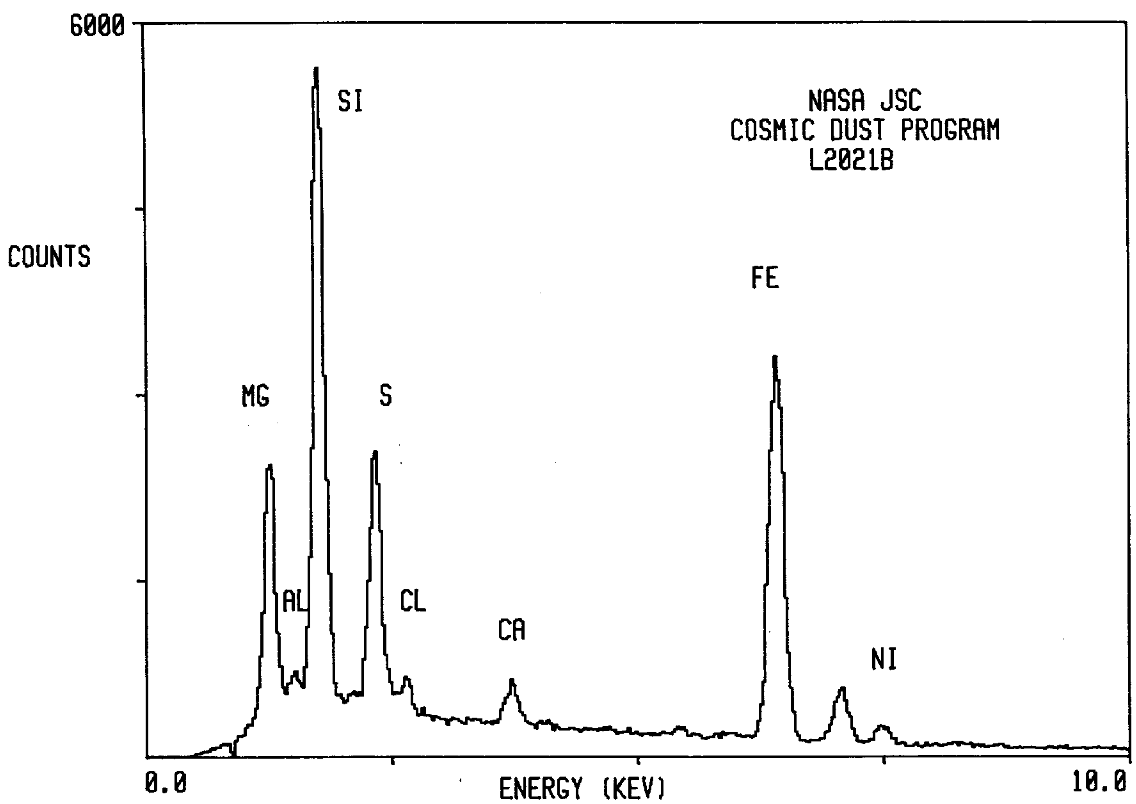

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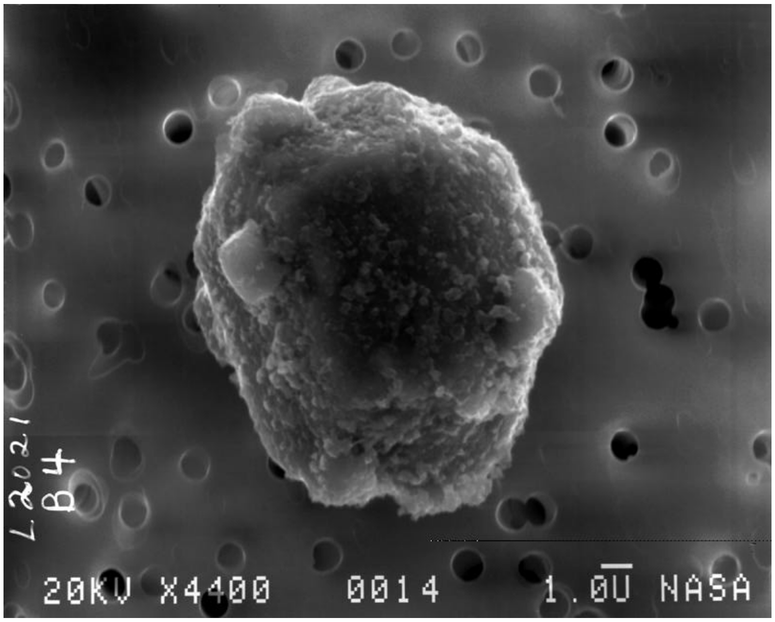

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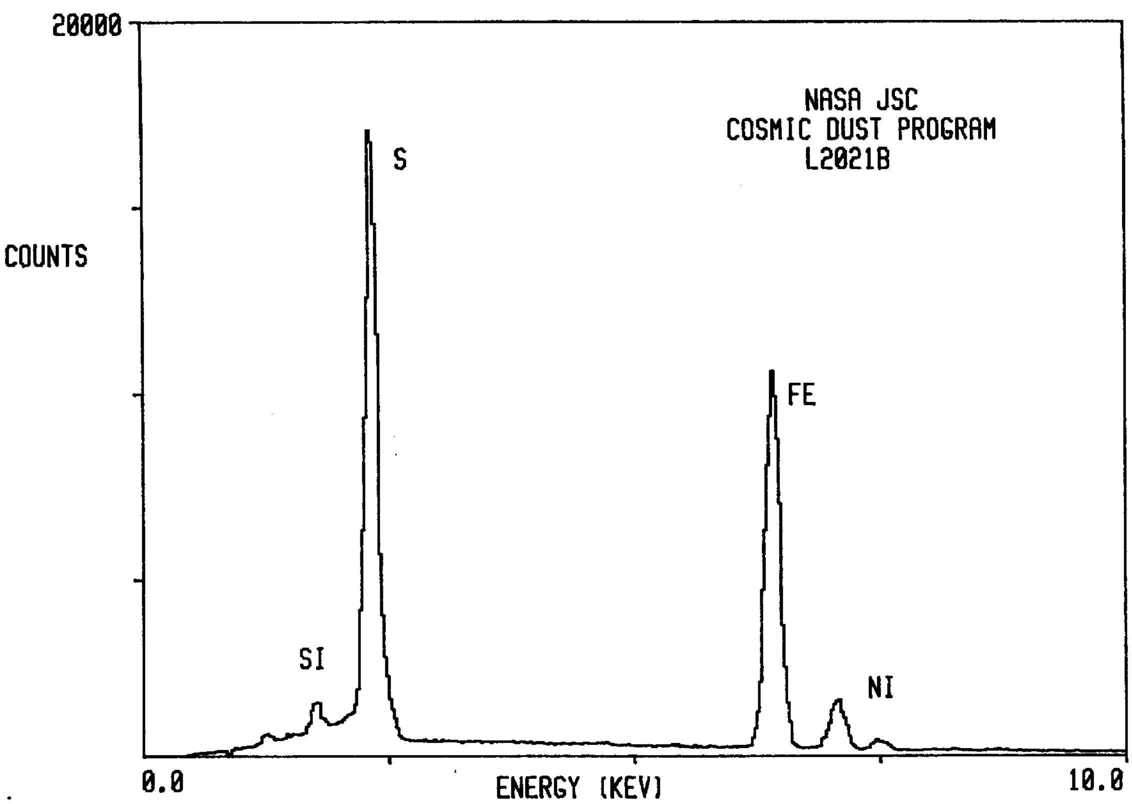

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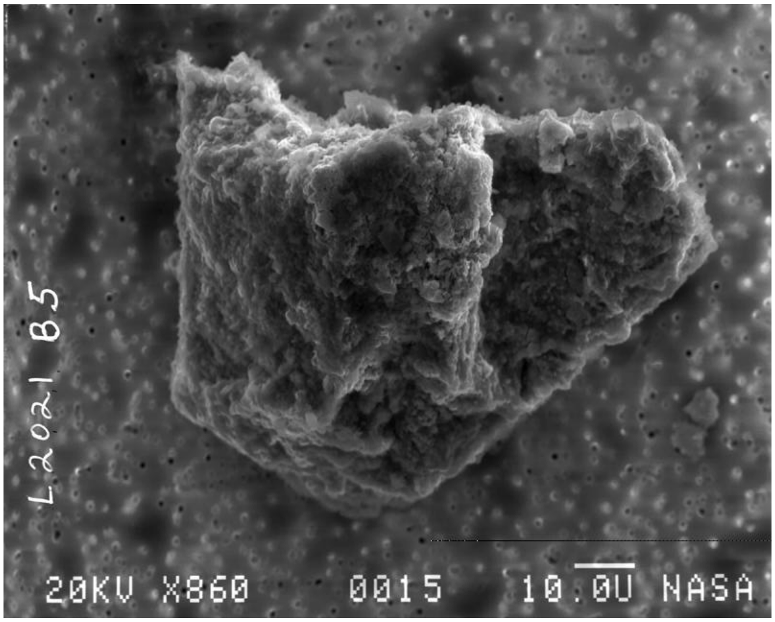

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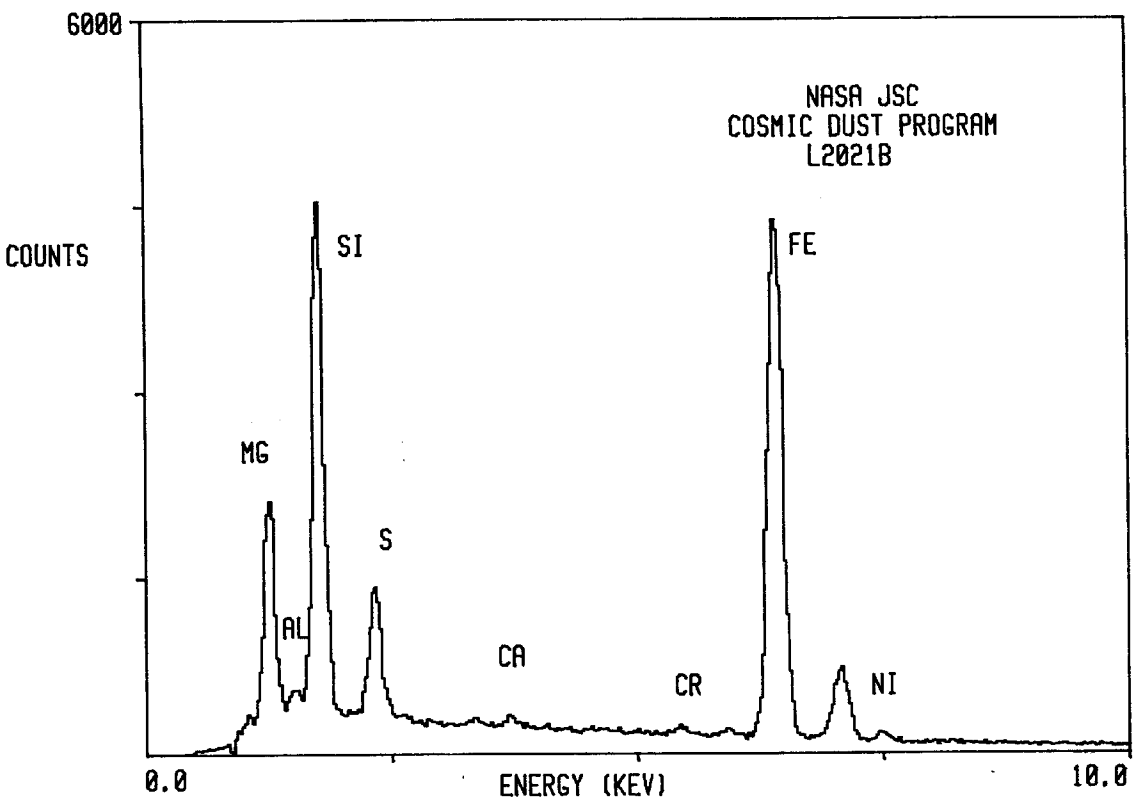

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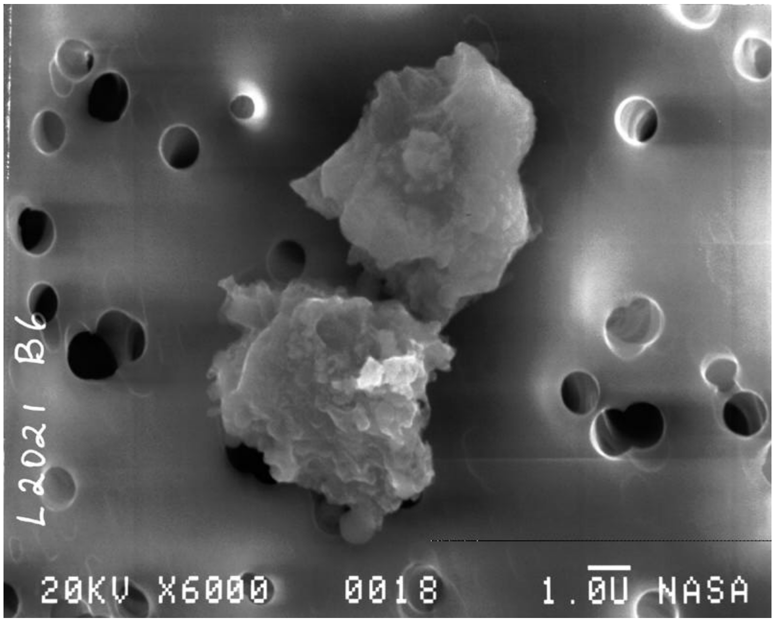

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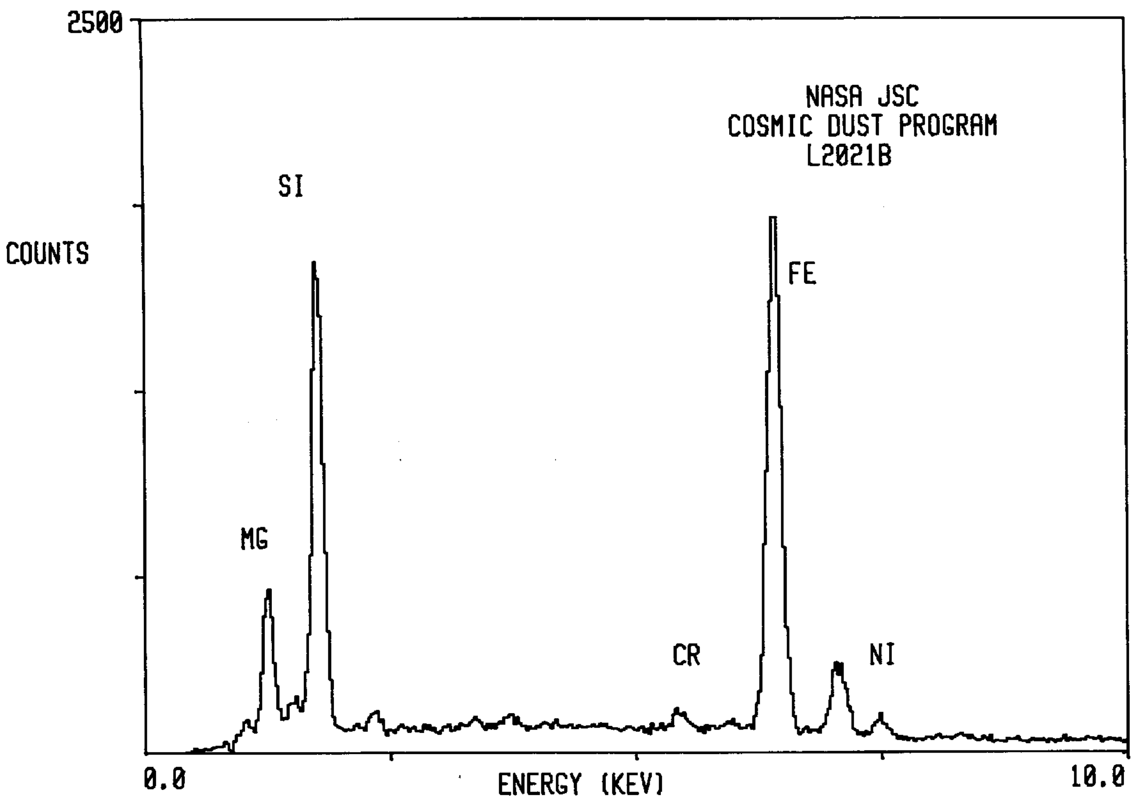

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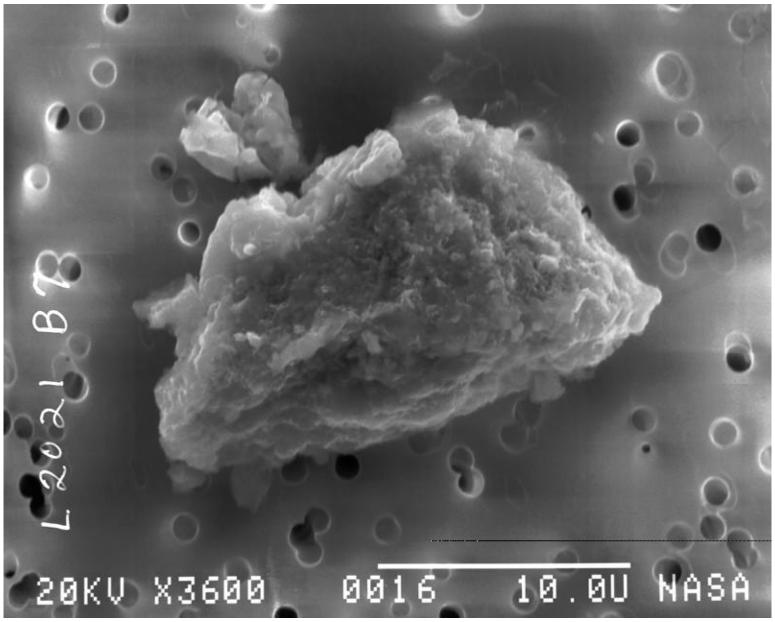

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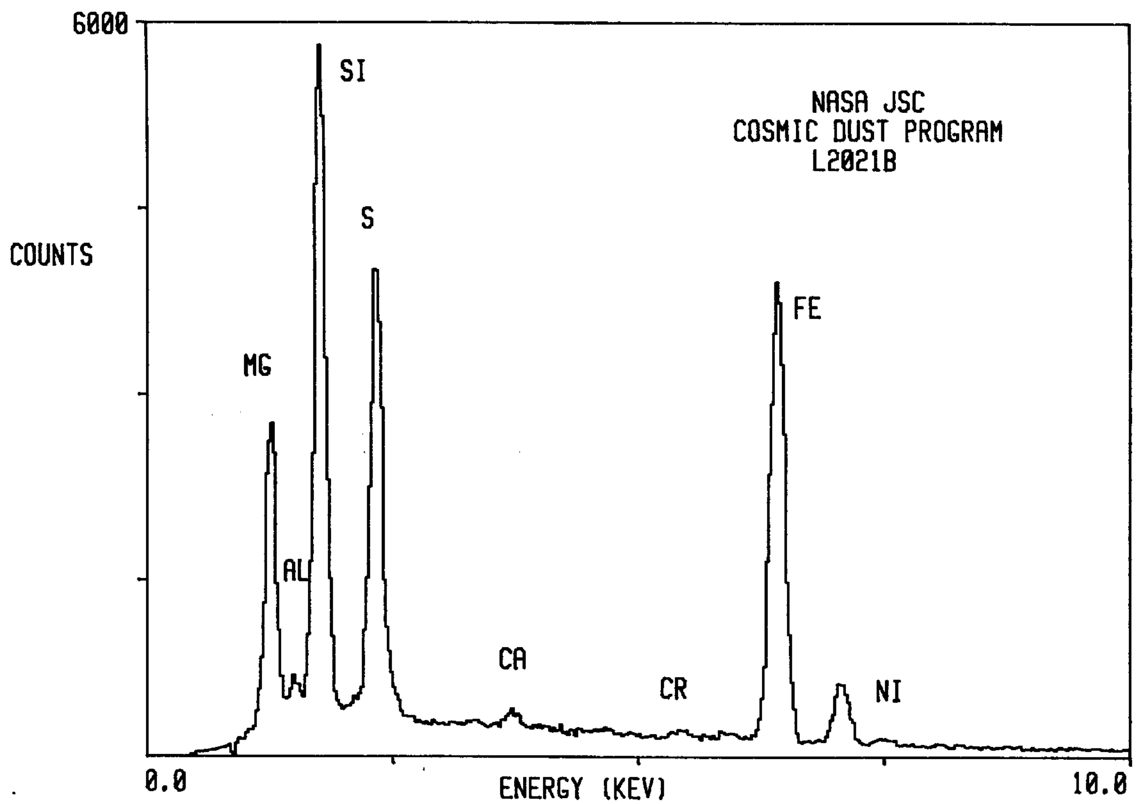

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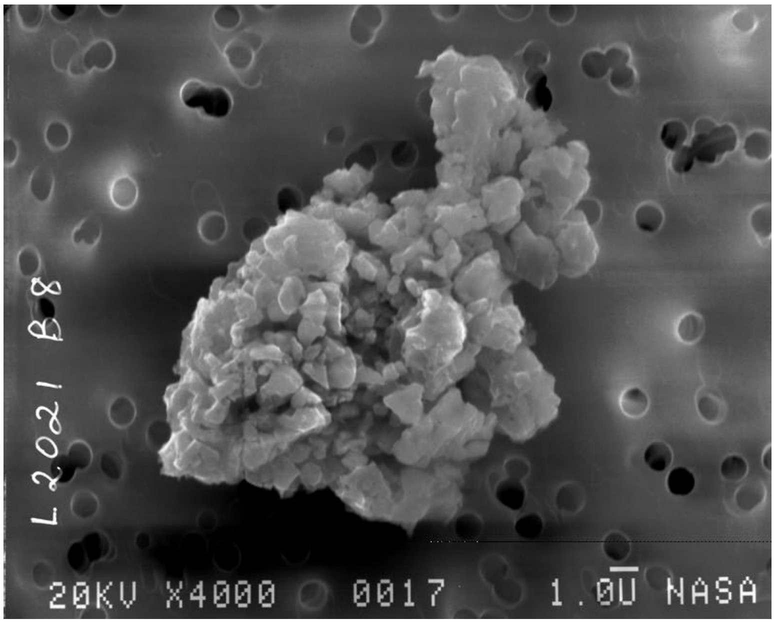

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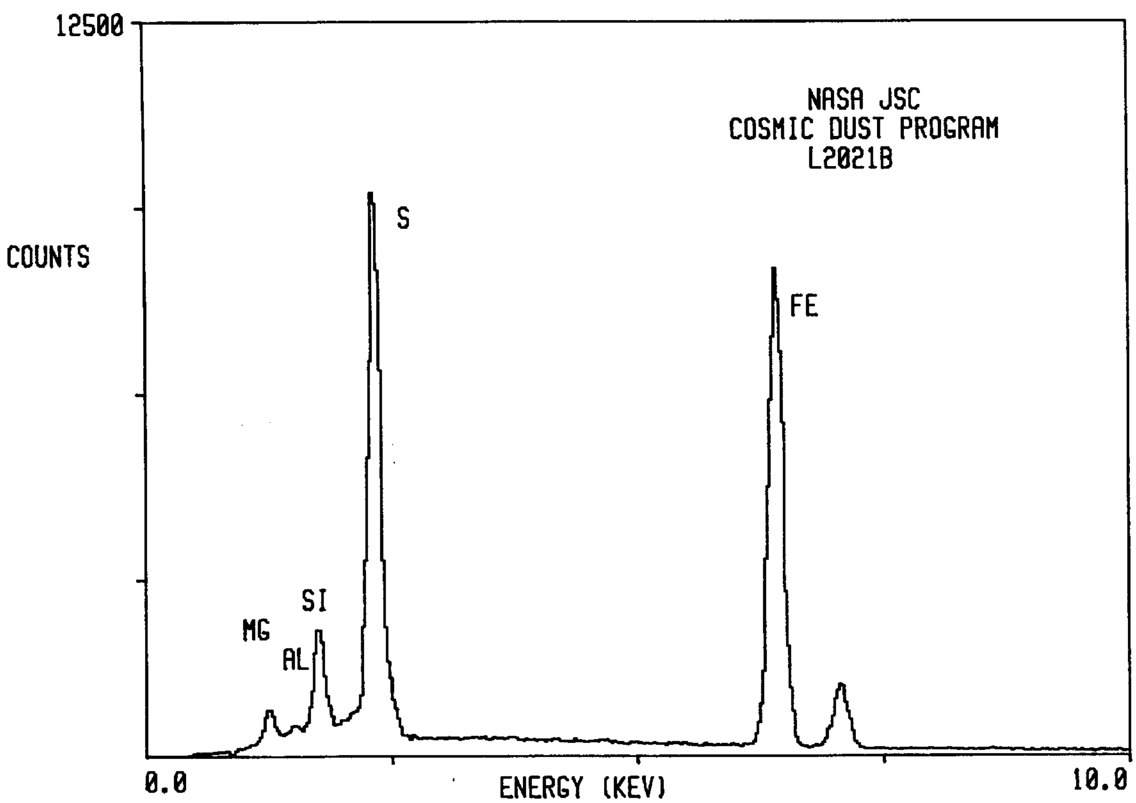

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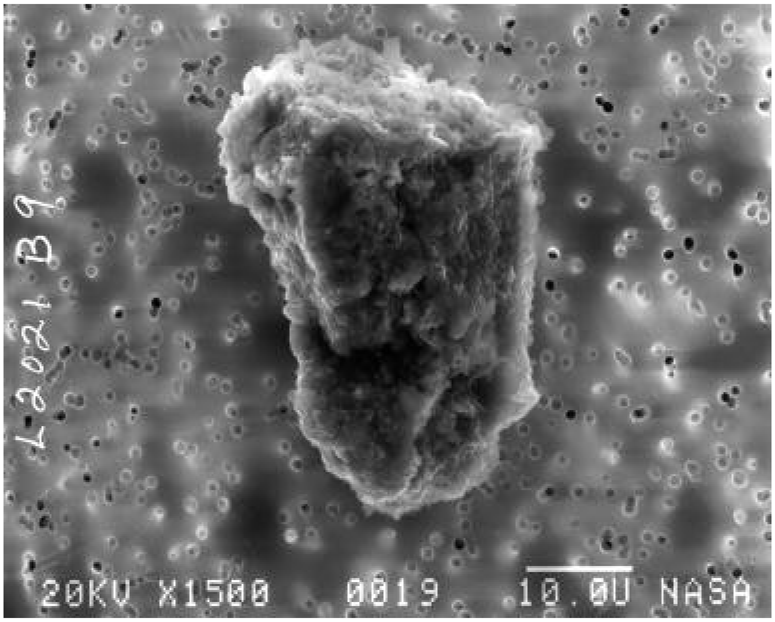

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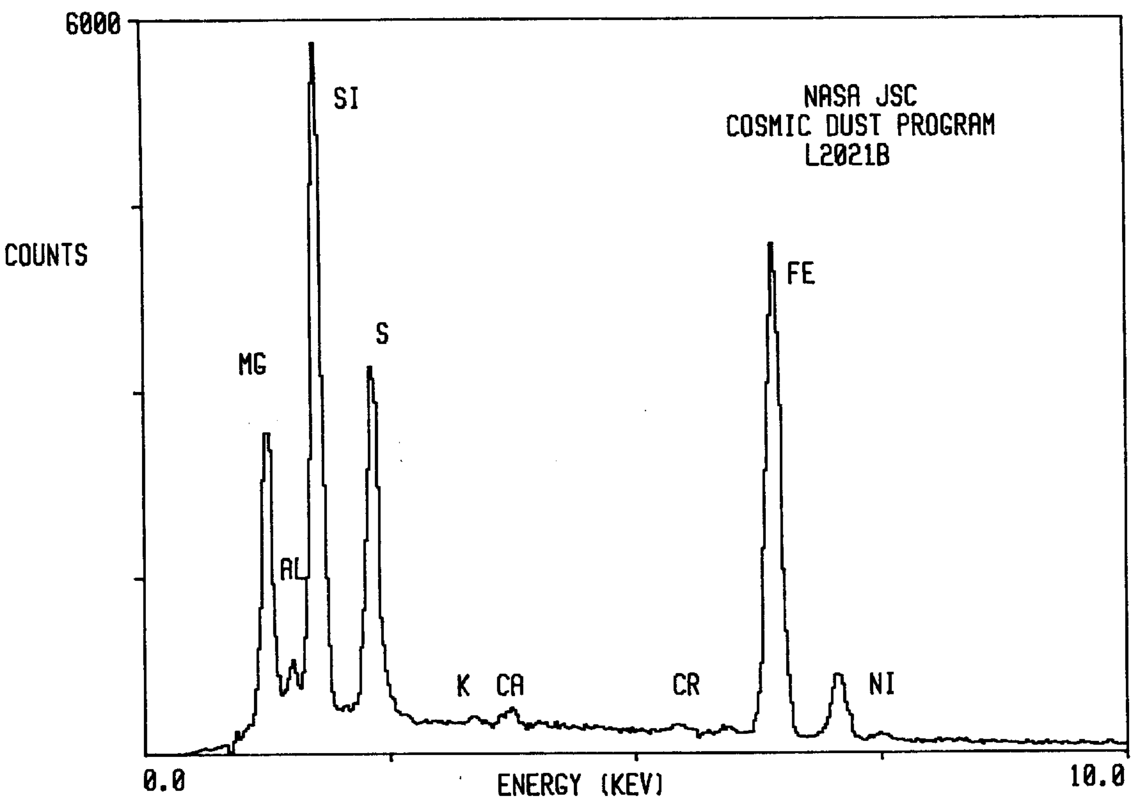

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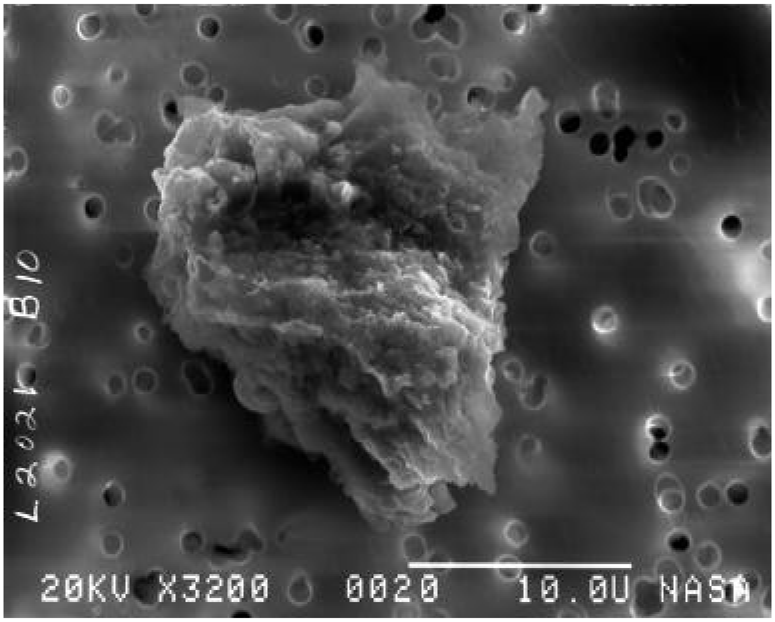

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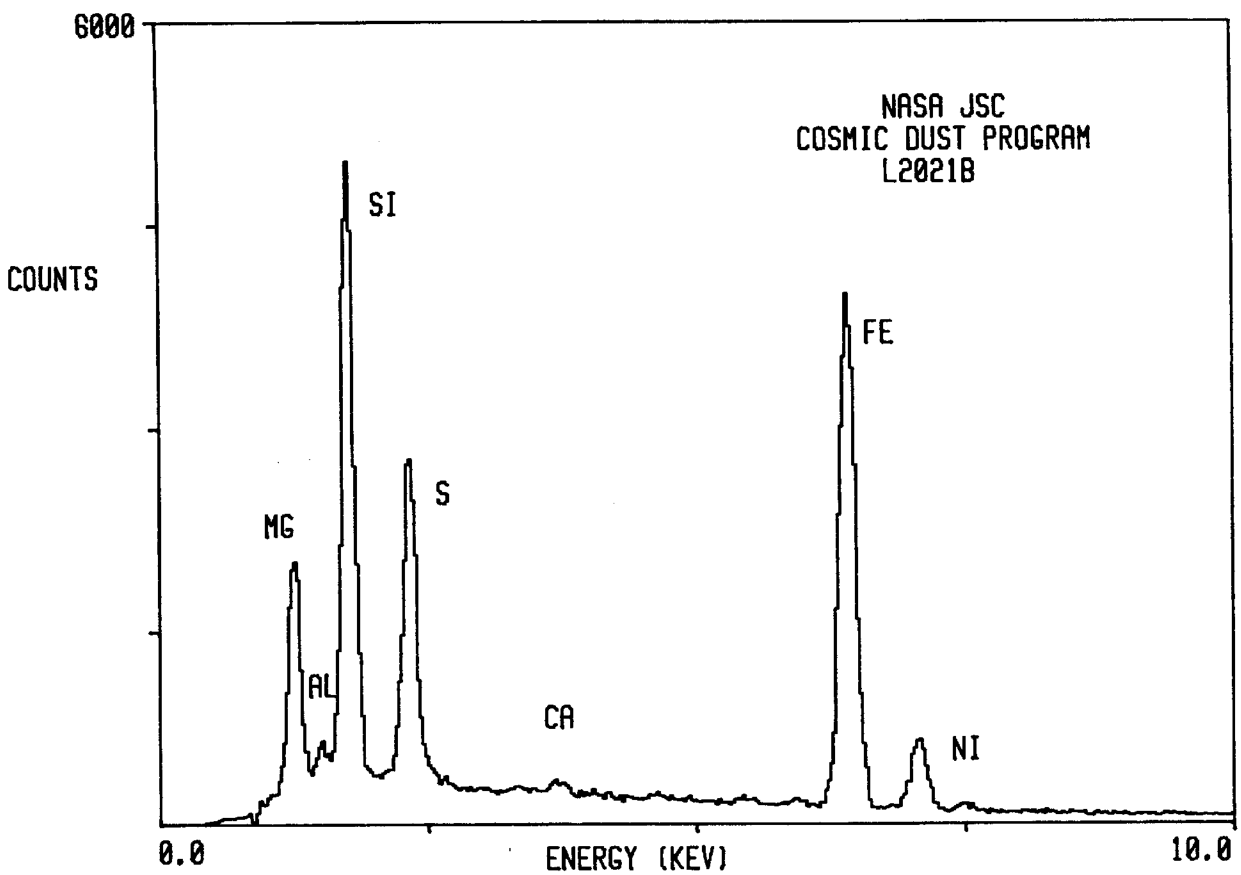

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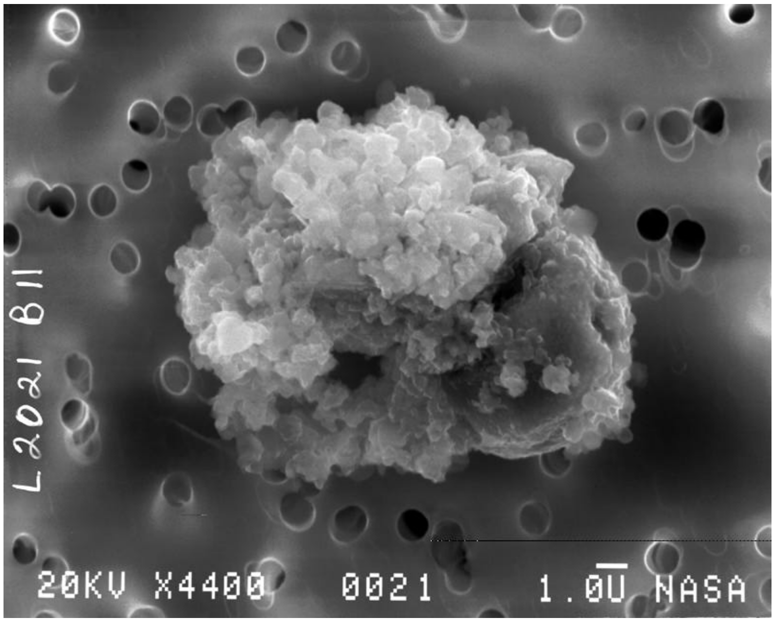

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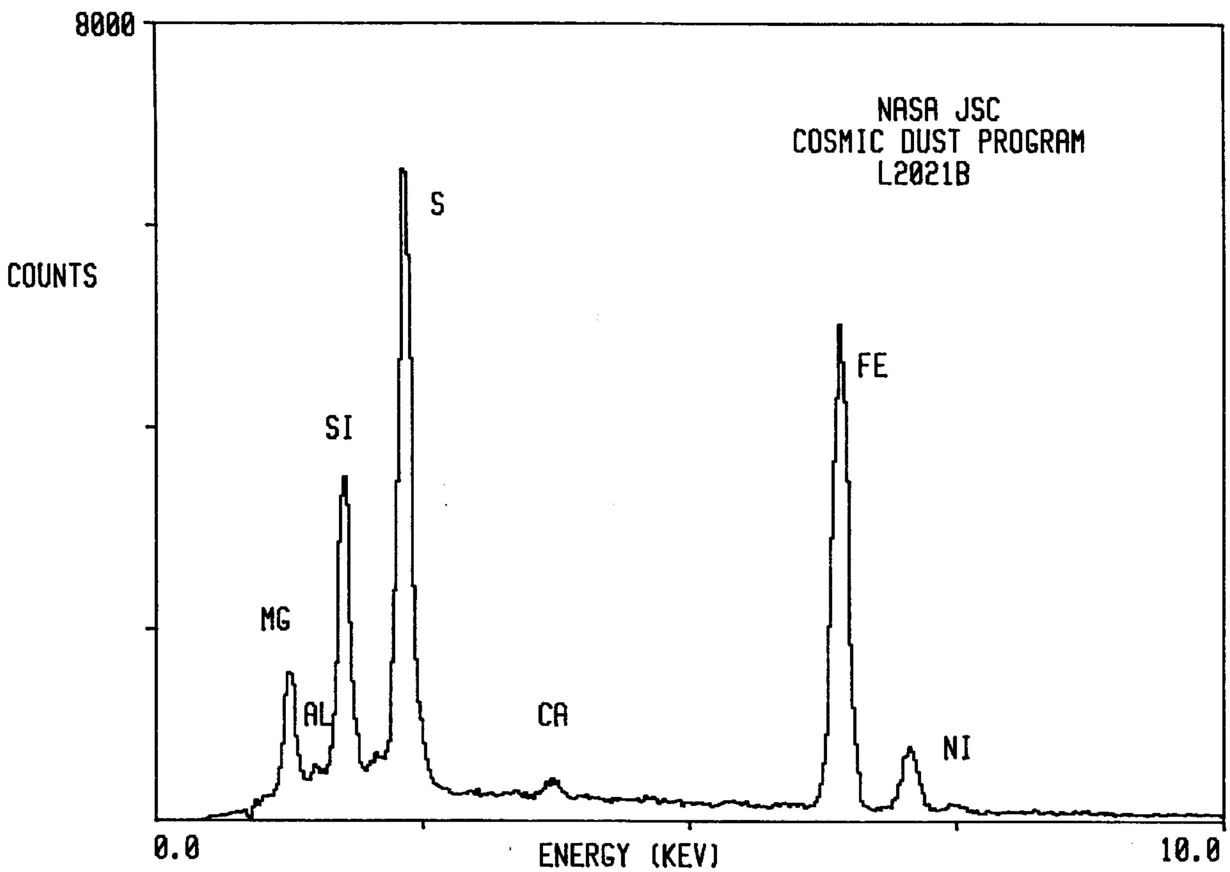
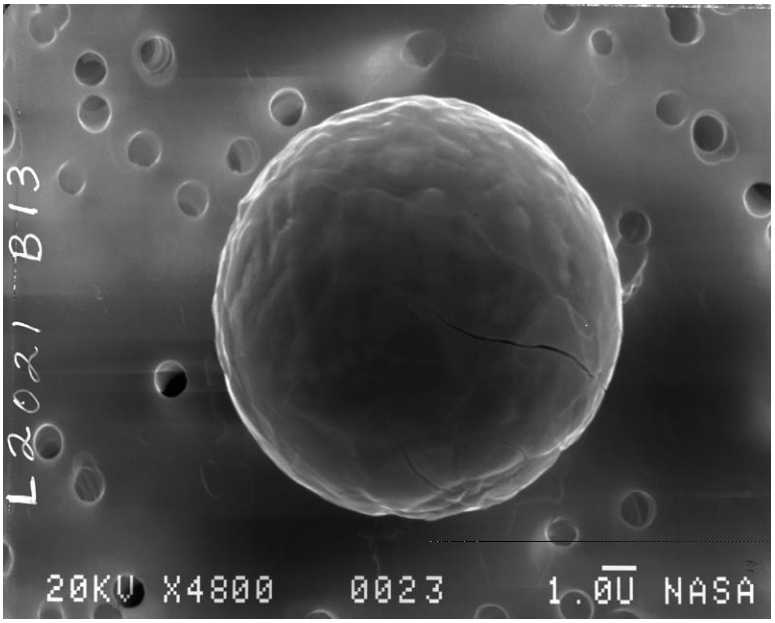


L2021B13



97E00347

Size: 11

Shape: S

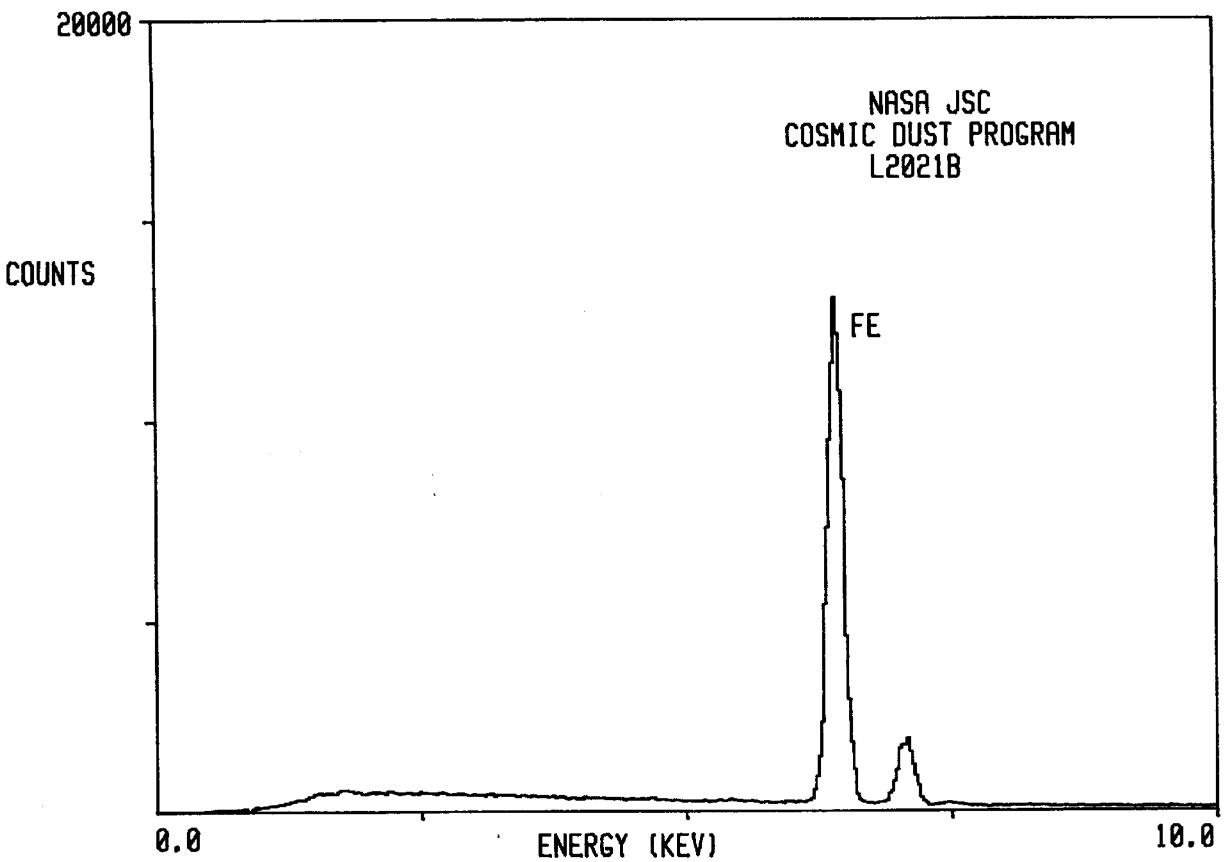
Trans: O

Color: Black

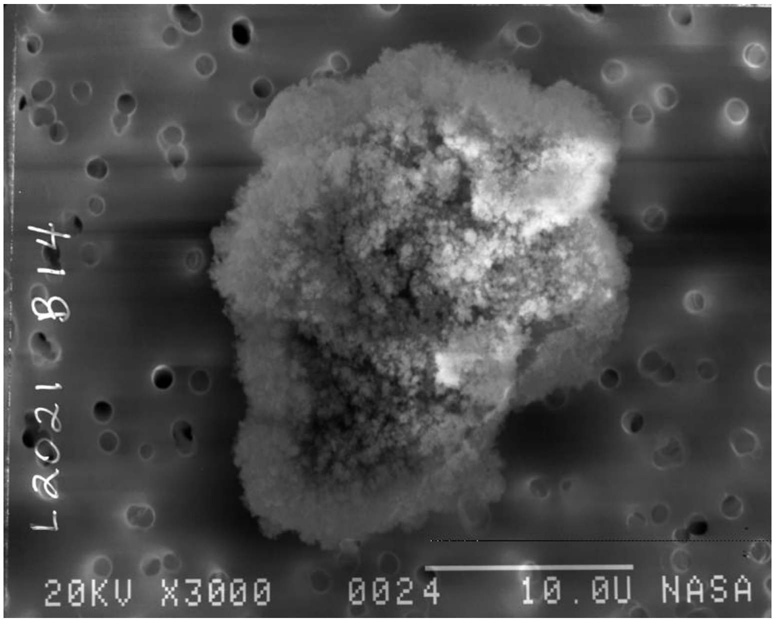
Luster: P

Type: C?

Comments:



L2021B14



97E00348

Size:	25x20
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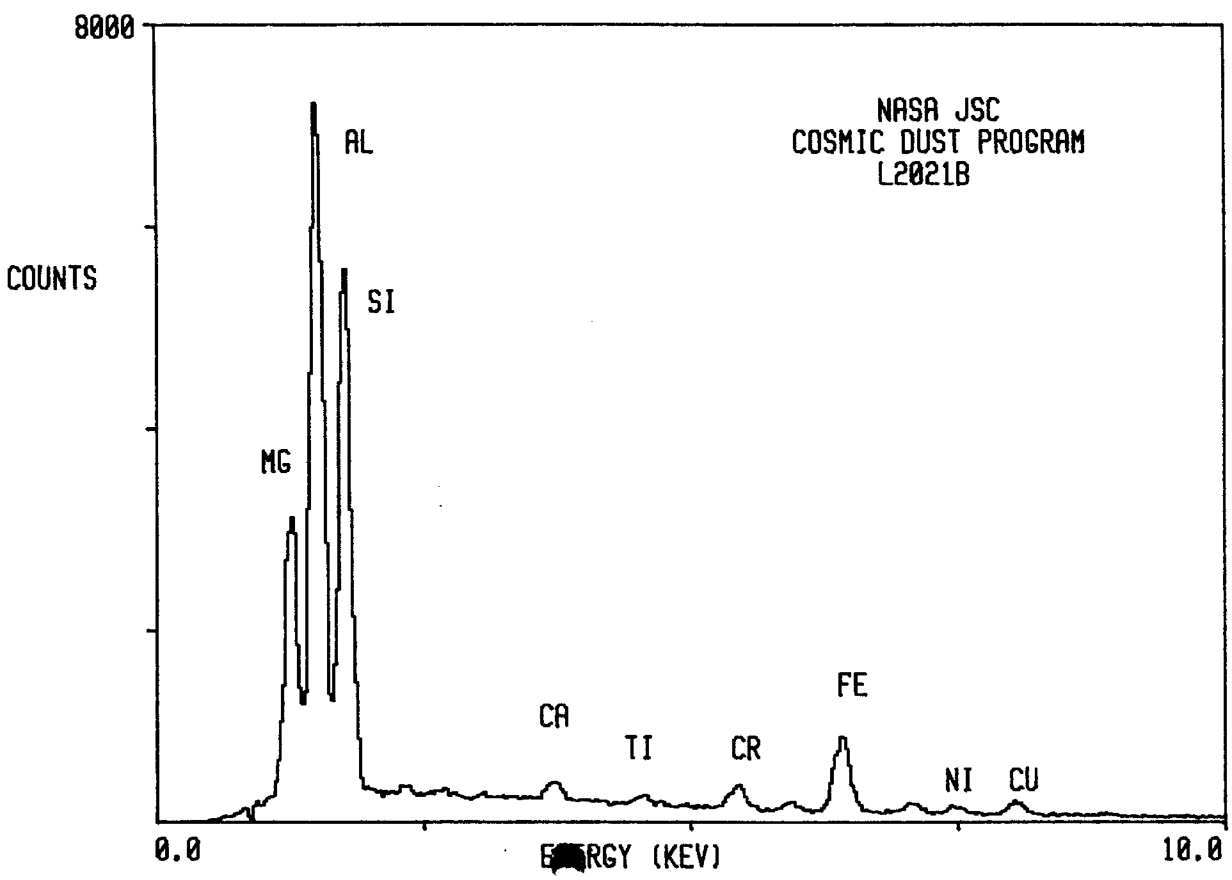
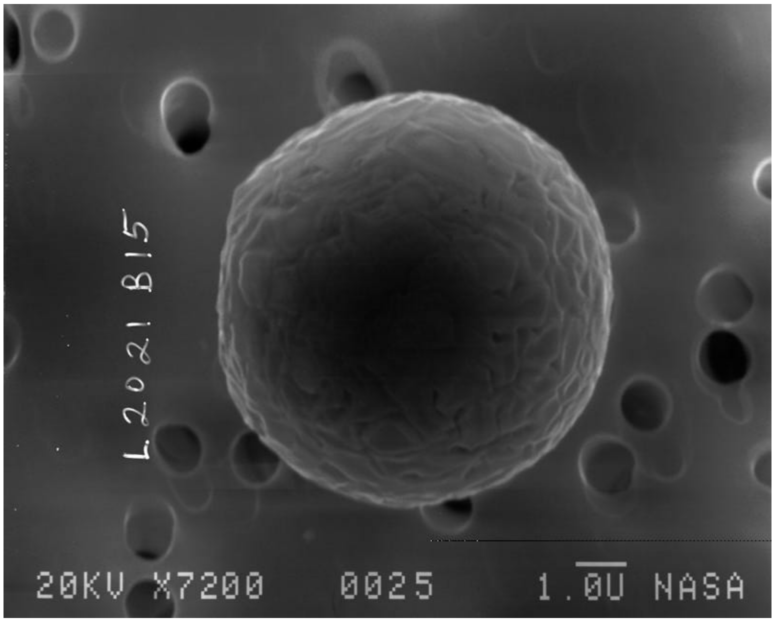
Trans:	O
Color:	Black
Luster:	D
Type:	C?
Comments:	

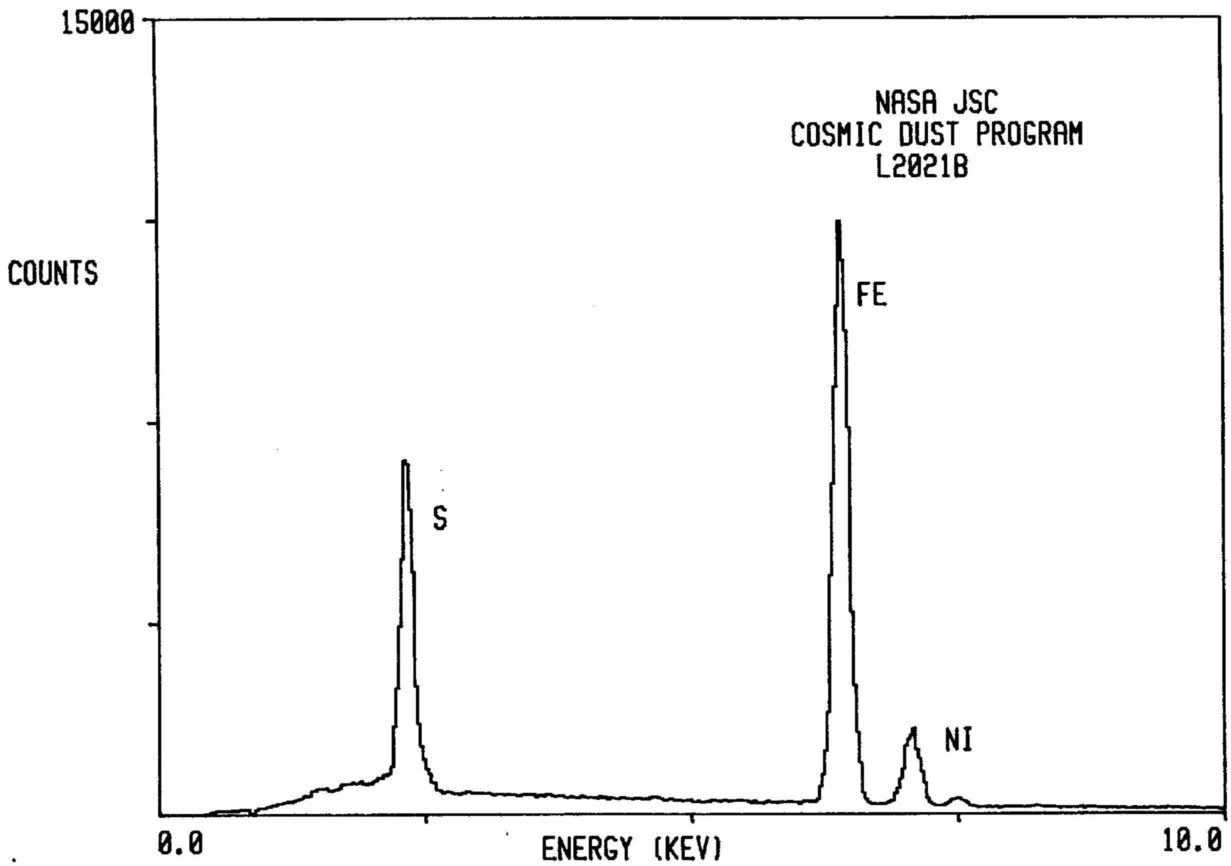


L2021B15

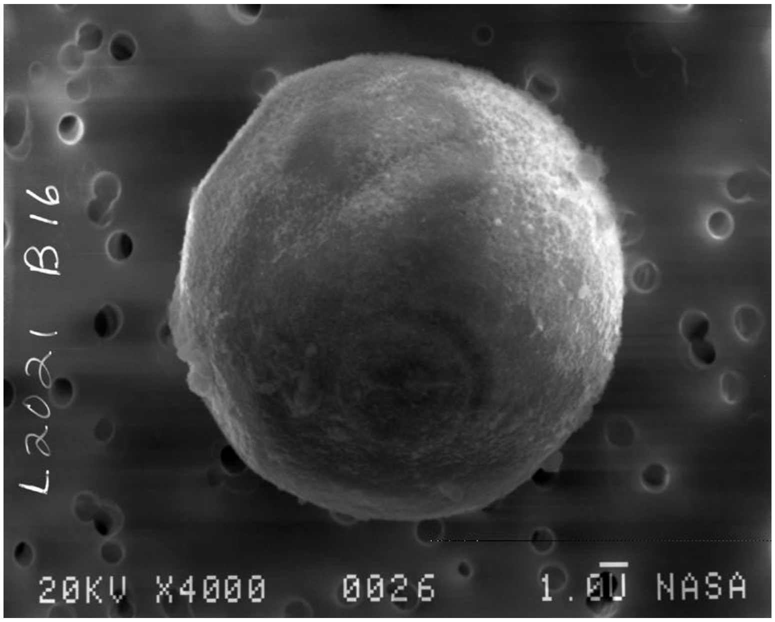


97E00349

Size:	8
Shape:	S
Trans:	O
Color:	Black
Luster:	D
Type:	C
Comments:	

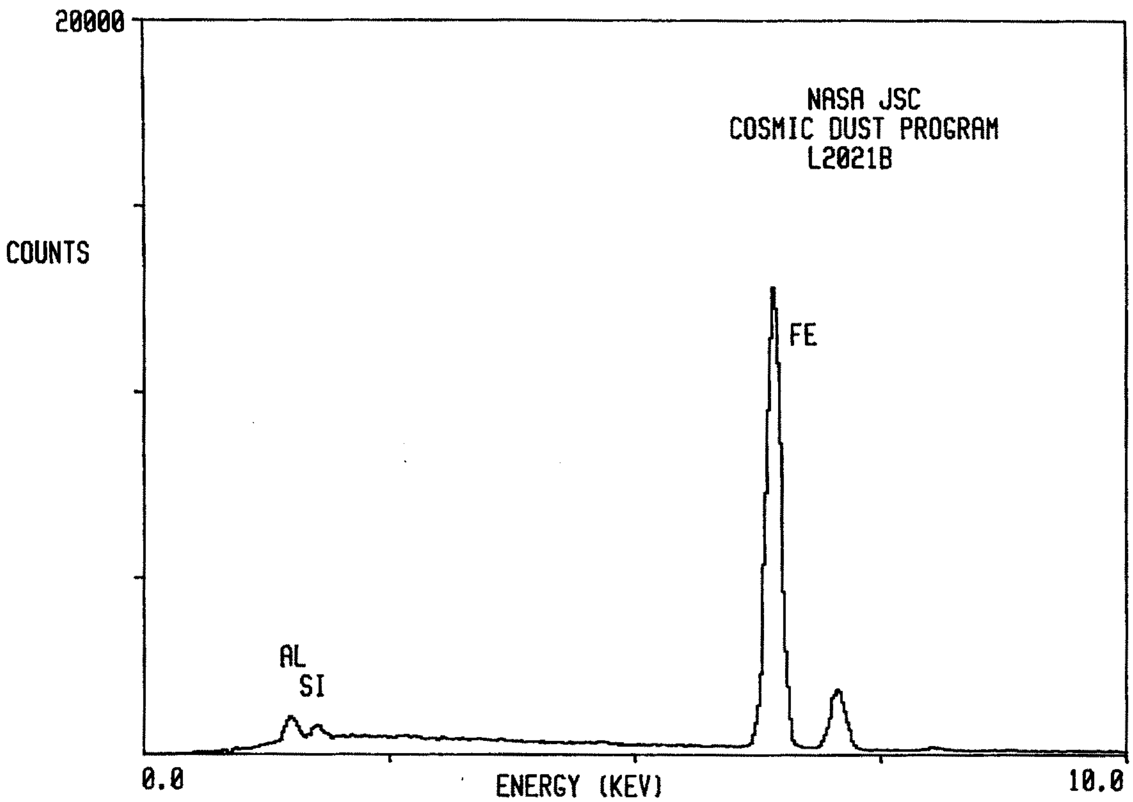


L2021B16

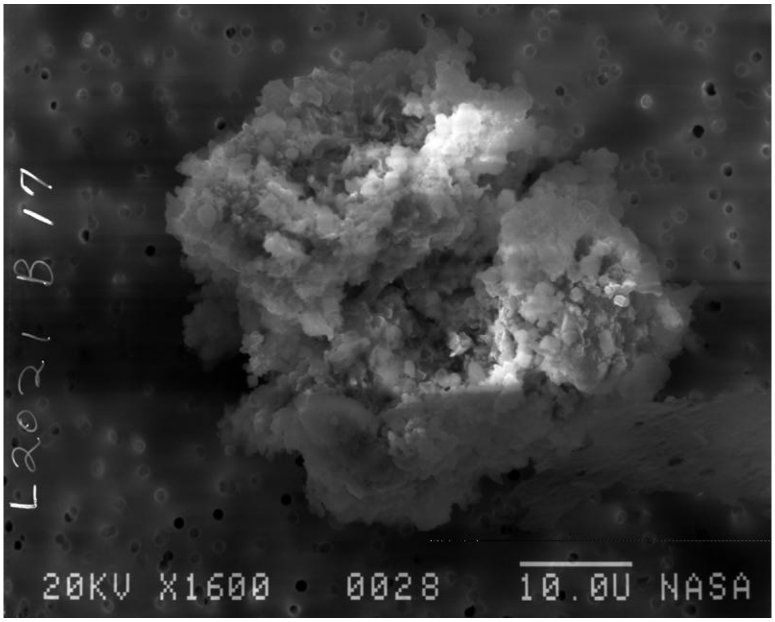


97E00350

Size: 15
Shape: S
Trans: O
Color: Black
Luster: D
Type: C?
Comments:

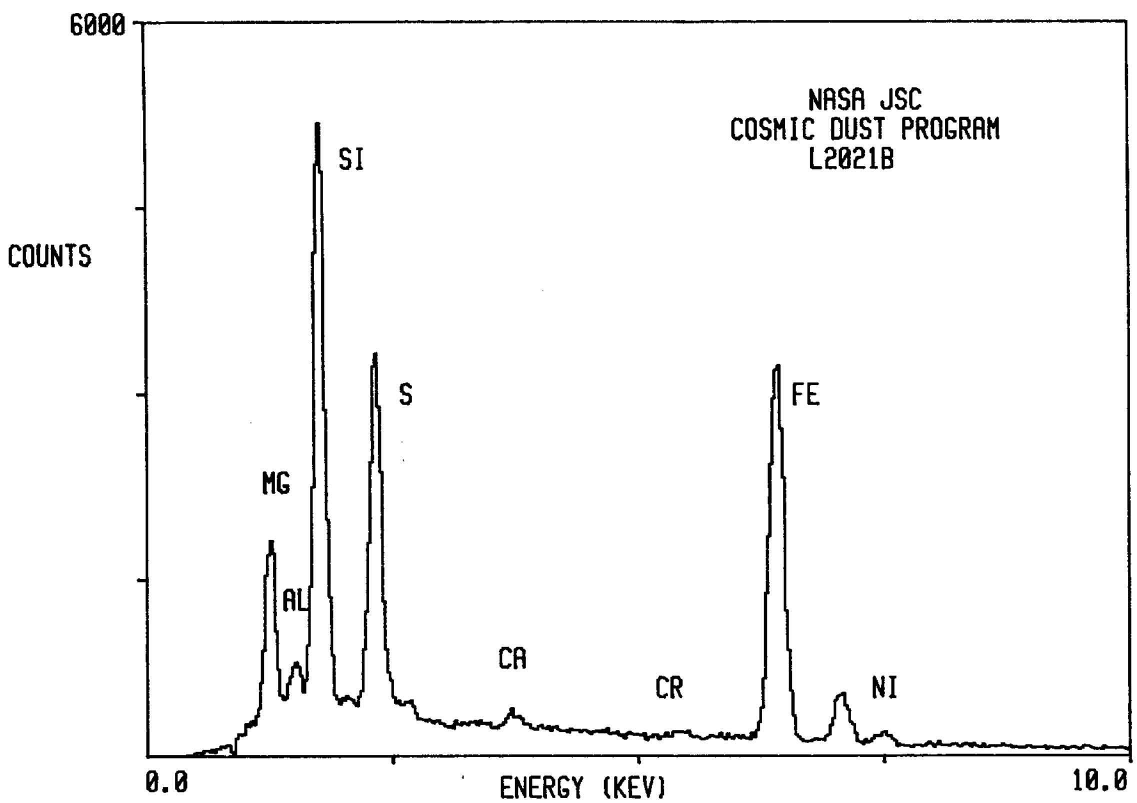


L2021B17

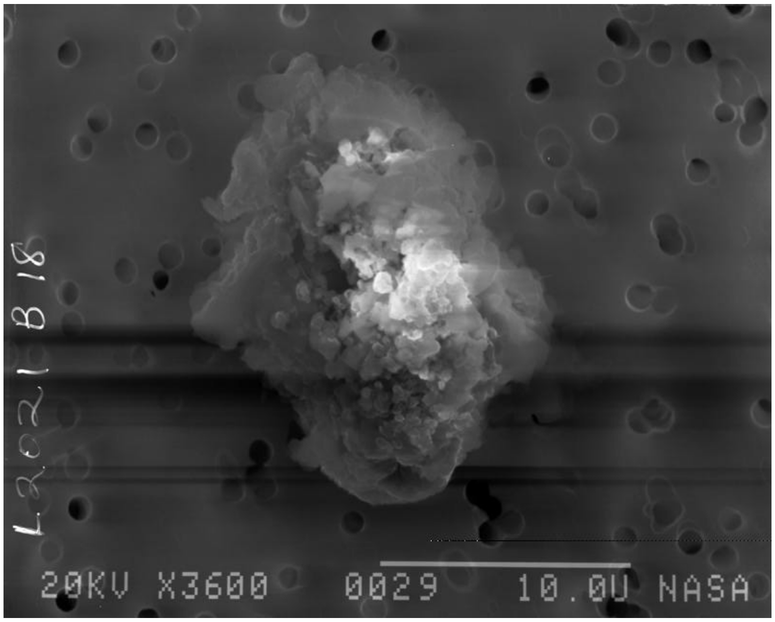


97E00351

Size:	40x34
Shape:	I
Trans:	O
Color:	Black-Gray
Luster:	D
Type:	C
Comments:	



L2021B18



97E00352

Size: 18x12

Shape: I

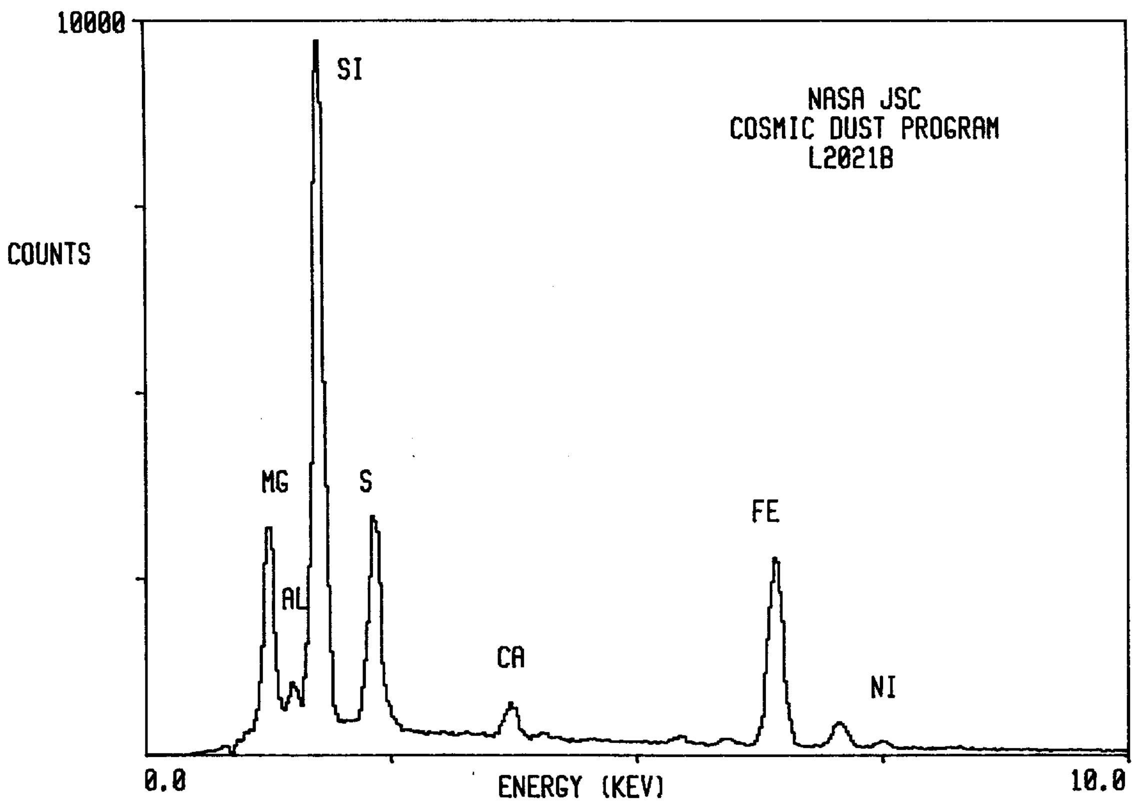
Trans: O

Color: Black-Gray

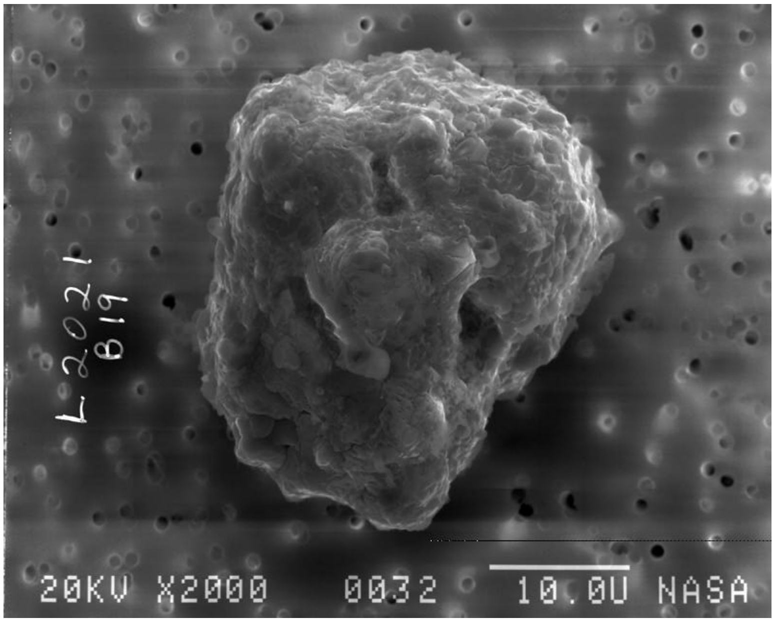
Luster: P

Type: C

Comments:



L2021B19



97E00353

Size: 30x25

Shape: I

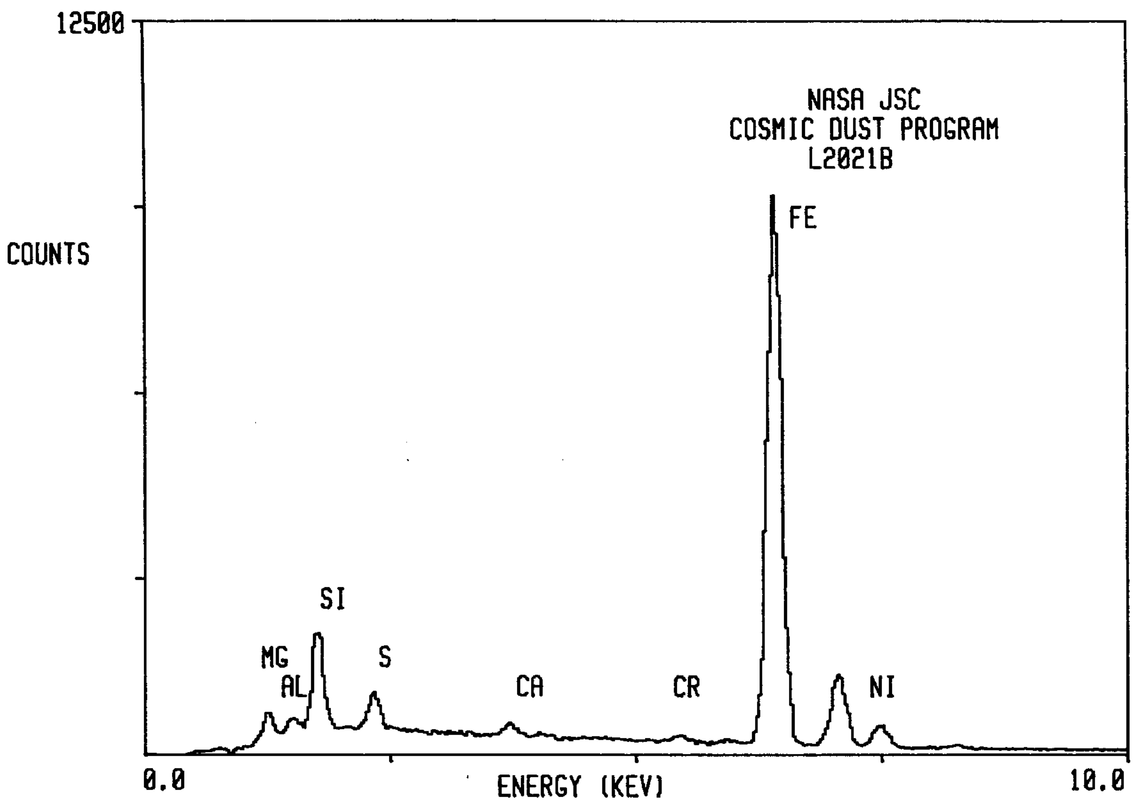
Trans: O

Color: Black

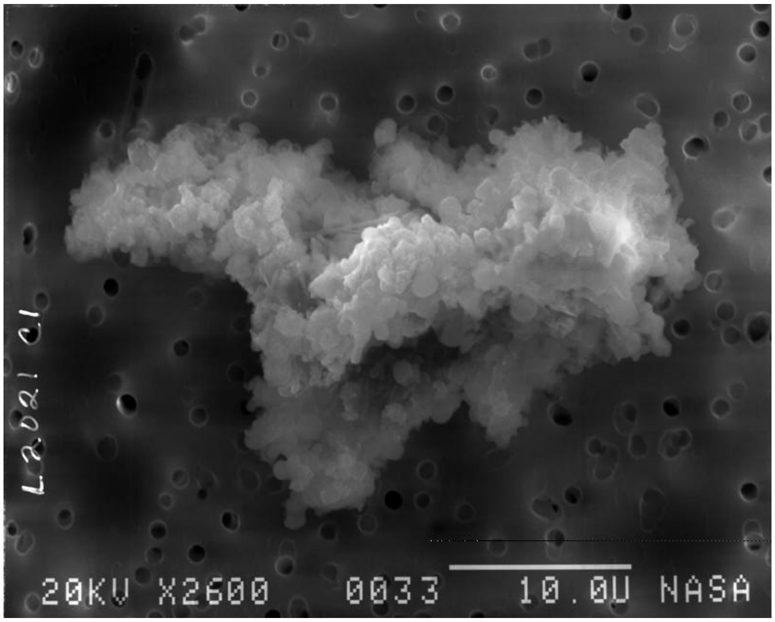
Luster: M

Type: C

Comments:



L2021C1



97E00354

Size: 20x15
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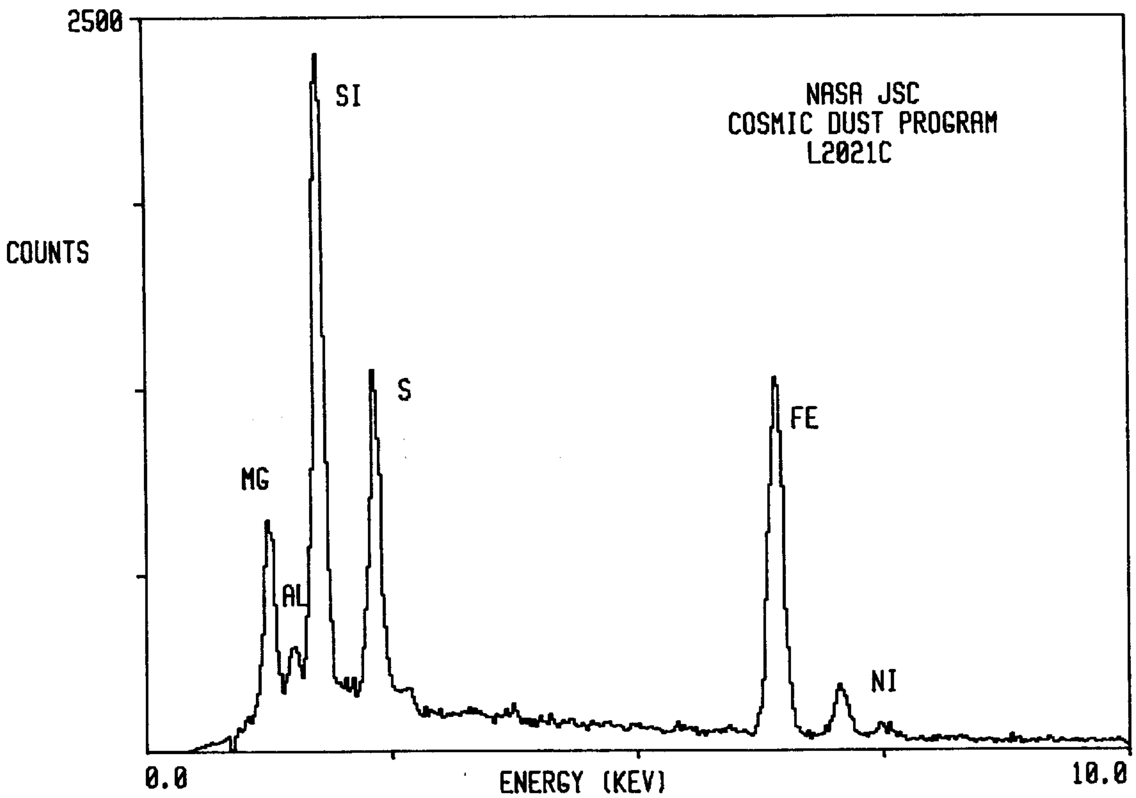
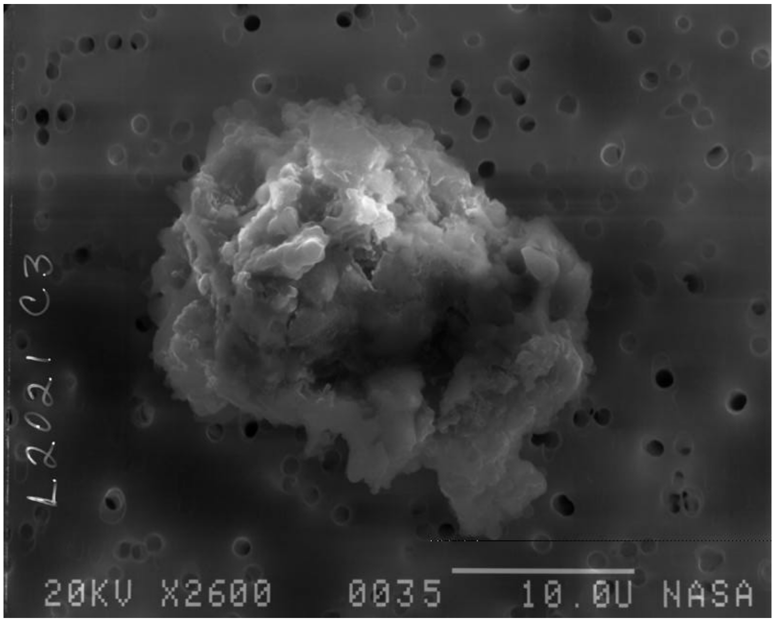
Trans: O
Color: Black-Gray
Luster: D
Type: C
Comments:



L2021C3



97E00356

Size: 26x18

Shape: E

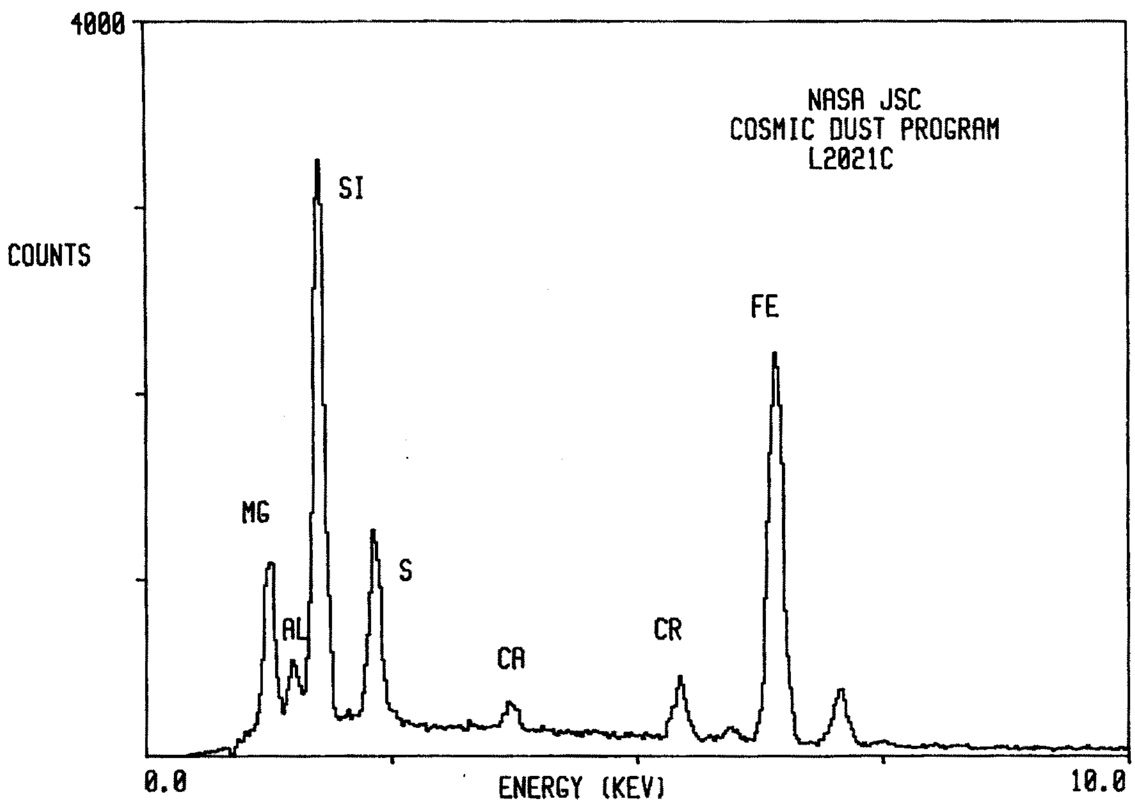
Trans: O

Color: Black-Gray

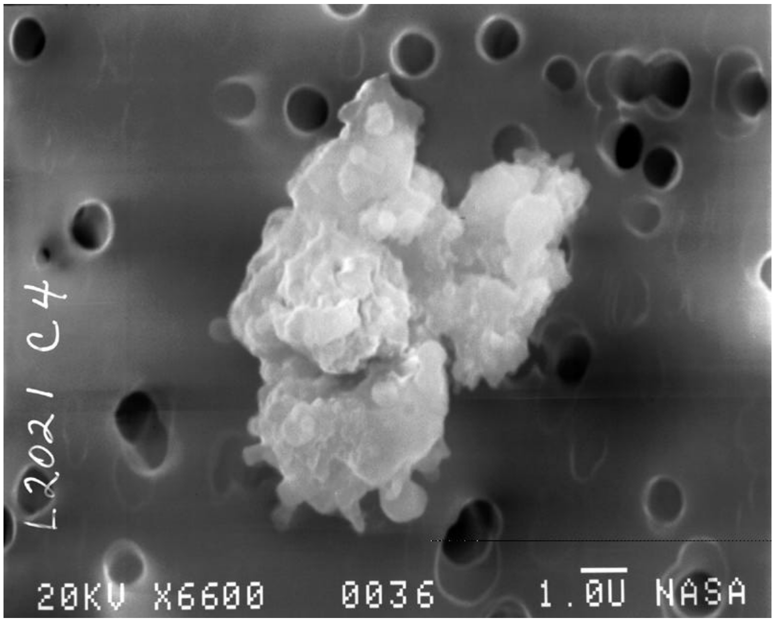
Luster: D

Type: C?

Comments:



L2021C4



97E00357

Size: 8

Shape: E

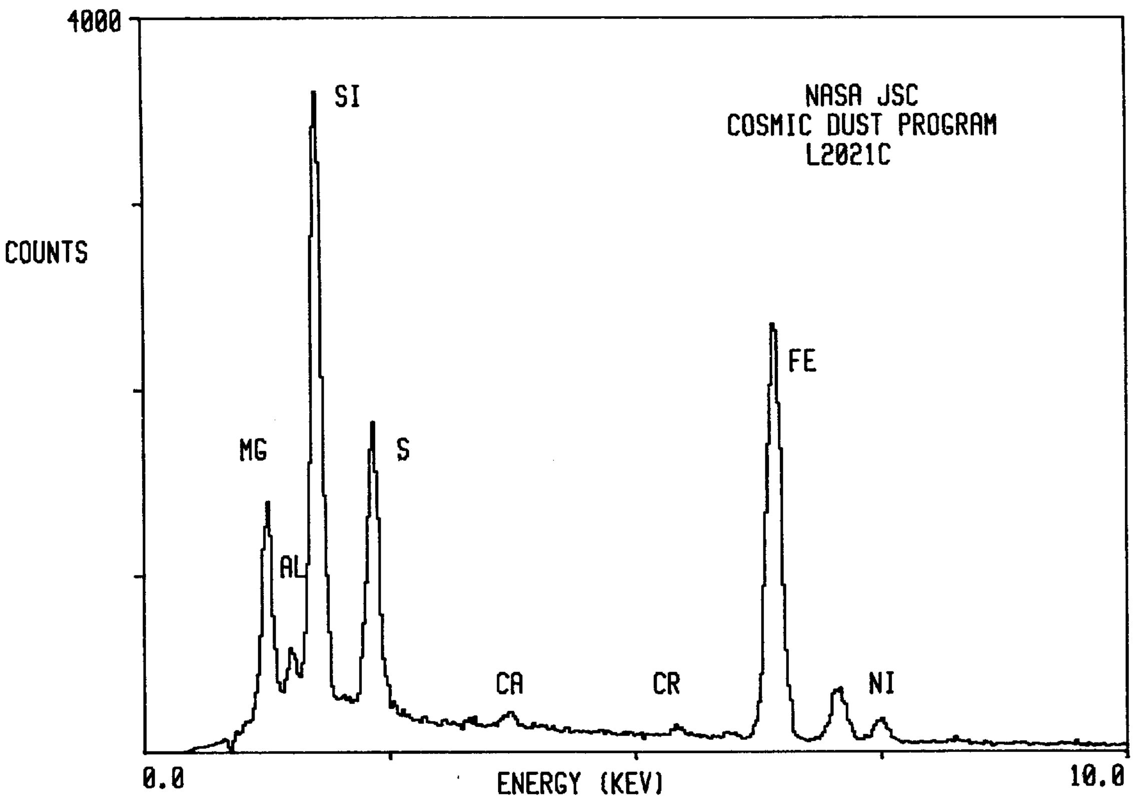
Trans: O

Color: Black

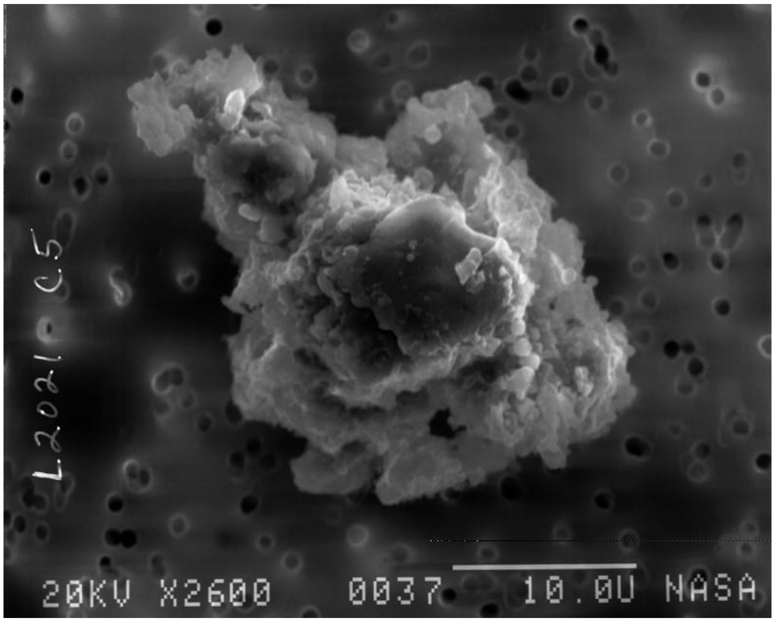
Luster: D

Type: C

Comments:



L2021C5



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Size: 32x10

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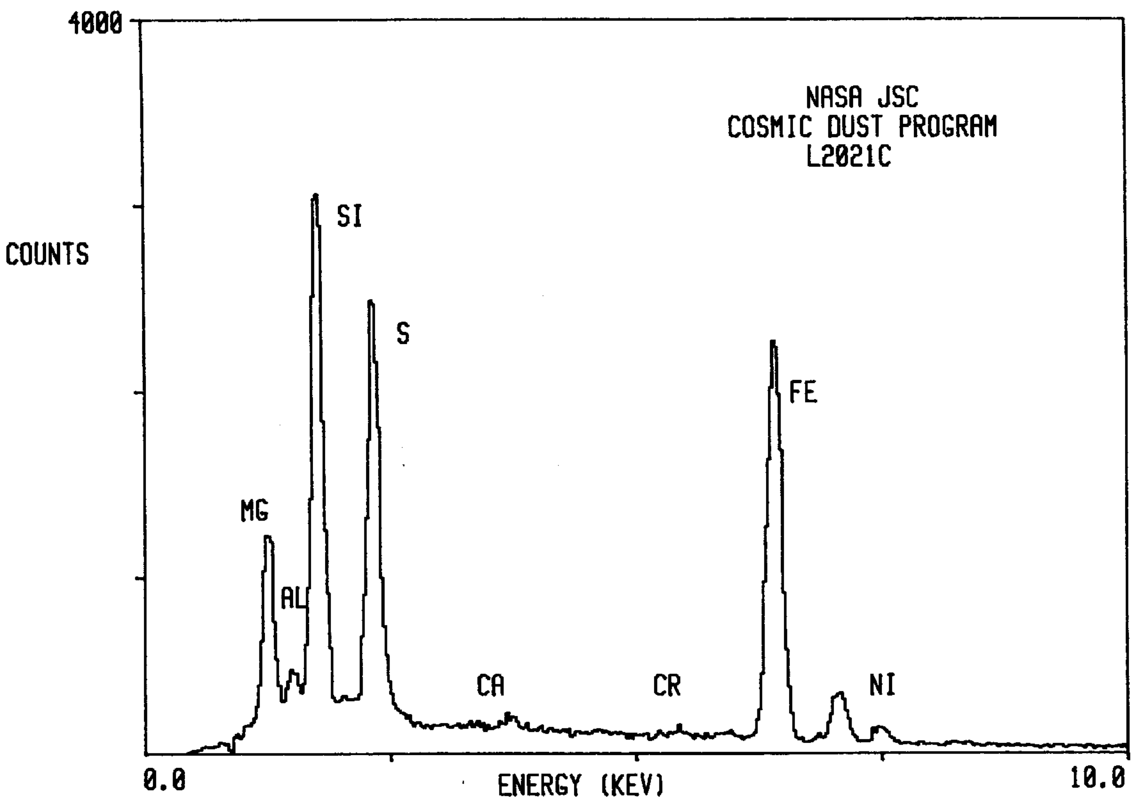
Trans: O

Color: Black

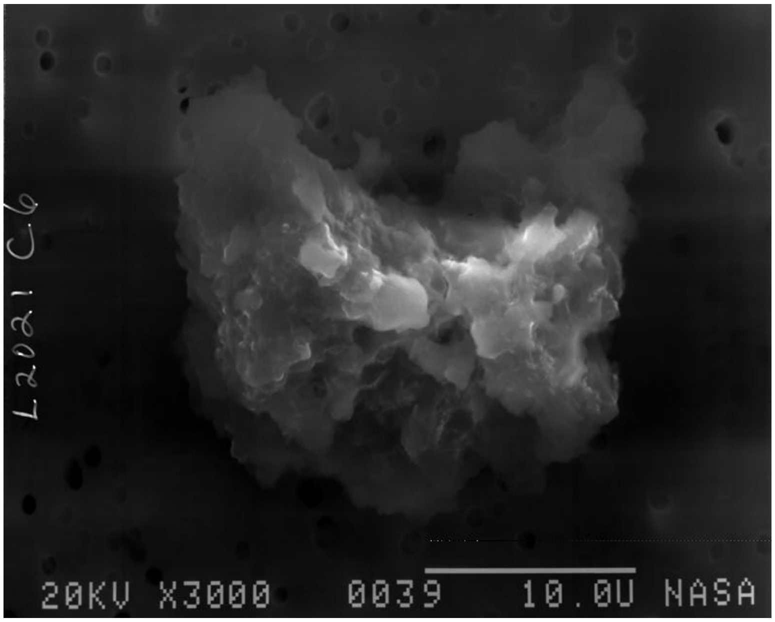
Luster: D

Type: C

Comments:

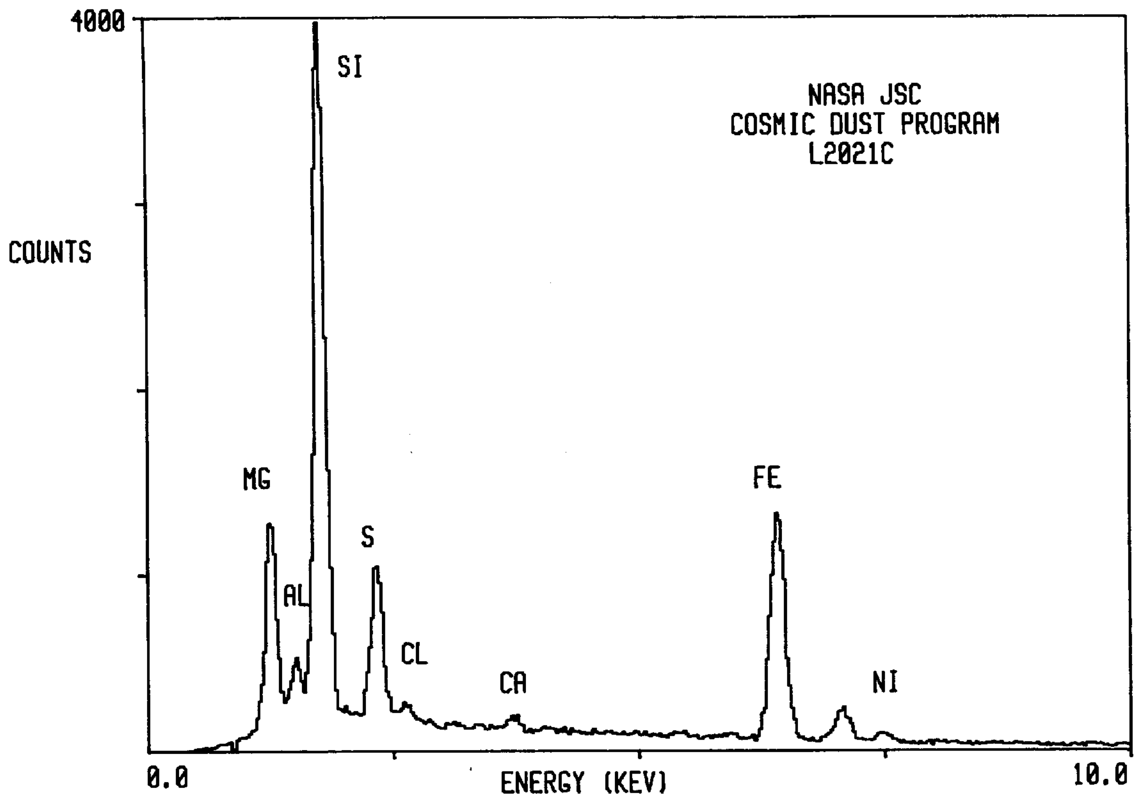


L2021C6

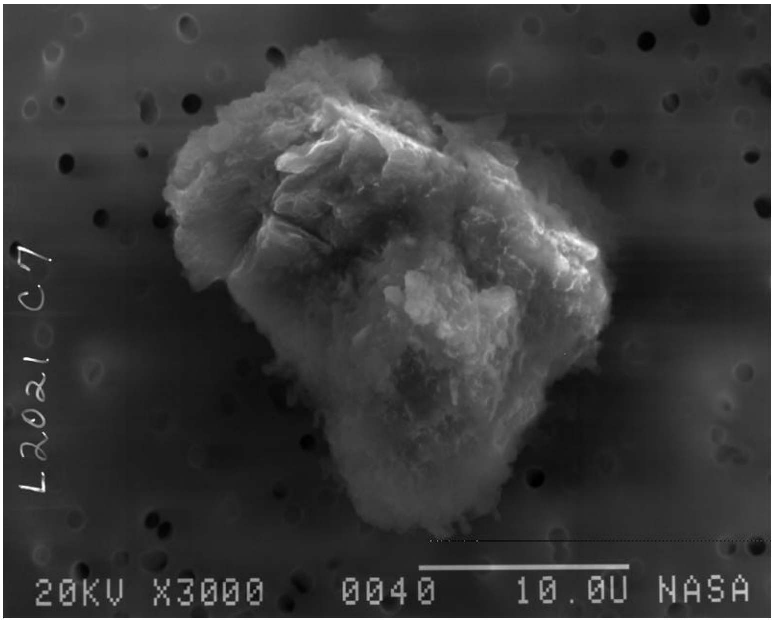


97E00359

Size: 20x16
Shape: I
Trans: O
Color: Black
Luster: M
Type: C
Comments:

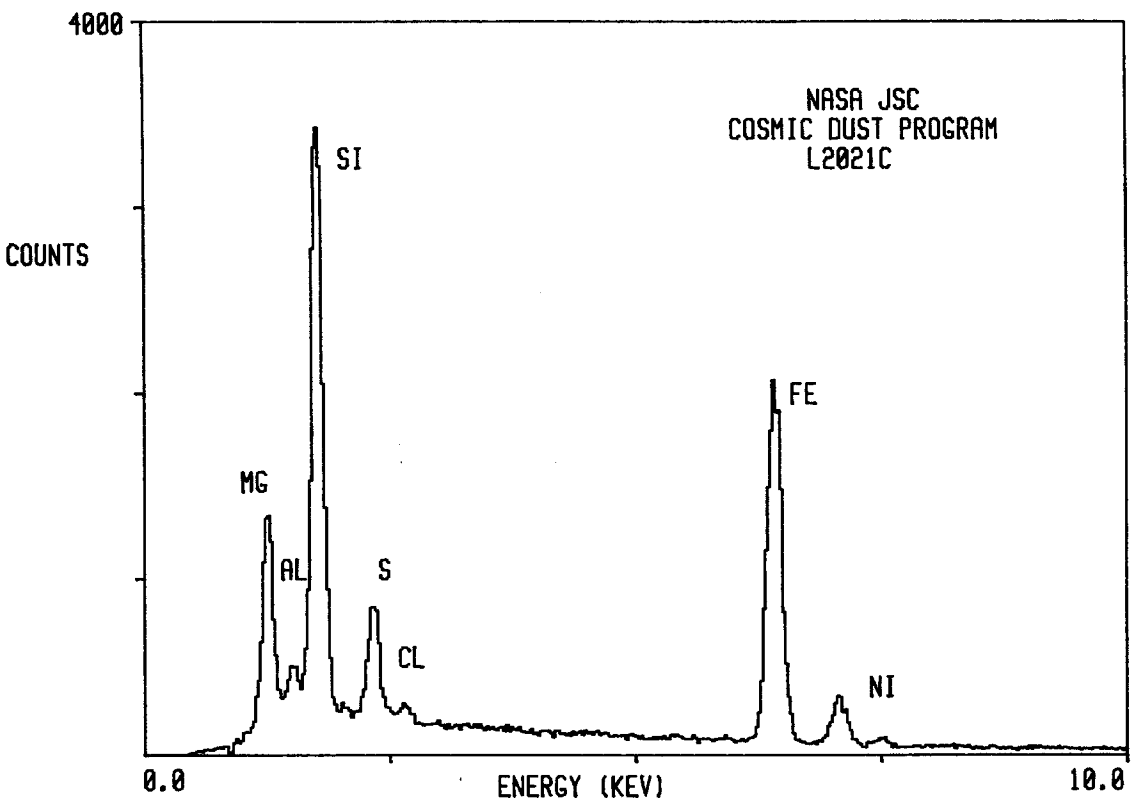


L2021C7

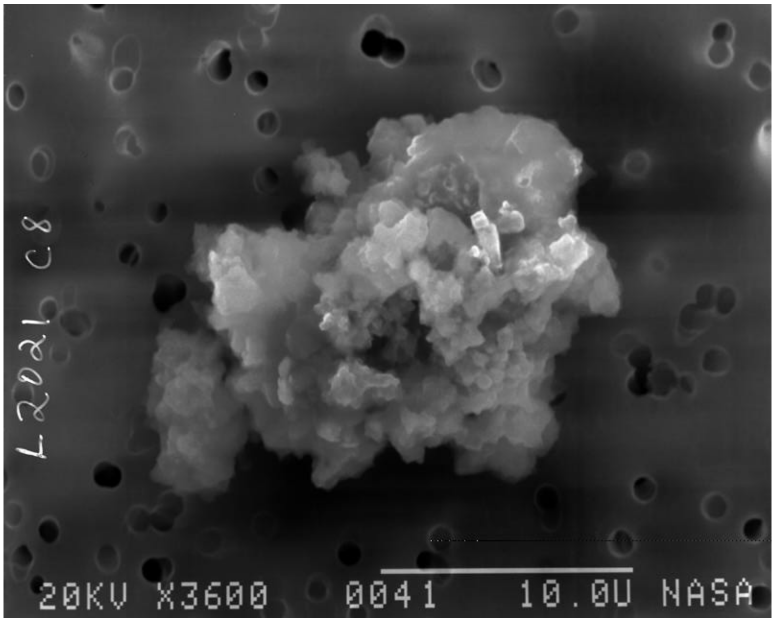


97E00360

Size:	23x10
Shape:	E
Trans:	O
Color:	Black
Luster:	M
Type:	C
Comments:	



L2021C8



97E00361

Size: 23x16

Shape: I

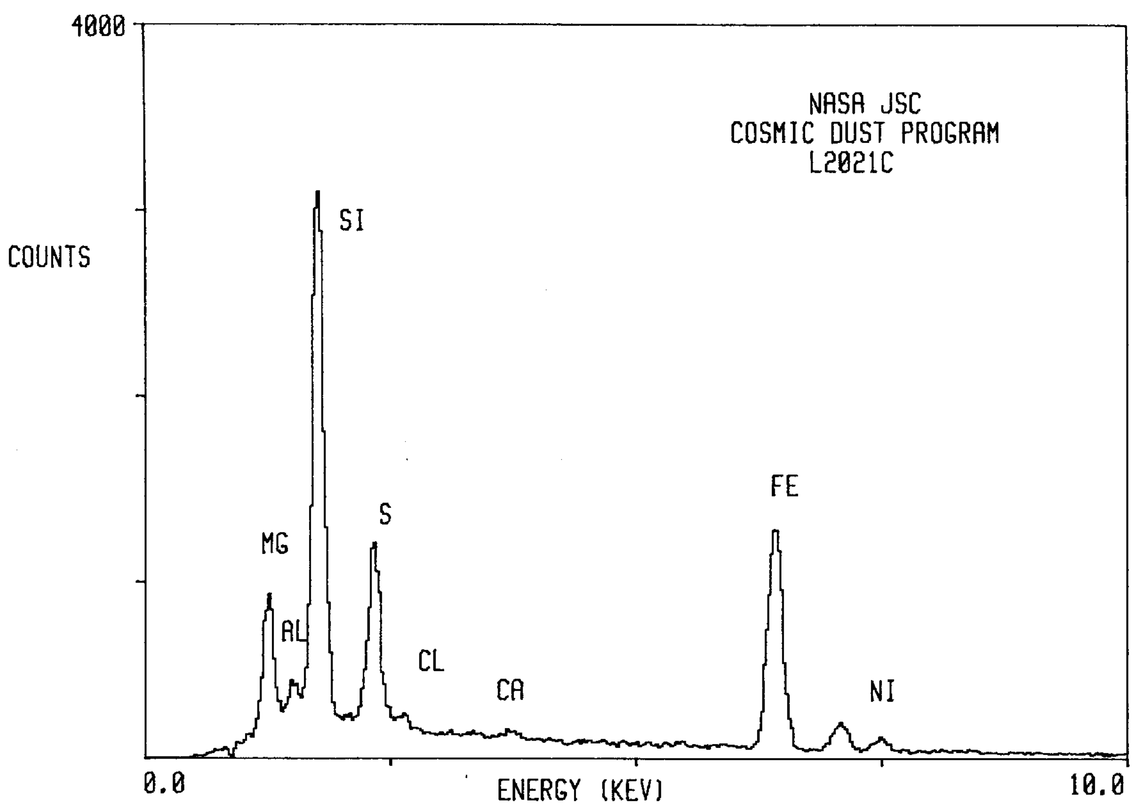
Trans: O

Color: Black

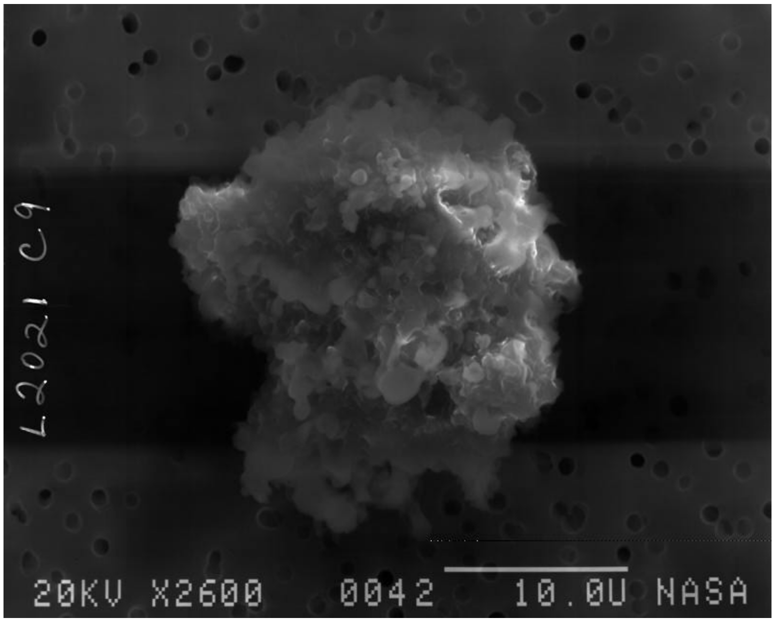
Luster: D

Type: C

Comments:



L2021C9



97E00362

Size: 25x23

Shape: E

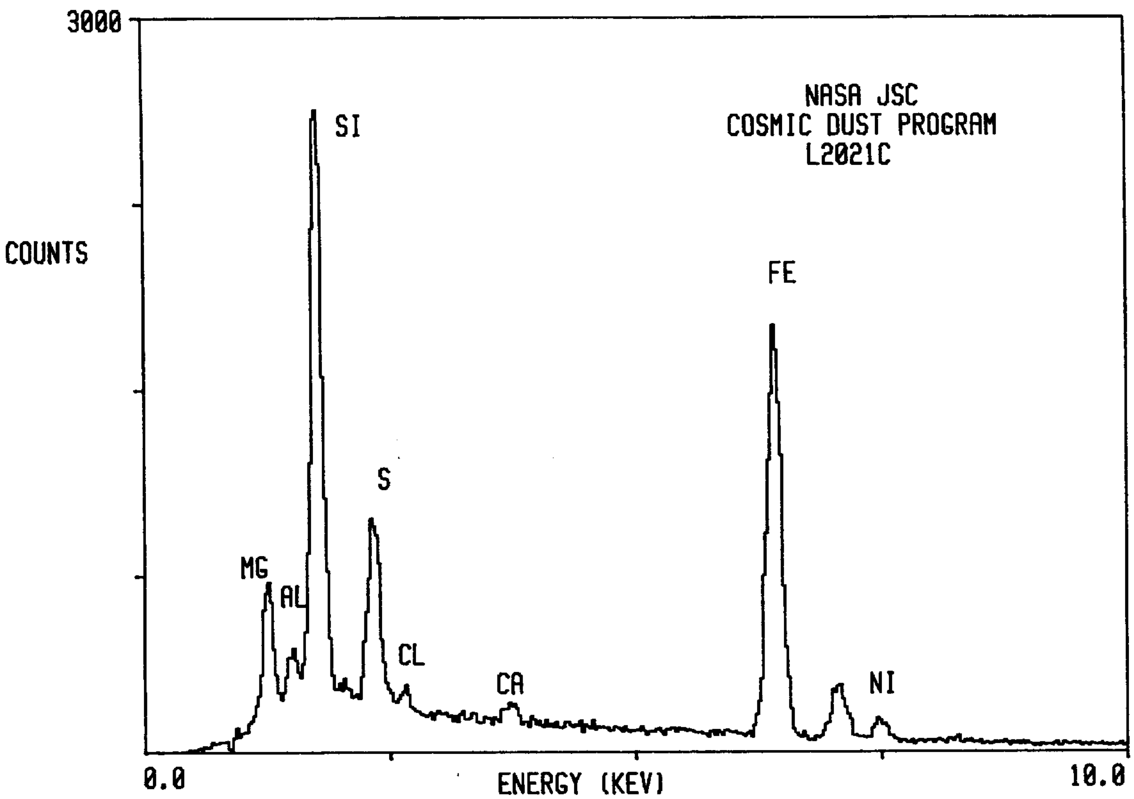
Trans: O

Color: Black

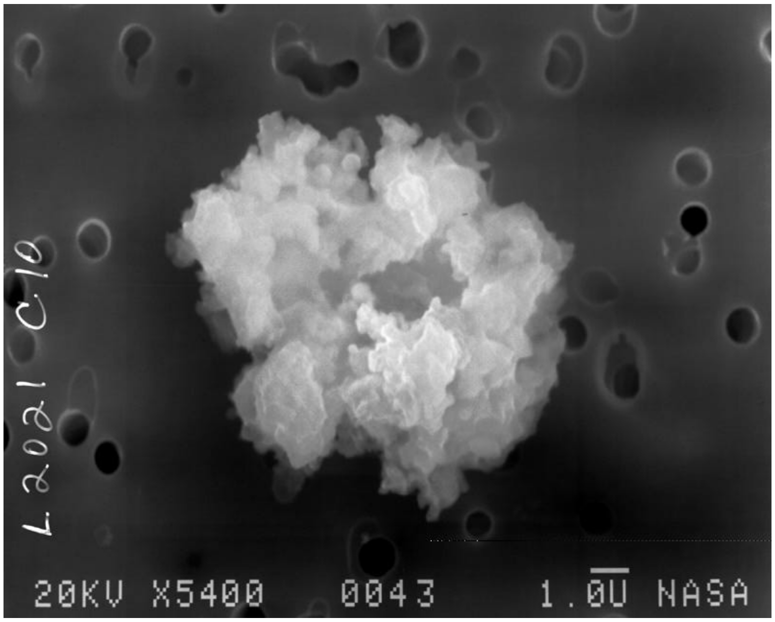
Luster: D

Type: C

Comments:

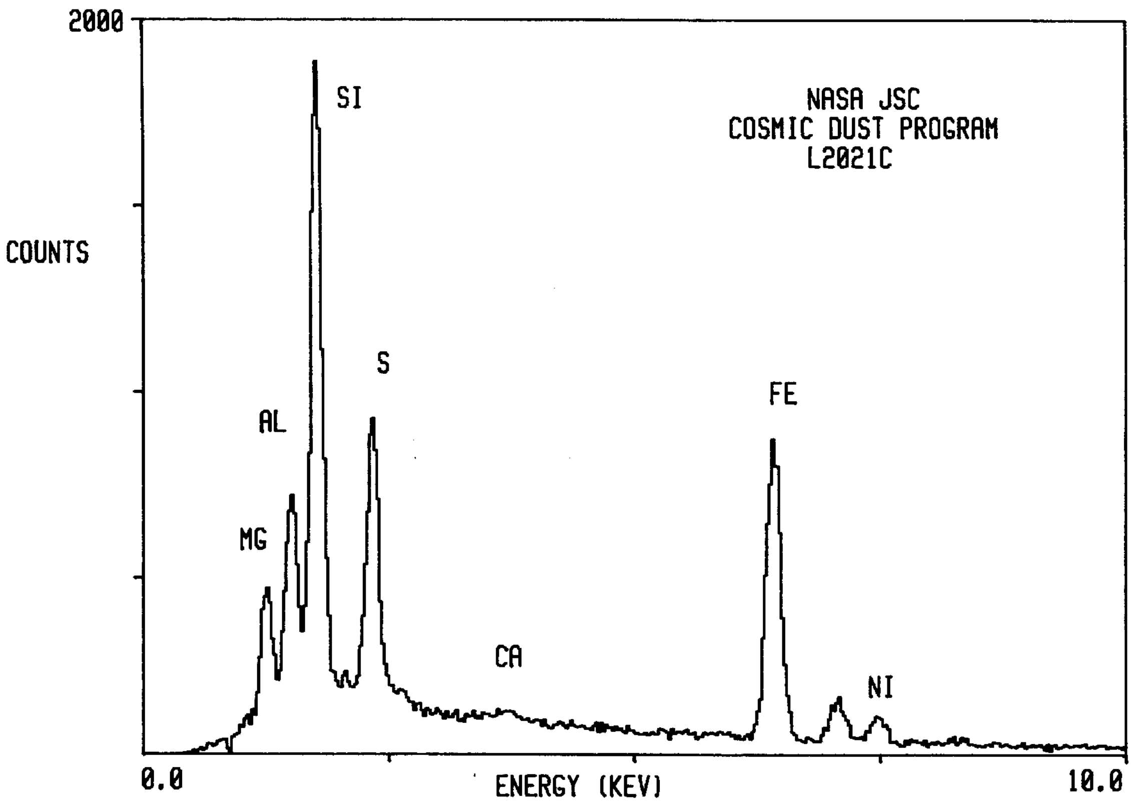


L2021C10

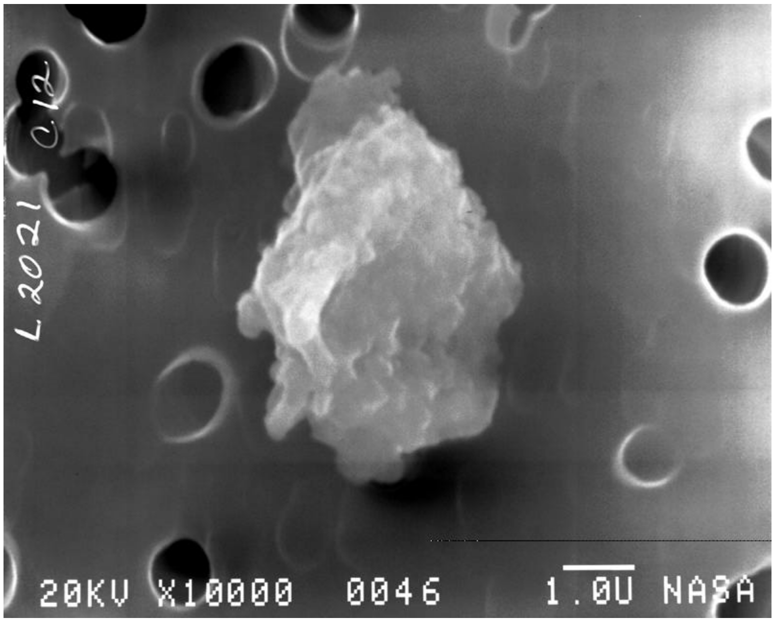


97E00363

Size: 10
Shape: E
Trans: O
Color: Black
Luster: D
Type: C
Comments:



L2021C12



97E00365

Size: 5

Shape: I

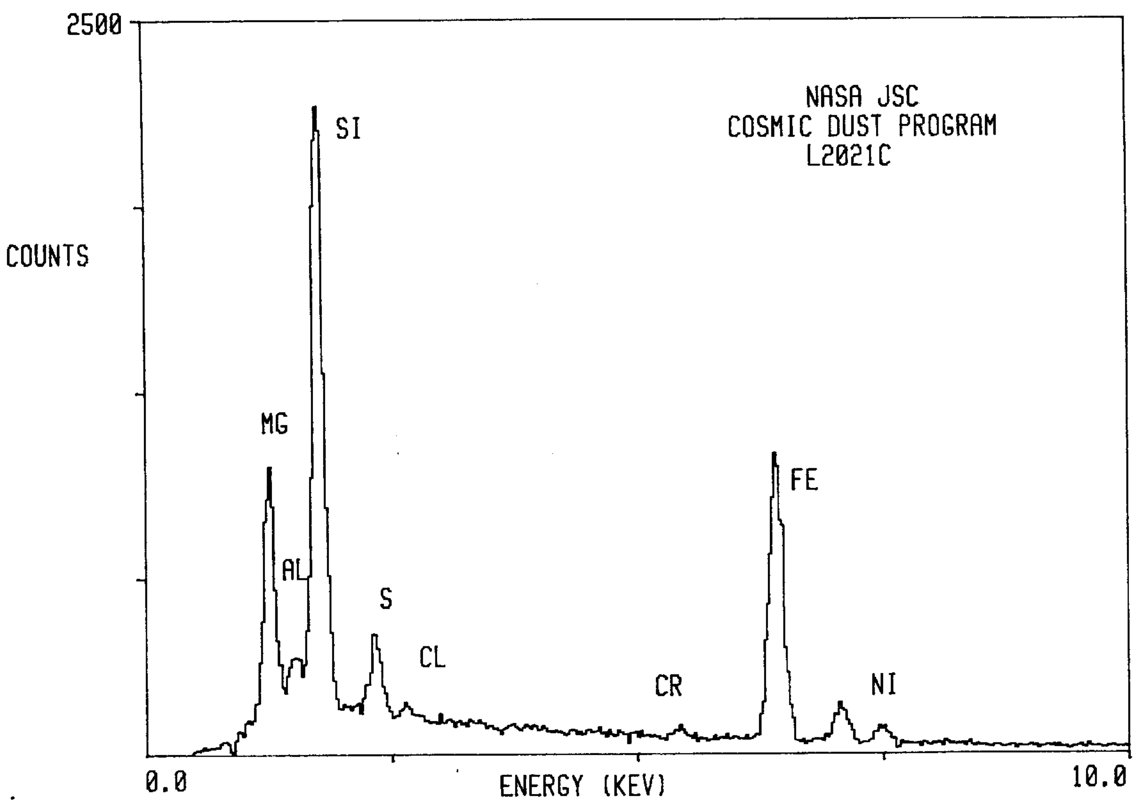
Trans: O

Color: Black

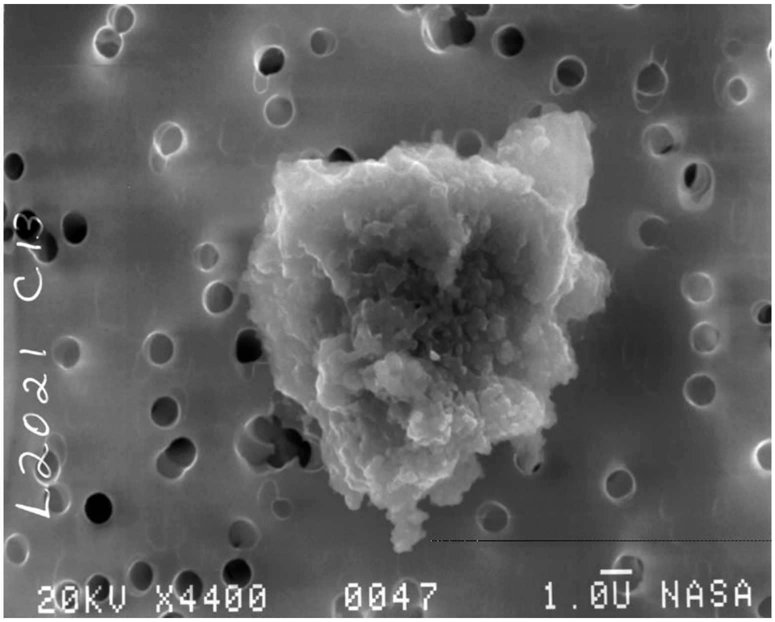
Luster: D

Type: C

Comments:



L2021C13



97E00366

Size: 12x10

Shape: I

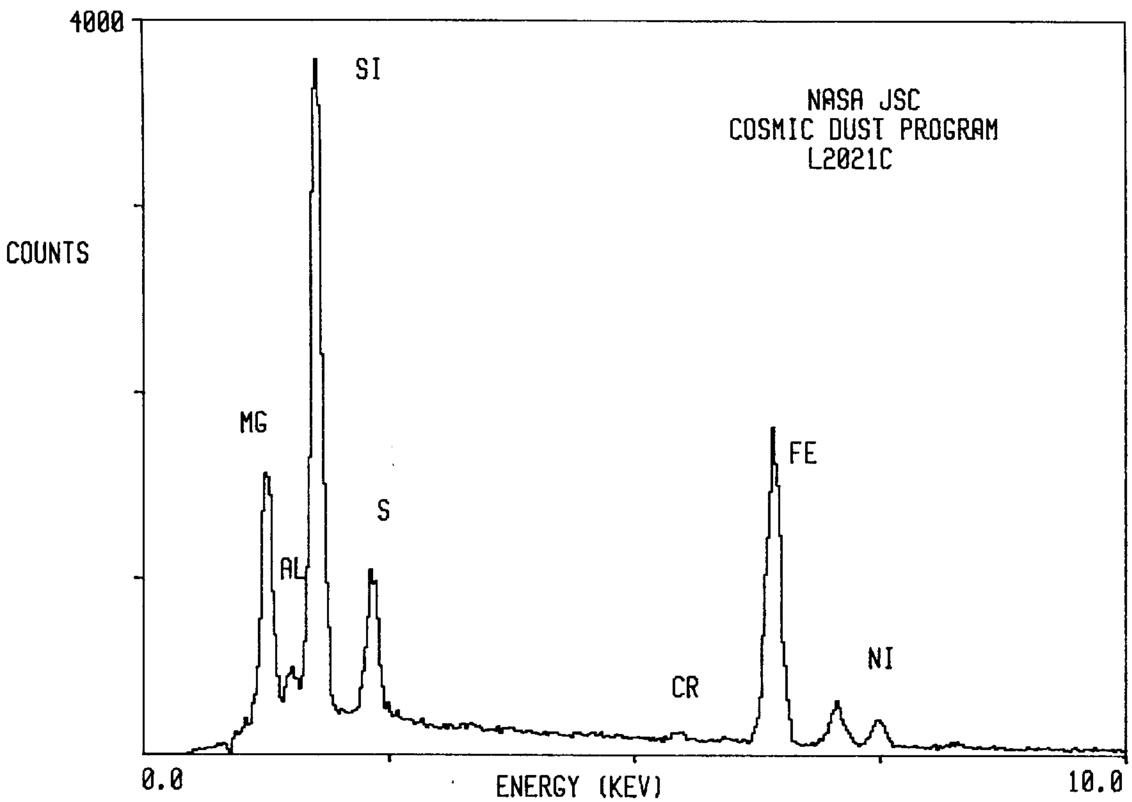
Trans: O

Color: Black

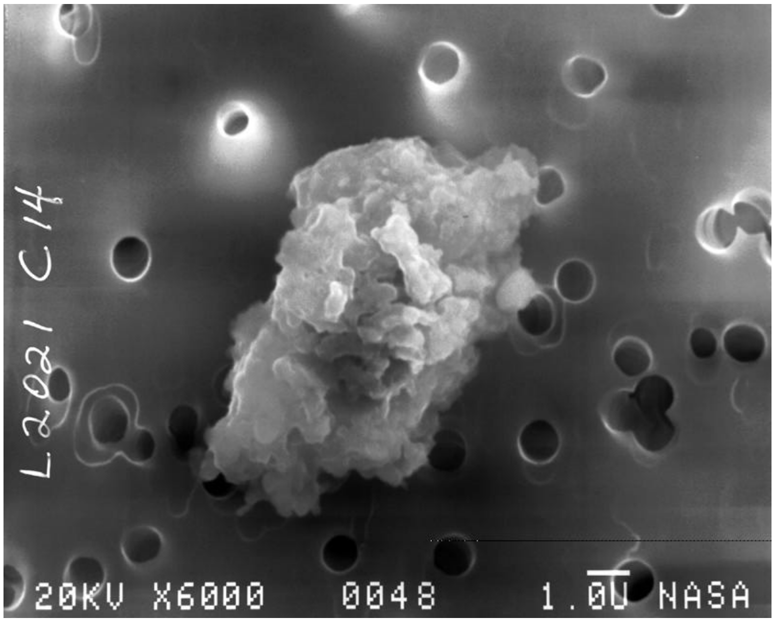
Luster: D

Type: C

Comments:



L2021C14



97E00367

Size: 12x6

Shape: I

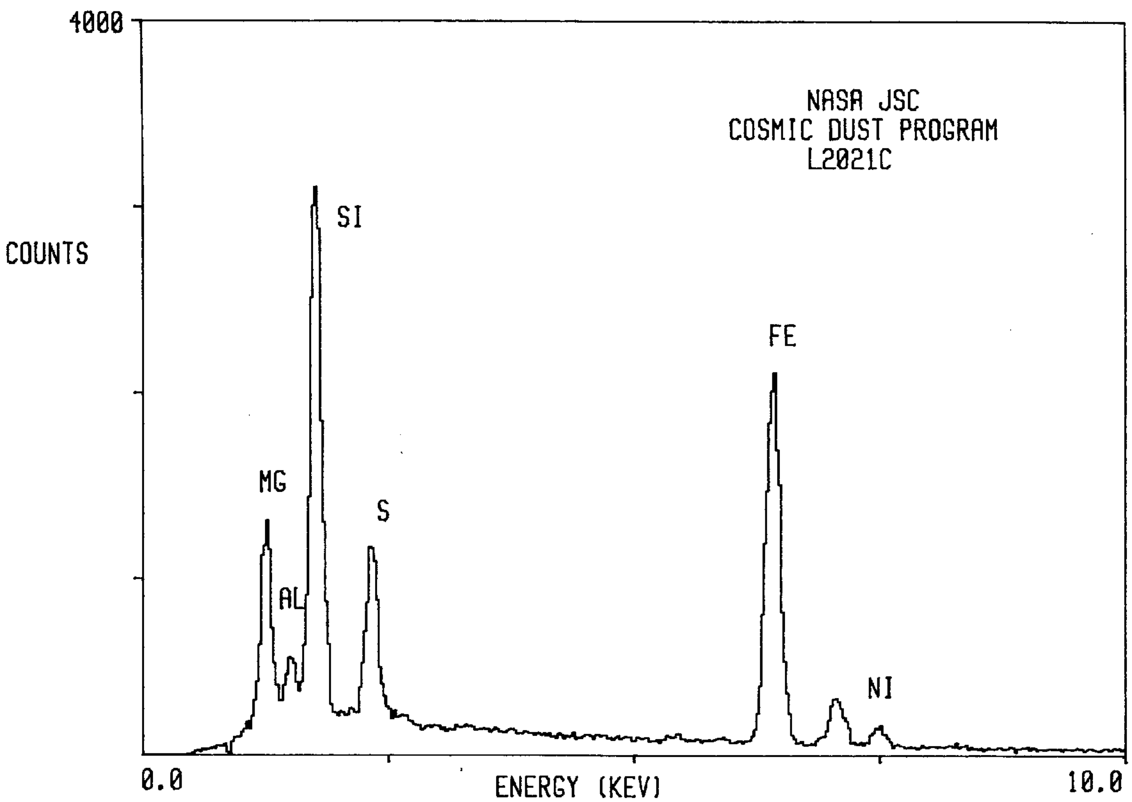
Trans: O

Color: Black

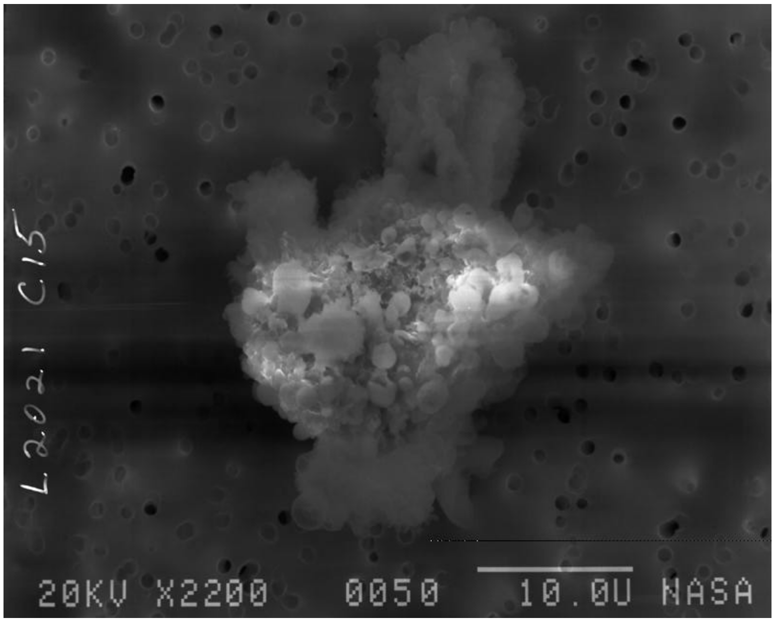
Luster: D

Type: C

Comments:



L2021C15



97E00368

Size: 36x25

Shape: I

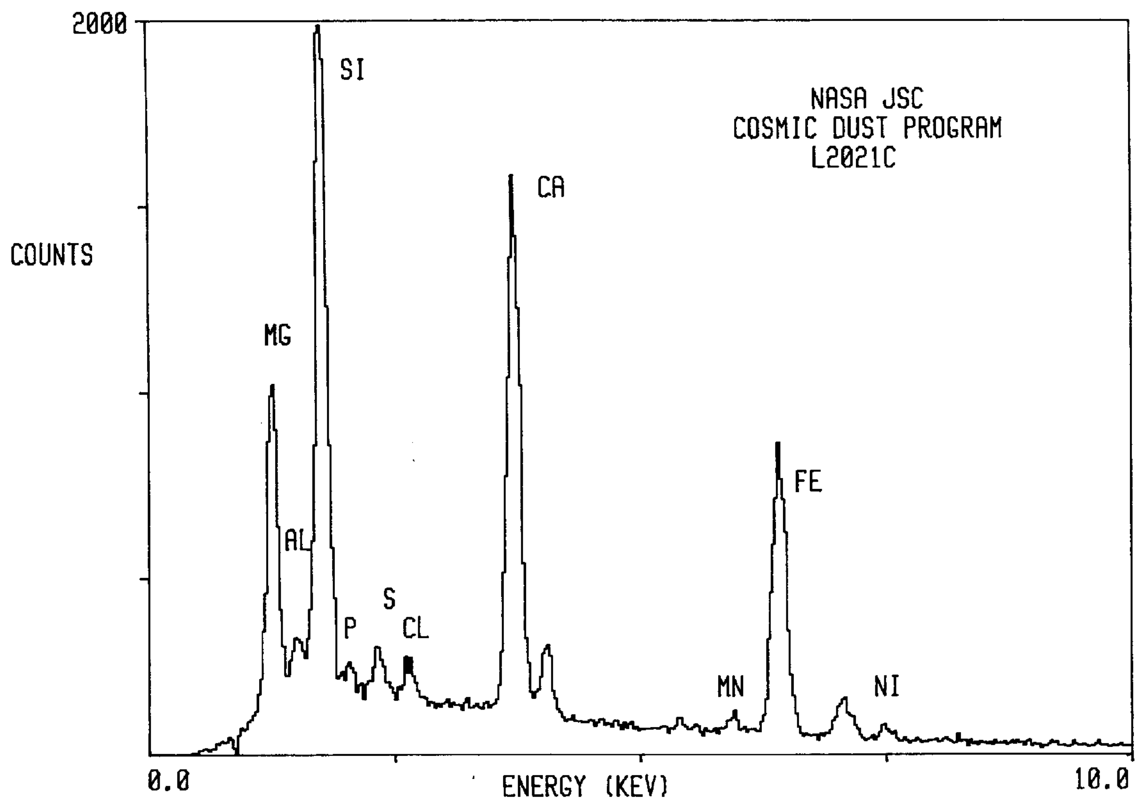
Trans: O/TL

Color: Black-Colorless

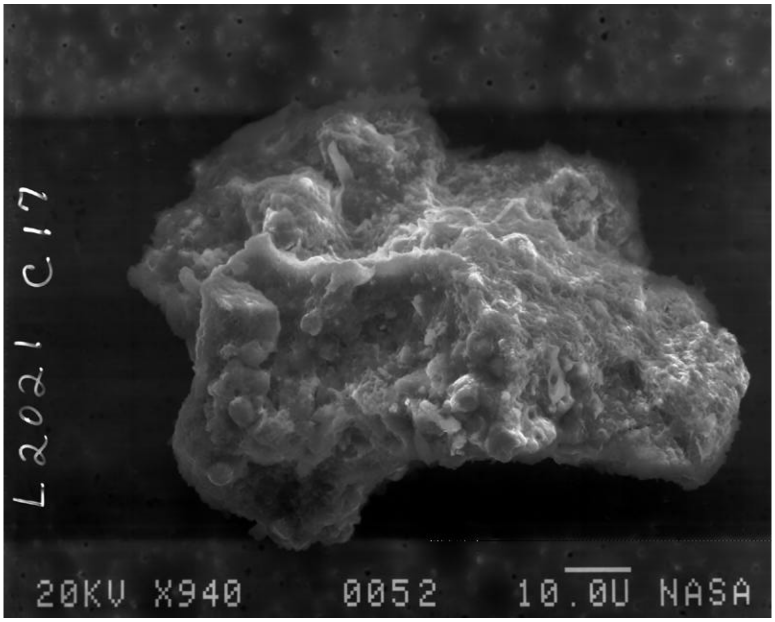
Luster: P

Type: C

Comments:



L2021C17



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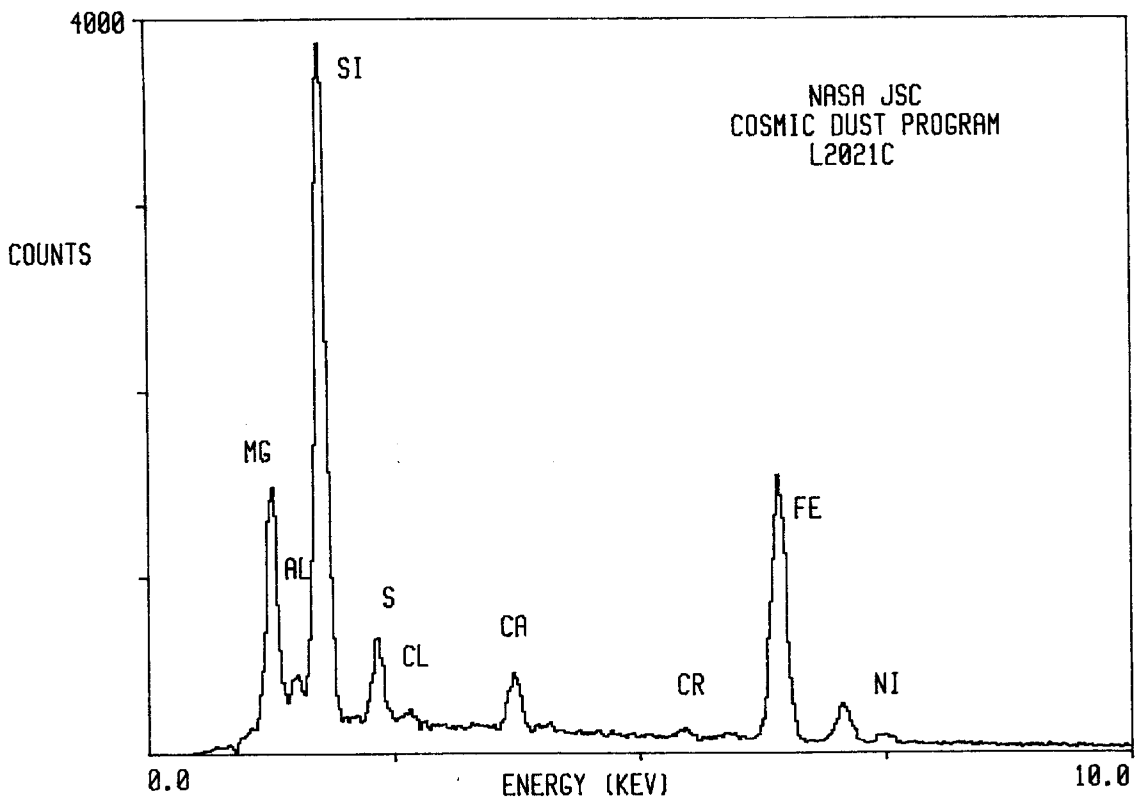
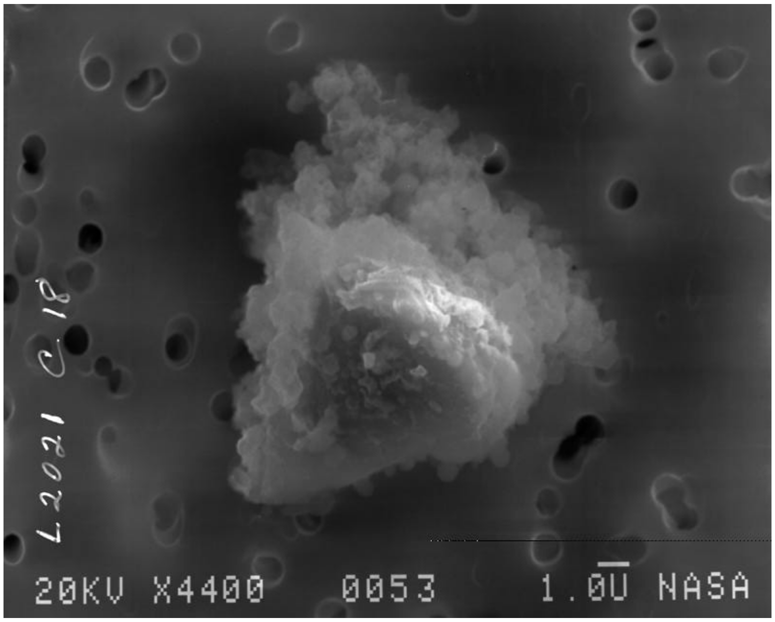
Trans:	O
Color:	Black
Luster:	M
Type:	C
Comments:	

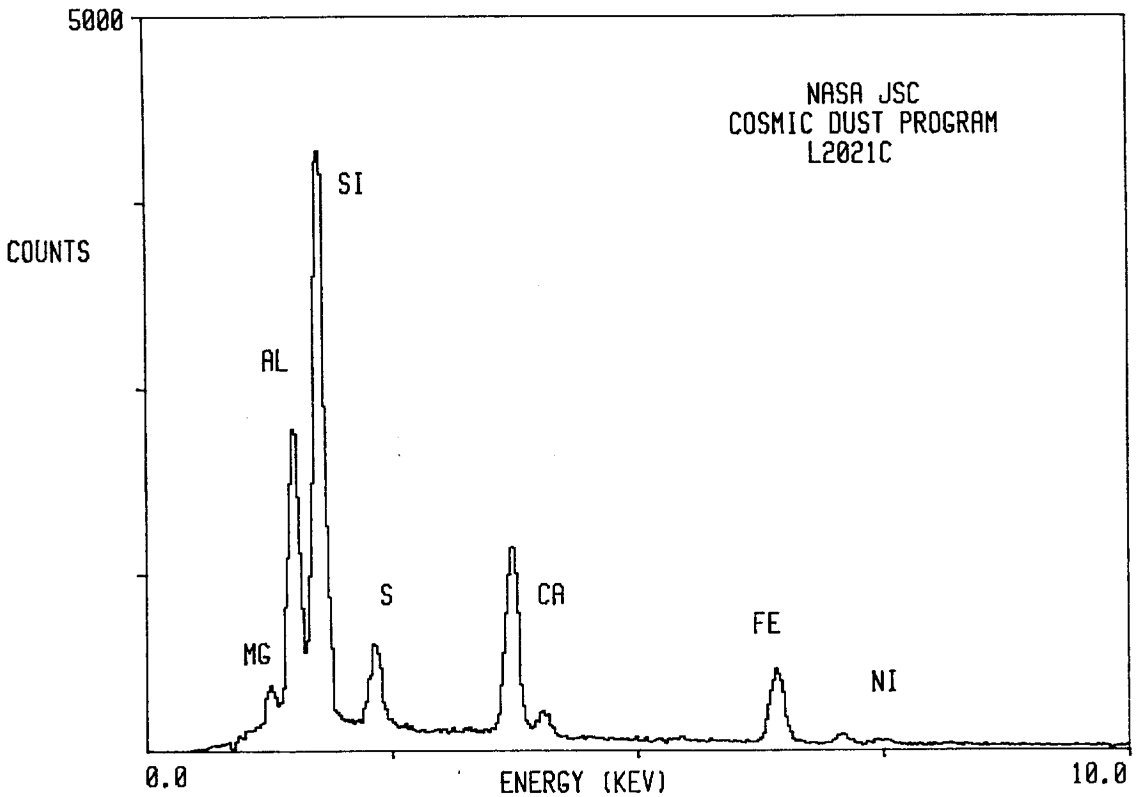


L2021C18

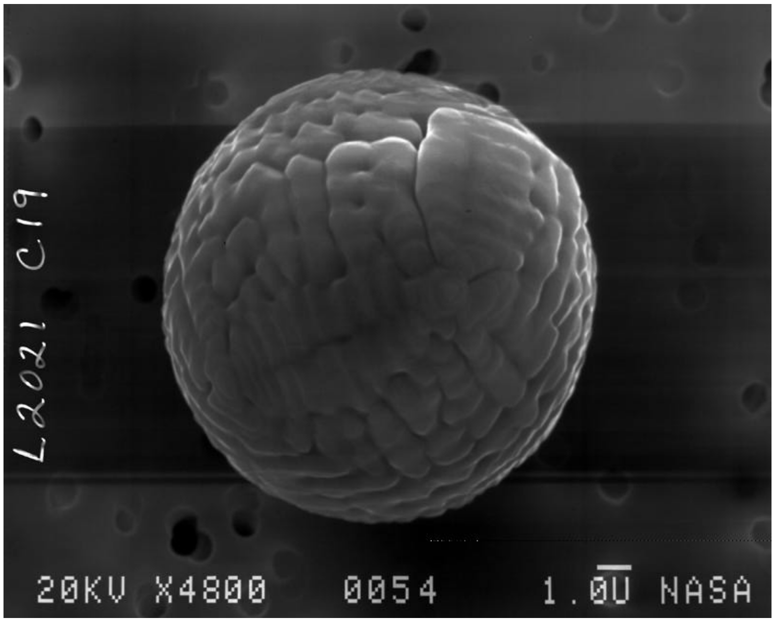


97E00371

Size:	15x14
Shape:	I
Trans:	O
Color:	Black
Luster:	D
Type:	C
Comments:	



L2021C19



97E00372

Size: 14

Shape: S

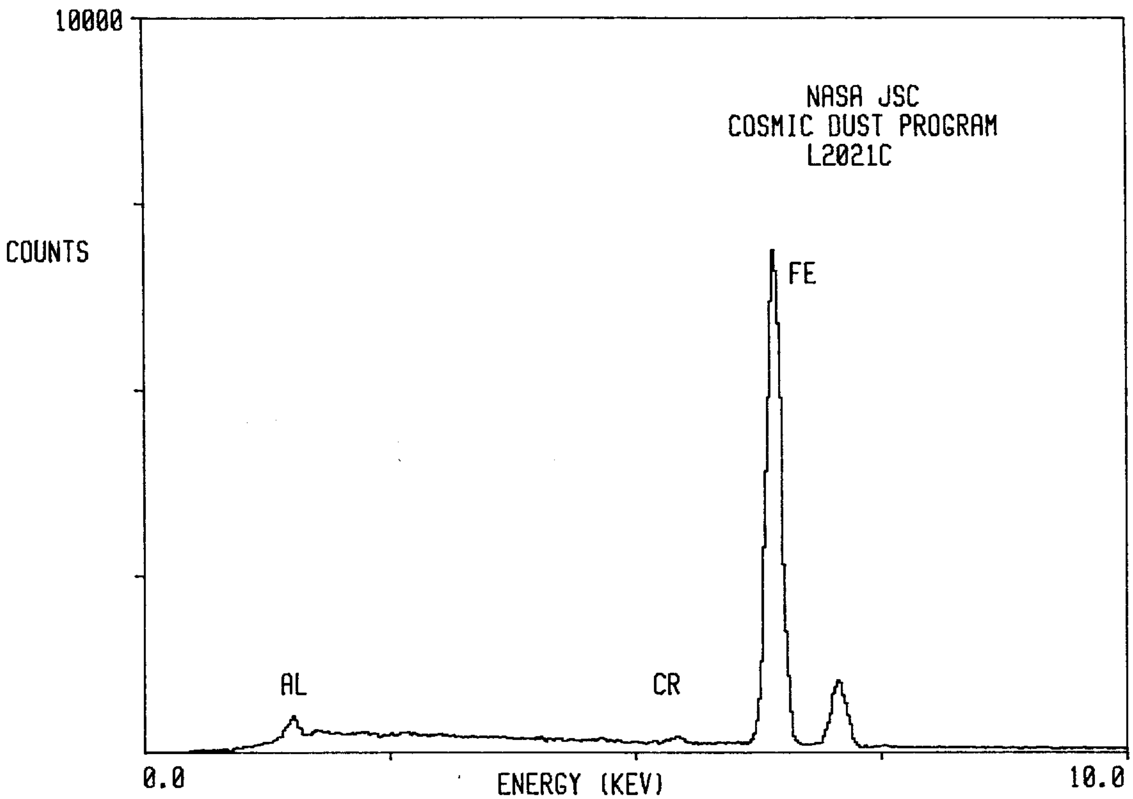
Trans: O

Color: Black

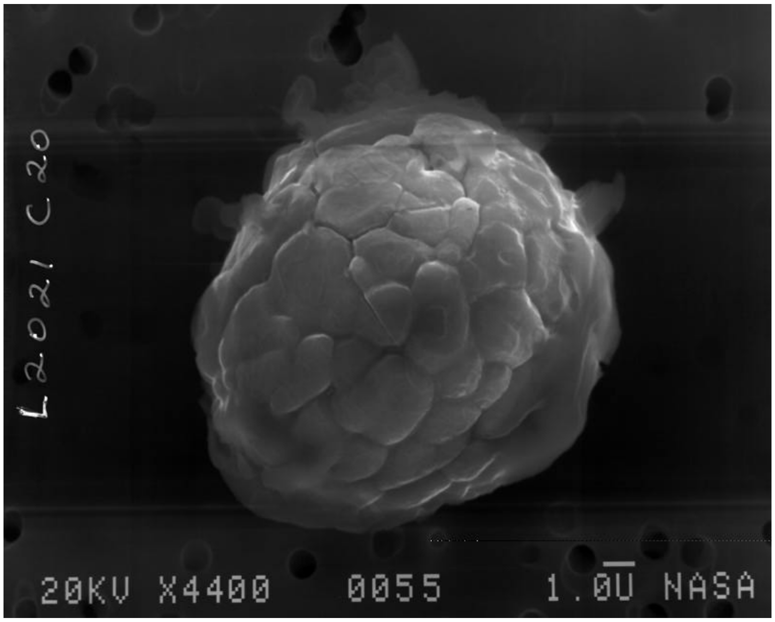
Luster: P

Type: C?

Comments:



L2021C20



97E00373

Size: 14

Shape: S

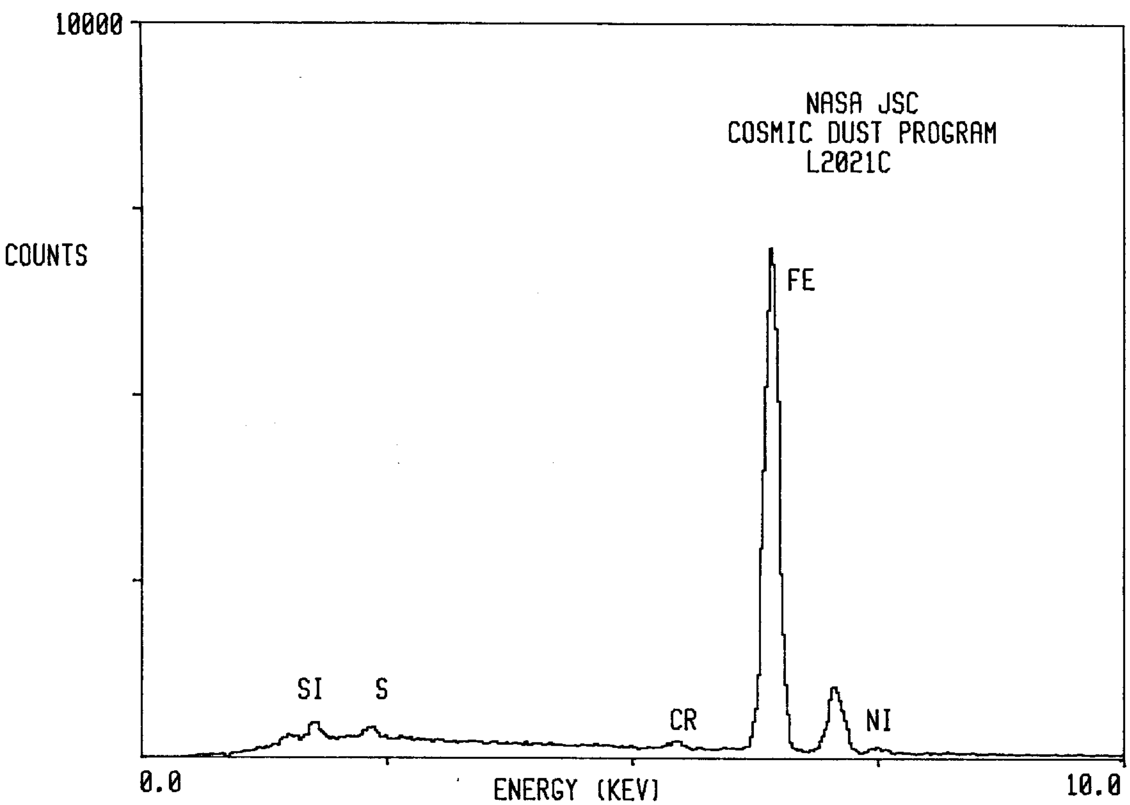
Trans: O

Color: Black

Luster: P

Type: C

Comments:



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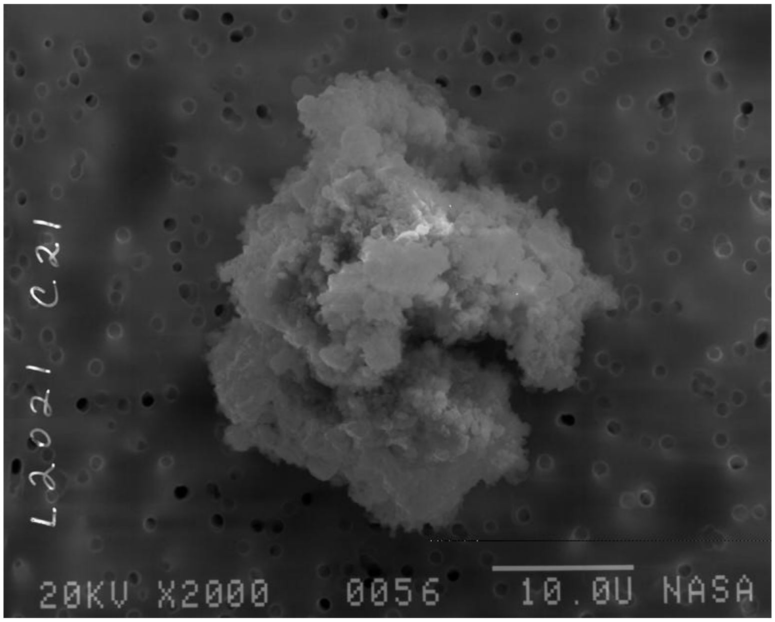


97E00374

Size: 24

Shape: E

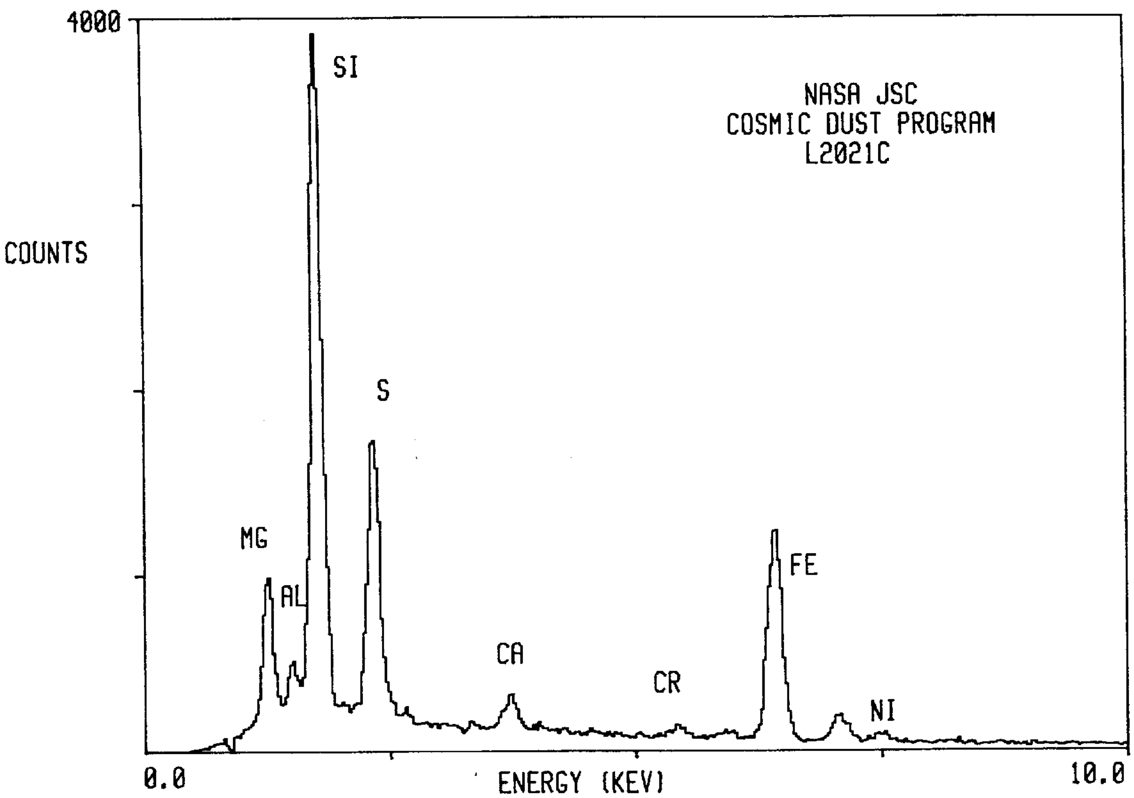
Trans: O

Color: Black

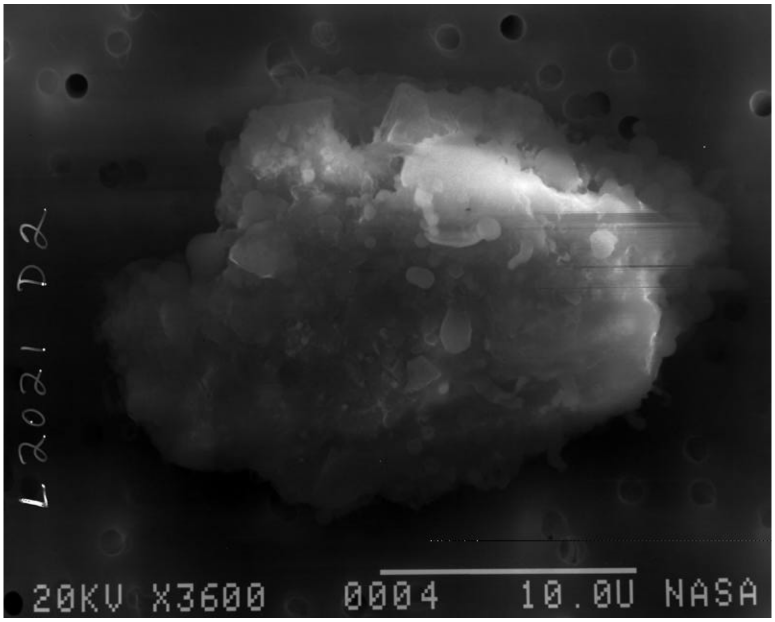
Luster: D

Type: C

Comments:

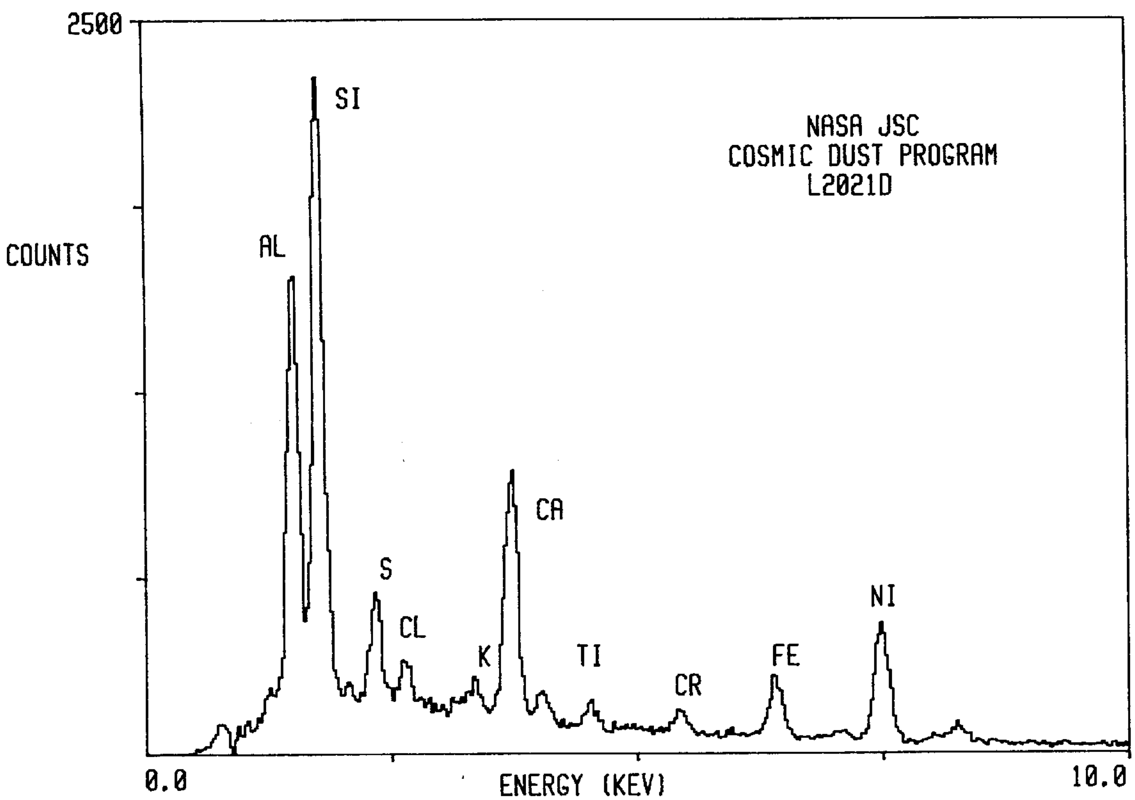


L2021D2

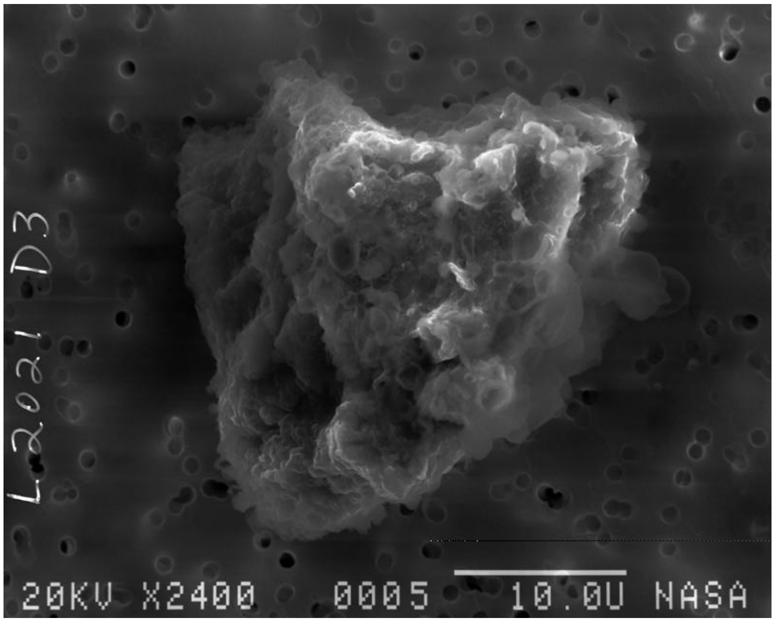


97E00376

Size:	26x16
Shape:	I
Trans:	TL
Color:	White
Luster:	SV
Type:	C
Comments:	

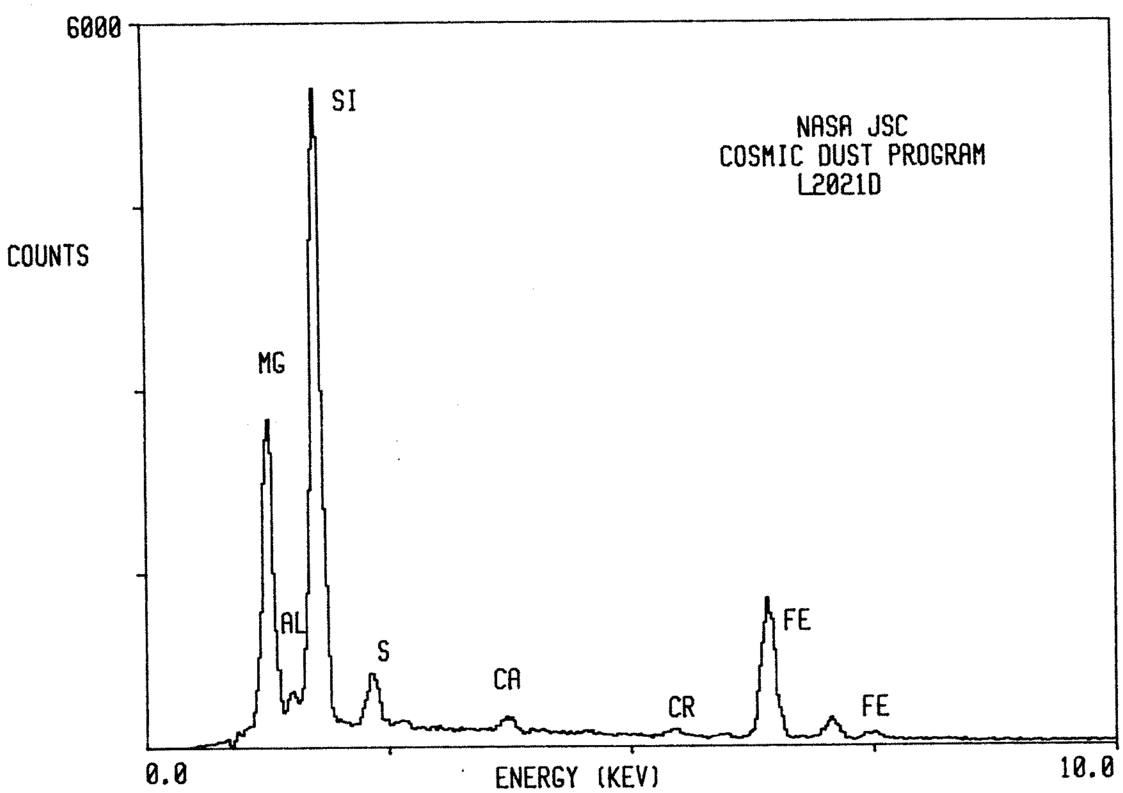


L2021D3

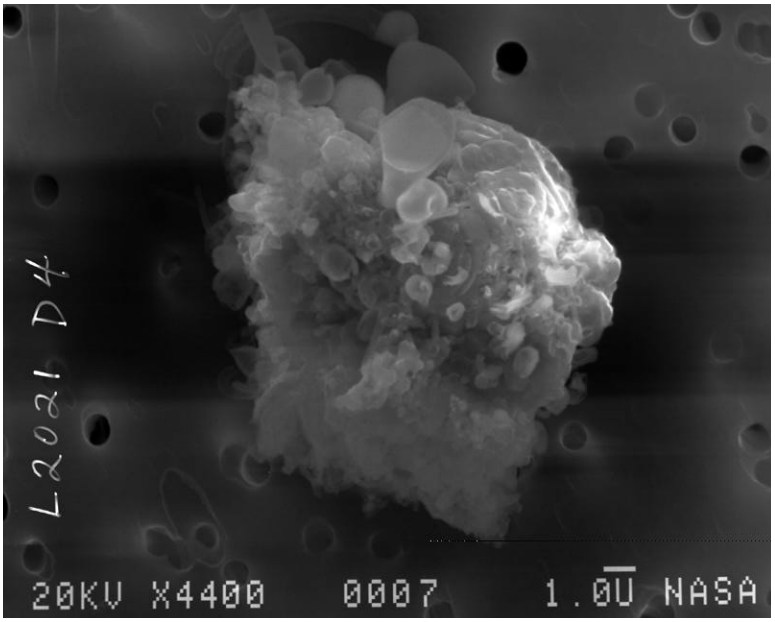


97E00377

Size: 26
Shape: I
Trans: O
Color: Gray
Luster: M
Type: C
Comments:

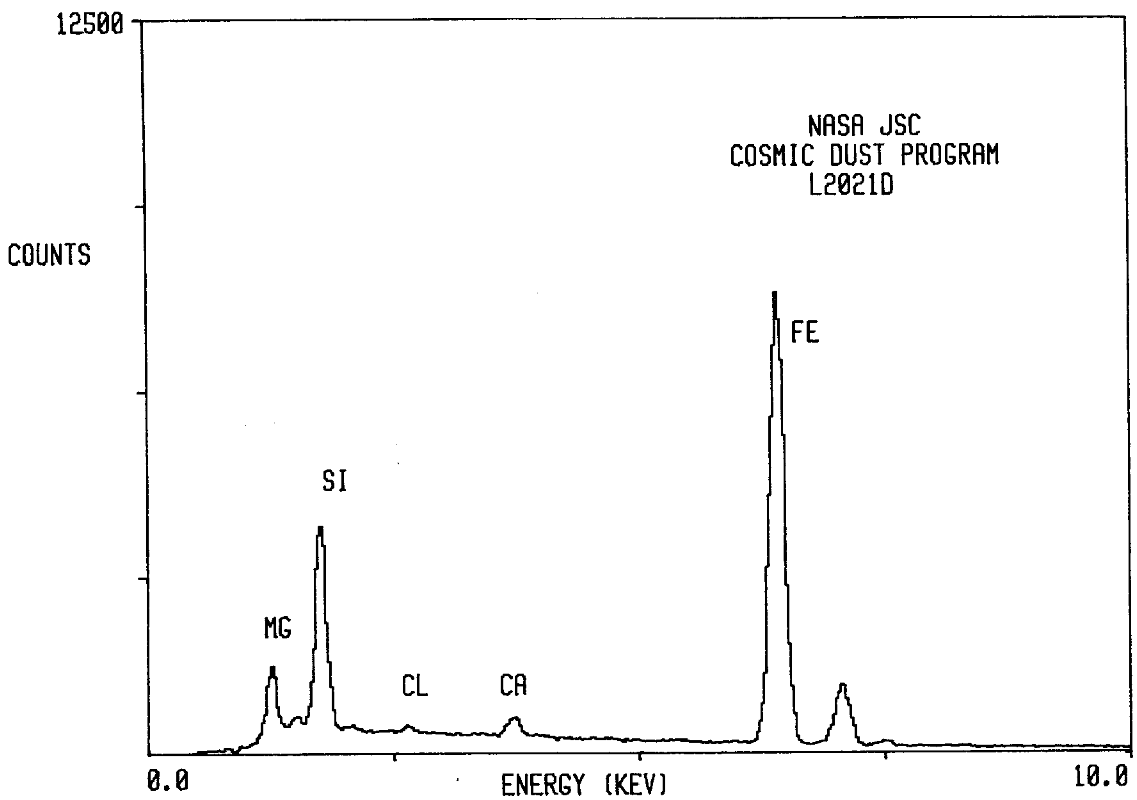


L2021D4

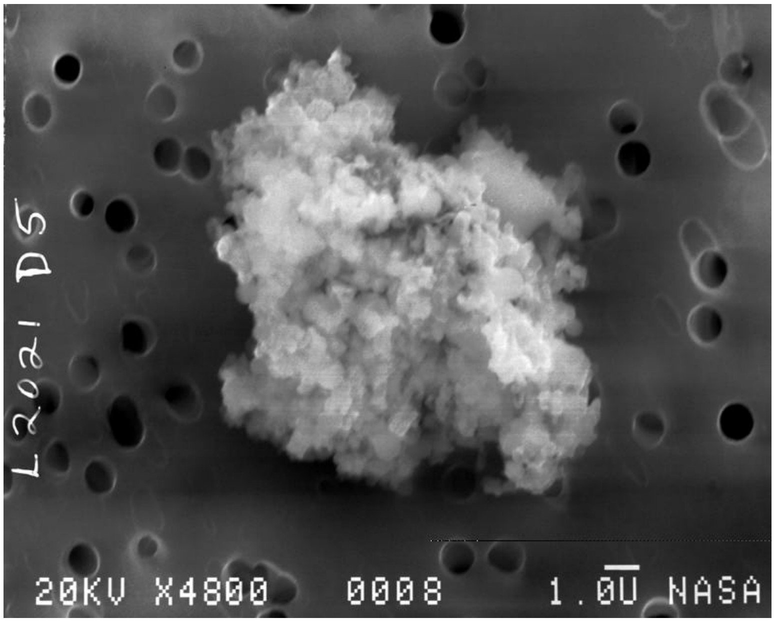


97E00378

Size:	16x14
Shape:	E
Trans:	O
Color:	Black
Luster:	P
Type:	C
Comments:	



L2021D5



97E00379

Size: 14x10

Shape: I

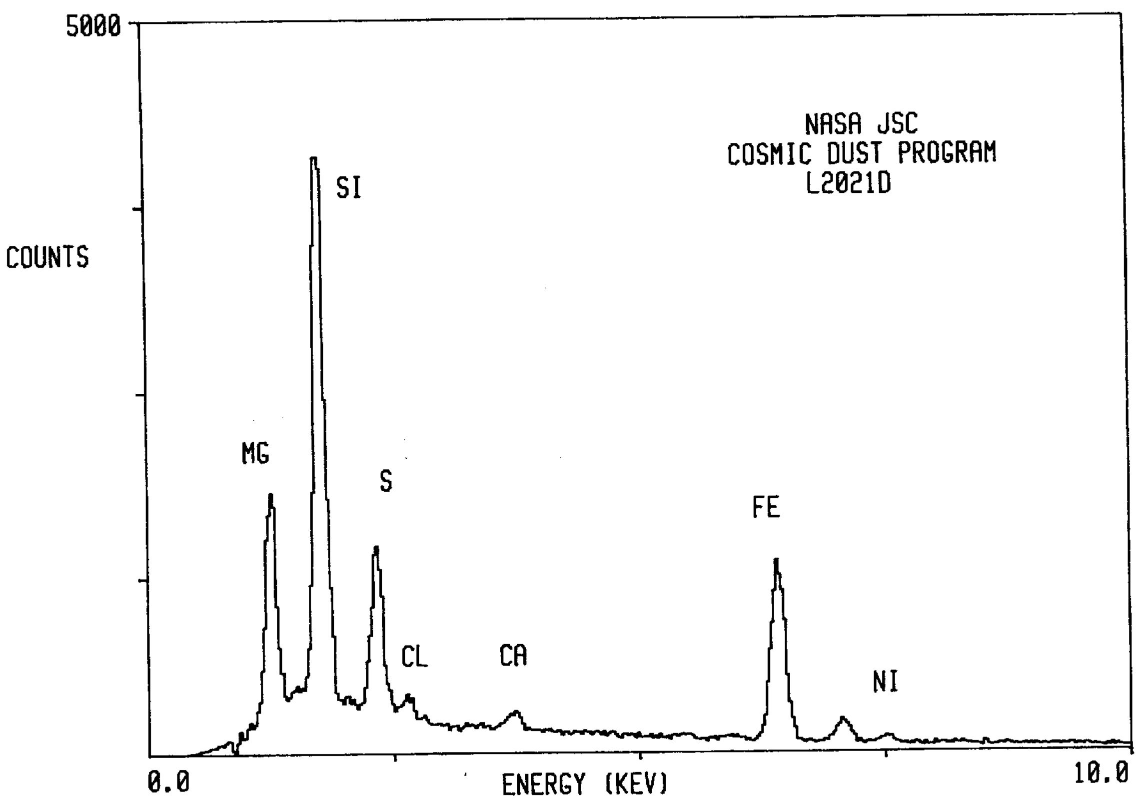
Trans: O

Color: Black

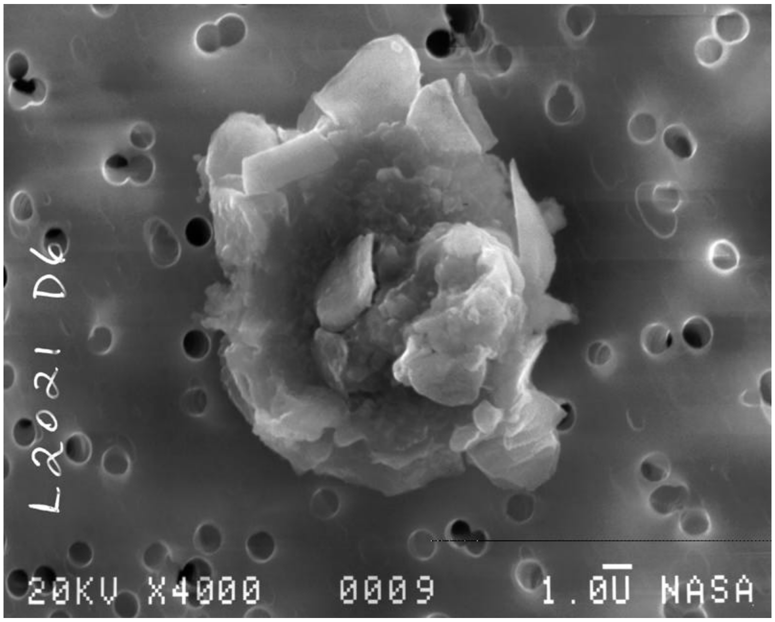
Luster: D

Type: C

Comments:



L2021D6



97E00380

Size: 15x12

Shape: I

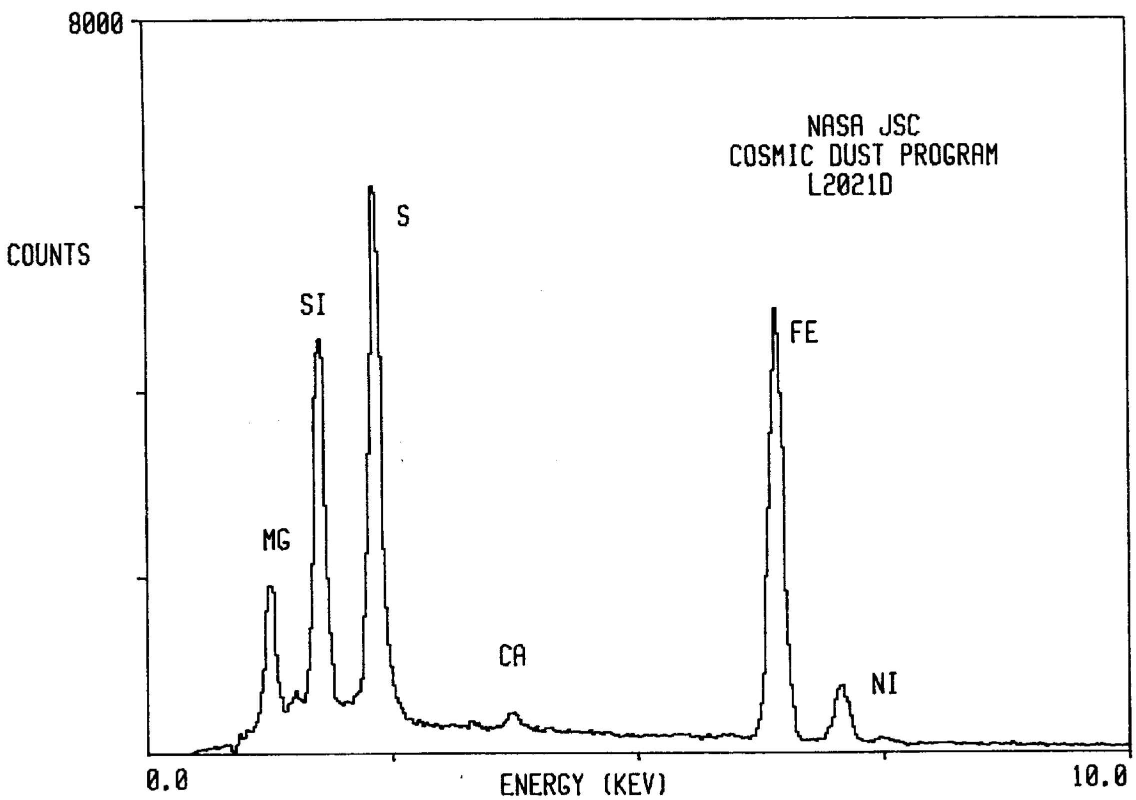
Trans: O

Color: Black

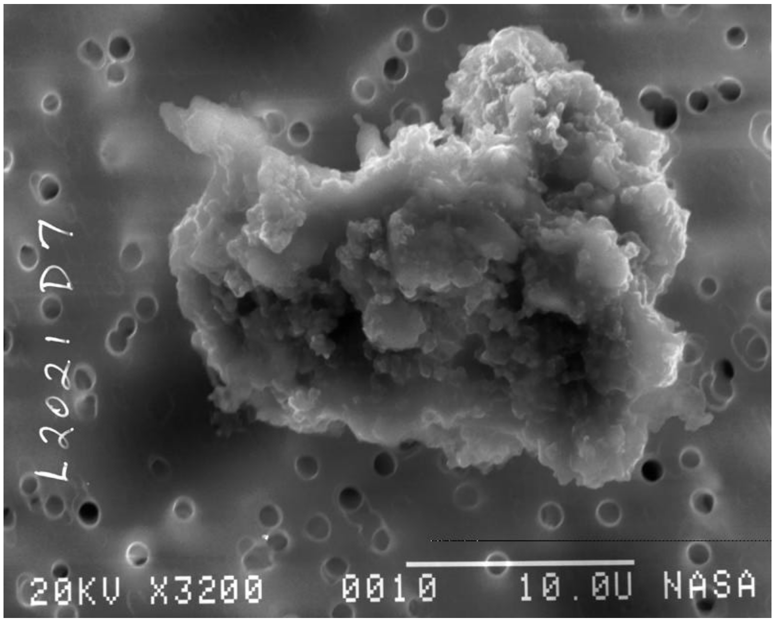
Luster: P

Type: C

Comments:



L2021D7



97E00381

Size: 25x16

Shape: I

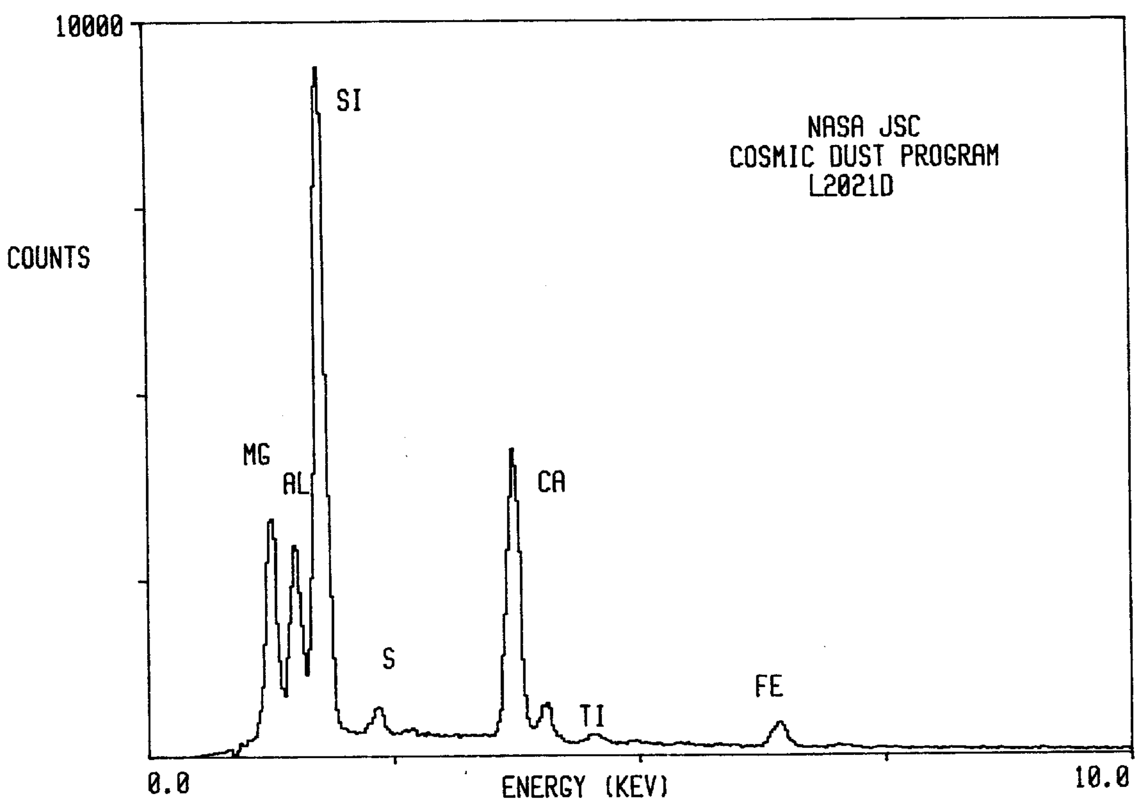
Trans: O

Color: Black

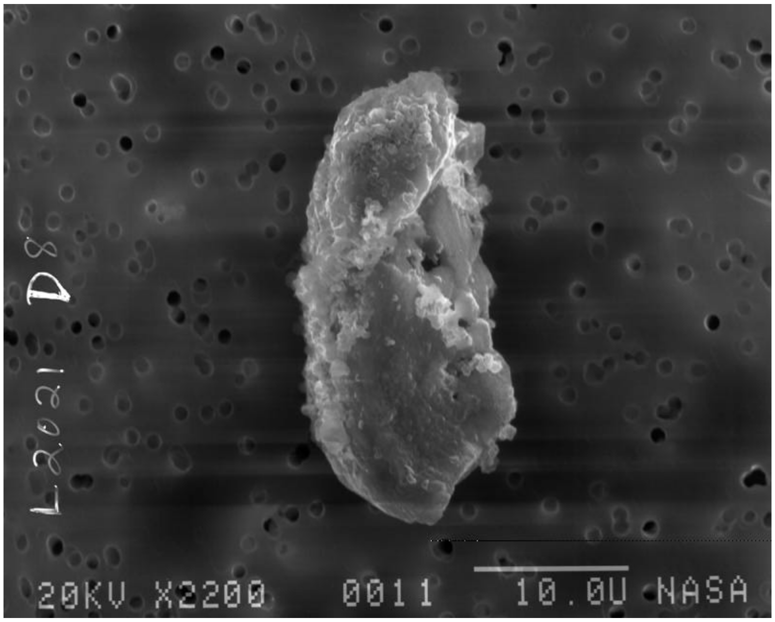
Luster: SM

Type: C

Comments:



L2021D8



97E00382

Size: 27x14

Shape: I

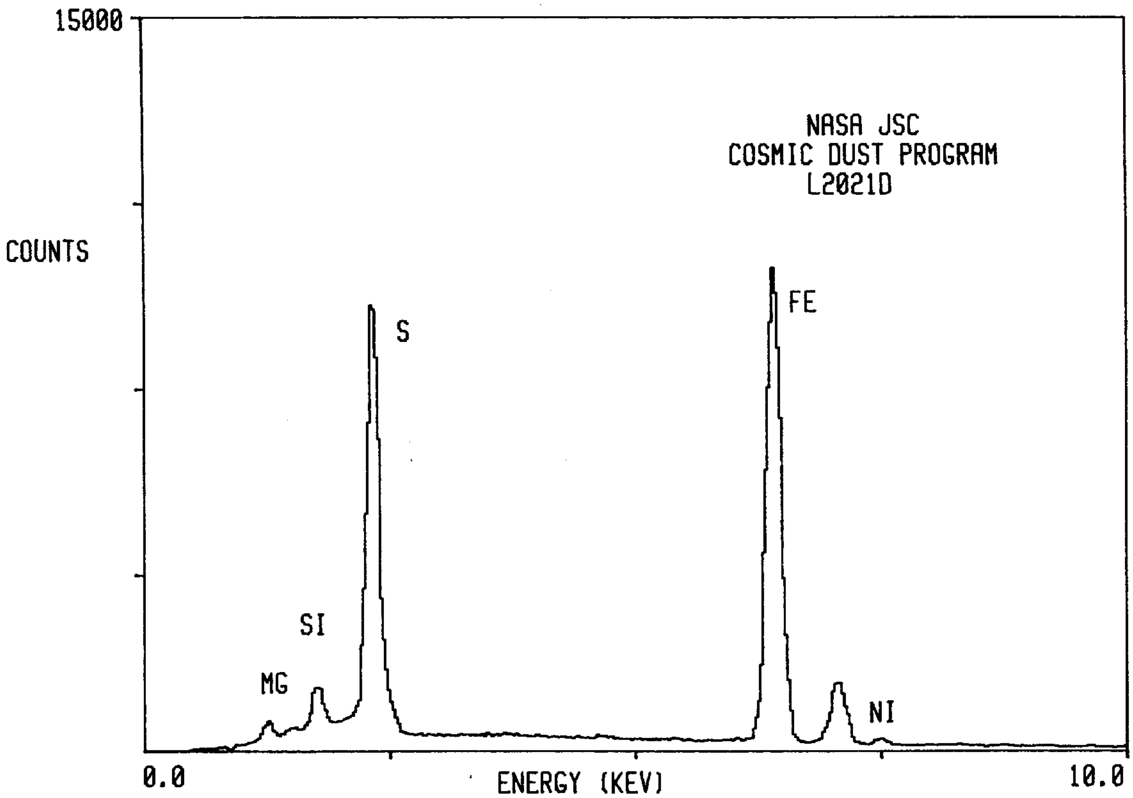
Trans: O

Color: Black

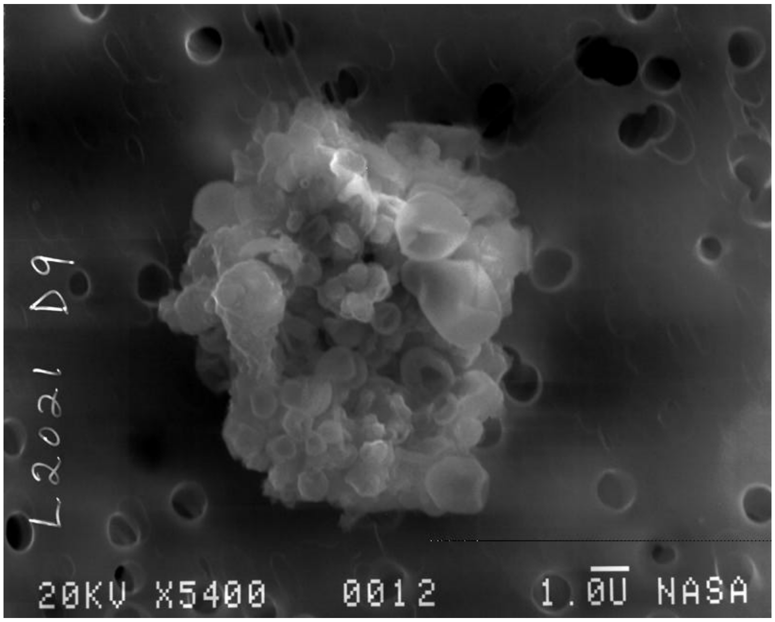
Luster: SM

Type: C

Comments:

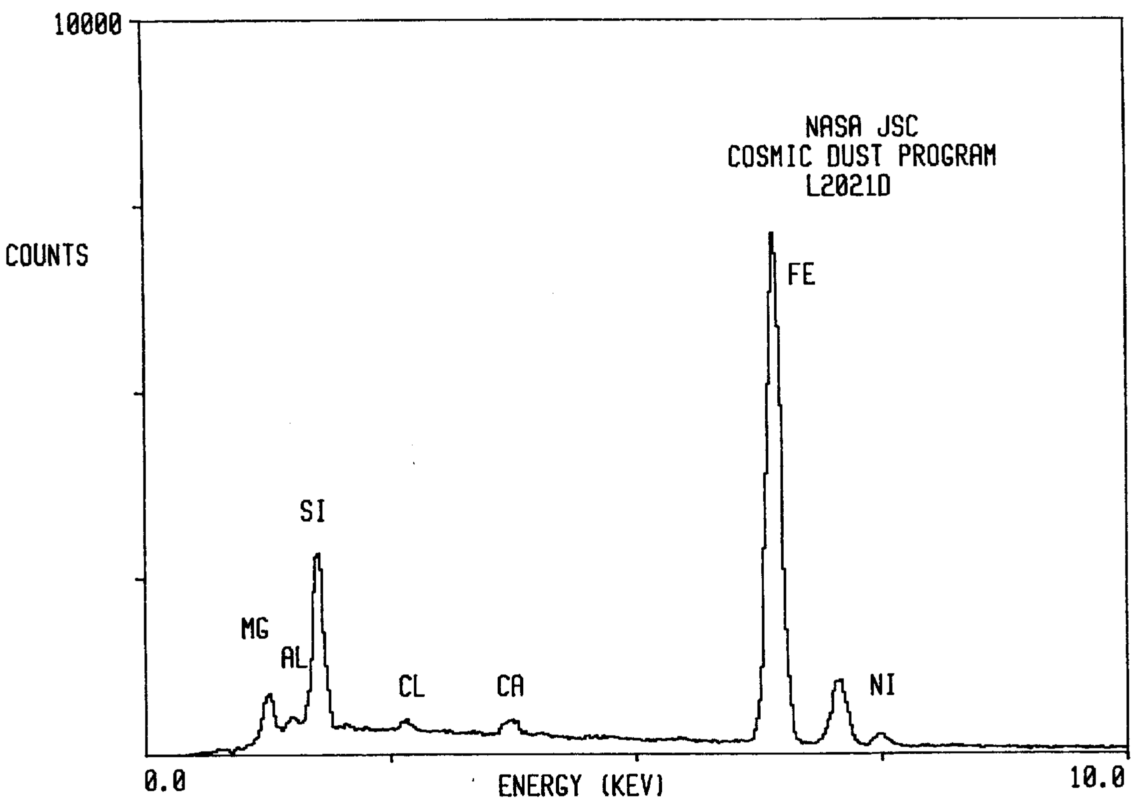


L2021D9

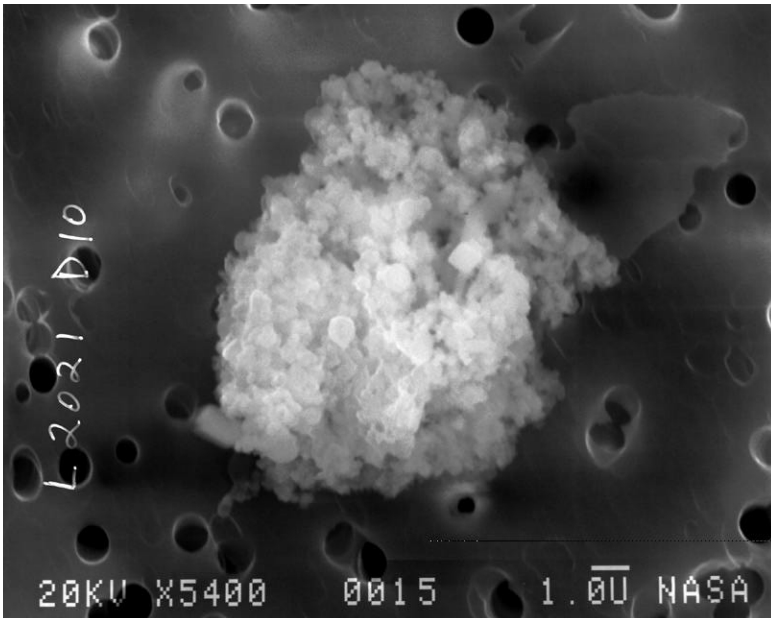


97E00383

Size: 12
Shape: E
Trans: O
Color: Black
Luster: SM
Type: C
Comments:

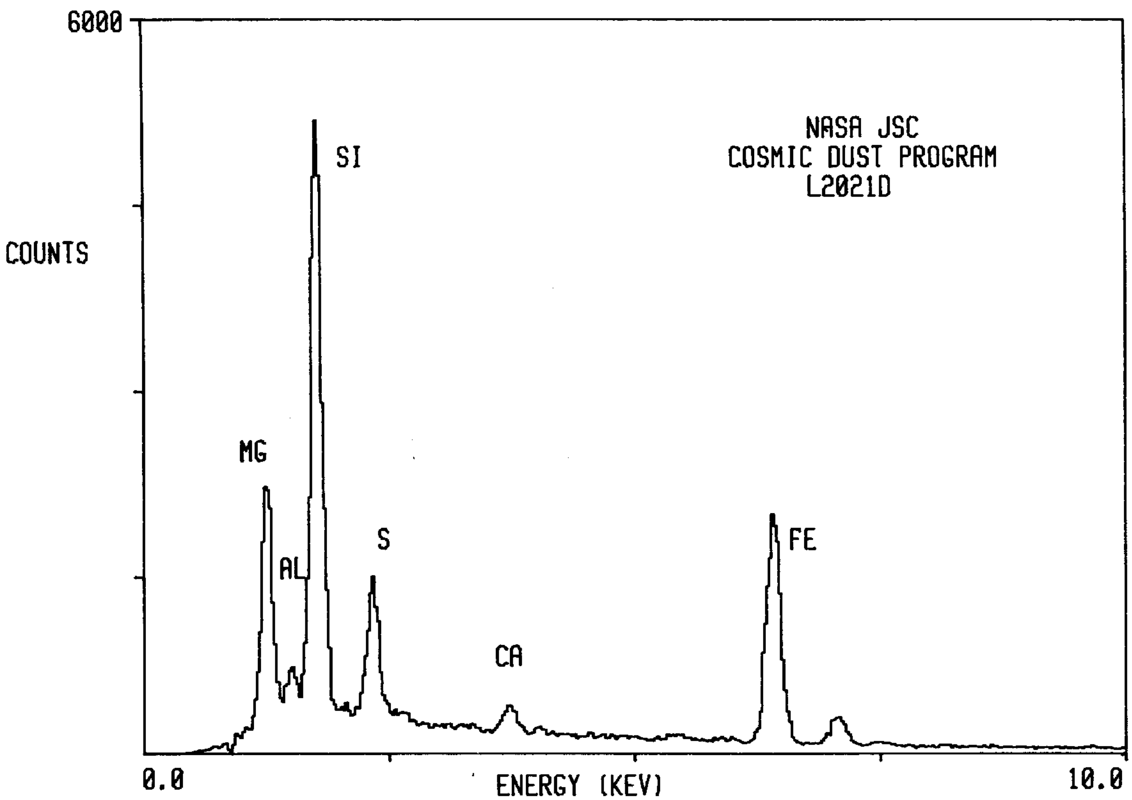


L2021D10

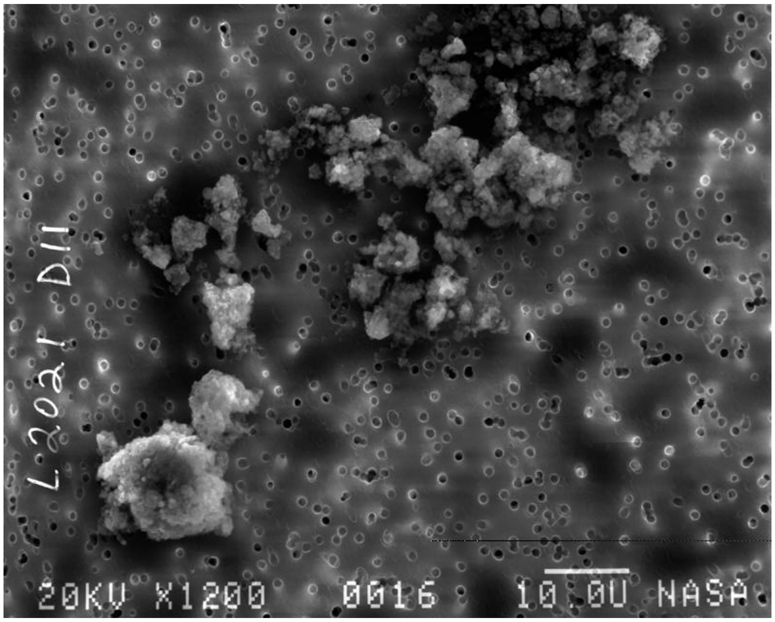


97E00384

Size:	12
Shape:	E
Trans:	O
Color:	Gray
Luster:	D
Type:	C
Comments:	Related to L2021 D11



L2021D11



97E00385

Size:	70x65
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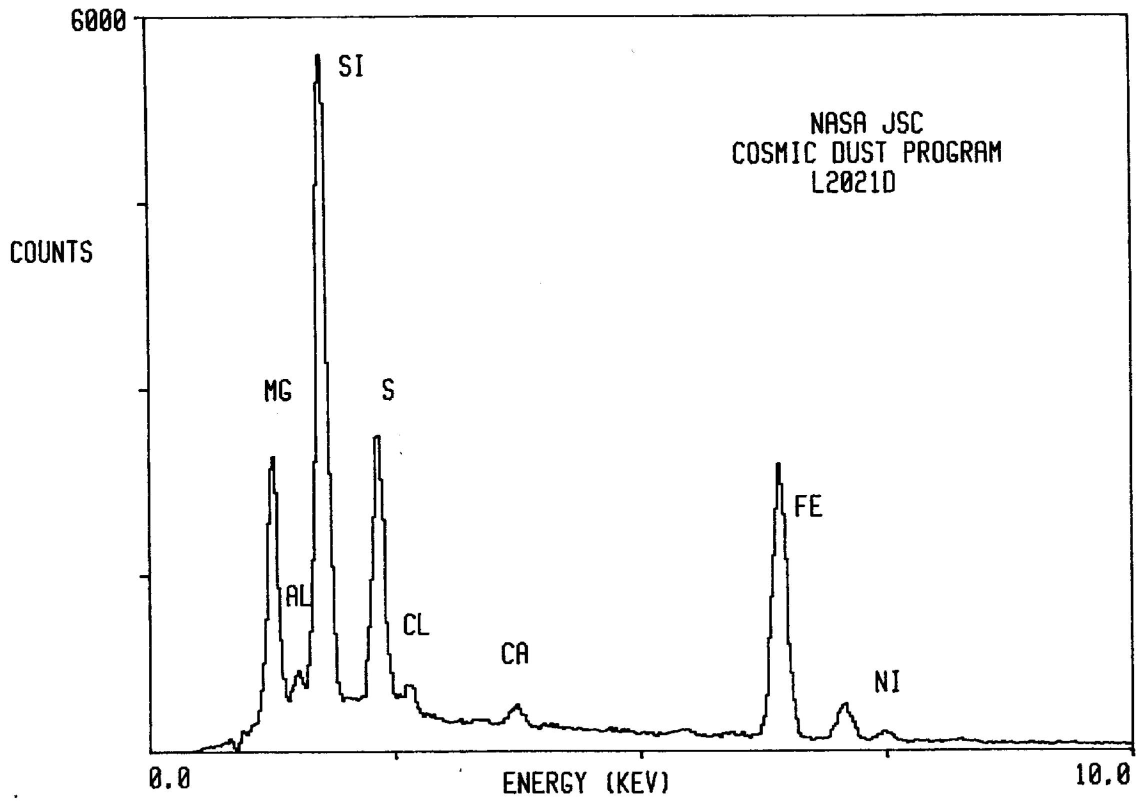
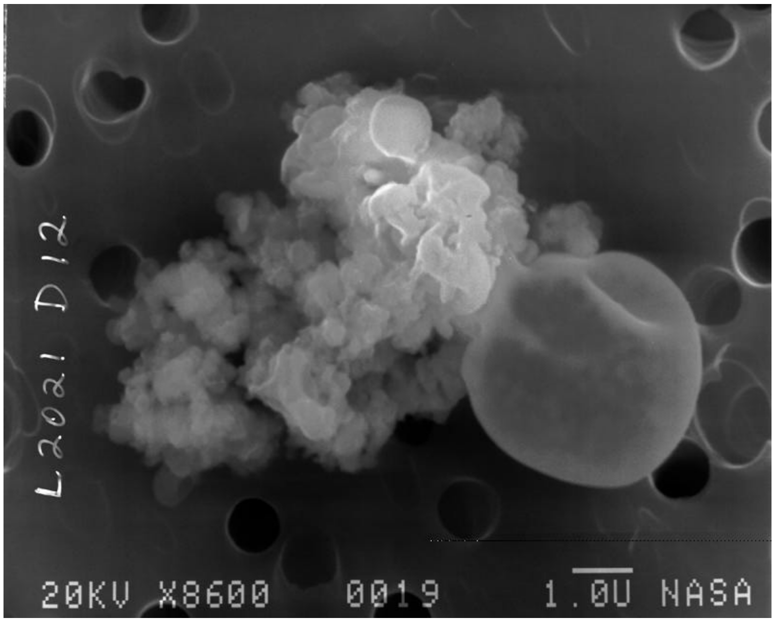
Trans:	O
Color:	Gray
Luster:	D
Type:	C
Comments:	Related to L2021 D10; Field of particles



L2021D12



97E00386

Size: 10x8

Shape: I

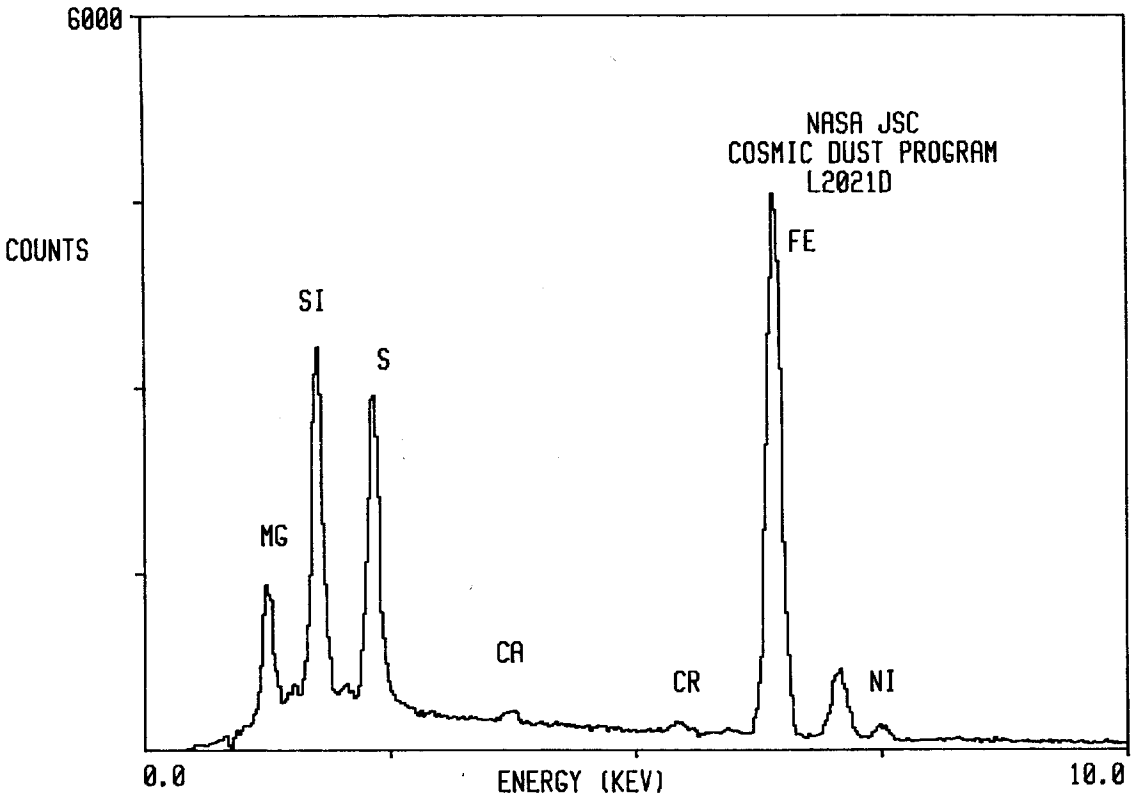
Trans: O

Color: Black

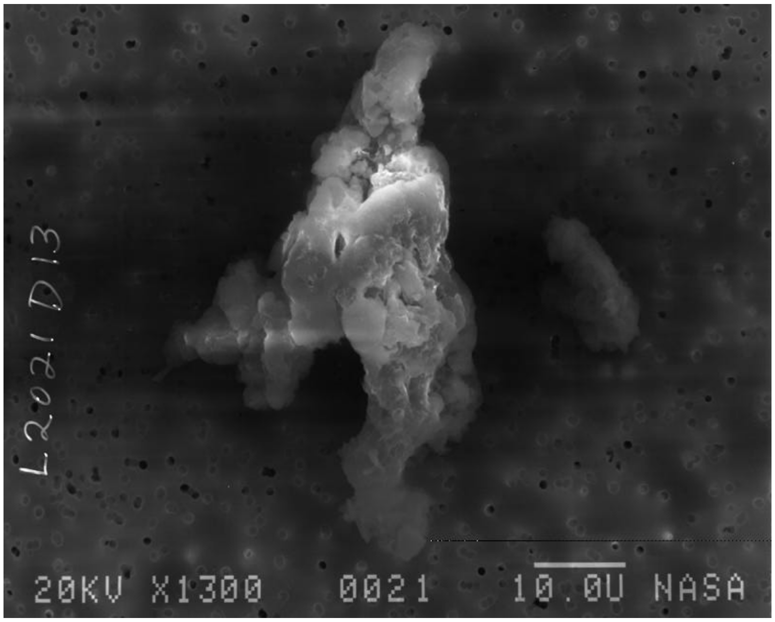
Luster: P

Type: C

Comments:



L2021D13



97E00387

Size: 50x30

Shape: I

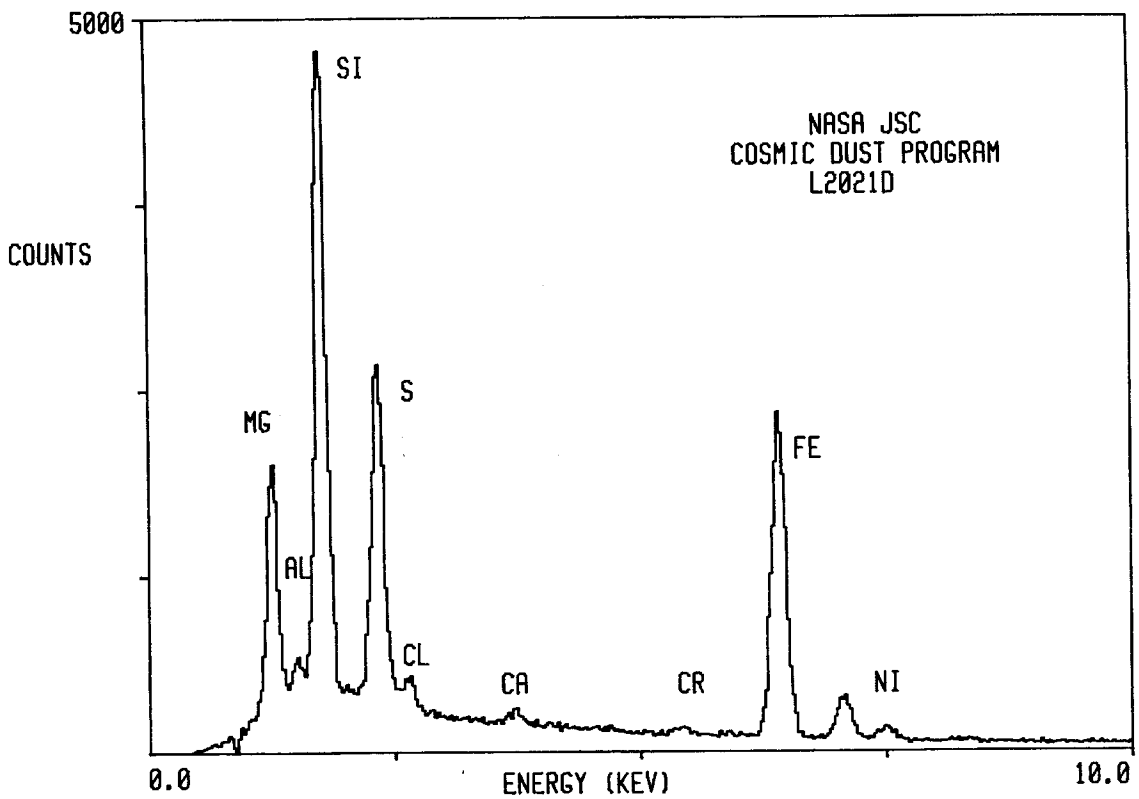
Trans: O

Color: Black

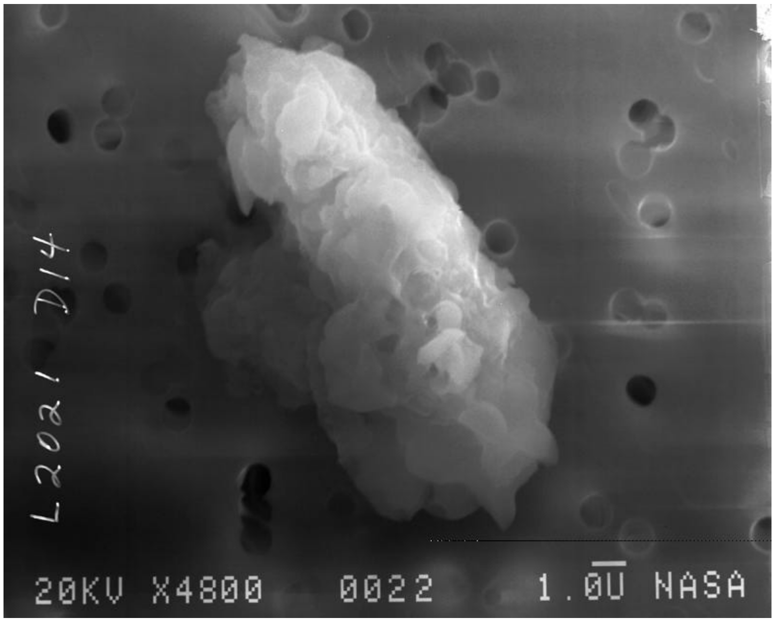
Luster: SM

Type: C

Comments:



L2021D14



97E00388

Size: 7

Shape: E

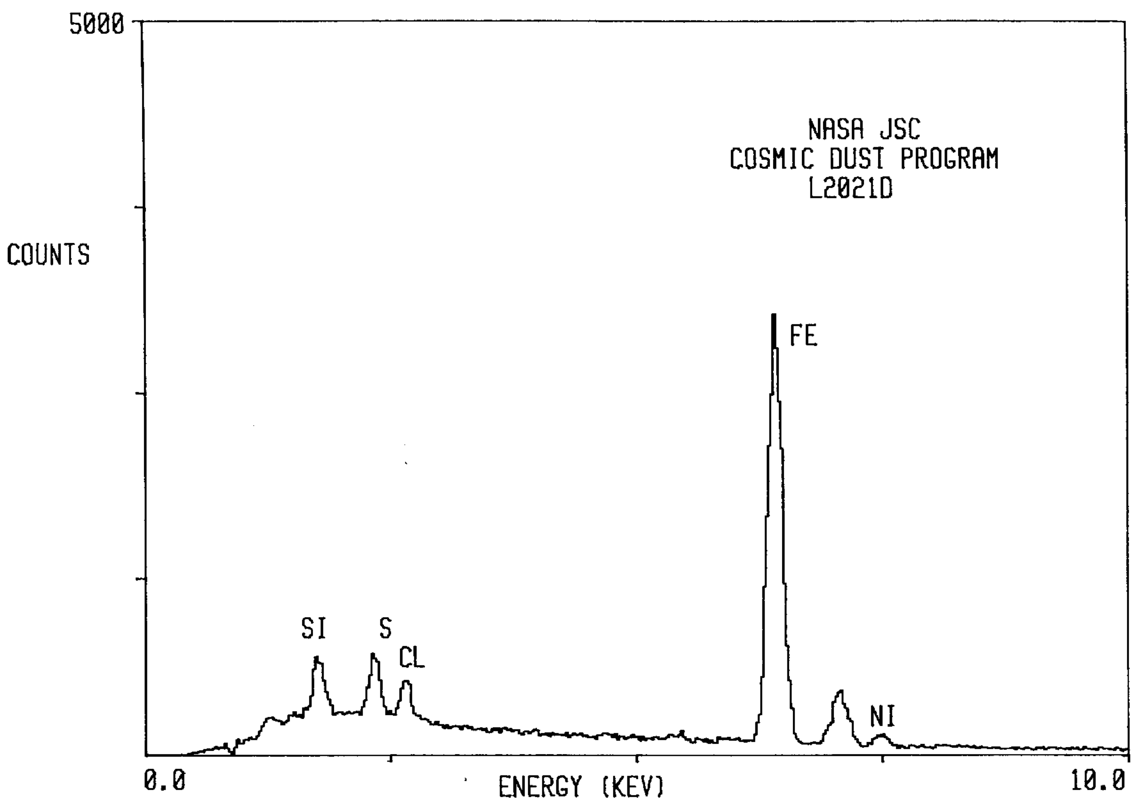
Trans: O

Color: Black

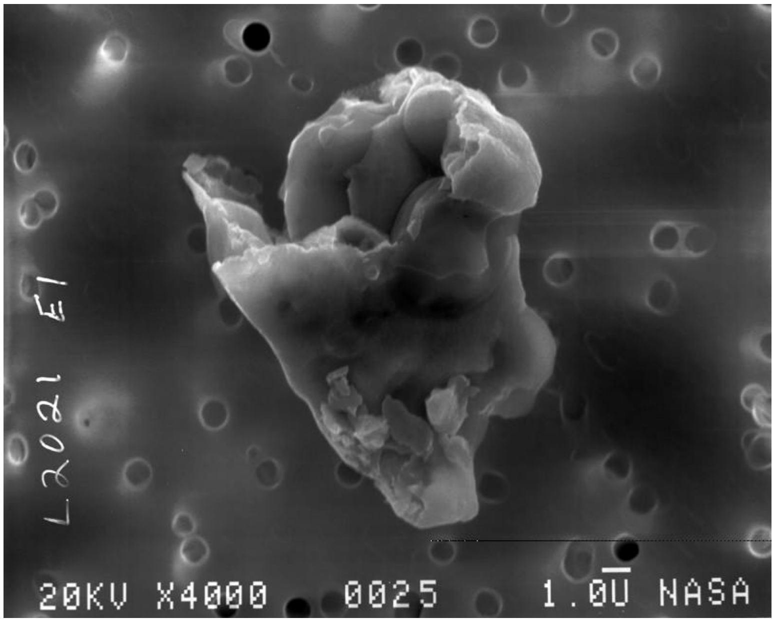
Luster: P

Type: C

Comments:

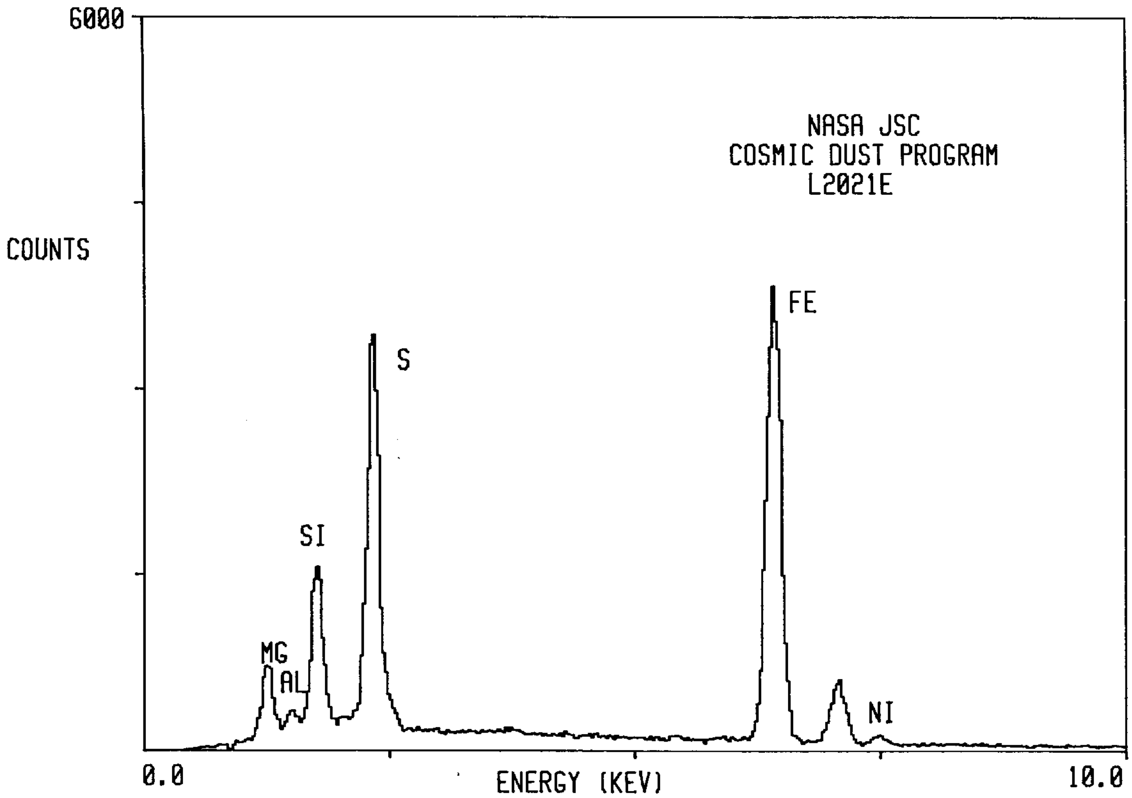


L2021E1

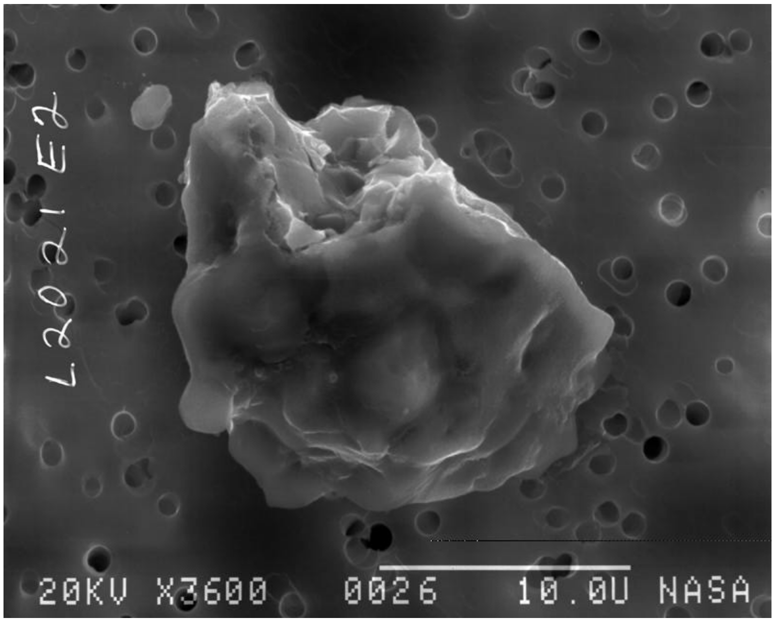


97E00391

Size: 14
Shape: I
Trans: O
Color: Black
Luster: M
Type: C
Comments:



L2021E2



97E00392

Size: 20x16

Shape: I

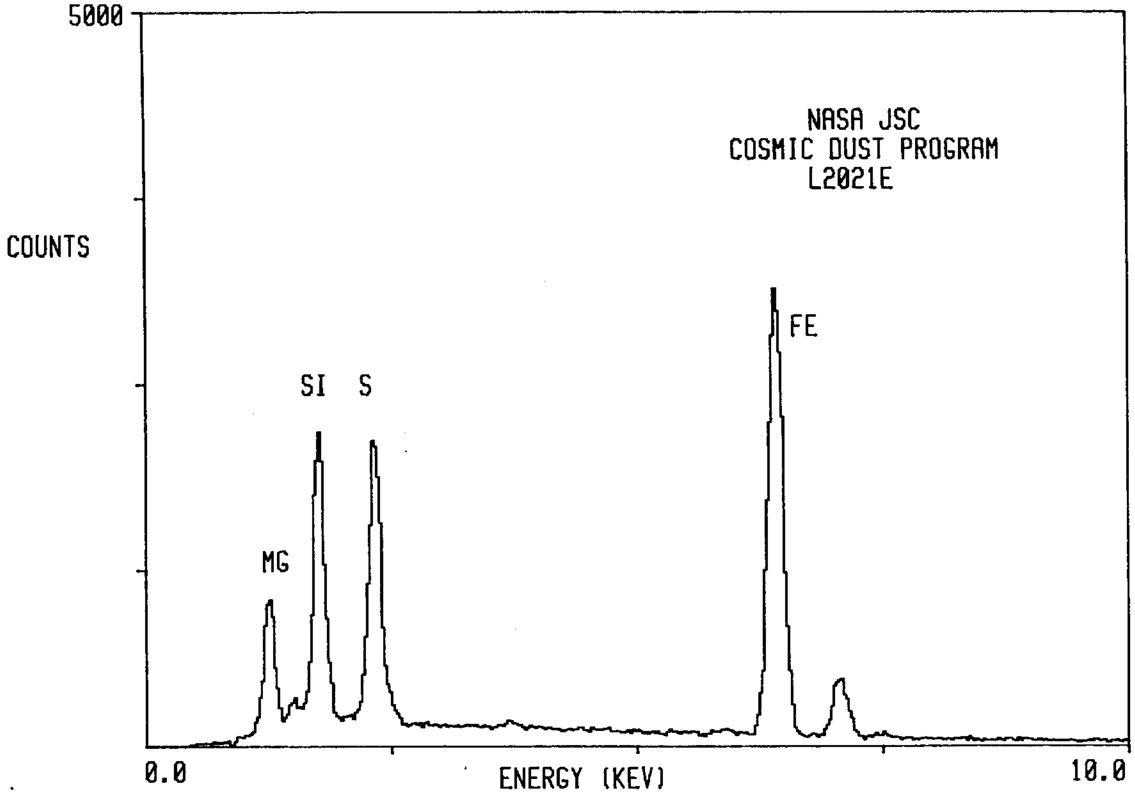
Trans: O

Color: Black

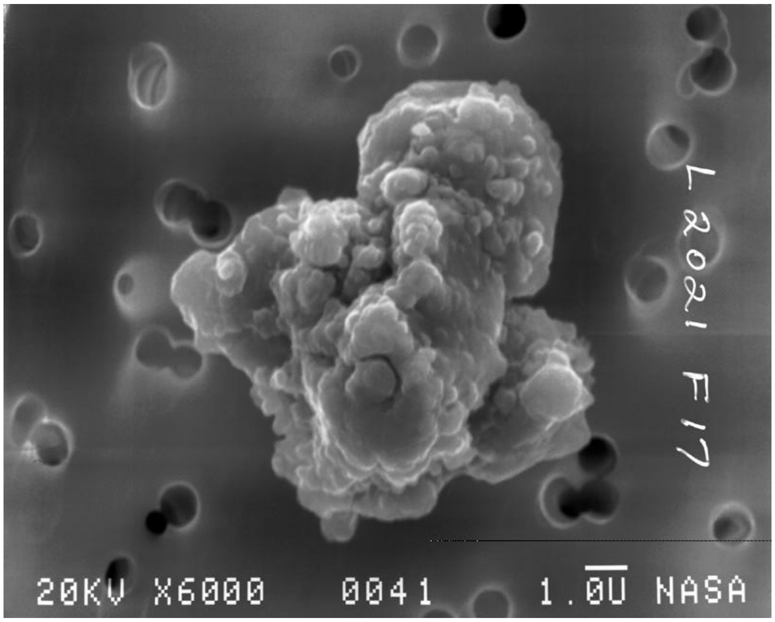
Luster: M

Type: C

Comments:



L2021F17



97E00424

Size: 10

Shape: I

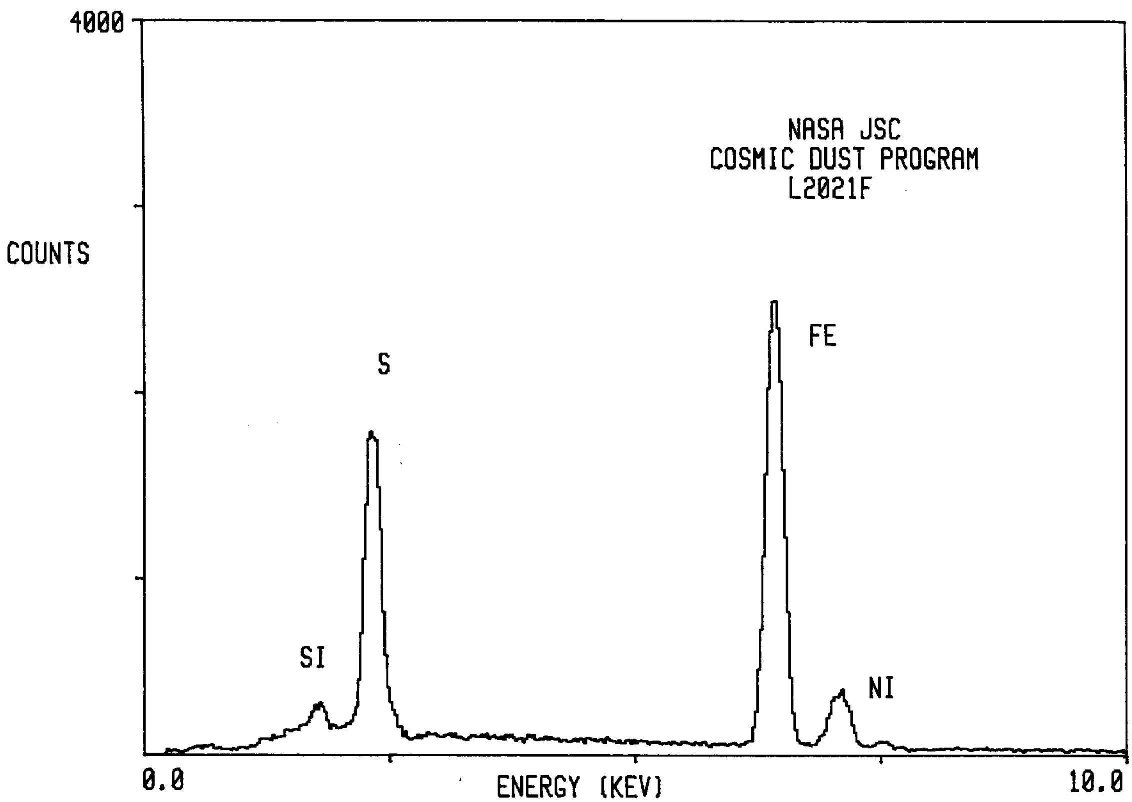
Trans: O

Color: Black

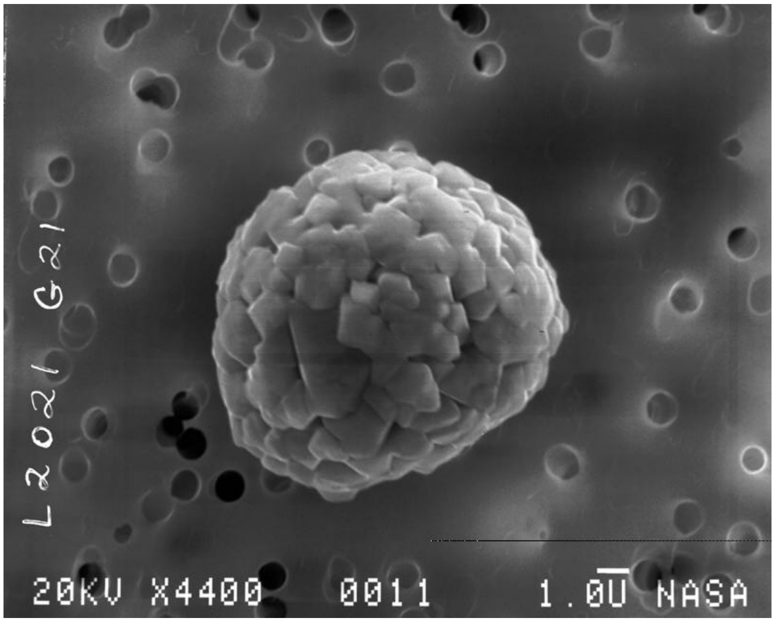
Luster: P

Type: C

Comments:



L2021G21



97E00457

Size: 11

Shape: S

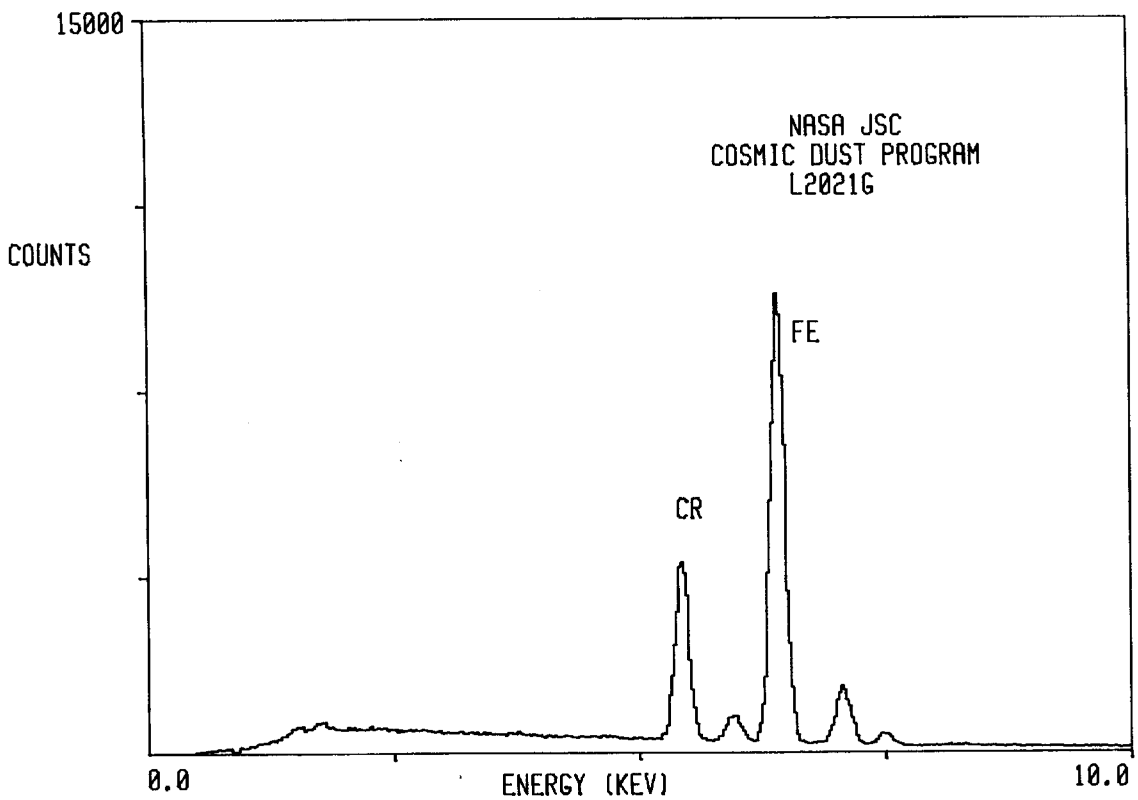
Trans: O

Color: Black

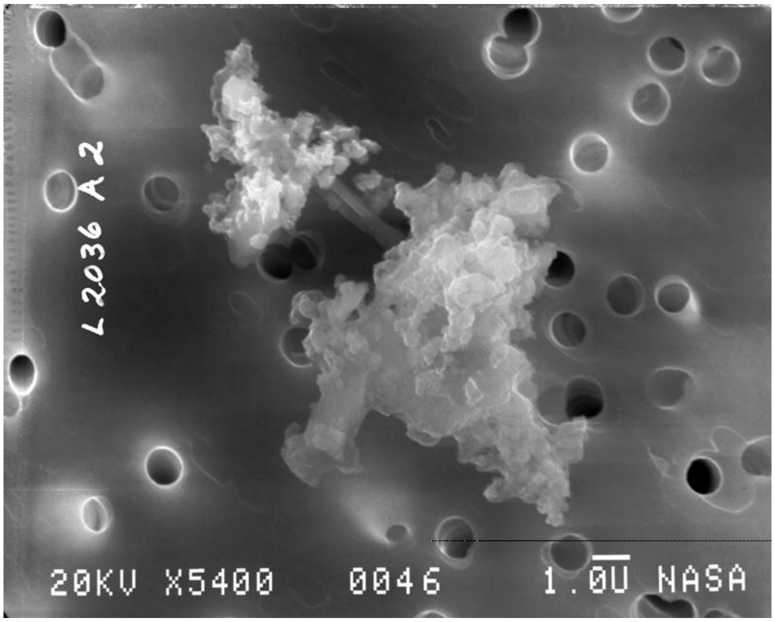
Luster: M

Type: C

Comments:

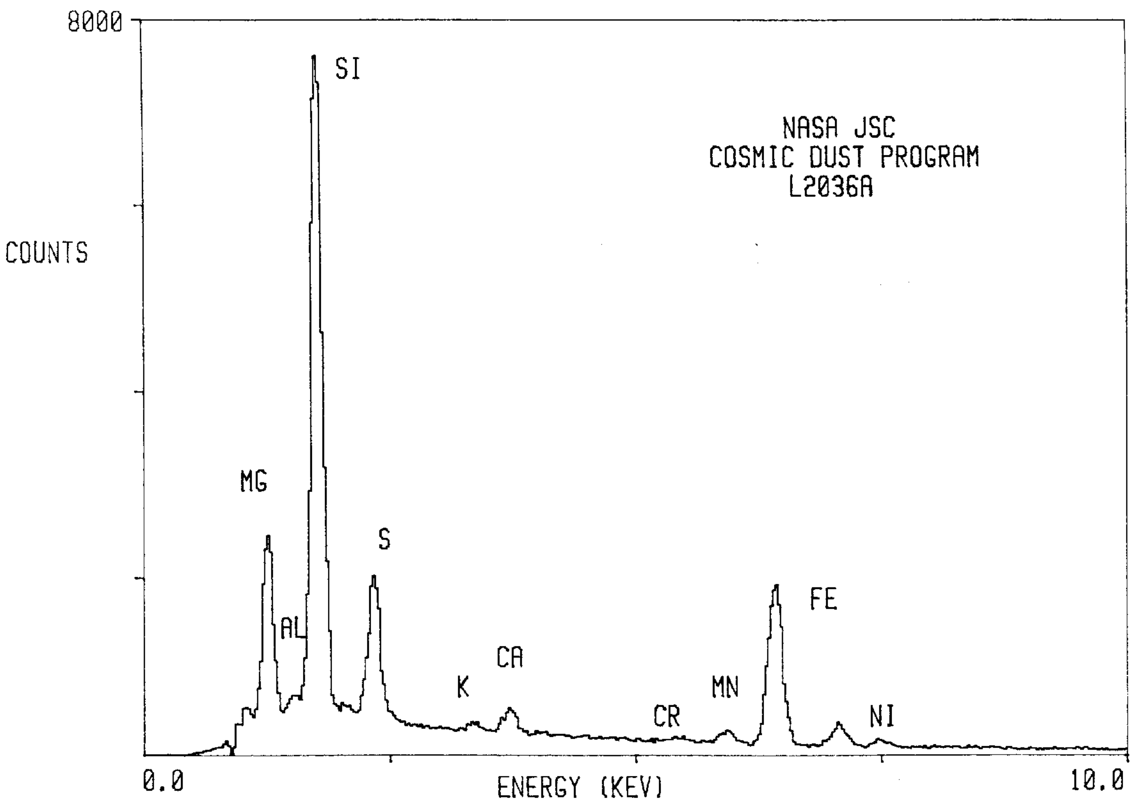


L2036A2

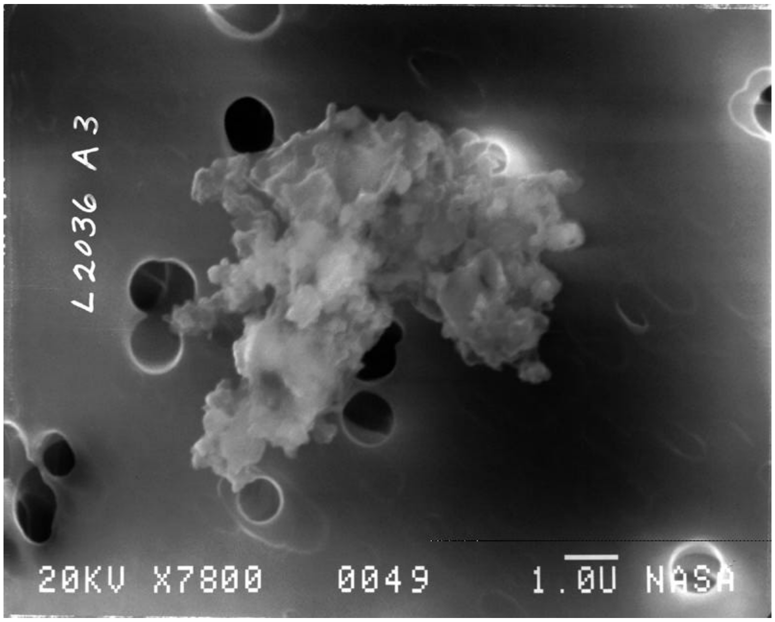


97E00008

Size: 25x15
Shape: I
Trans: TL
Color: Black-White
Luster: V/SV
Type: C
Comments: Cluster 2

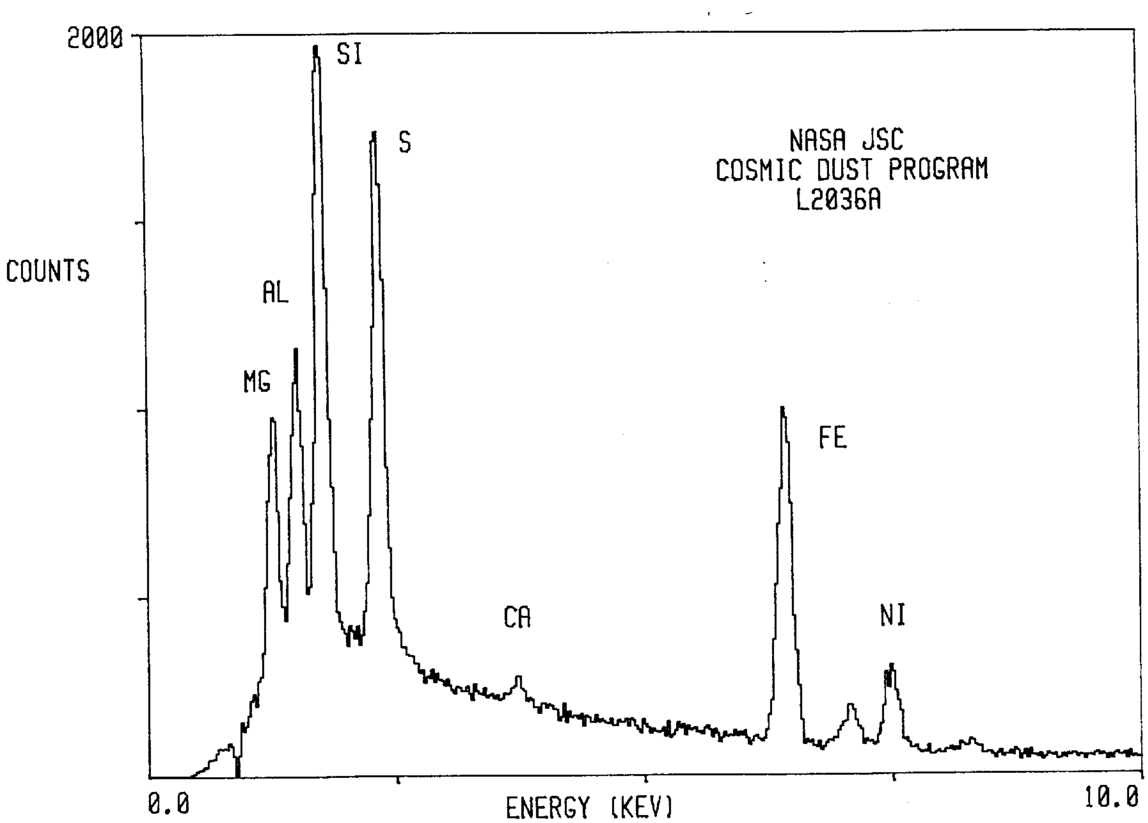


L2036A3

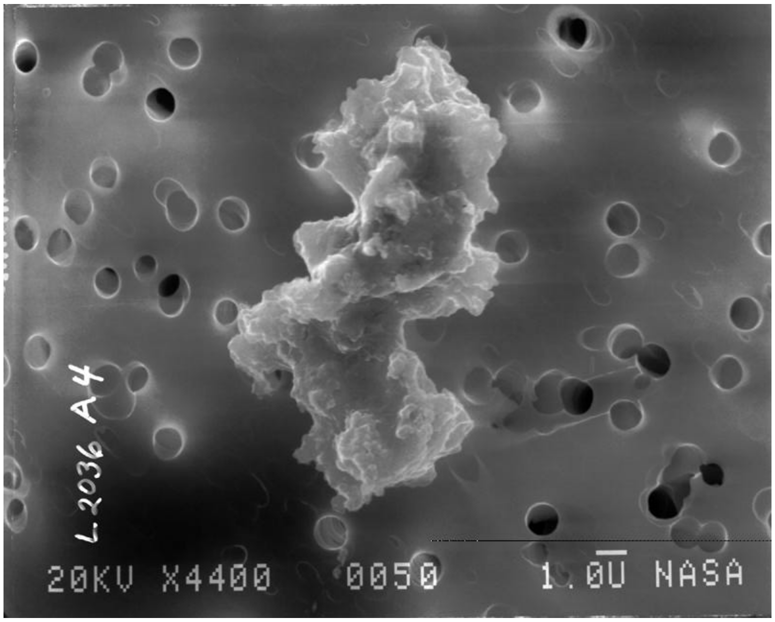


97E00009

Size:	8x6
Shape:	I
Trans:	O
Color:	Black
Luster:	D
Type:	C
Comments:	Cluster 2

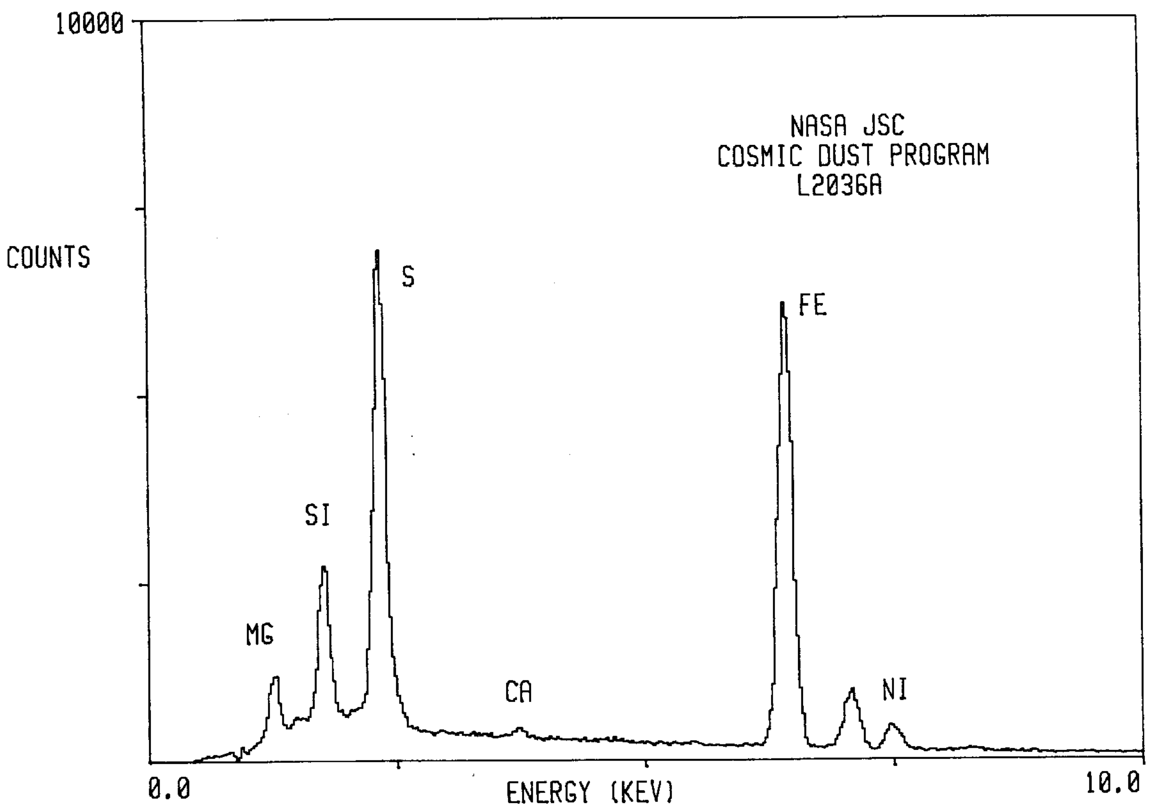


L2036A4

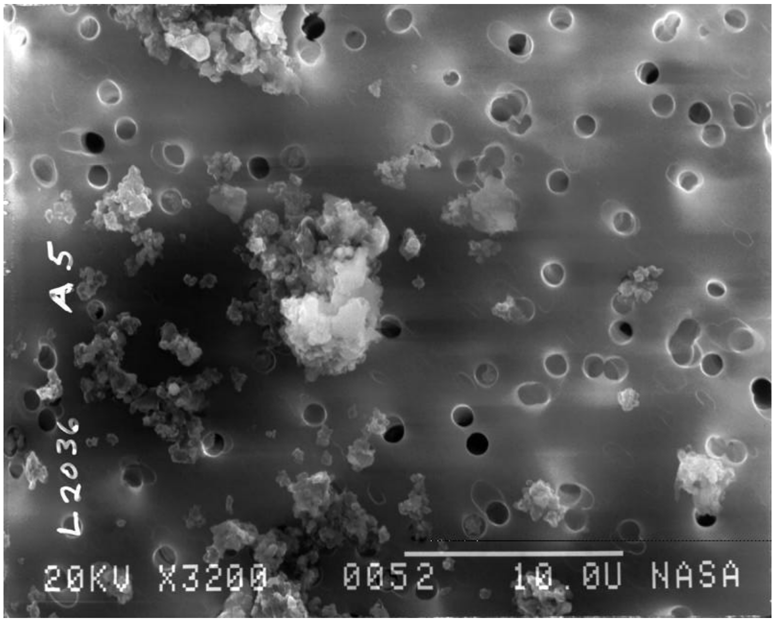


97E00010

Size: 14x8
Shape: I
Trans: O
Color: Black
Luster: D
Type: C
Comments: Cluster 3



L2036A5



97E00011

Size: 6

Shape: I

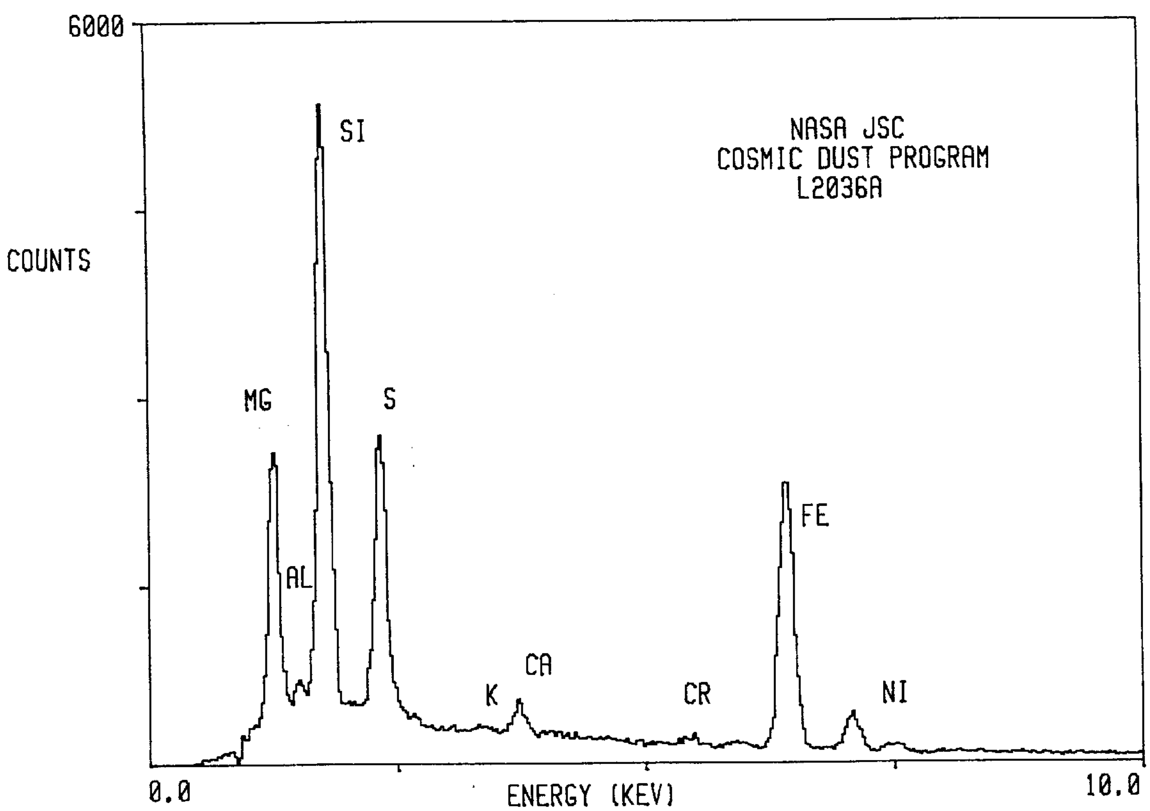
Trans: O

Color: Black

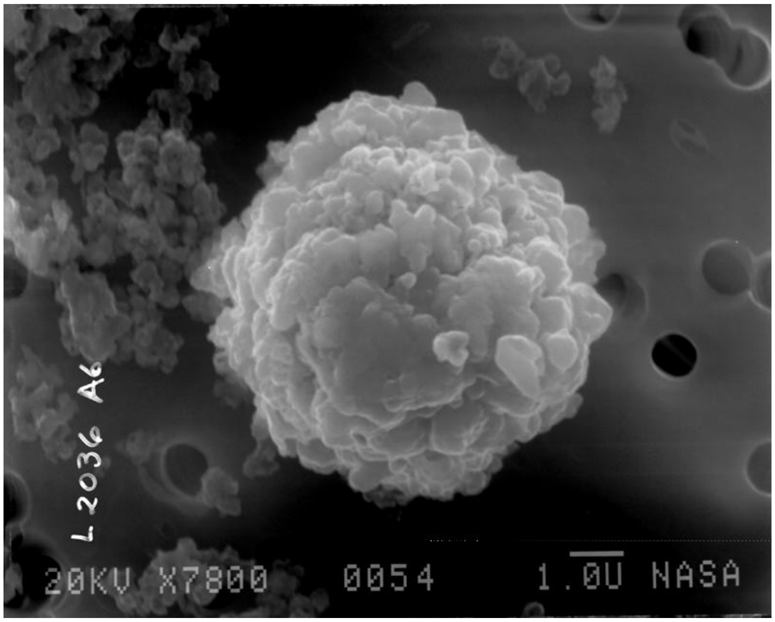
Luster: D

Type: C

Comments: Cluster 4, Related to L2036 A6

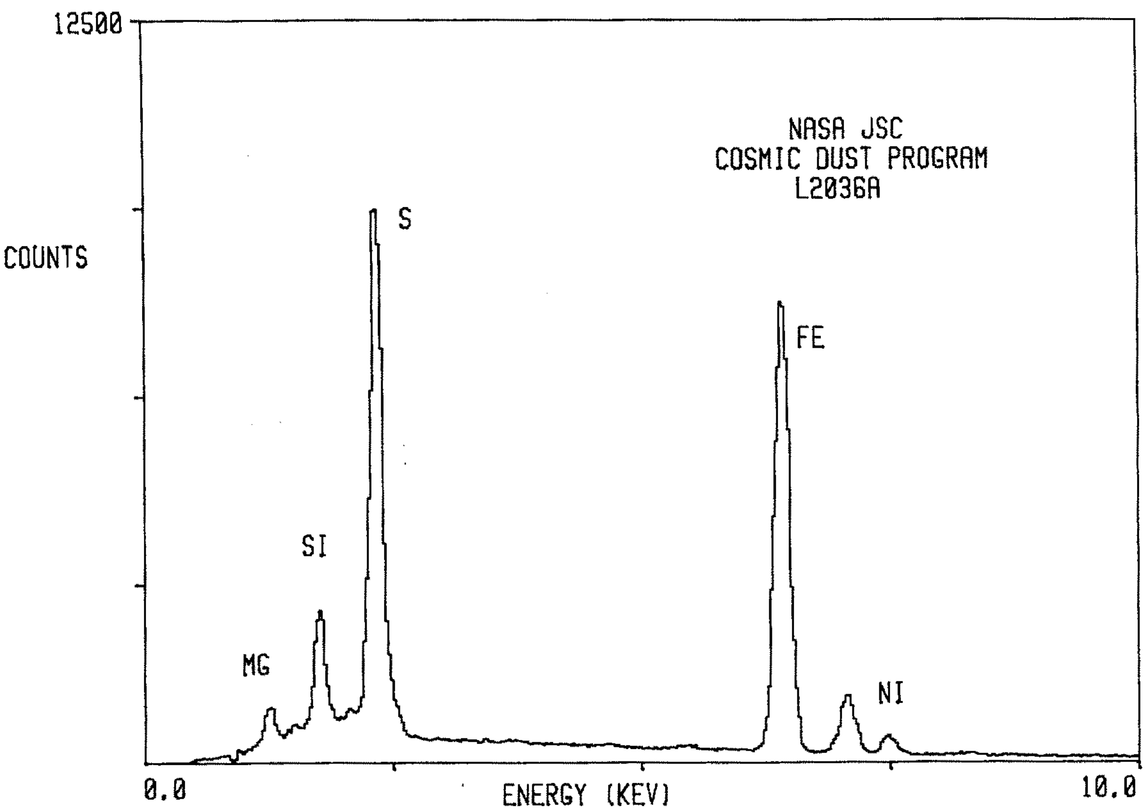


L2036A6

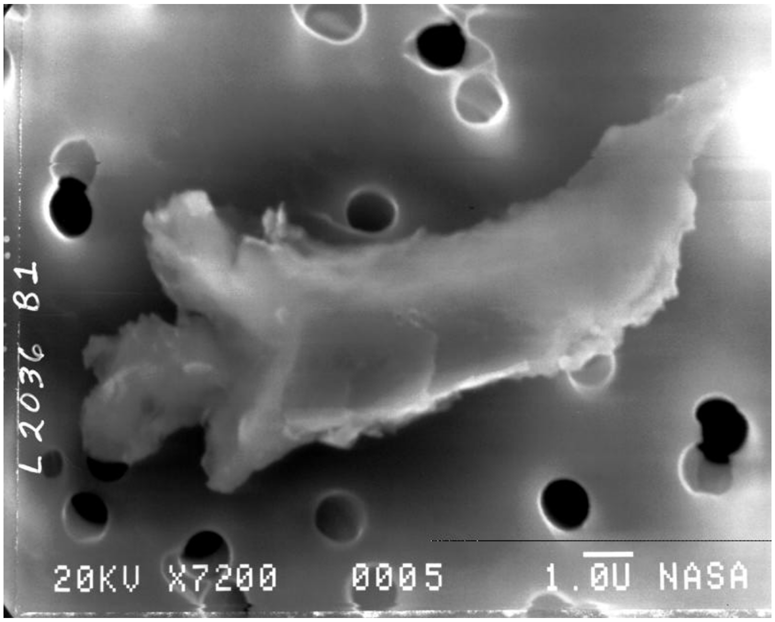


97E00012

Size:	5
Shape:	I
Trans:	O
Color:	Black
Luster:	D
Type:	C
Comments:	Cluster 4, Related to L2036 A5



L2036B1



97E00013

Size: 10x3

Shape: I

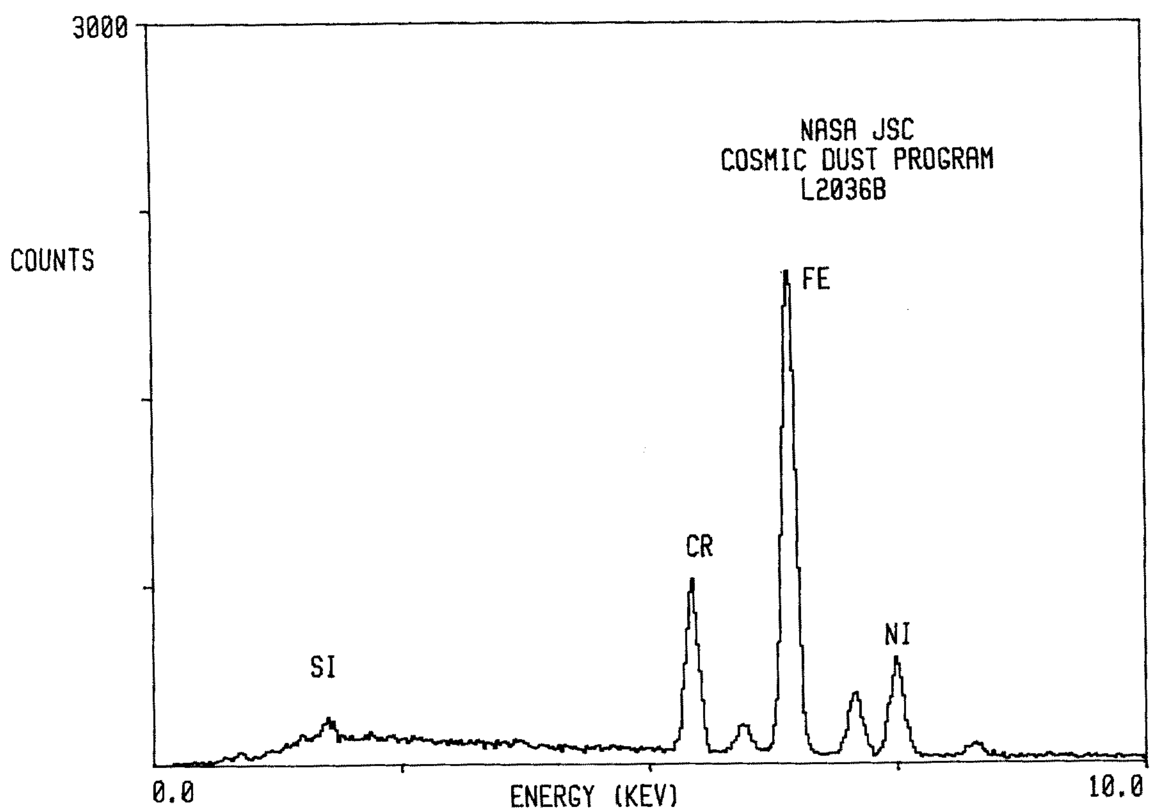
Trans: T

Color: Colorless

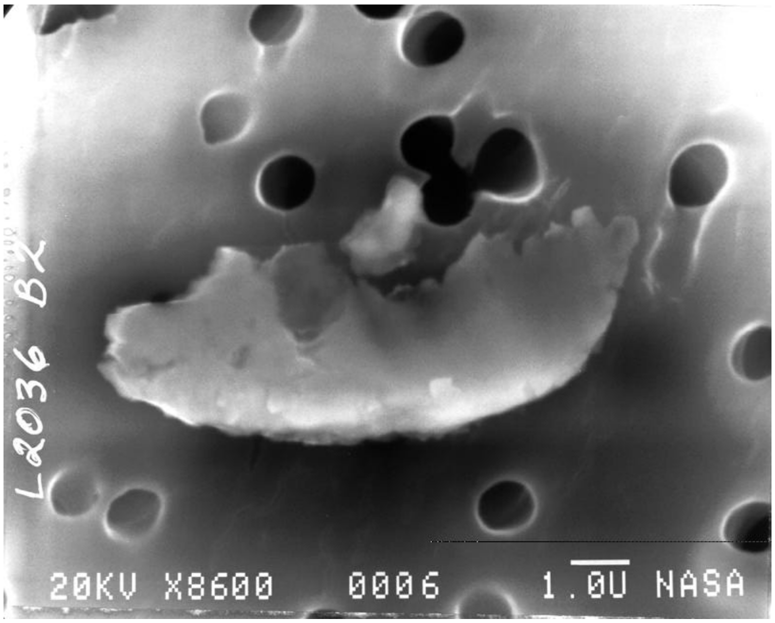
Luster: V

Type: C

Comments: Cluster 7, Related to L2036 B2

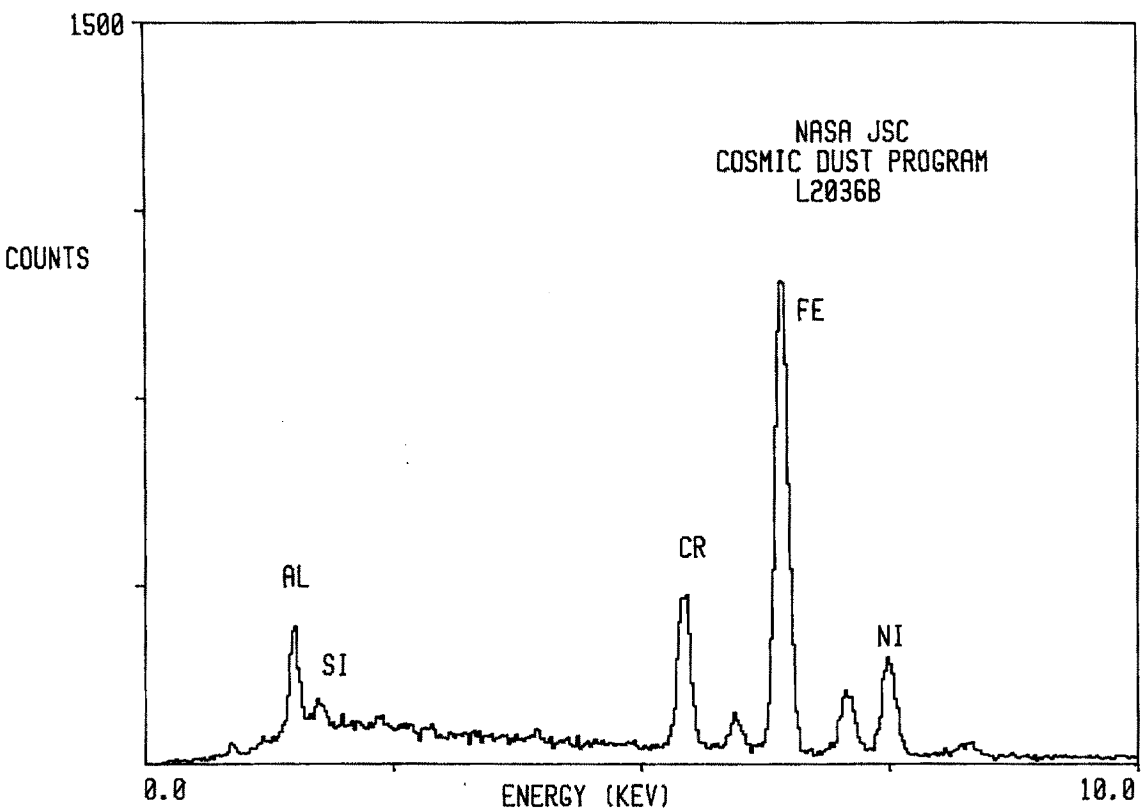


L2036B2

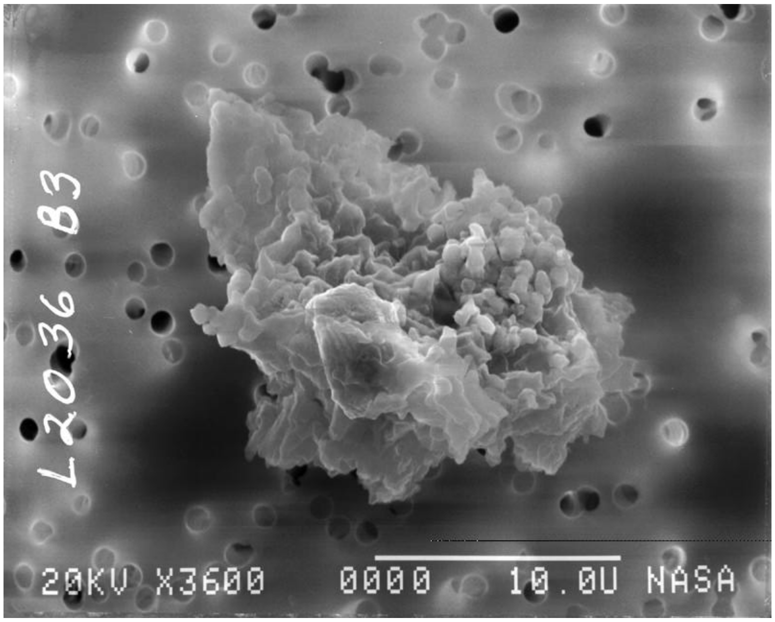


97E00014

Size: 9x3
Shape: I
Trans: T
Color: Colorless
Luster: V
Type: C
Comments: Cluster 7, Related to L2036 B1



L2036B3



97E00015

Size: 20x11

Shape: I

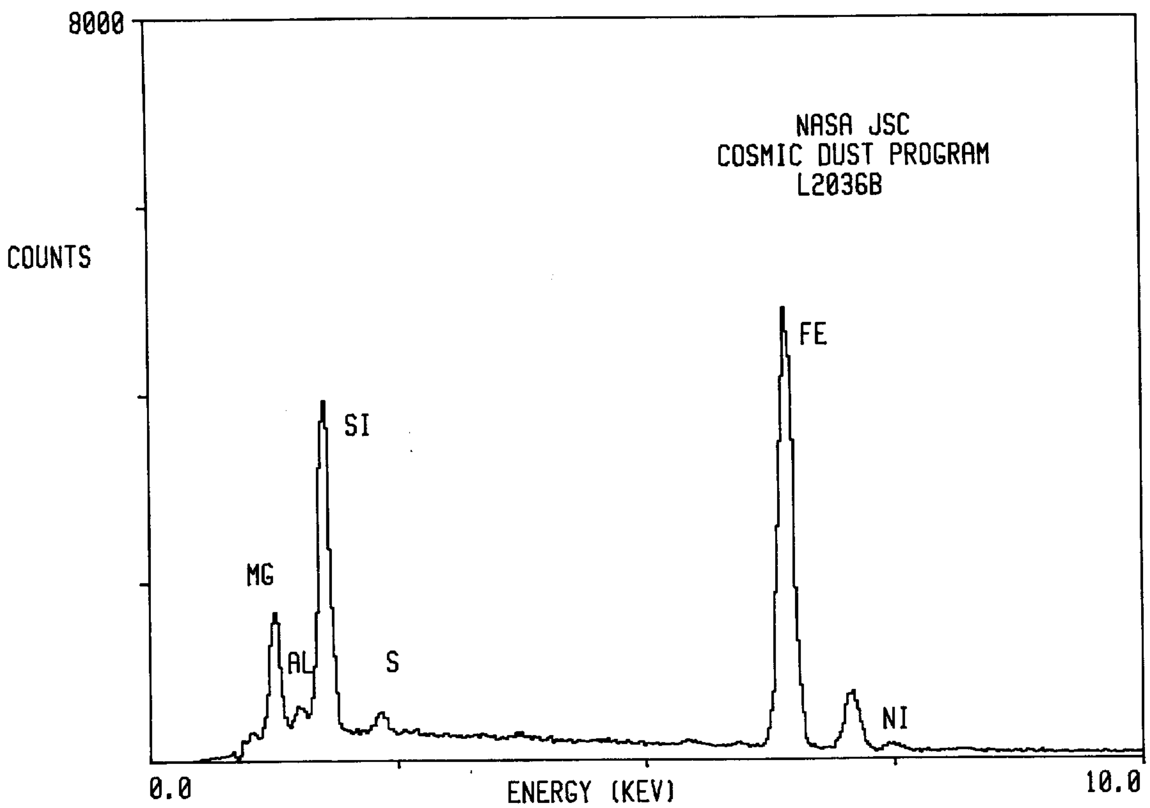
Trans: O

Color: Black-Colorless

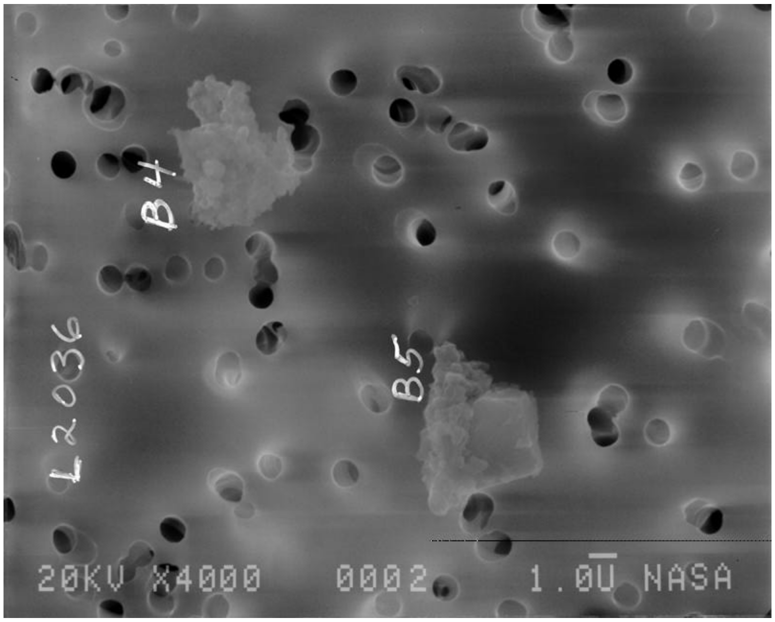
Luster: D/SV

Type: C

Comments: Cluster 9, Related to L2036 B4-B8

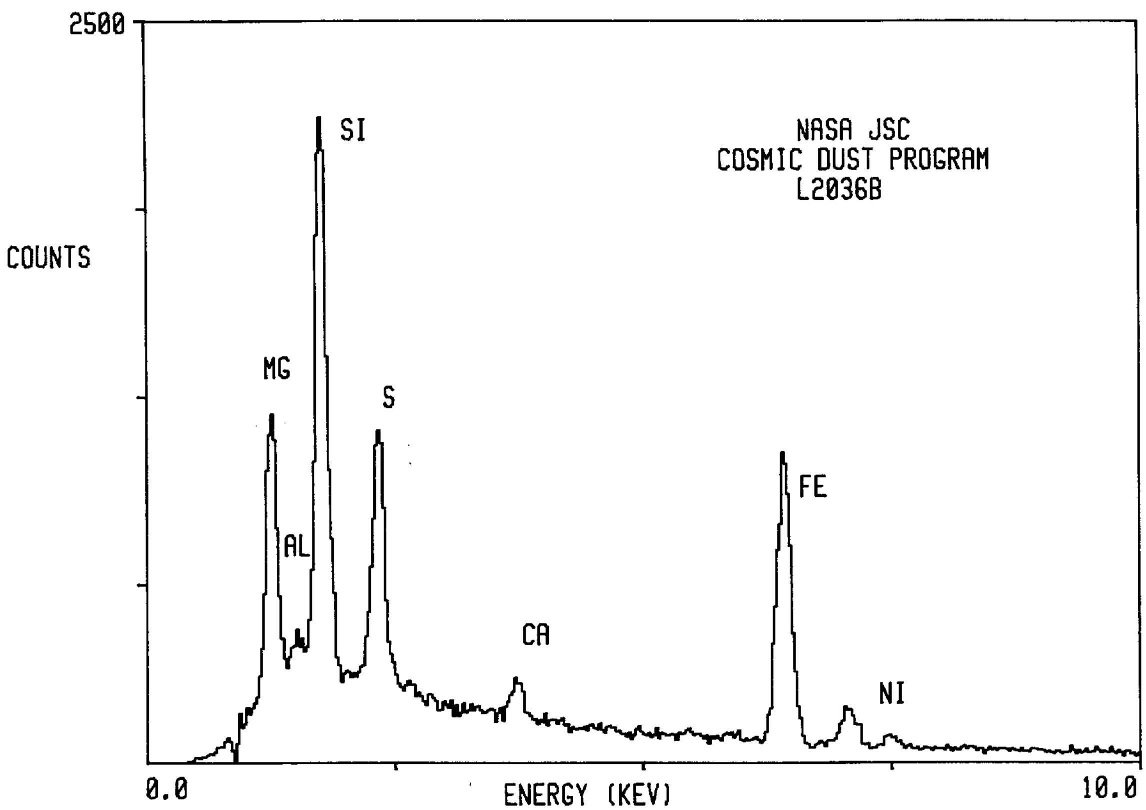


L2036B4

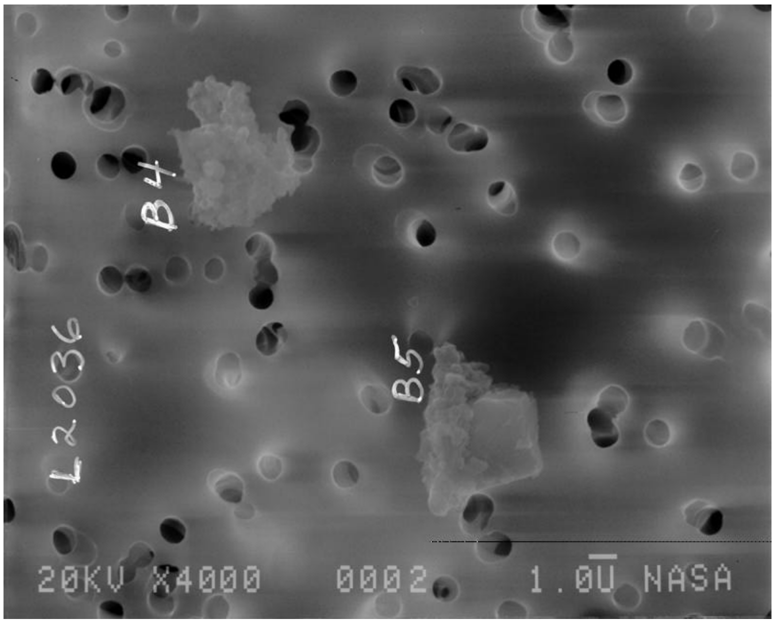


97E00016

Size:	5
Shape:	I
Trans:	O
Color:	Black-Colorless
Luster:	D
Type:	C
Comments:	Cluster 9, Related to L2036 B3, B5-B8



L2036B5



97E00017

Size: 5

Shape: I

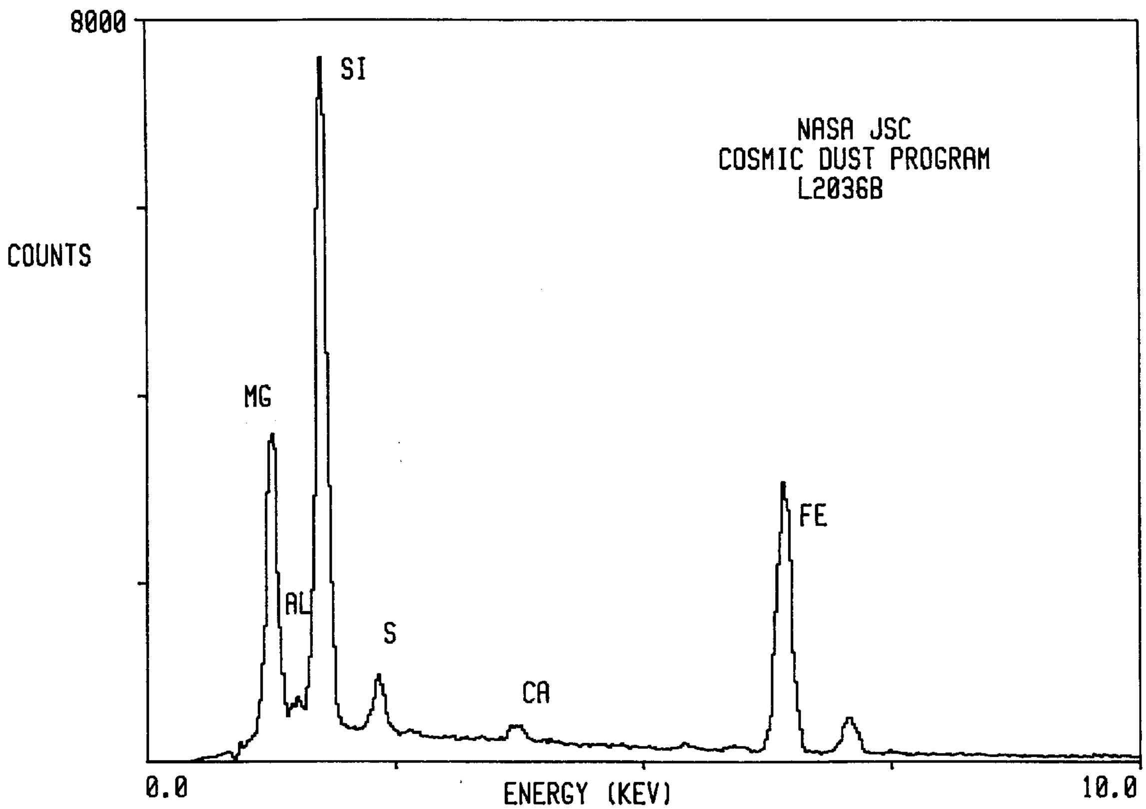
Trans: O

Color: Black-Colorless

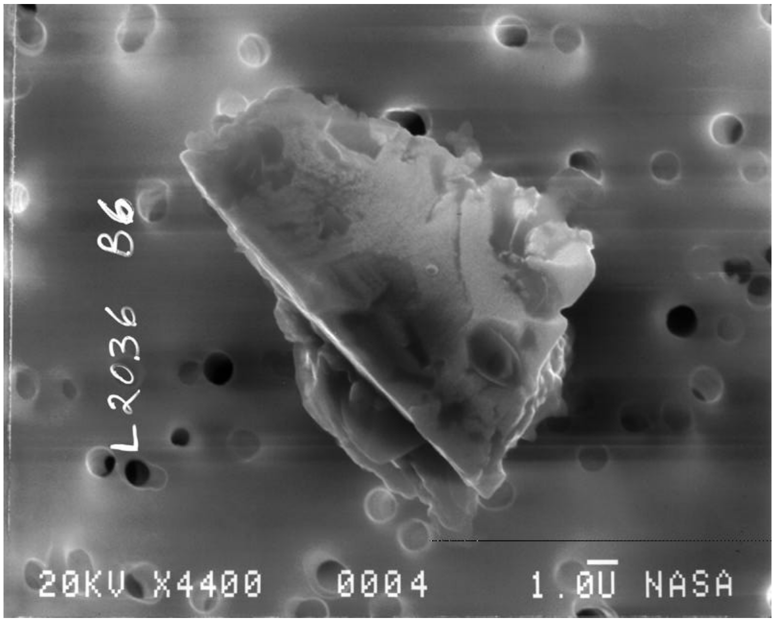
Luster: D

Type: C

Comments: Cluster 9, Related to L2036 B3-B4, B6-B8

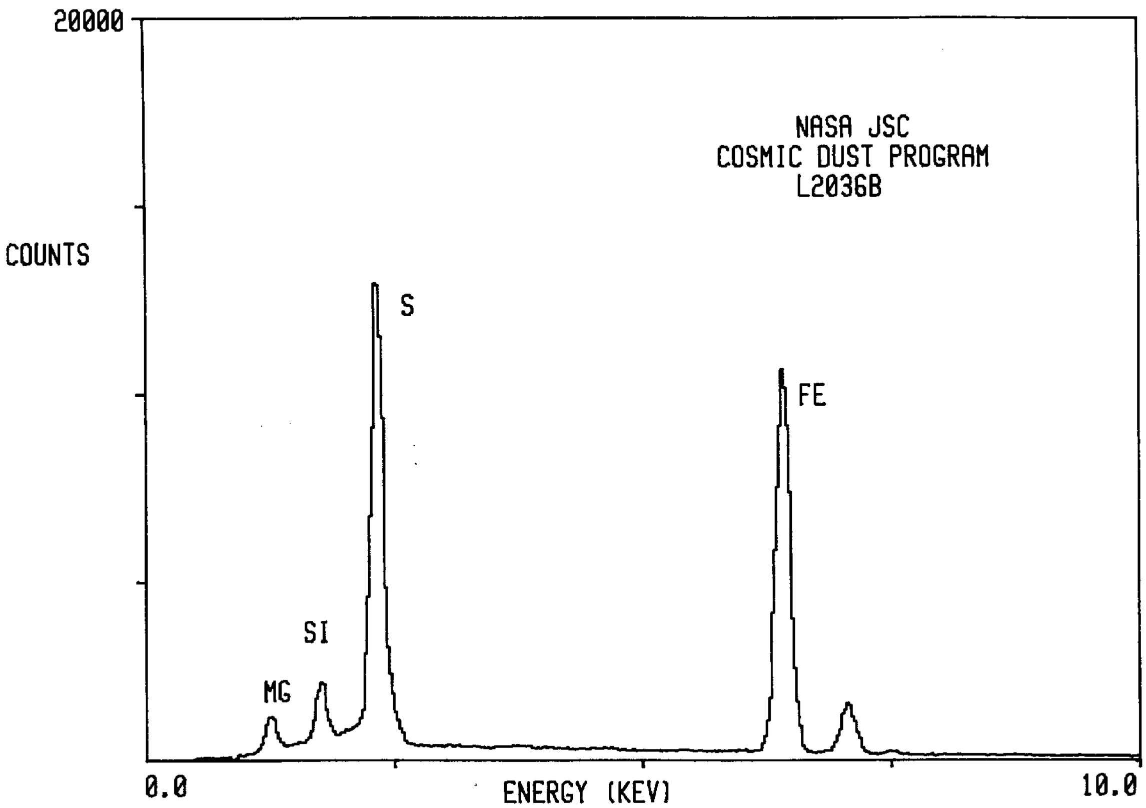


L2036B6

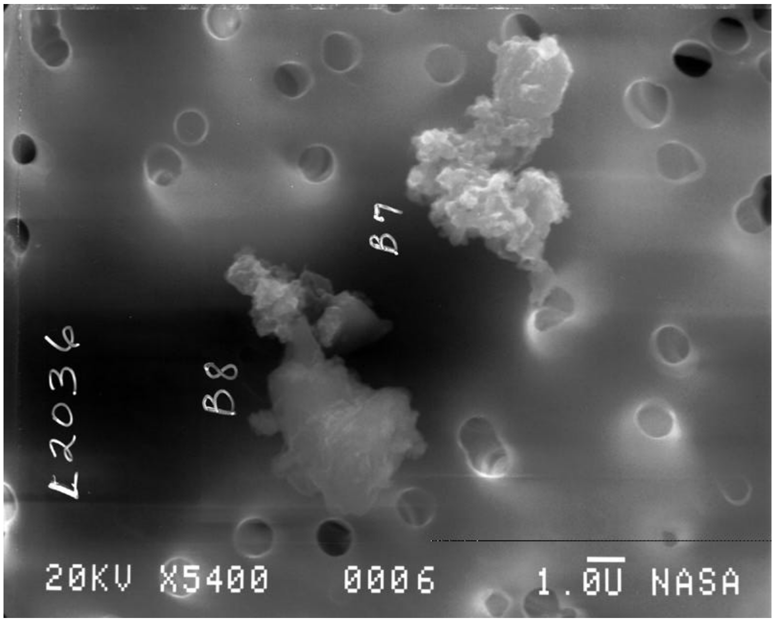


97E00018

Size: 5
Shape: I
Trans: O
Color: Black-Colorless
Luster: P
Type: C
Comments: Cluster 9, Related to L2036 B3-B5, B7-B8

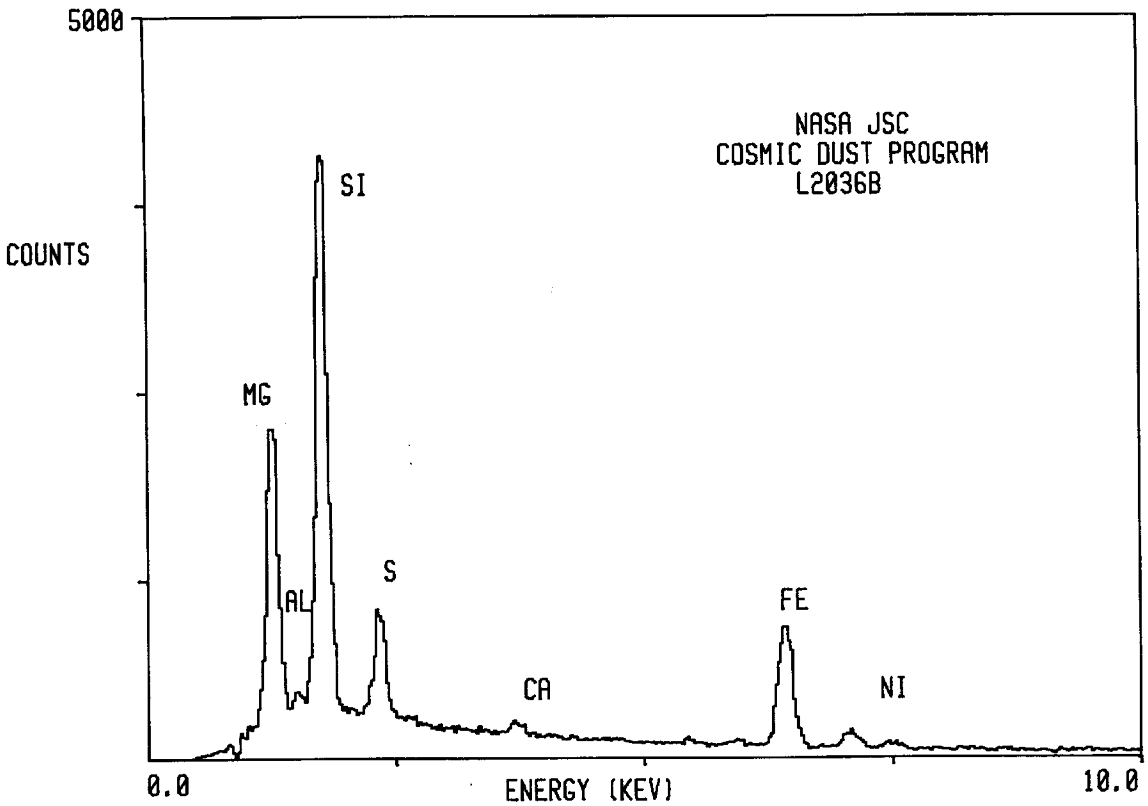


L2036B7

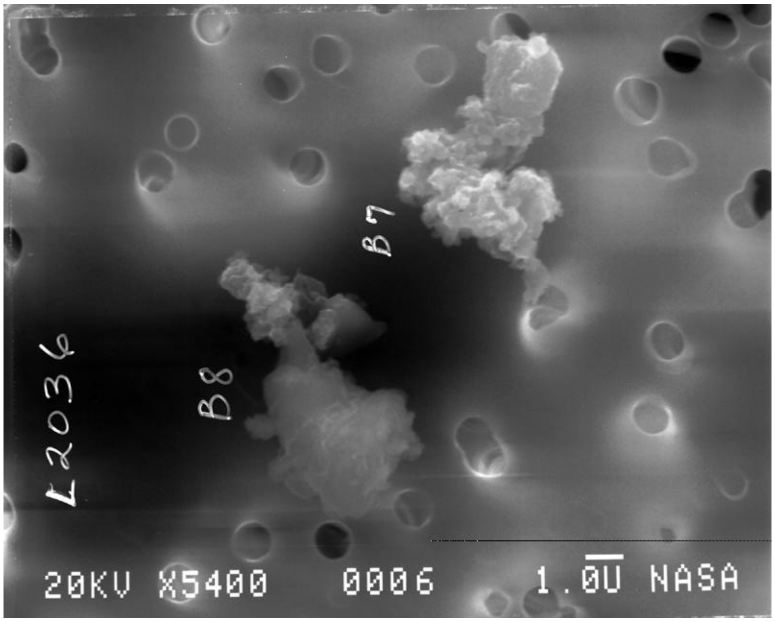


97E00019

Size:	6x3
Shape:	I
Trans:	O
Color:	Black-Colorless
Luster:	D/SV
Type:	C
Comments:	Cluster 9, Related to L2036 B3-B6, B8



L2036B8



97E00020

Size: 7x3

Shape: I

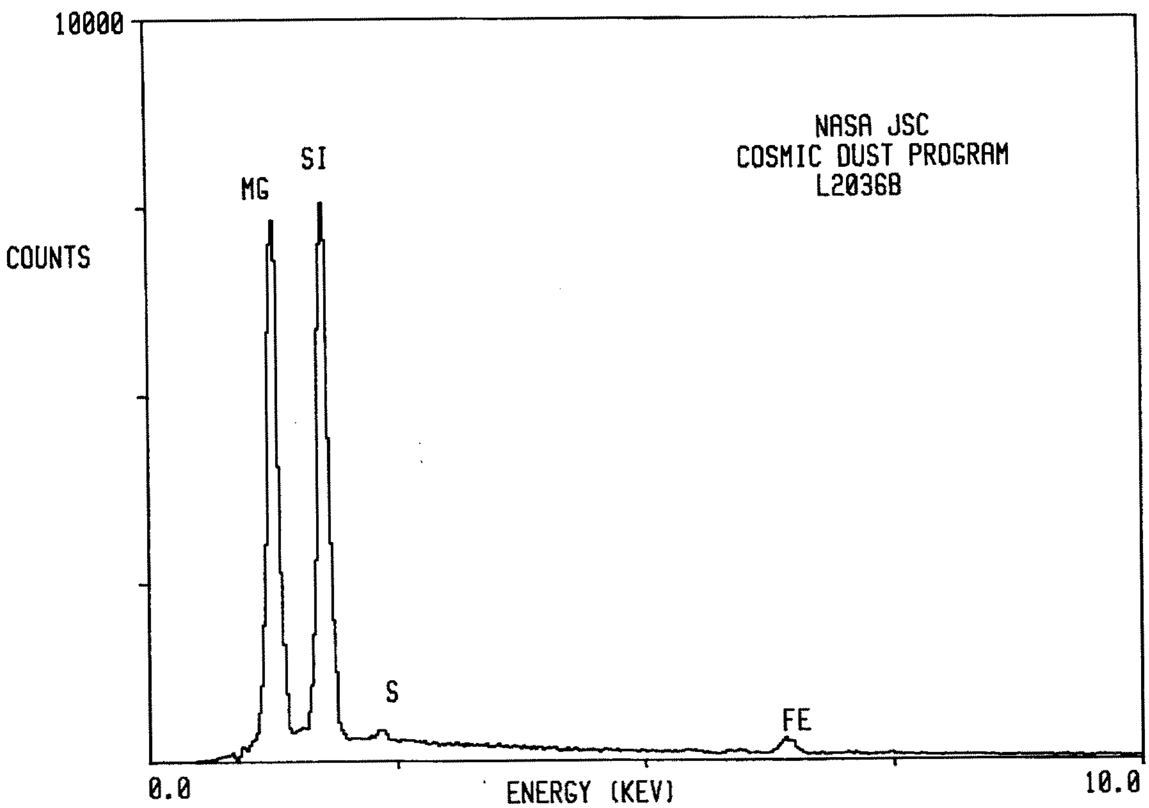
Trans: O

Color: Black-Colorless

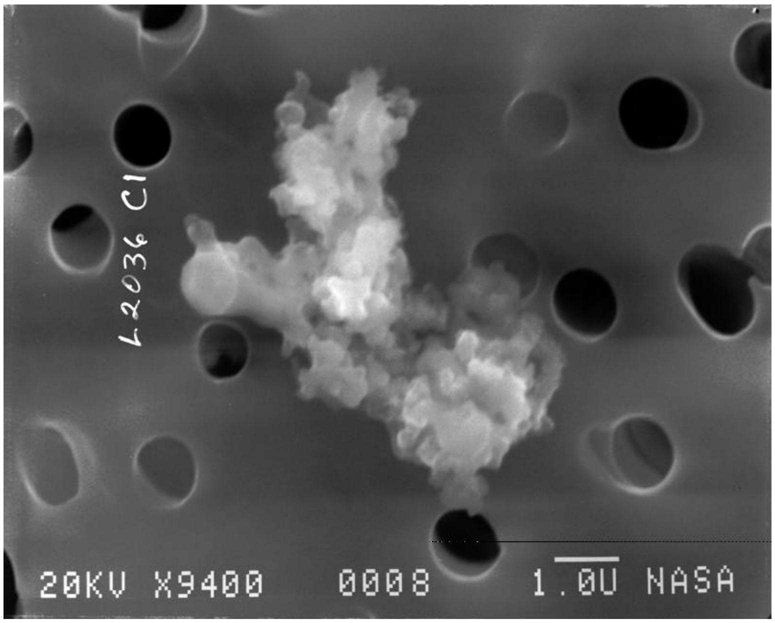
Luster: D/SV

Type: C

Comments: Cluster 9, Related to L2036 B3-B7



L2036C1



97E00021

Size: 6

Shape: I

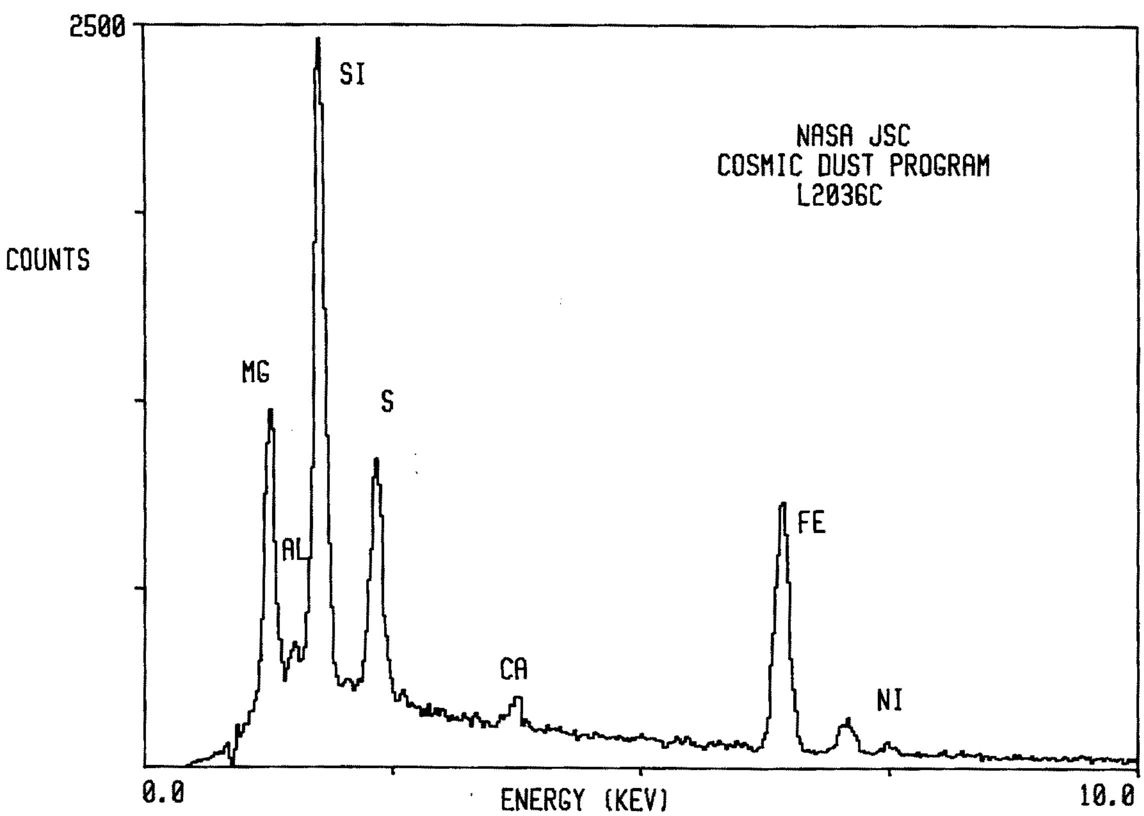
Trans: O

Color: Black-Colorless

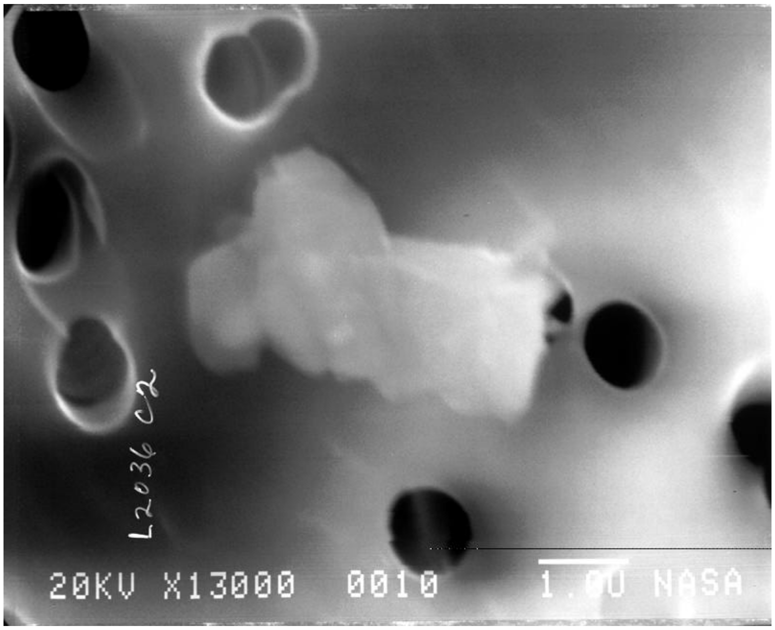
Luster: O/SV

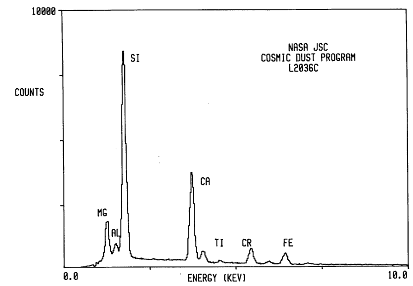
Type: C

Comments: Cluster 13



L2036C2





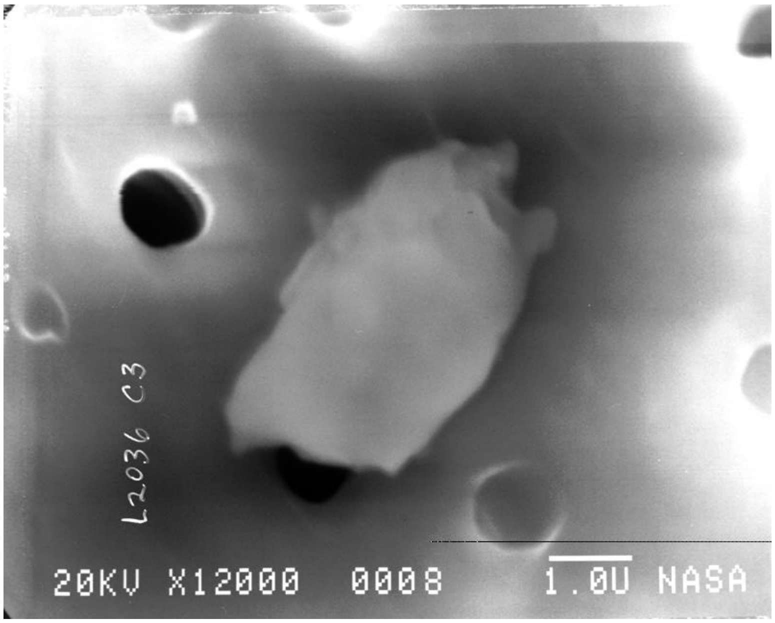
Size: 6x3

Shape: I

Trans: O

Color: Black-Colorless

L2036C3



97E00023

Size: 5x3

Shape: I

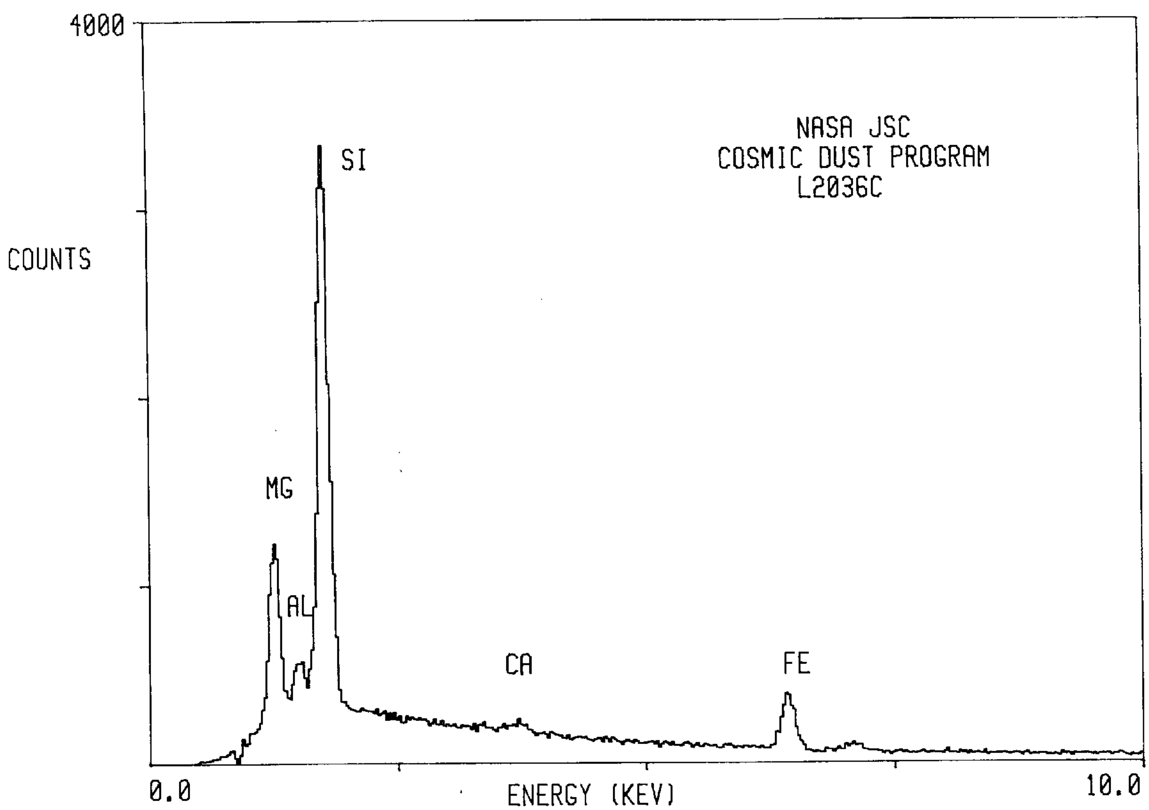
Trans: O

Color: Black-Colorless

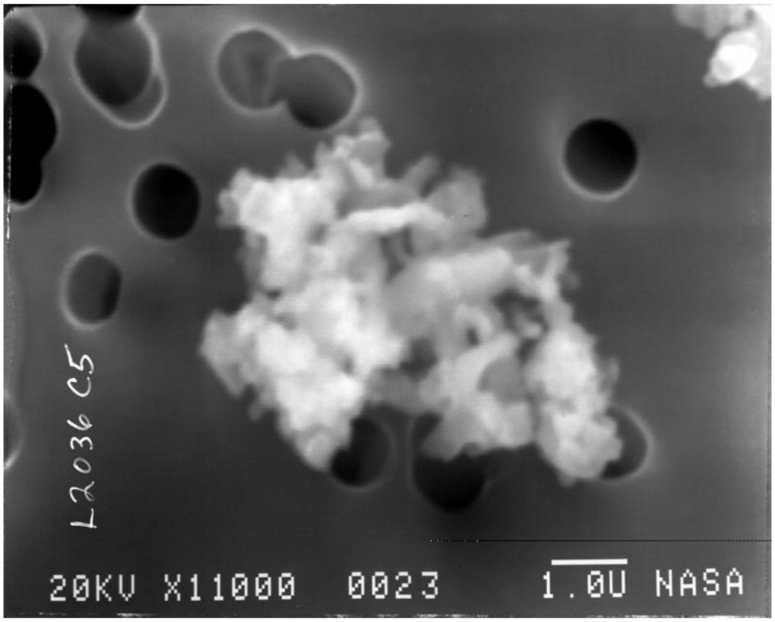
Luster: O/SV

Type: C?

Comments: Cluster 14, Related to L2036 C2



L2036C5



97E00025

Size: 5

Shape: I

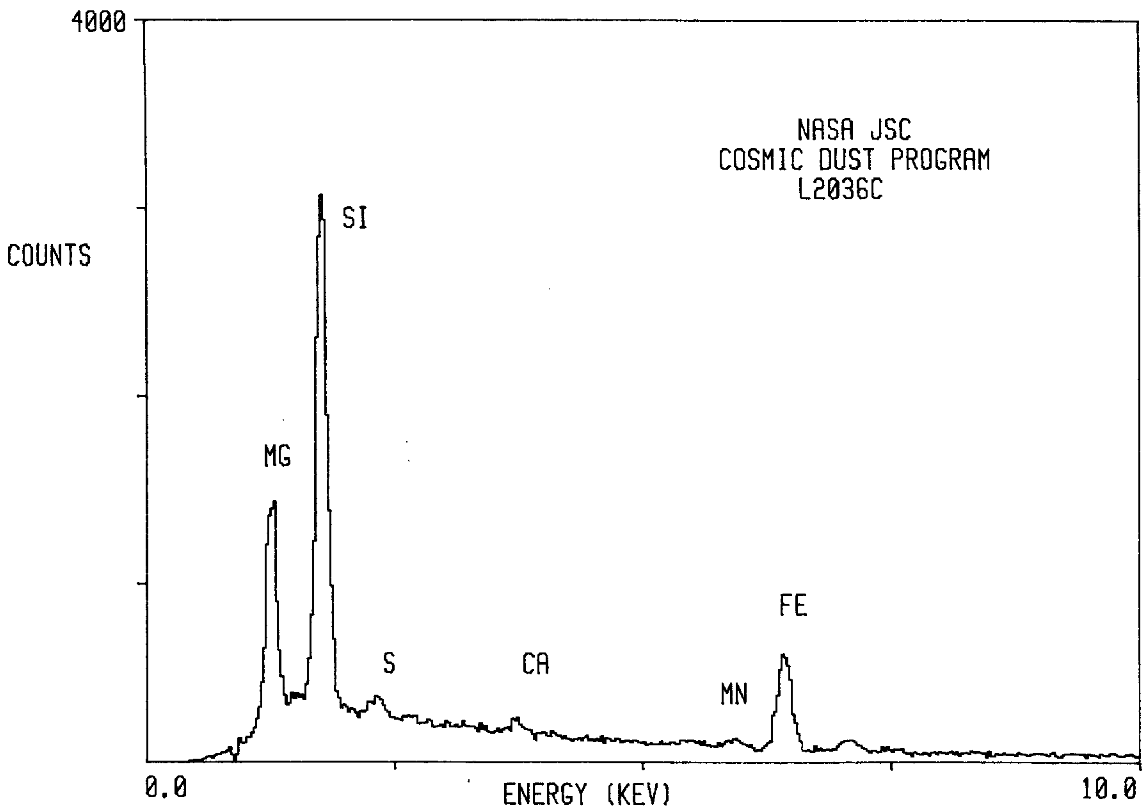
Trans: TL

Color: White

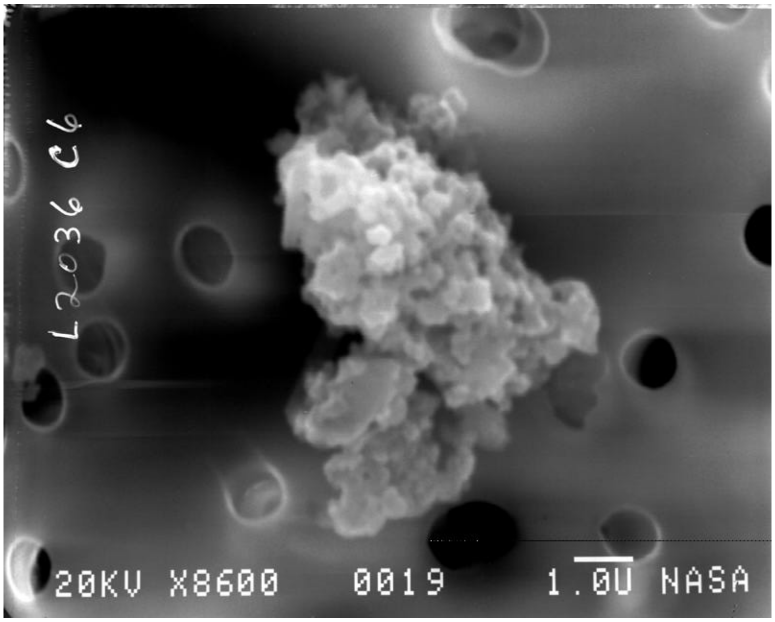
Luster: M

Type: C

Comments: Cluster 16, Related to L2036 C6

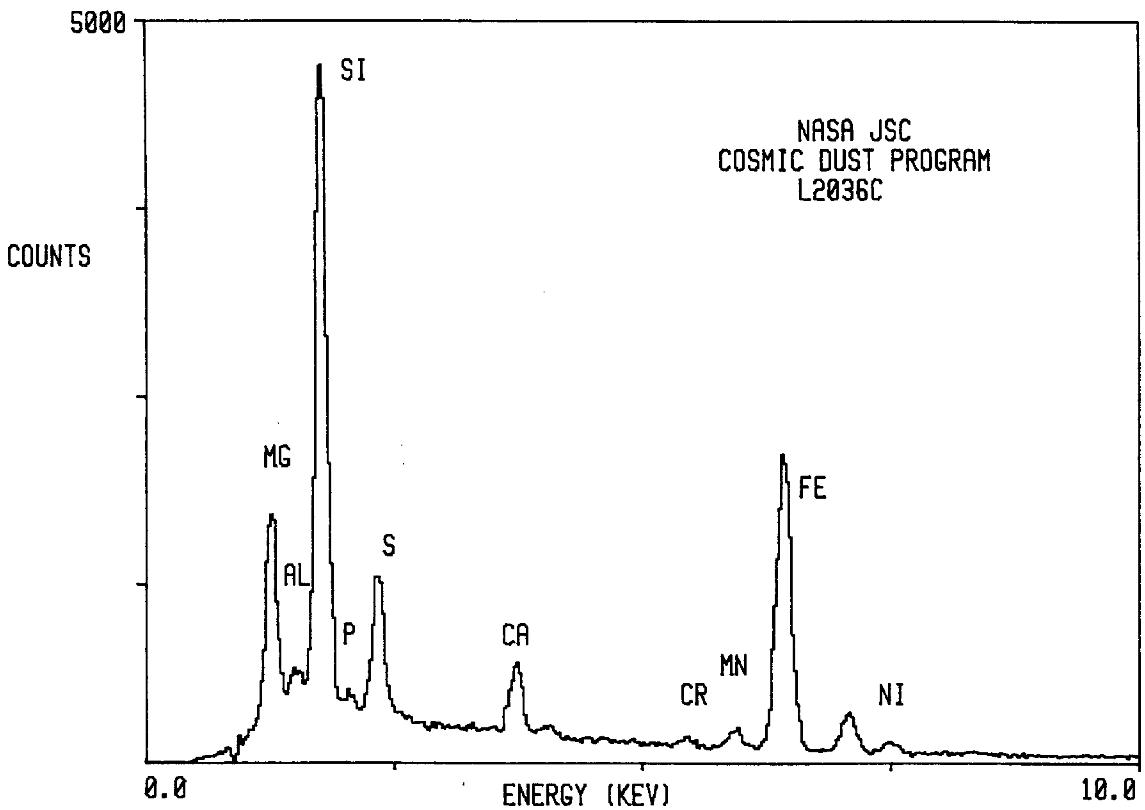


L2036C6

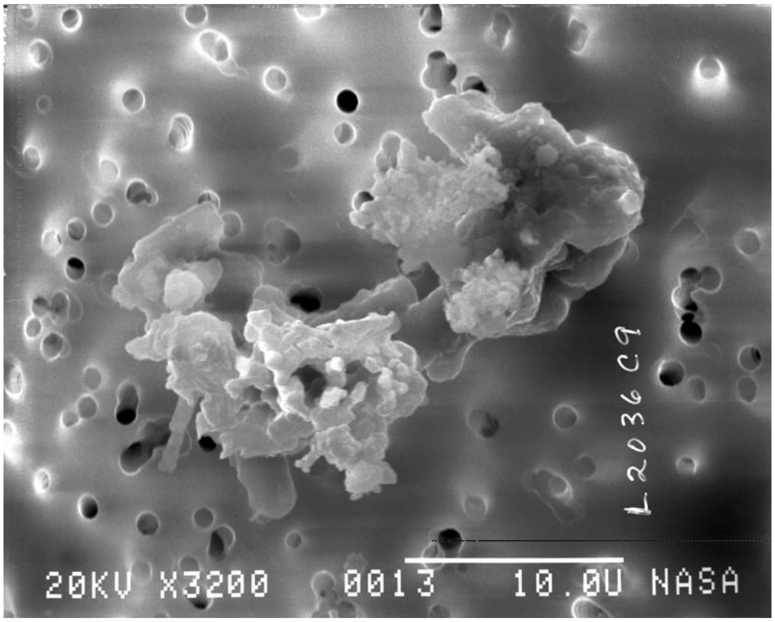


97E00026

Size: 5
Shape: I
Trans: TL
Color: White
Luster: M
Type: C
Comments: Cluster 16, Related to L2036 C5

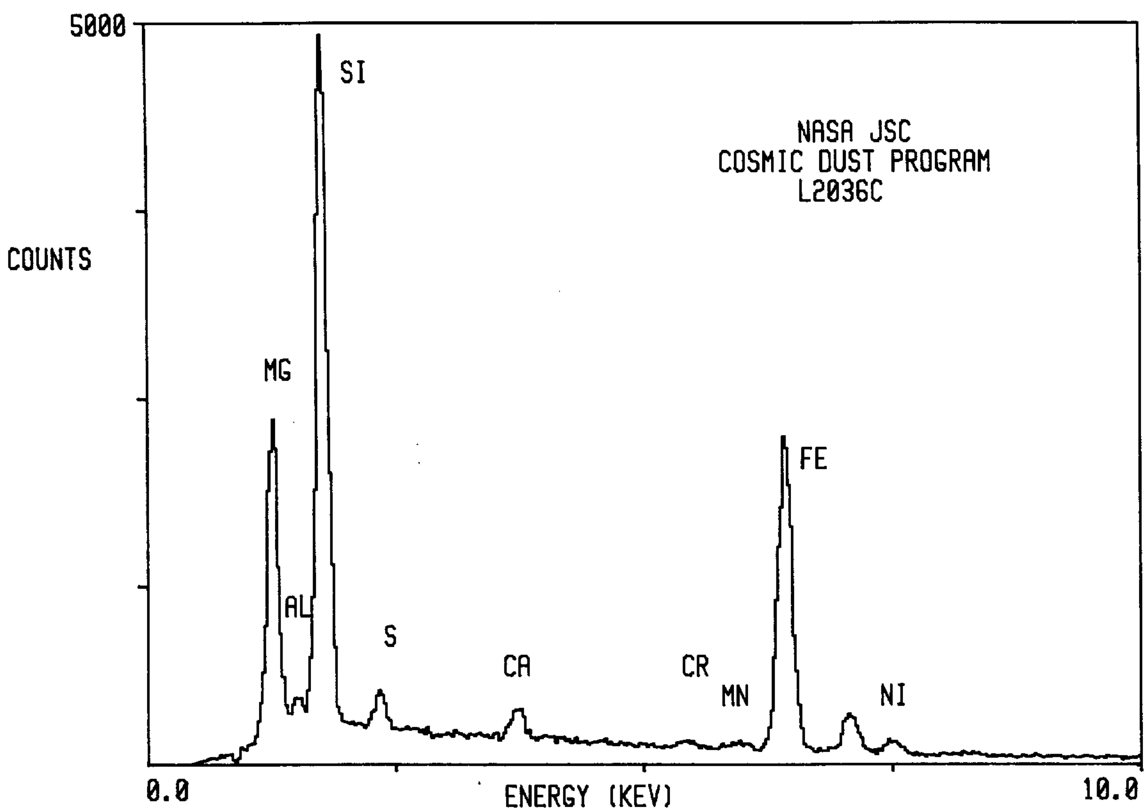


L2036C9

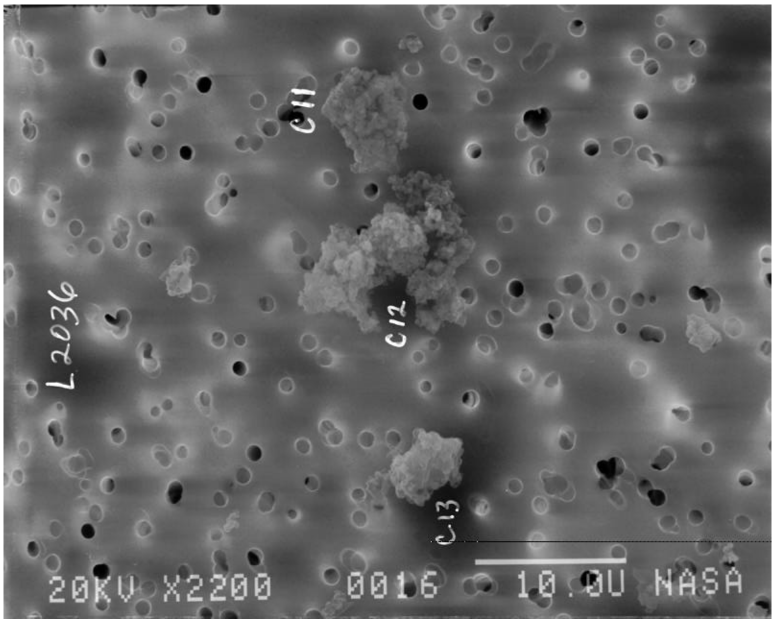


97E00029

Size:	22x11
Shape:	I
Trans:	O
Color:	Black
Luster:	D
Type:	C
Comments:	Cluster 17



L2036C11



97E00031

Size: 8x6

Shape: I

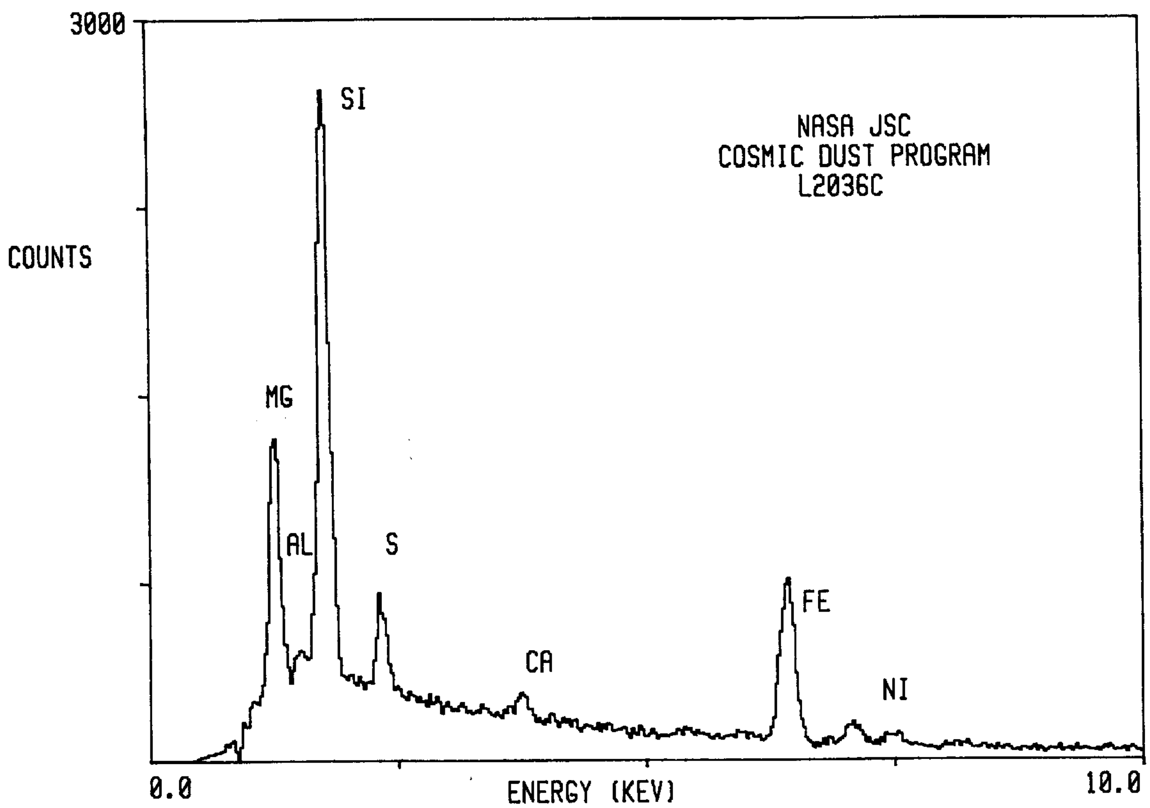
Trans: TL

Color: White

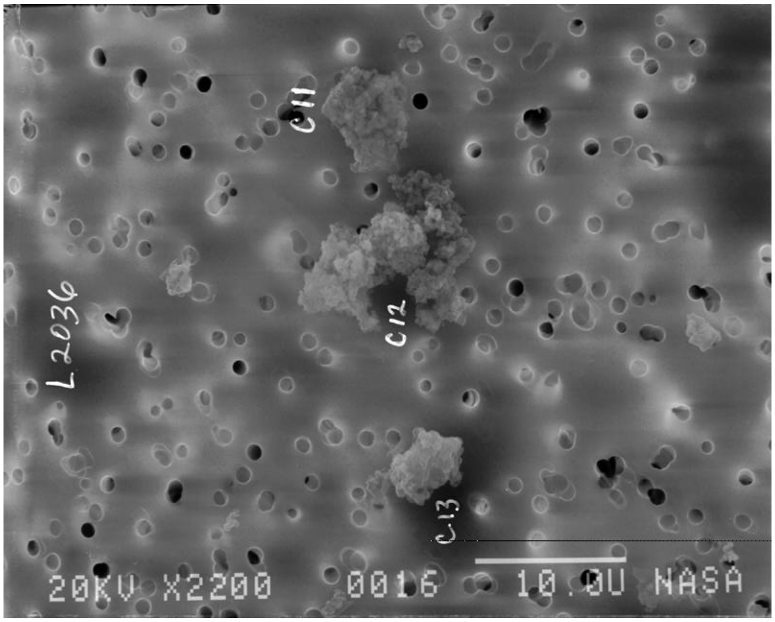
Luster: SV

Type: C

Comments: Cluster 18, Related to L2036 C12-C13



L2036C12



97E00032

Size: 10x9

Shape: I

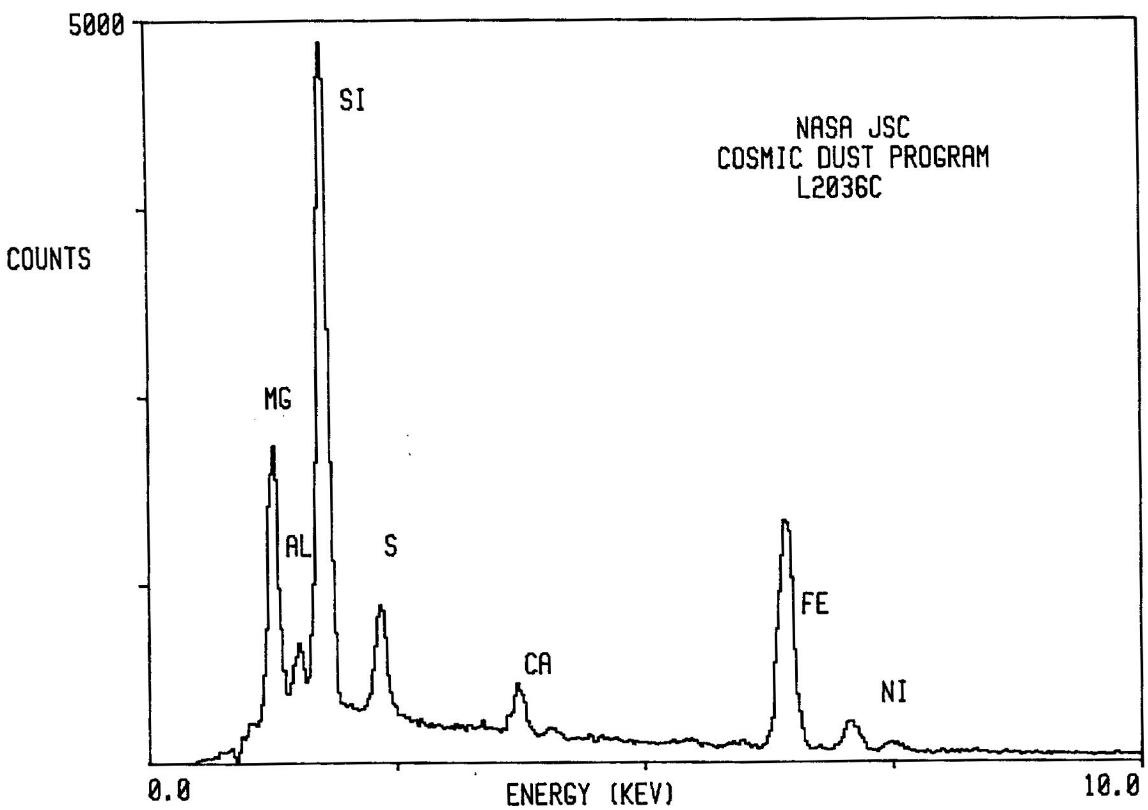
Trans: O/TL

Color: Black-Colorless

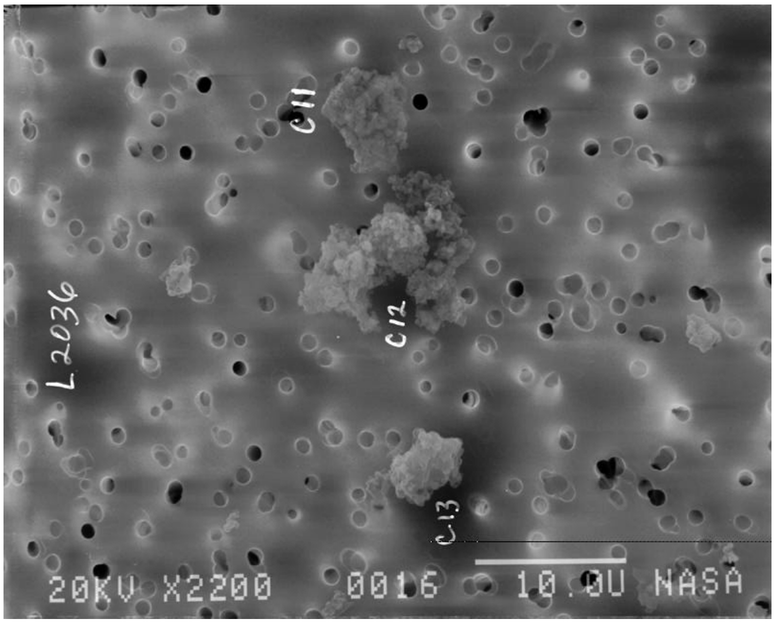
Luster: D

Type: C

Comments: Cluster 18, Related to L2036 C11, C13



L2036C13



97E00033

Size: 5x4

Shape: I

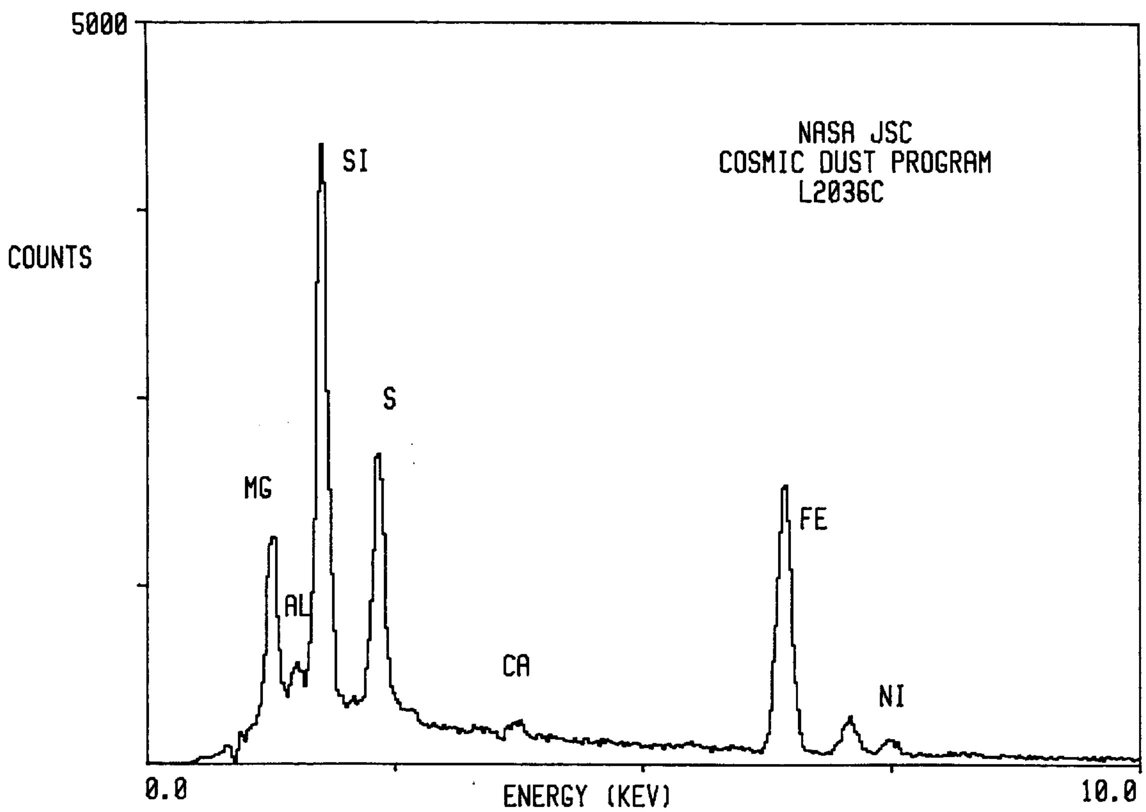
Trans: O

Color: Black

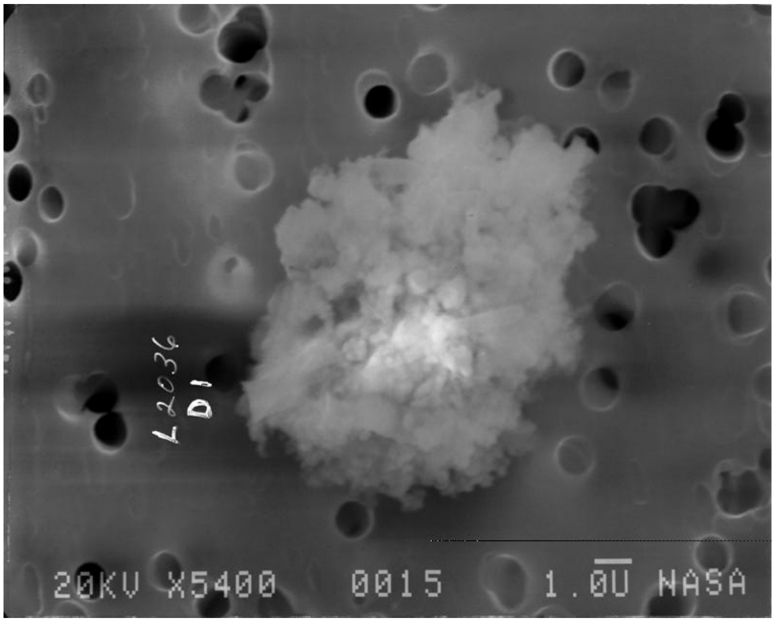
Luster: D

Type: C

Comments: Cluster 18, Related to L2036 C11-C12



L2036D1



97E00034

Size: 11

Shape: I

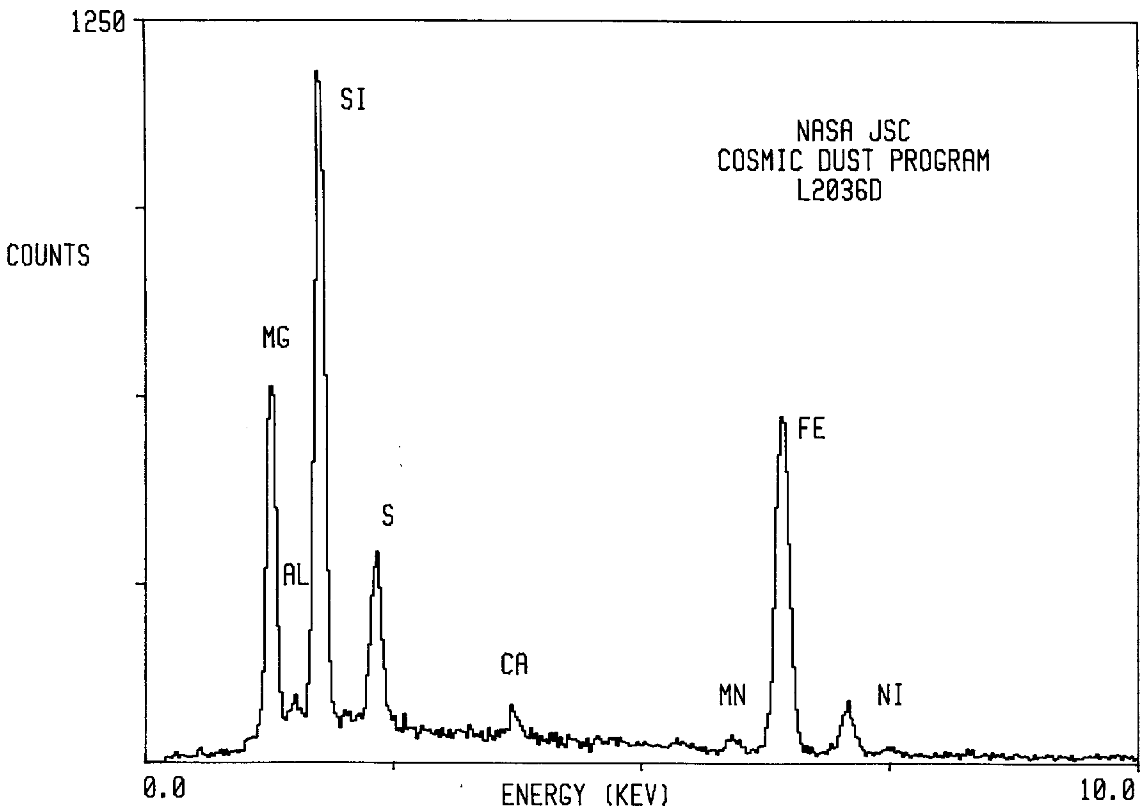
Trans: O

Color: Black-White

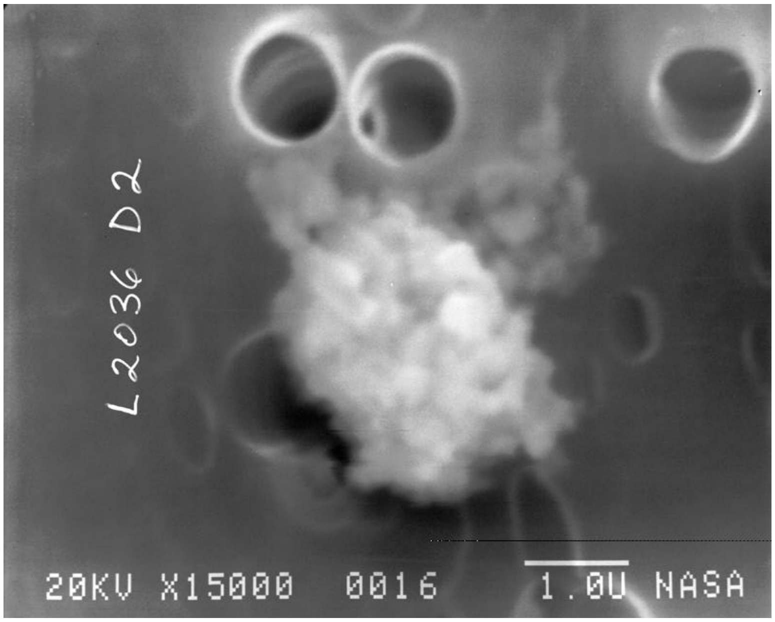
Luster: D

Type: C

Comments: Cluster 19, Related to L2036 D2



L2036D2



97E00035

Size: 4x2

Shape: I

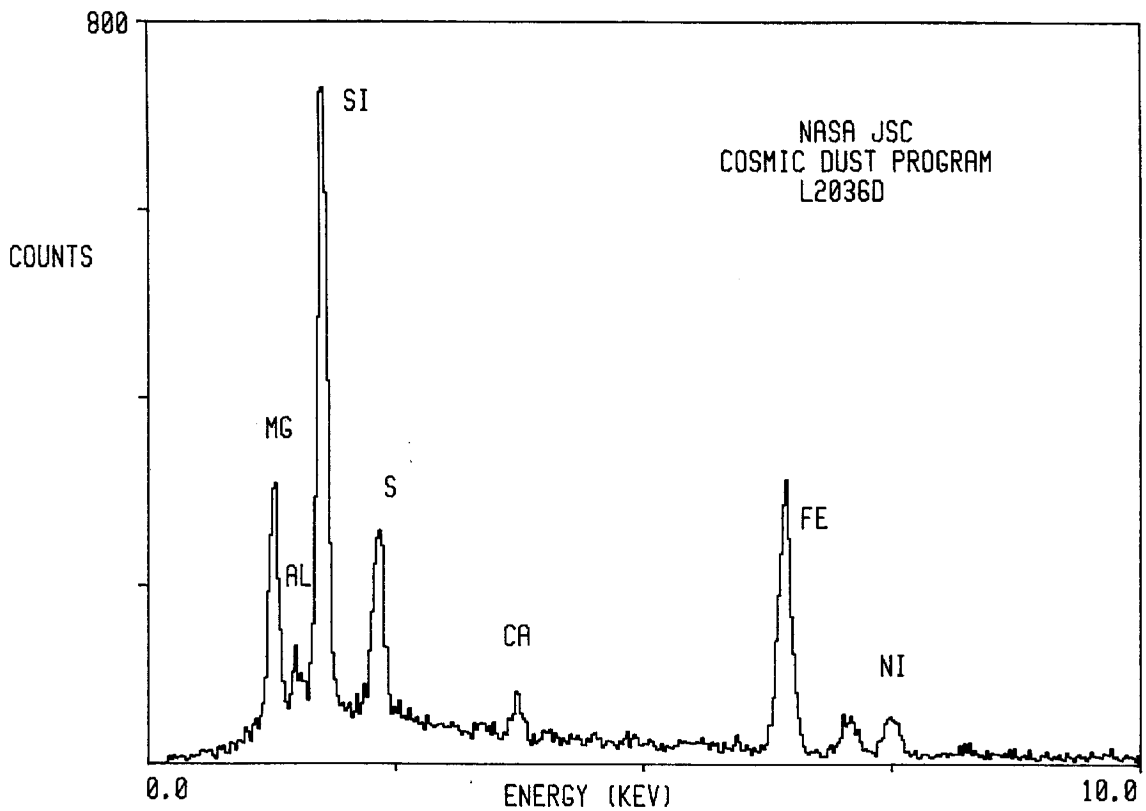
Trans: O

Color: Black

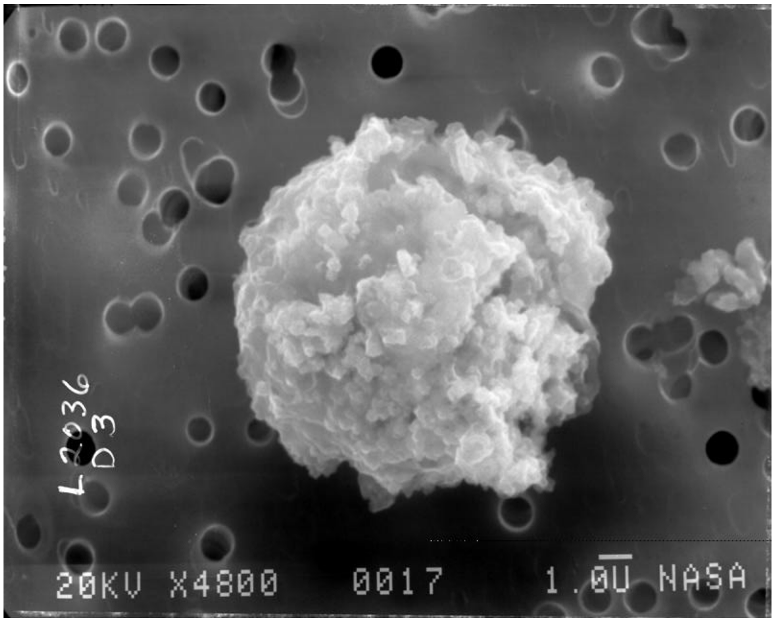
Luster: D

Type: C

Comments: Cluster 19, Related to L2036 D1



L2036D3



97E00036

Size: 11

Shape: E

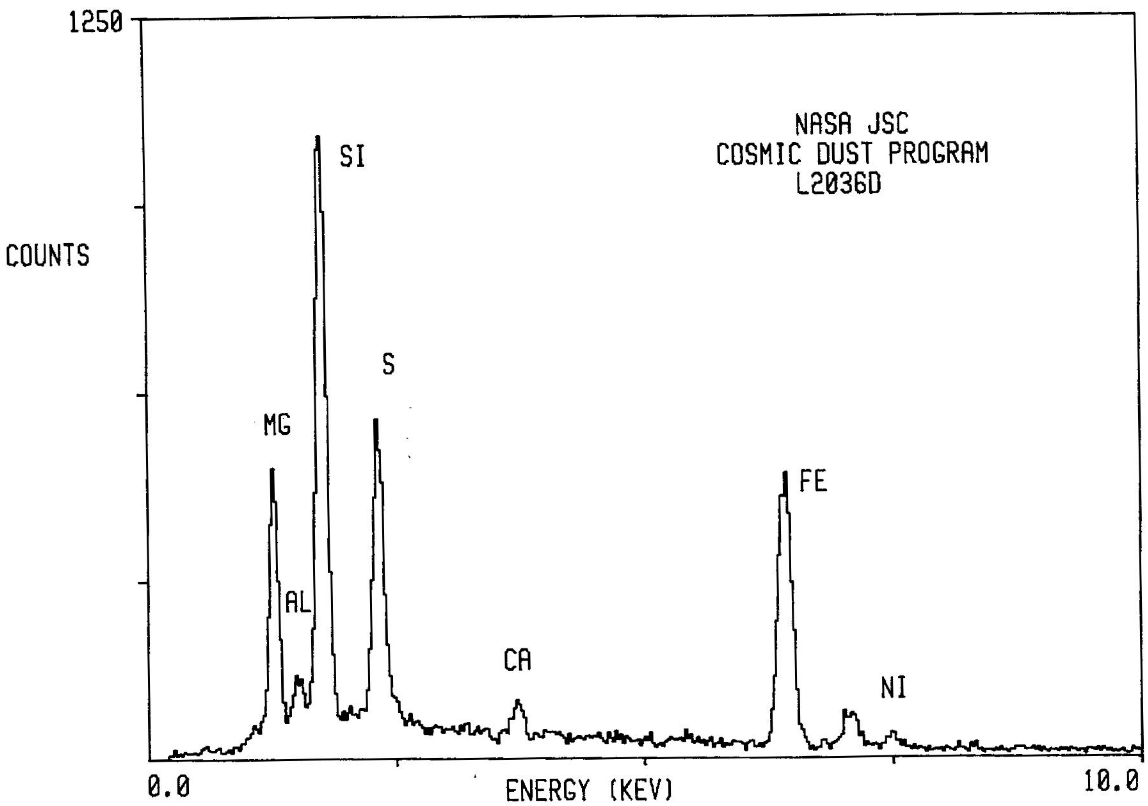
Trans: O

Color: Black

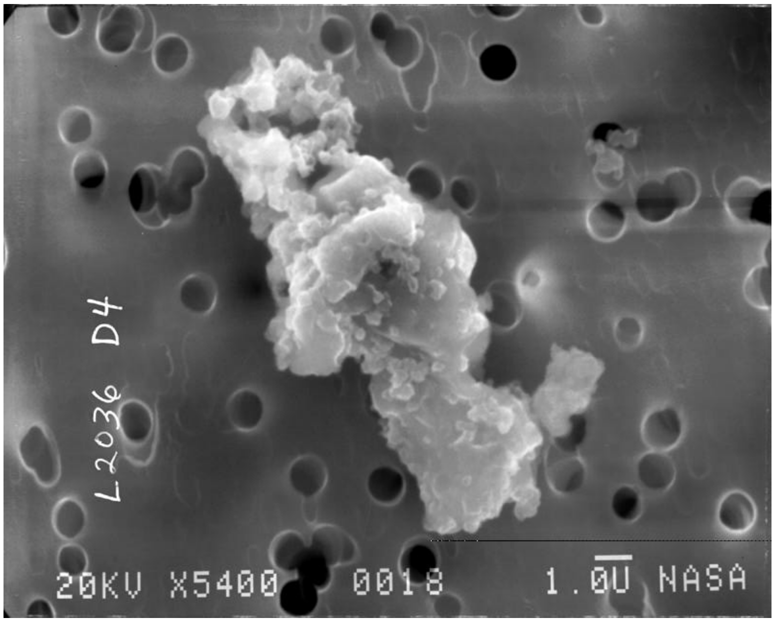
Luster: D

Type: C

Comments: Cluster 20, Related to L2036 D4-D5



L2036D4



97E00037

Size: 15x5

Shape: I

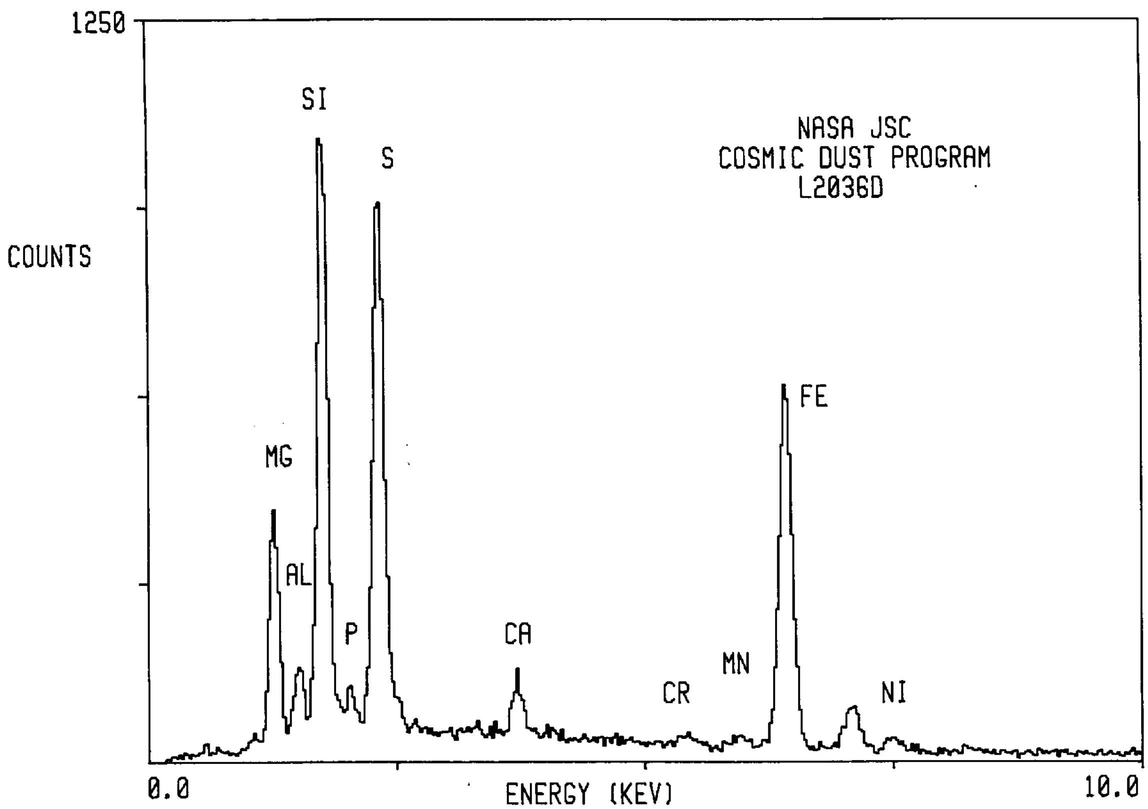
Trans: O

Color: Black

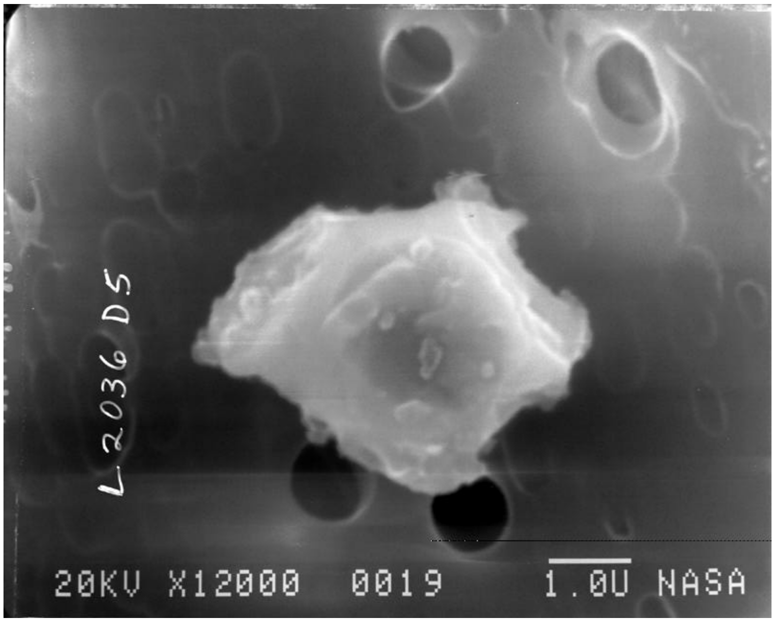
Luster: D

Type: C

Comments: Cluster 20, Related to L2036 D3, D5



L2036D5



97E00038

Size: 5

Shape: I

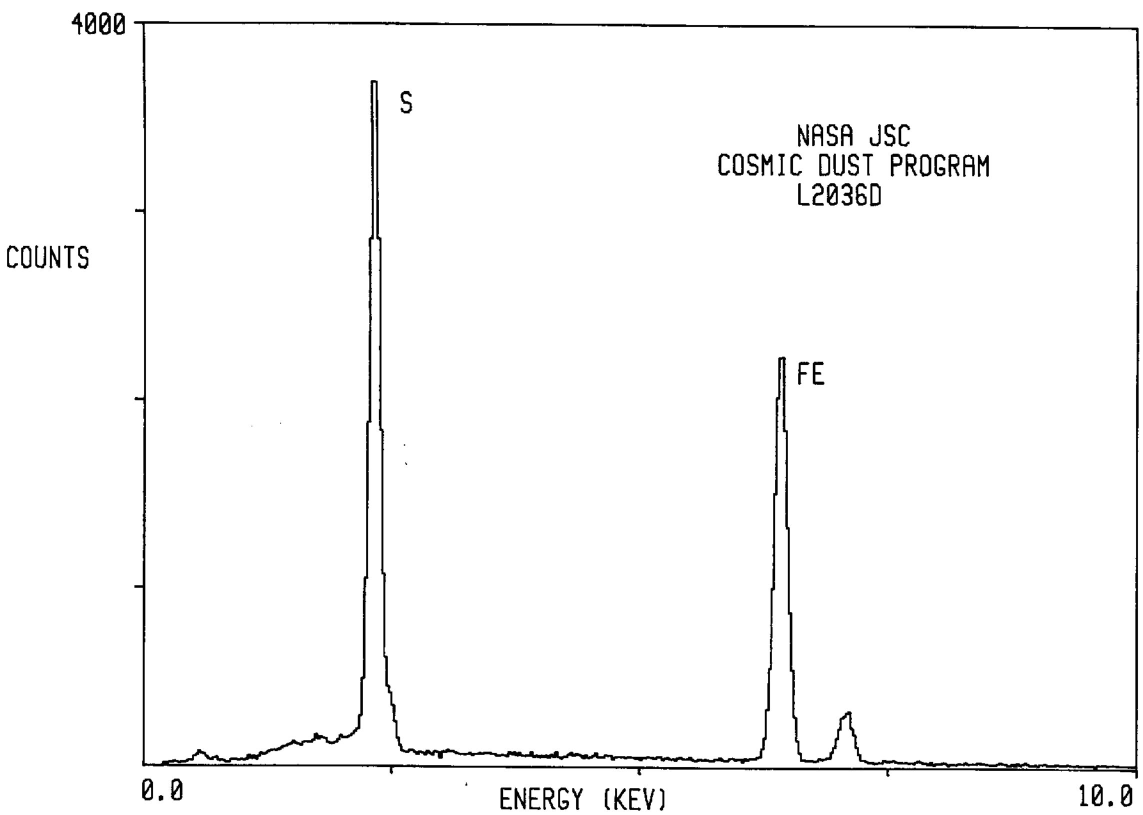
Trans: O

Color: Black

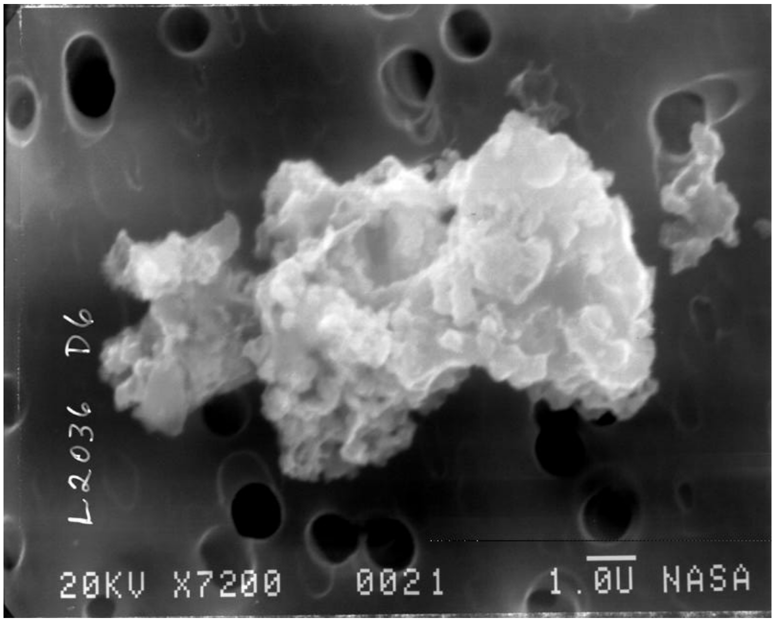
Luster: D

Type: C

Comments: Cluster 20, Related to L2036 D3-D4



L2036D6



97E00039

Size: 13x6

Shape: I

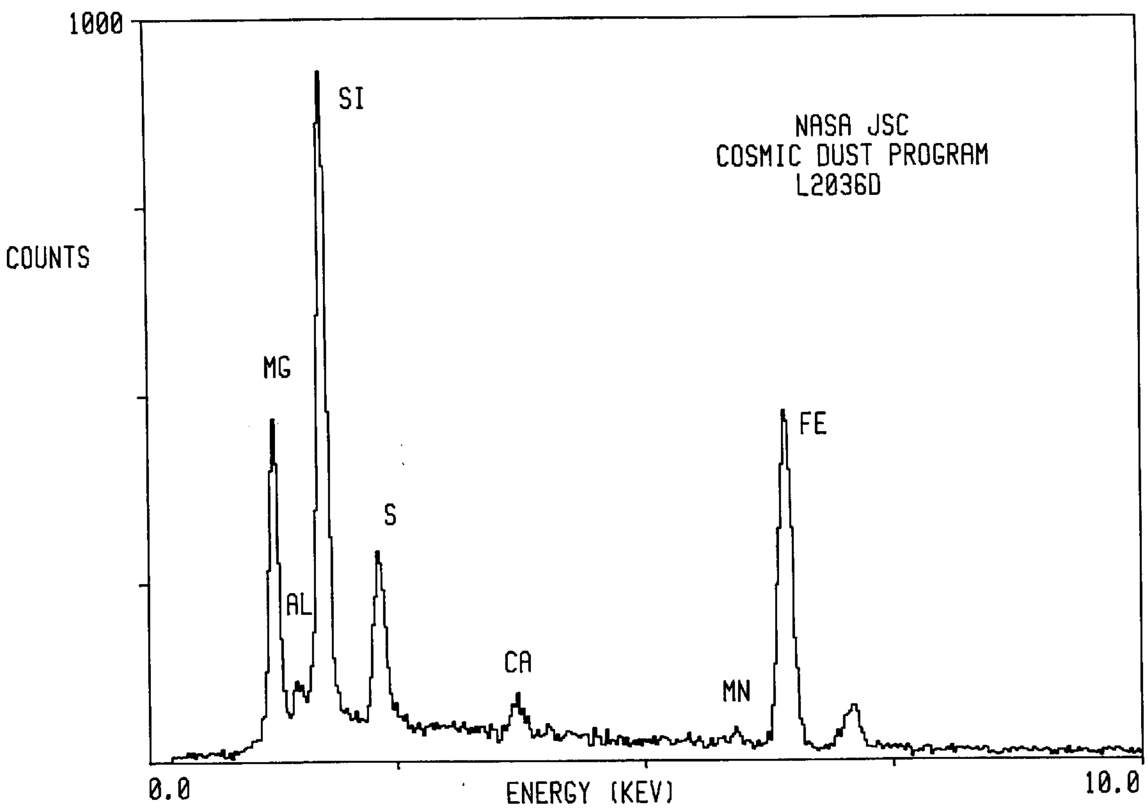
Trans: O/TL

Color: Black-Brown

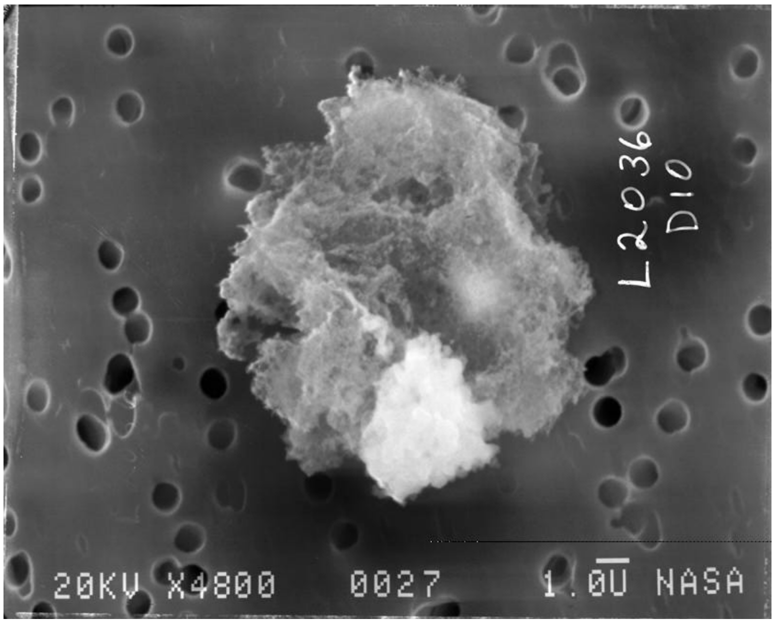
Luster: P/SV

Type: C

Comments: Cluster 21



L2036D10



97E00043

Size: 11

Shape: E

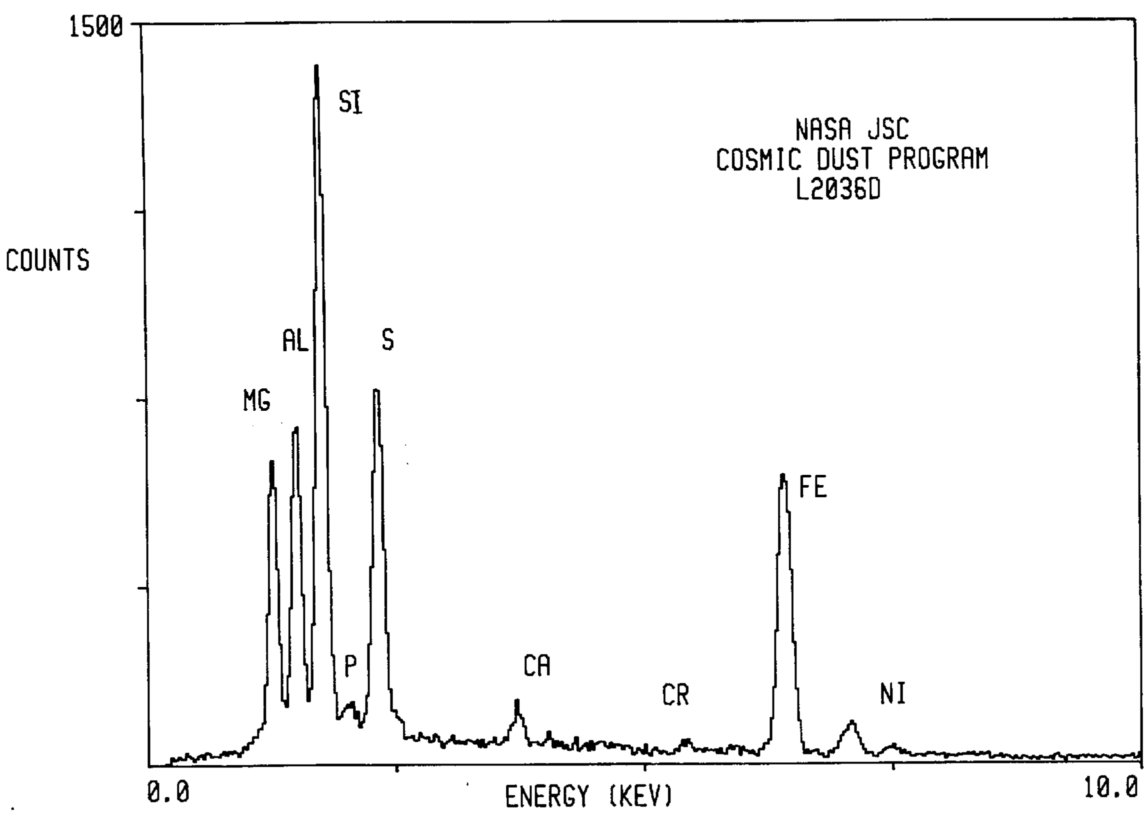
Trans: O

Color: Black

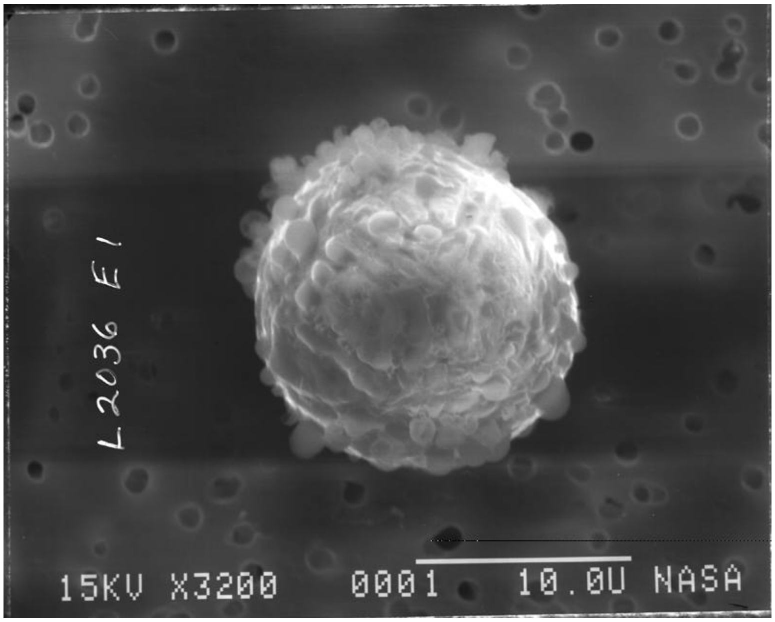
Luster: D

Type: C

Comments: Cluster 24, Light area is rich in Al



L2036E1



97E00044

Size: 15

Shape: S

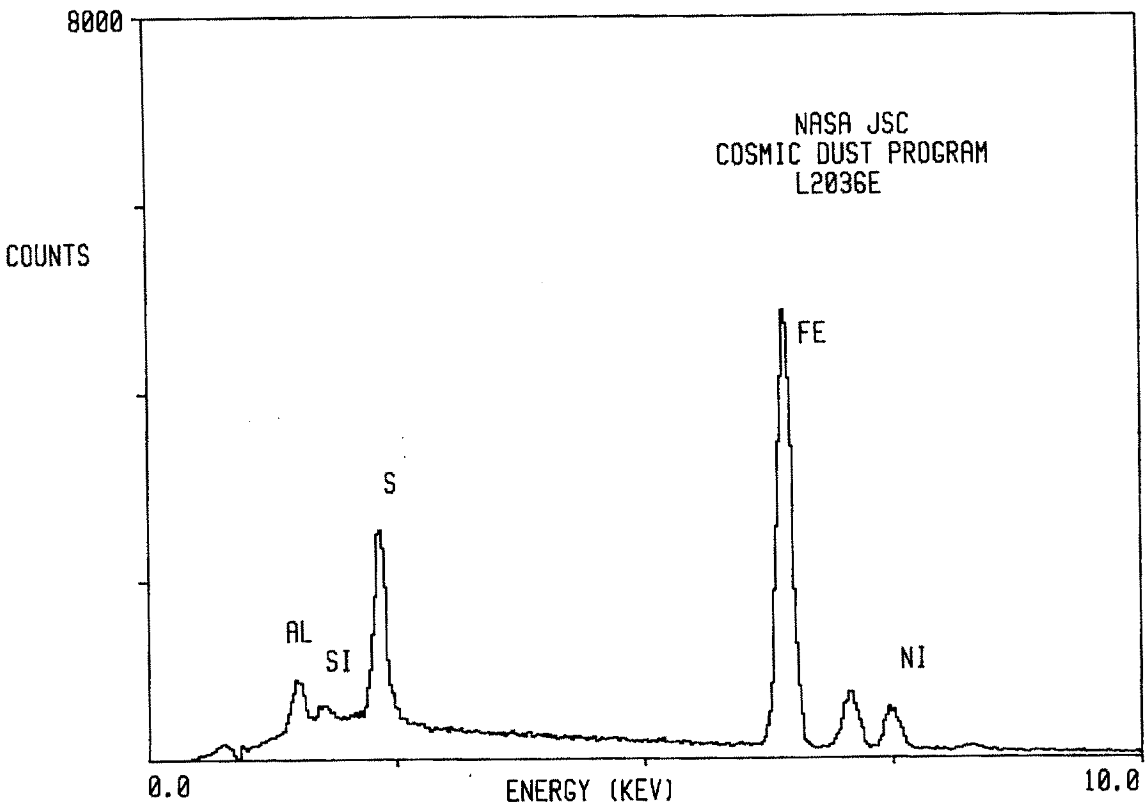
Trans: O

Color: Black

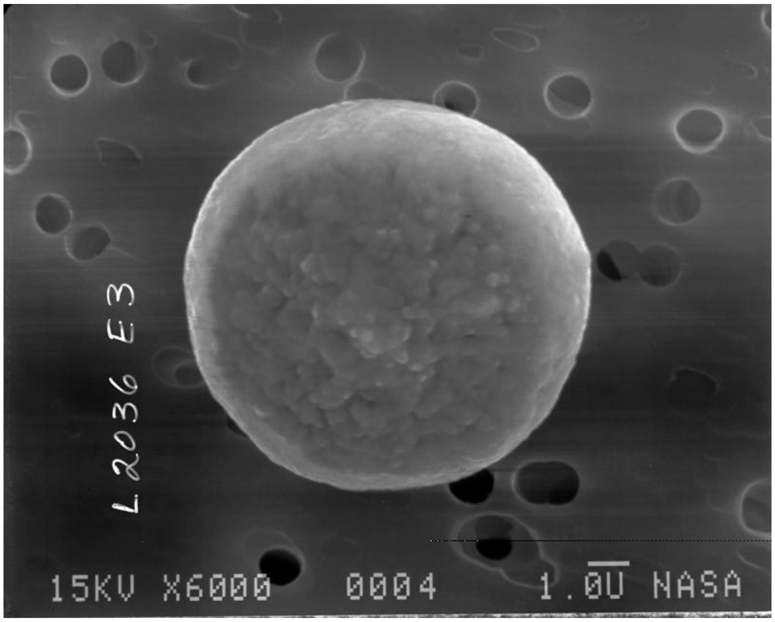
Luster: D

Type: C

Comments:



L2036E3



97E00046

Size: 8

Shape: S

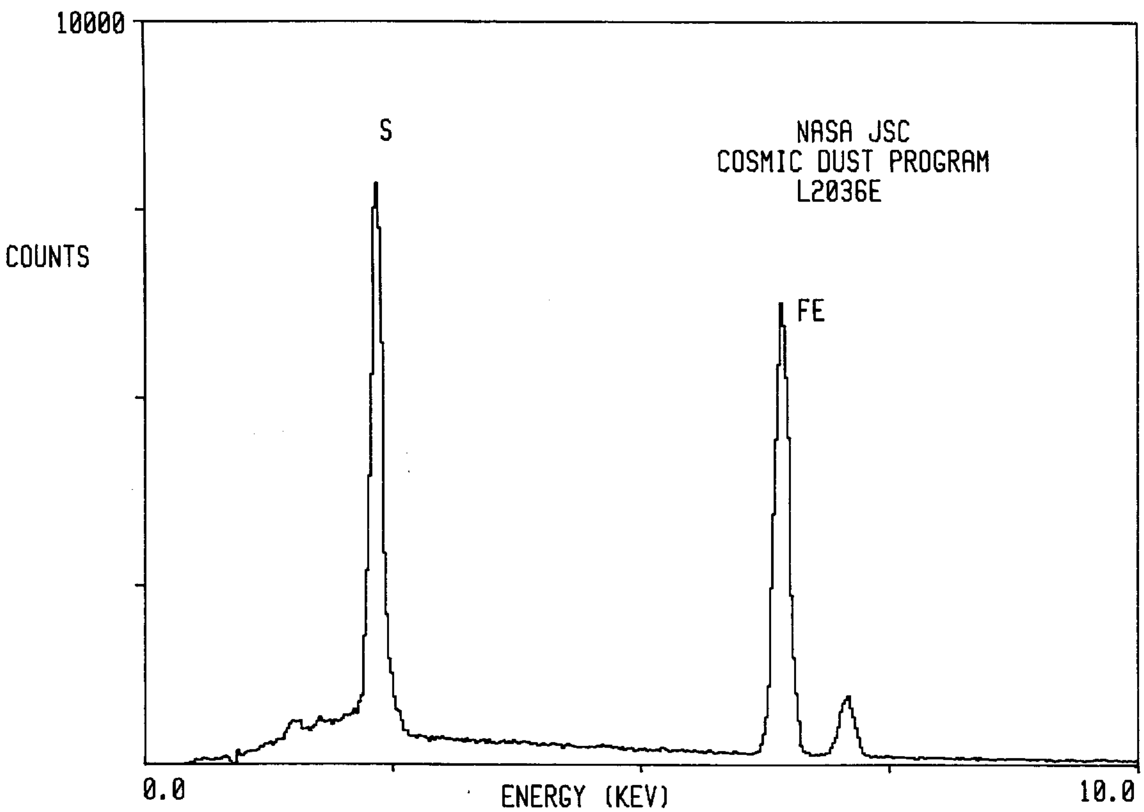
Trans: O

Color: Black

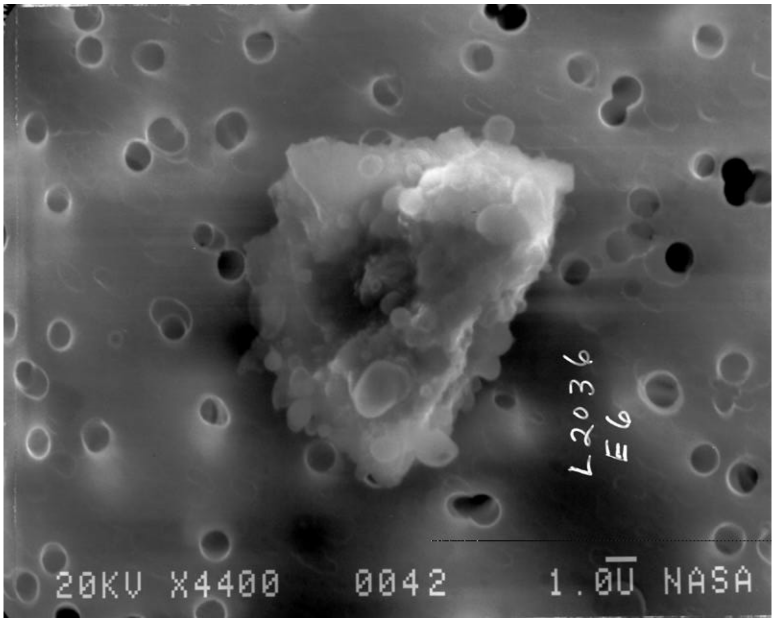
Luster: P

Type: C?

Comments:

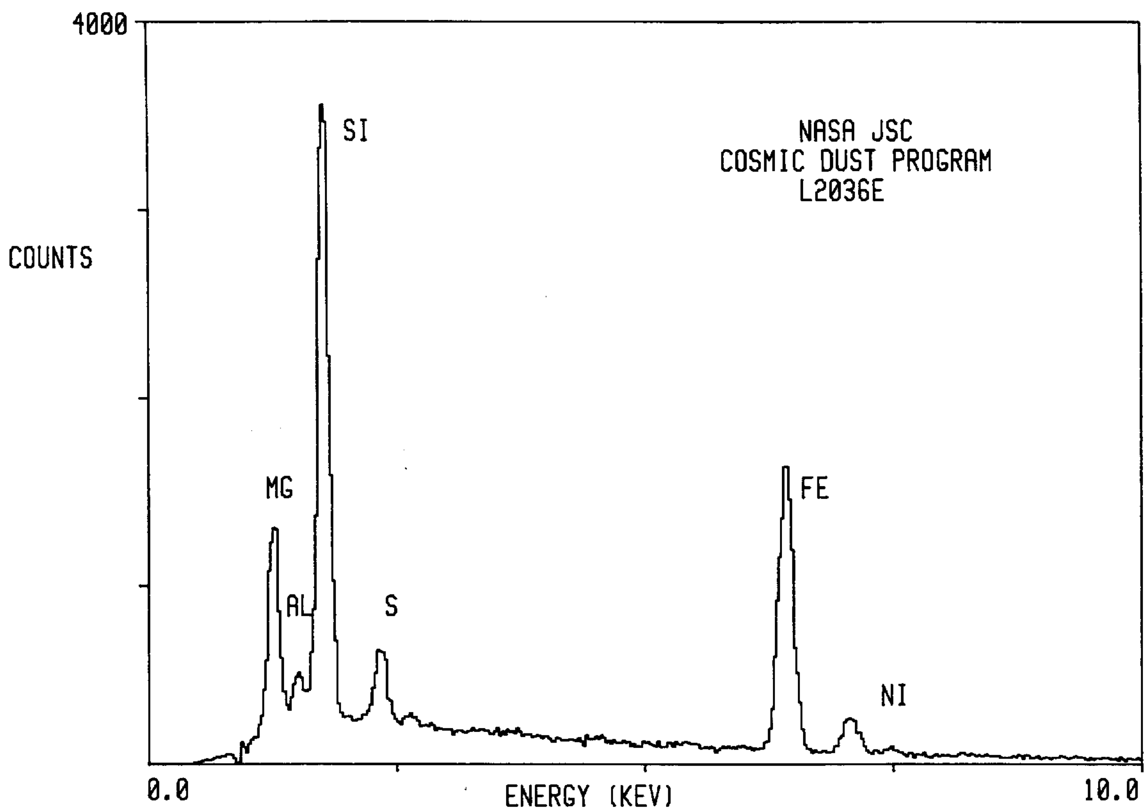


L2036E6

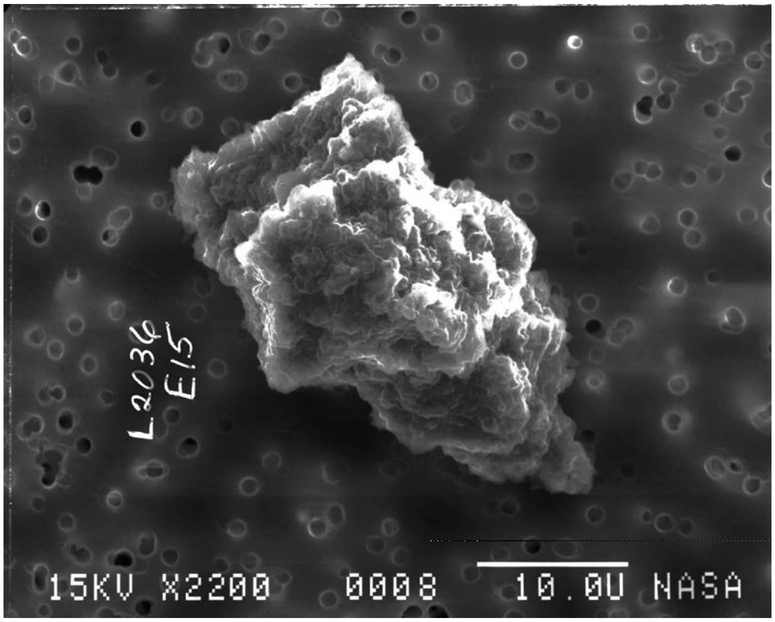


97E00049

Size:	12x8
Shape:	I
Trans:	O
Color:	Black
Luster:	P
Type:	C
Comments:	

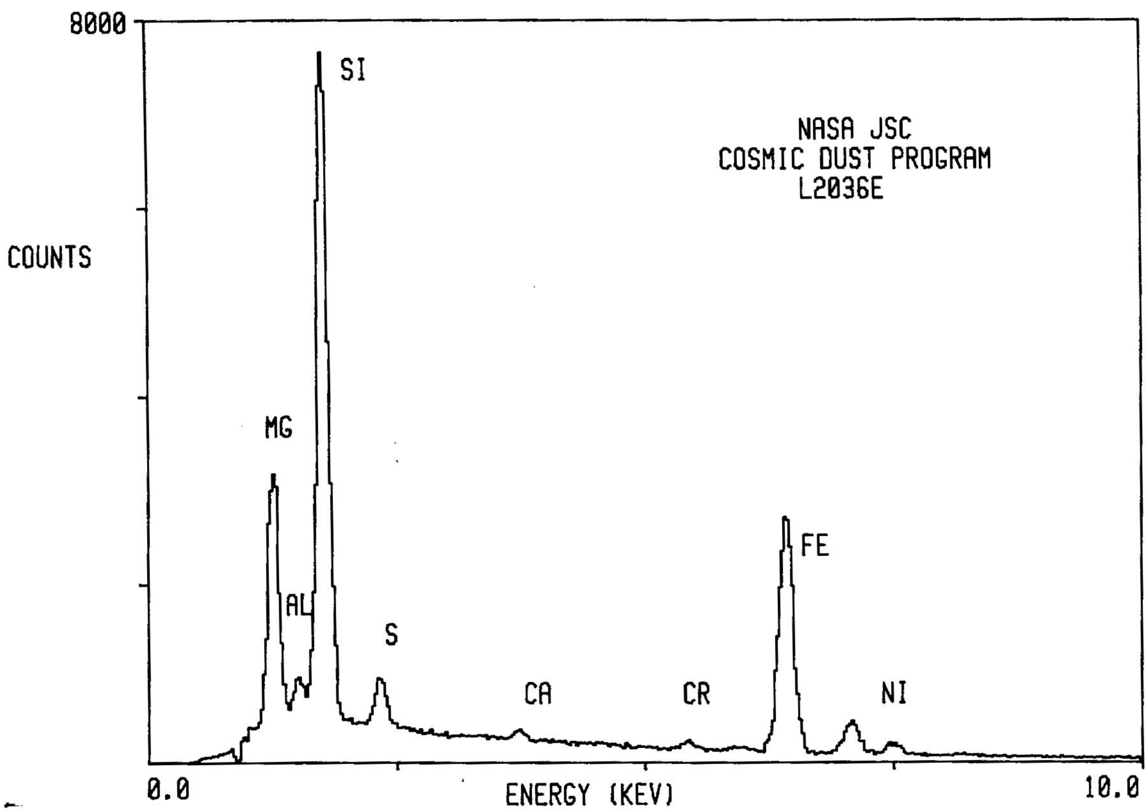


L2036E15

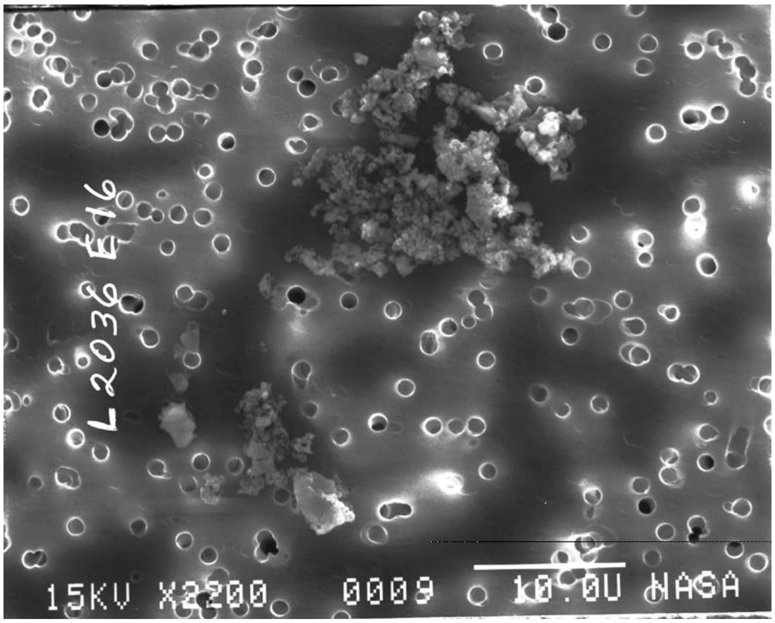


97E00058

Size:	32x18
Shape:	I
Trans:	O
Color:	Black
Luster:	D
Type:	C
Comments:	

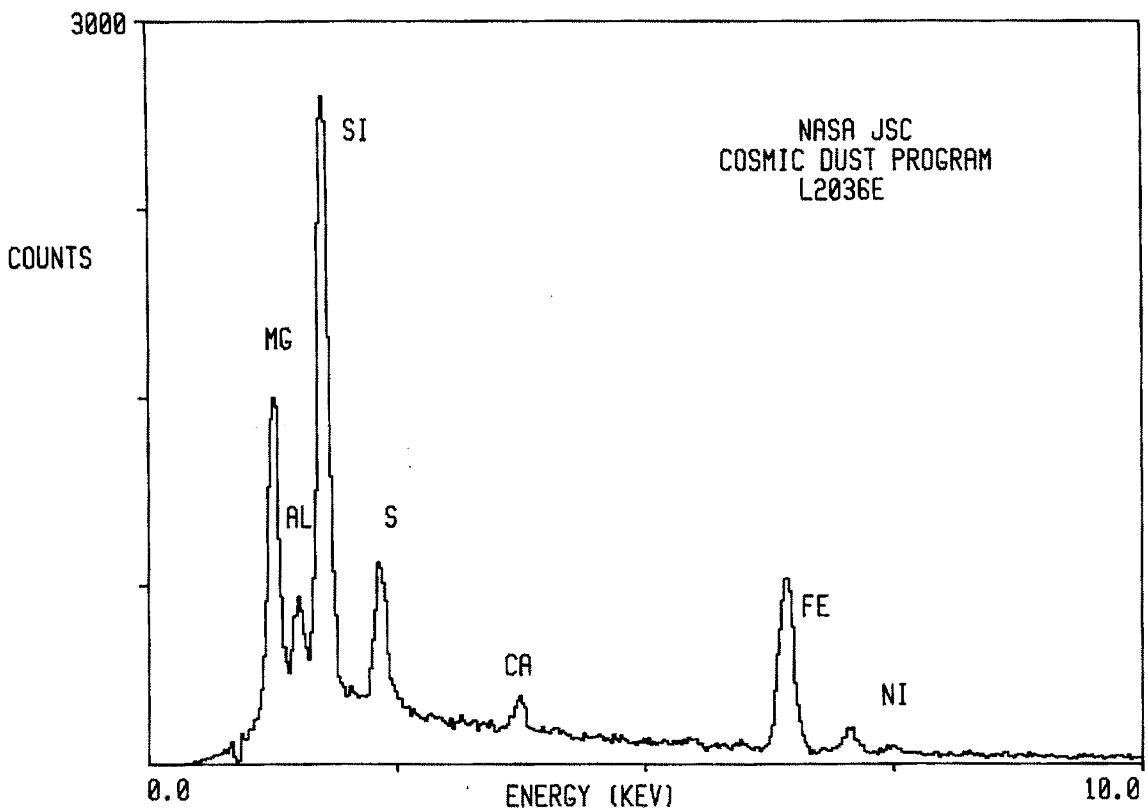


L2036E16

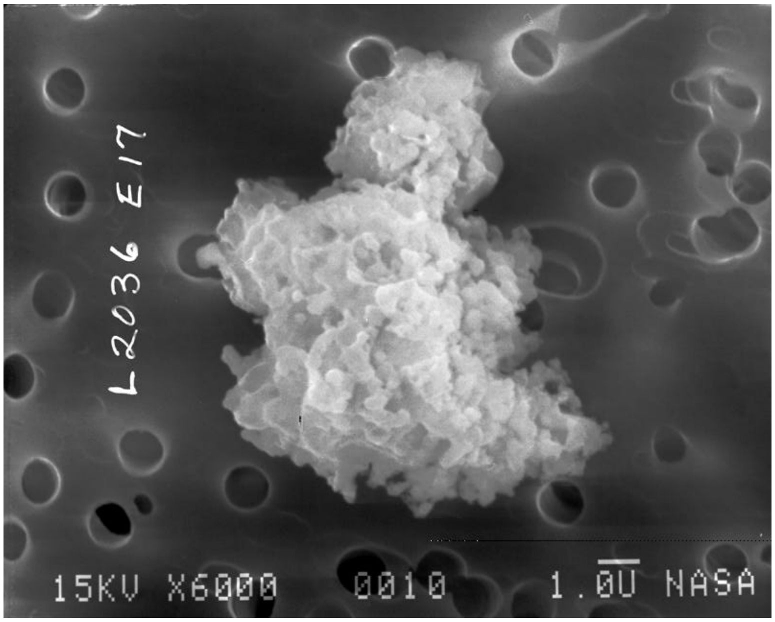


97E00059

Size: 16
Shape: E
Trans: O
Color: Black
Luster: D
Type: C
Comments:

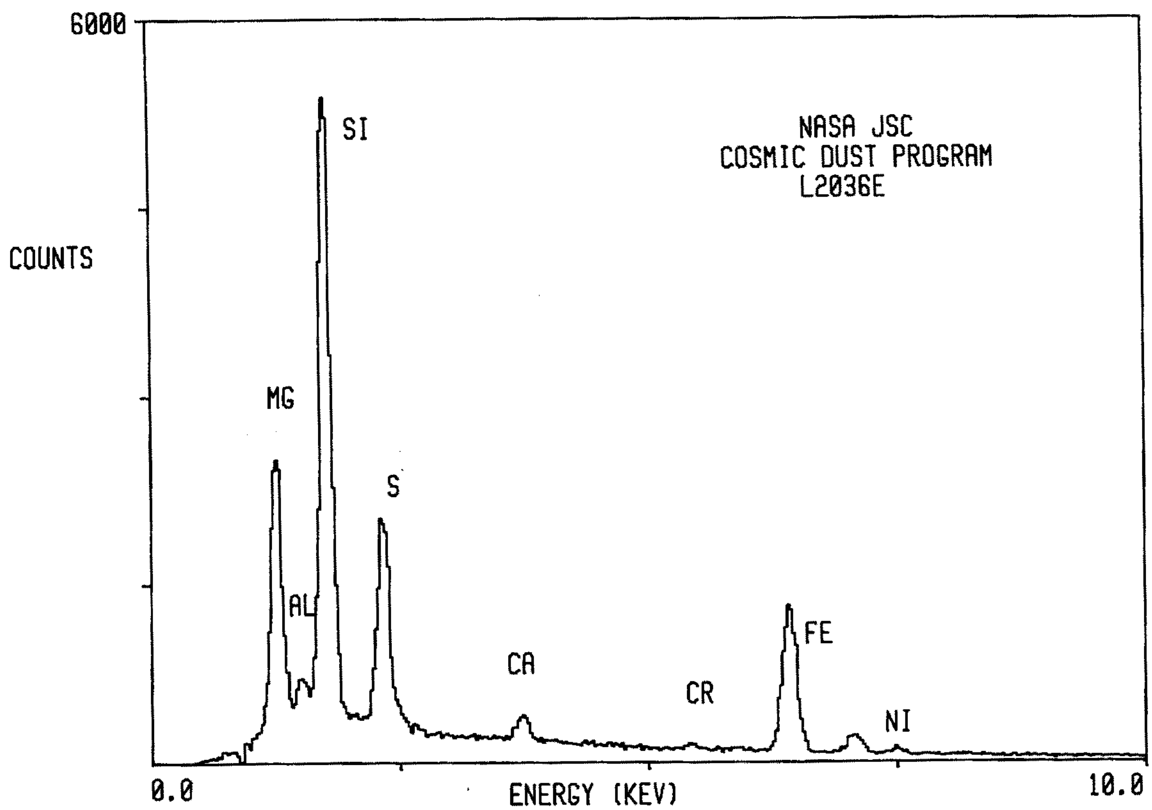


L2036E17

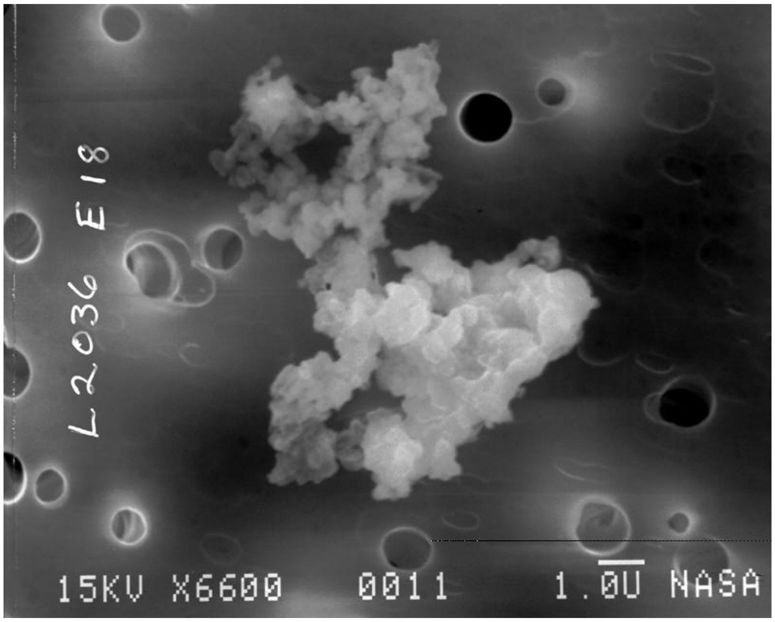


97E00060

Size:	10x8
Shape:	E
Trans:	O/TL
Color:	Black-Colorless
Luster:	P/SV
Type:	C
Comments:	



L2036E18



97E00061

Size: 9x6

Shape: I

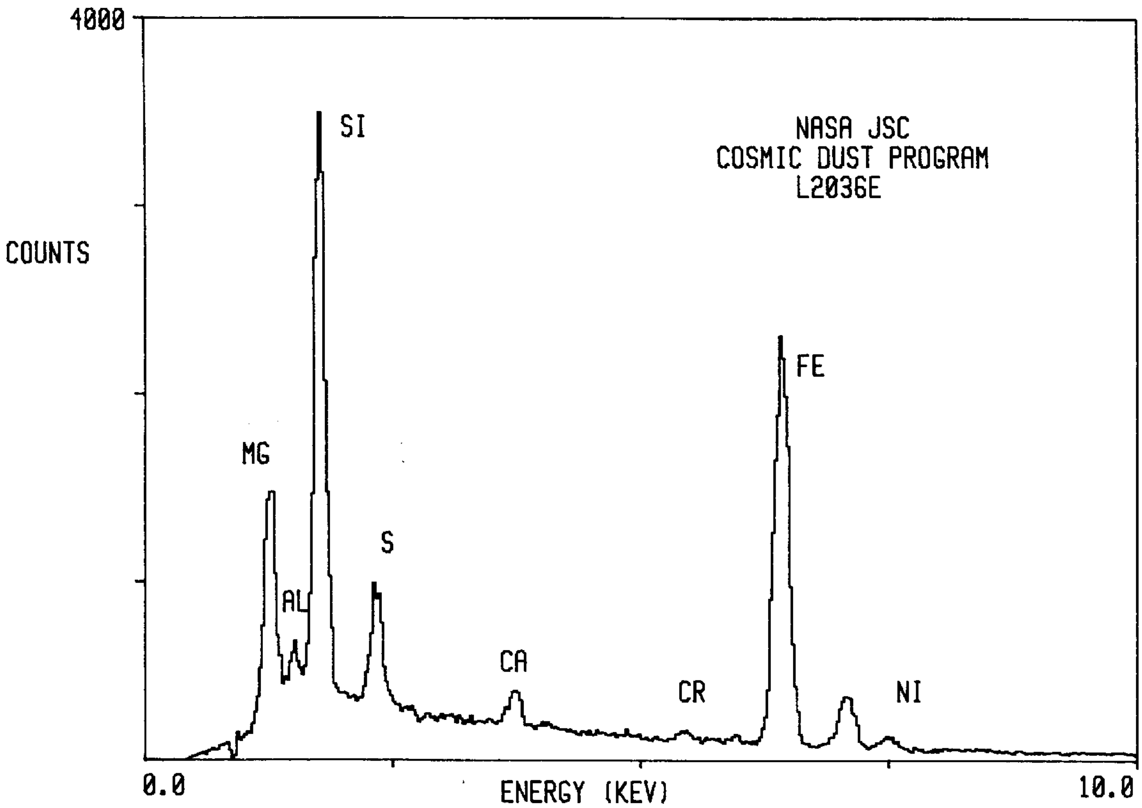
Trans: TL

Color: Colorless

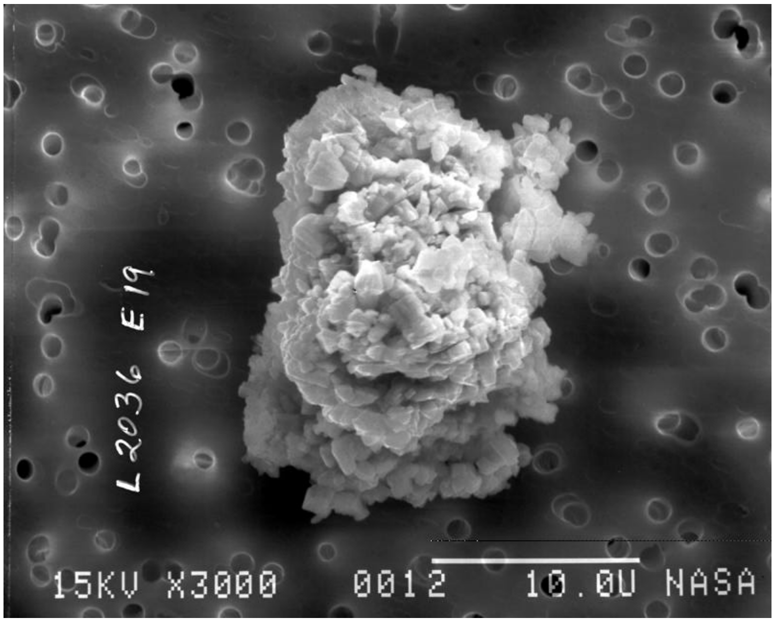
Luster: SV

Type: C

Comments:

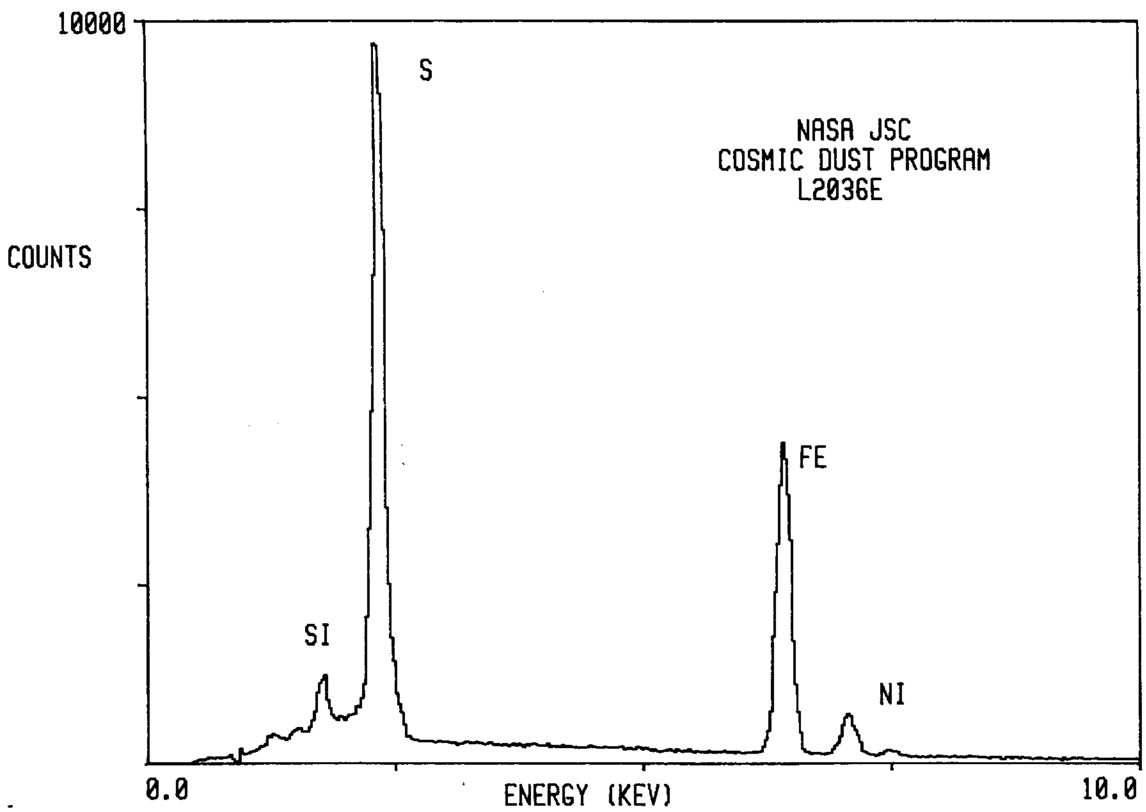


L2036E19

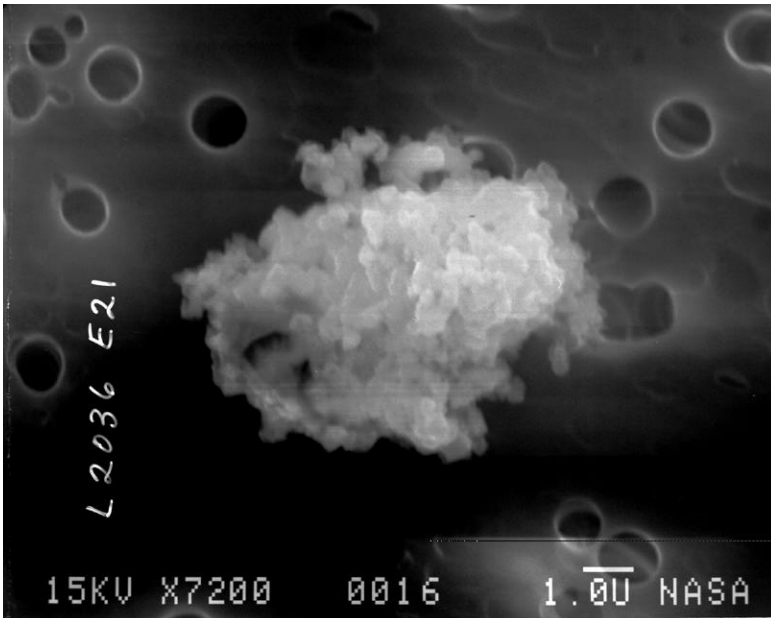


97E00062

Size: 20x12
Shape: I
Trans: O
Color: Black-Brown
Luster: D
Type: C
Comments:



L2036E21



97E00064

Size: 8

Shape: E

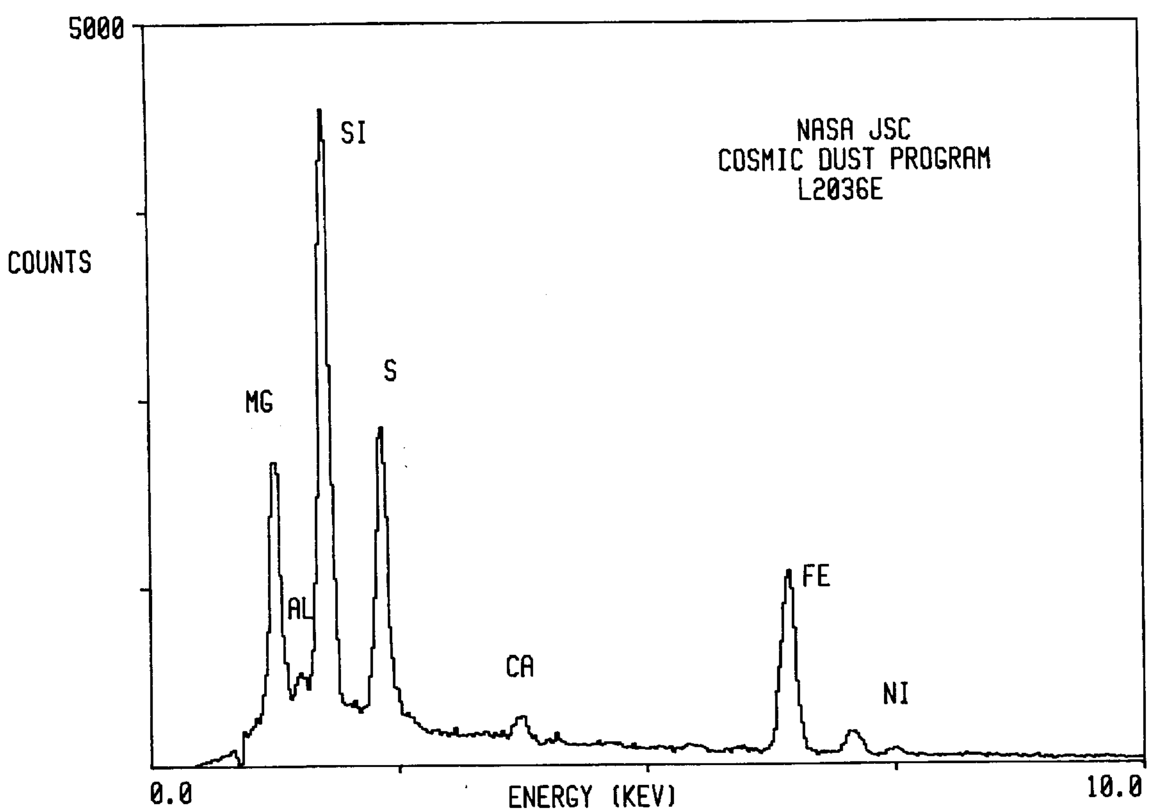
Trans: O

Color: Black

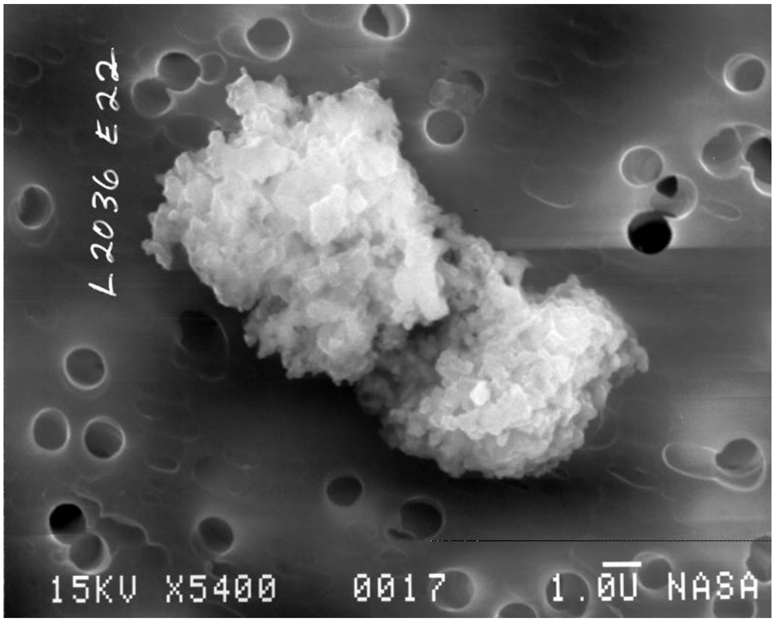
Luster: D

Type: C

Comments:

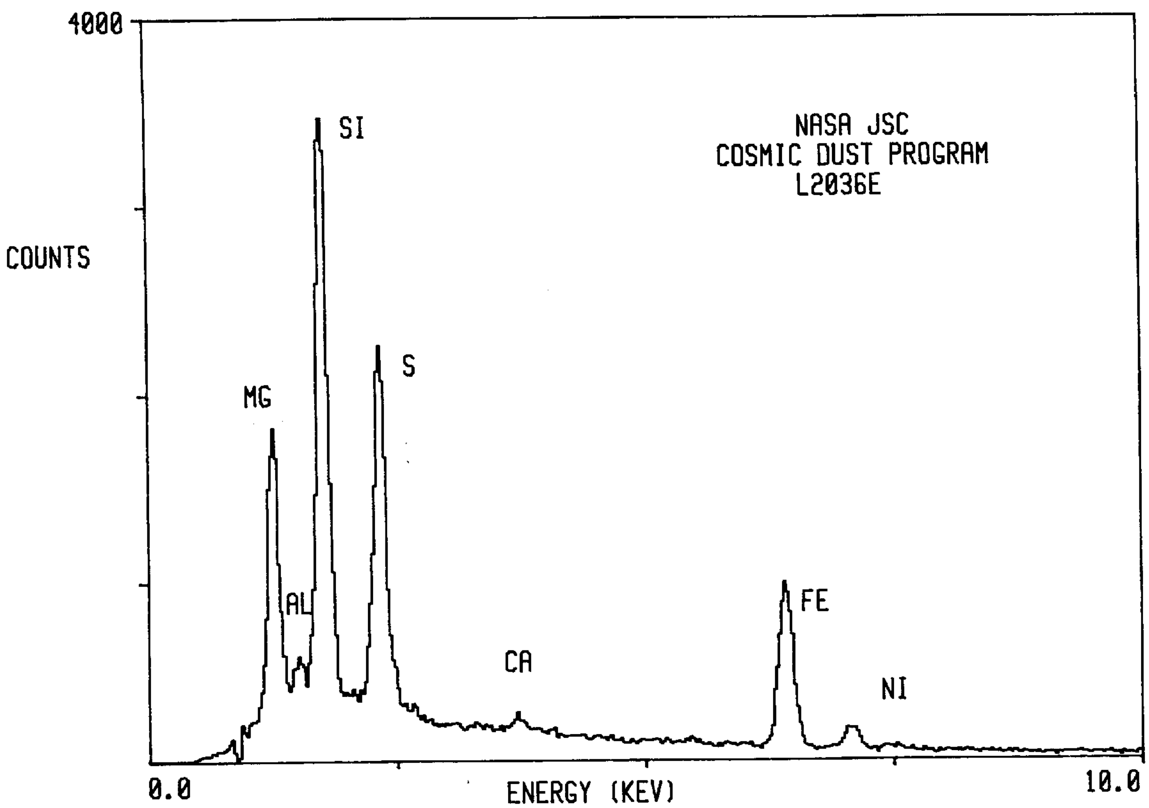


L2036E22

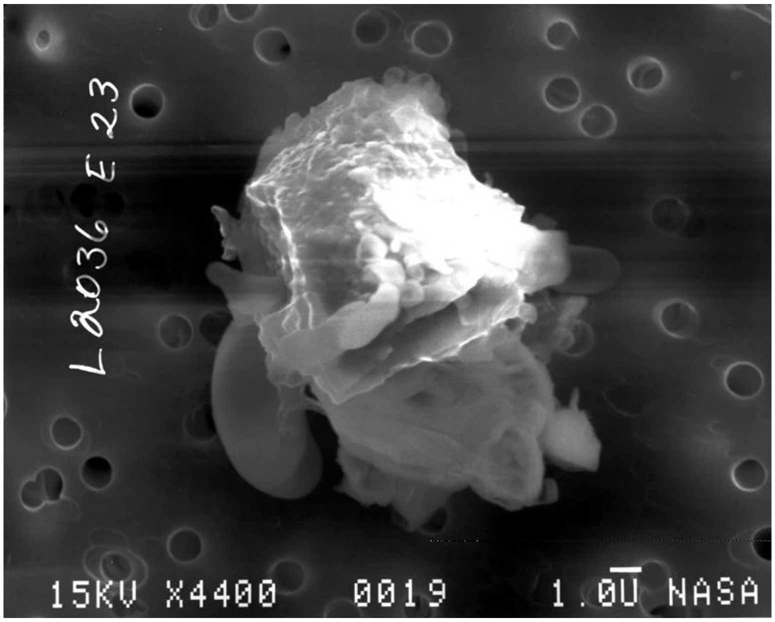


97E00065

Size: 12x7
Shape: I
Trans: O
Color: Black
Luster: D
Type: C
Comments:



L2036E23



97E00066

Size: 13x11

Shape: I

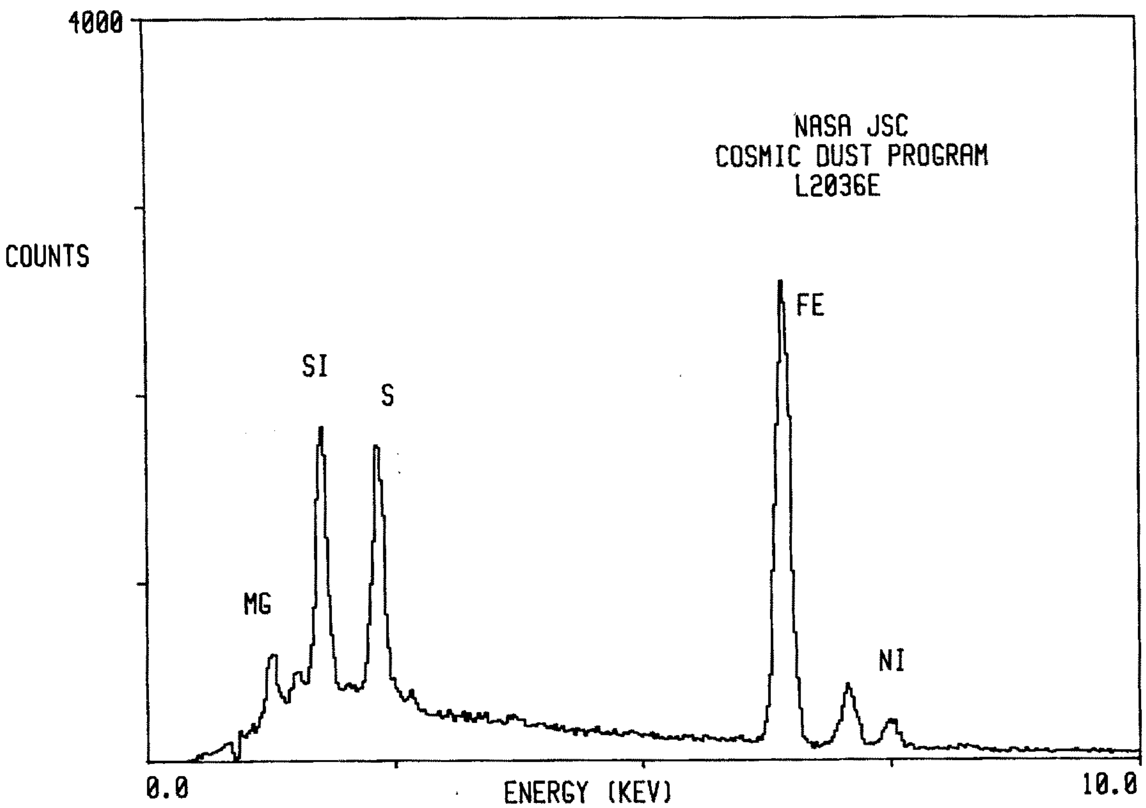
Trans: O/TL

Color: Black-Brown

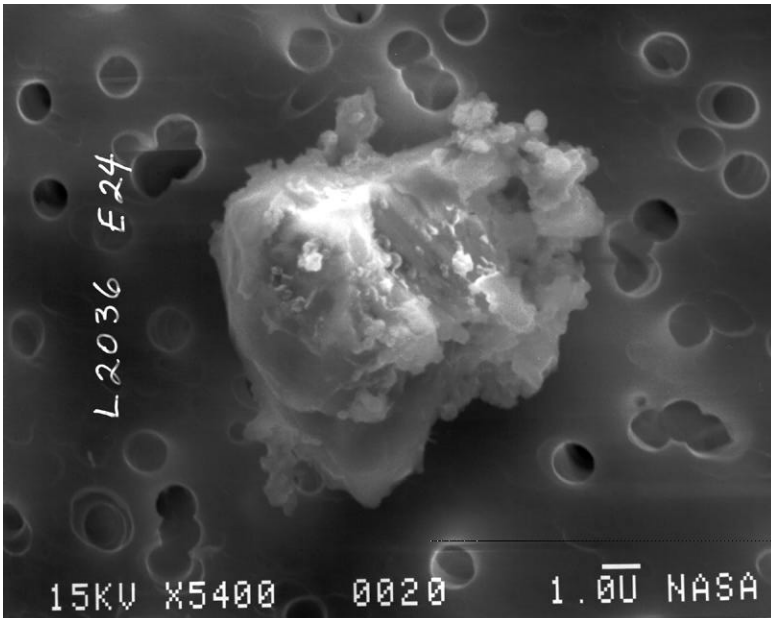
Luster: P/SV

Type: C

Comments:

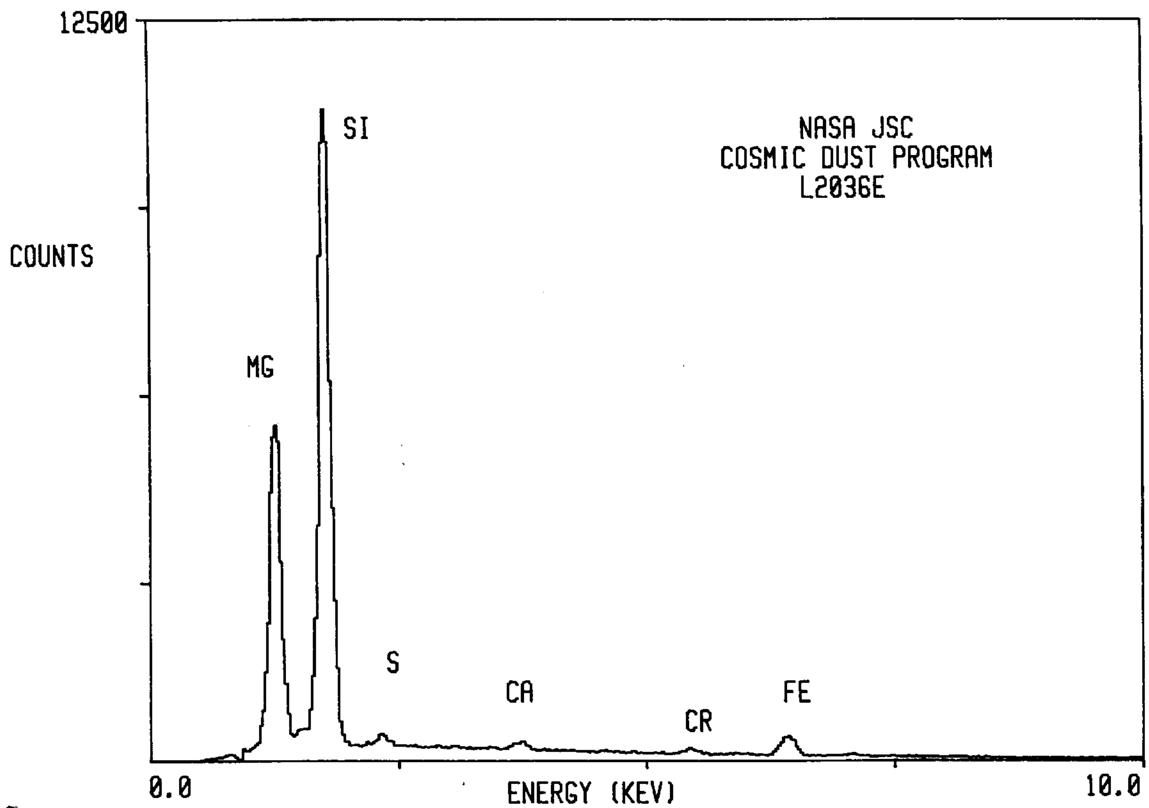


L2036E24

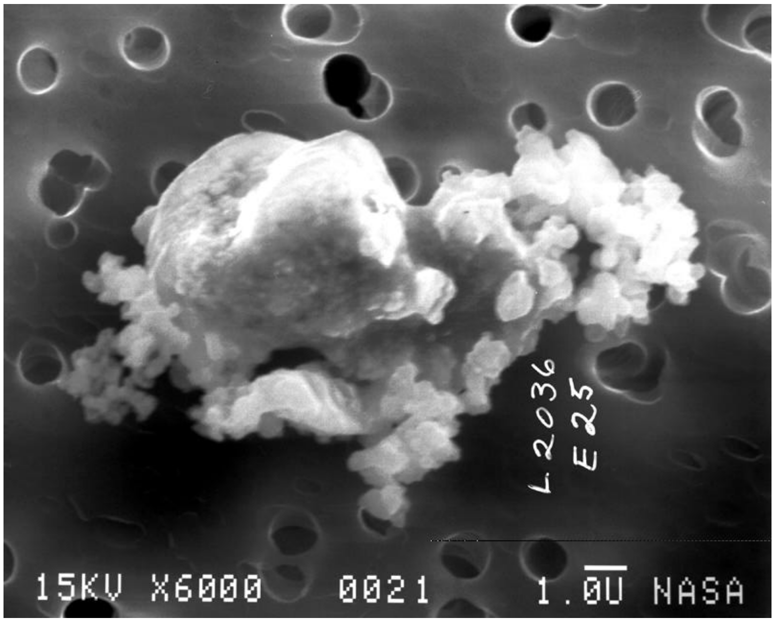


97E00067

Size: 10x8
Shape: I
Trans: TL
Color: Colorless
Luster: SV
Type: C?
Comments:

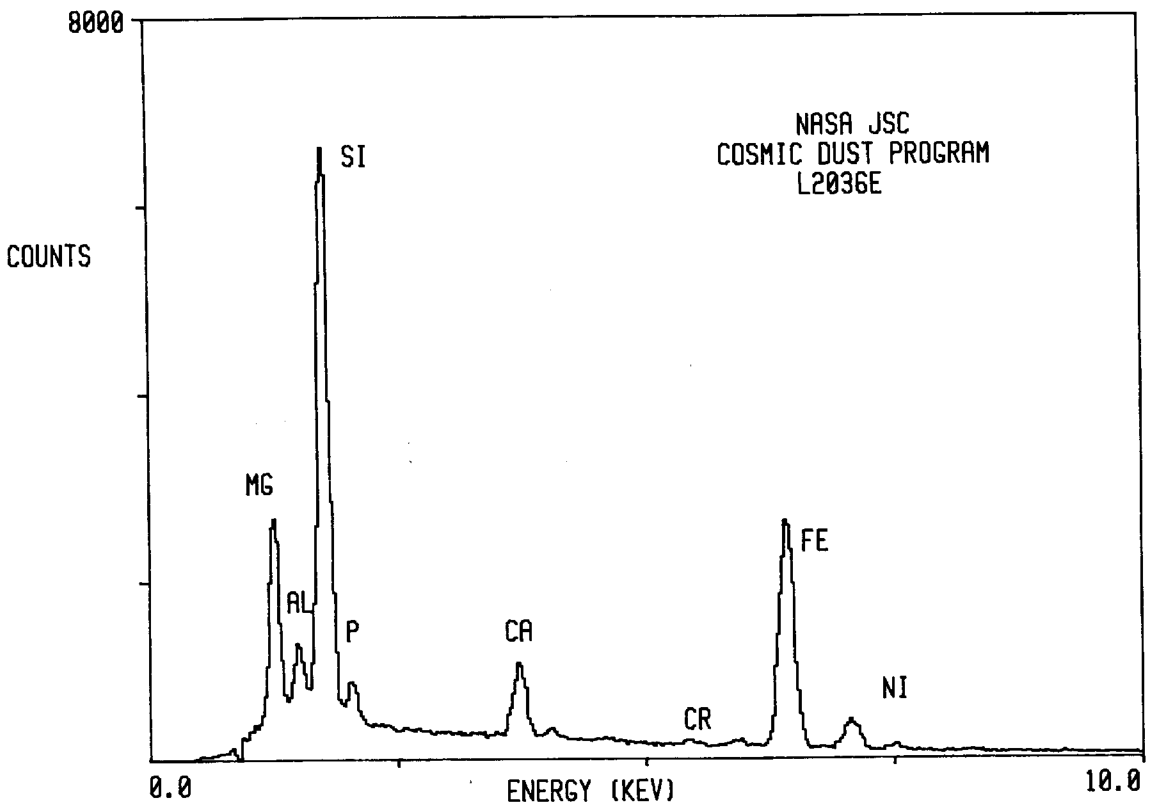


L2036E25

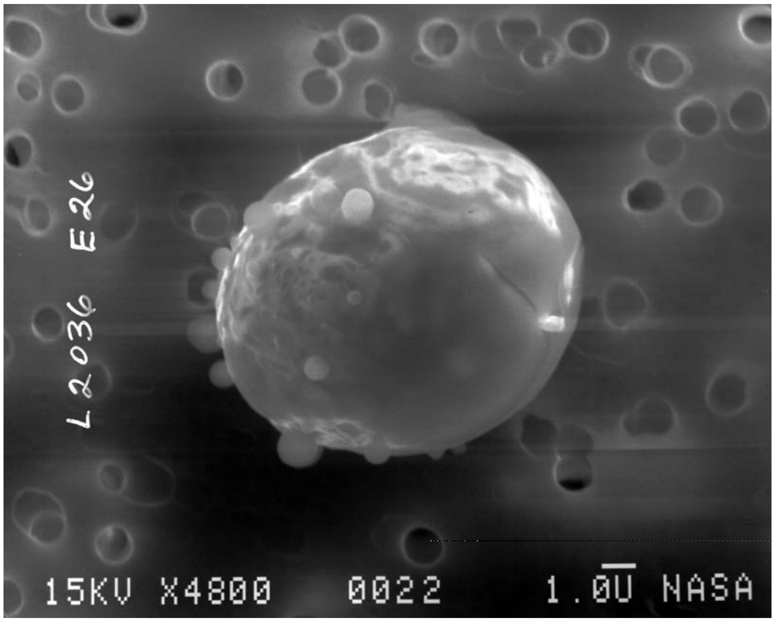


97E00068

Size: 14x7
Shape: I
Trans: O/TL
Color: Black-Colorless
Luster: SV/D
Type: C
Comments:



L2036E26



97E00069

Size: 11

Shape: S

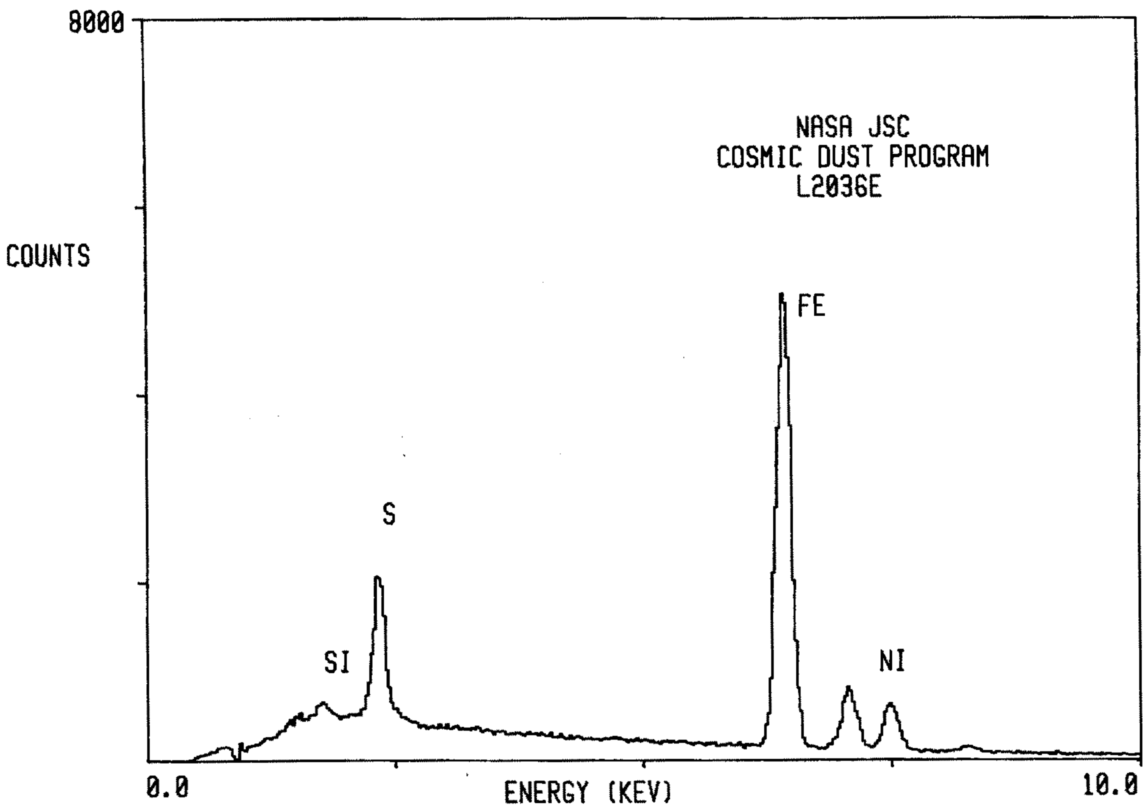
Trans: O

Color: Black

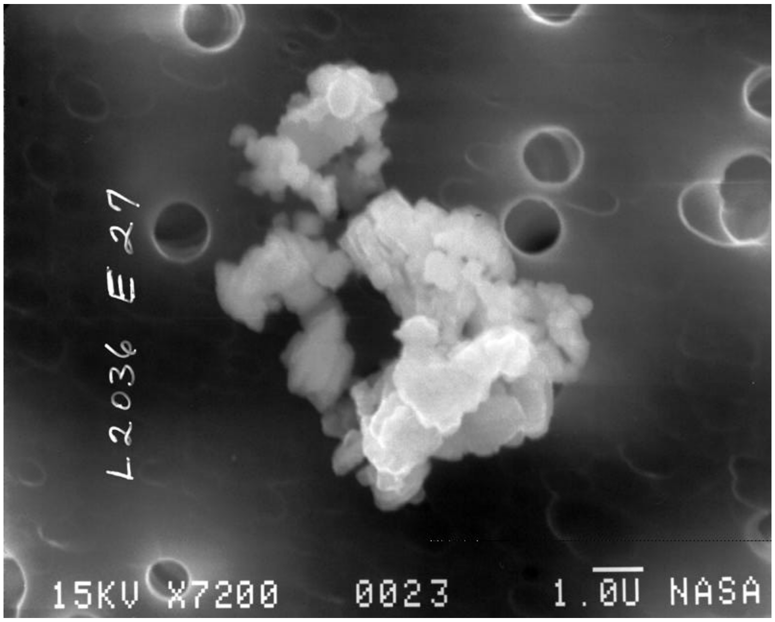
Luster: D

Type: C

Comments:



L2036E27



97E00070

Size: 6x4

Shape: I

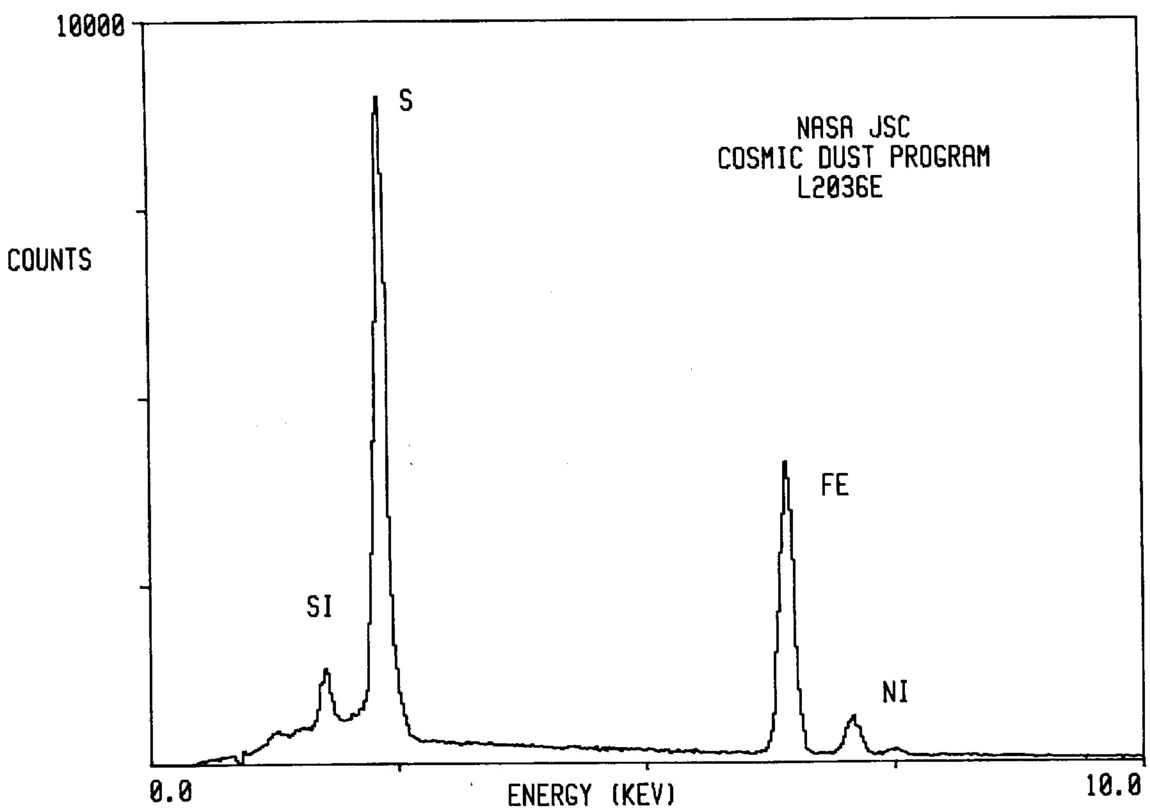
Trans: O

Color: Black

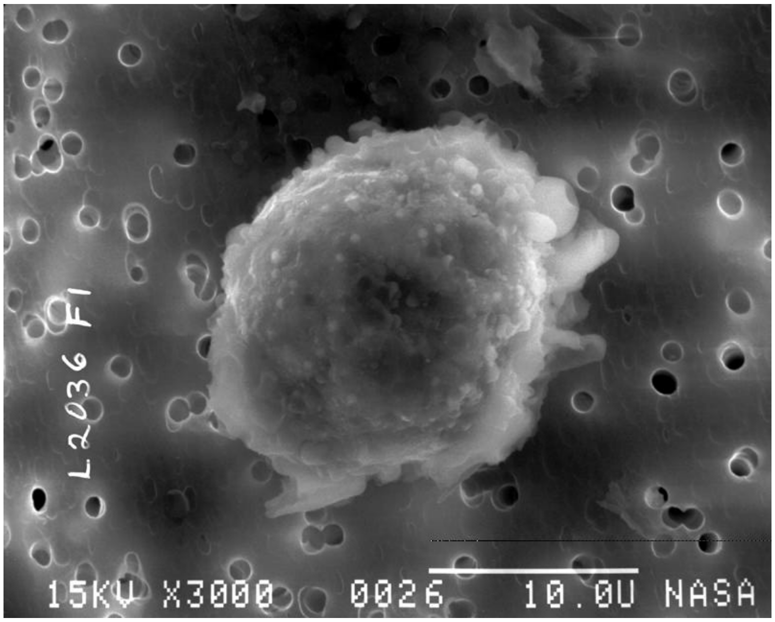
Luster: D

Type: C

Comments:

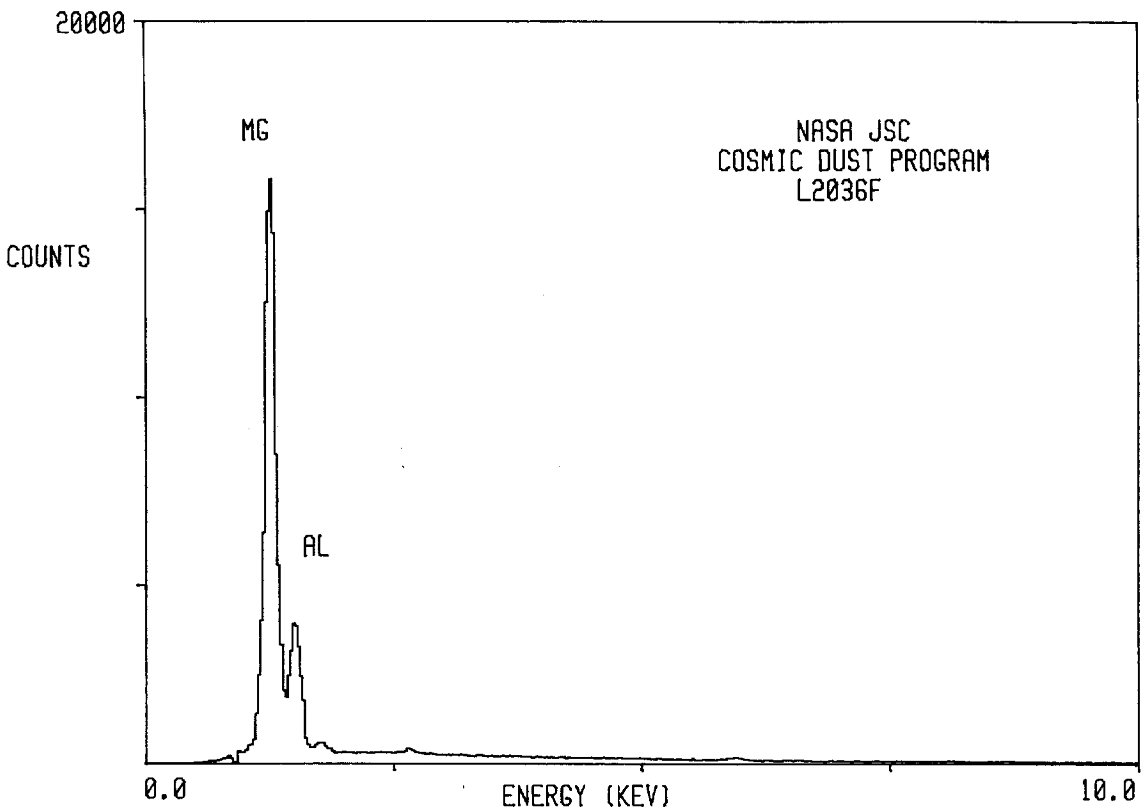


L2036F1

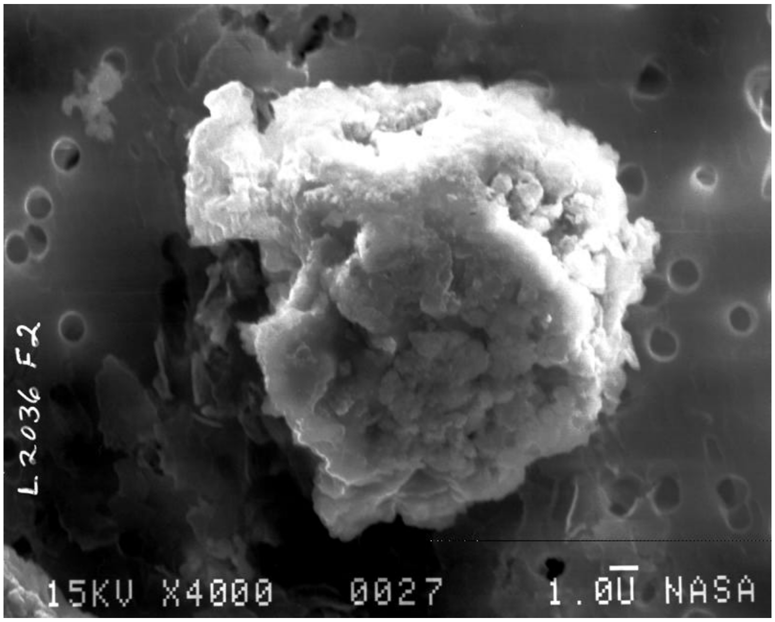


97E00073

Size: 16
Shape: S
Trans: O
Color: Silver
Luster: M
Type: C?
Comments:

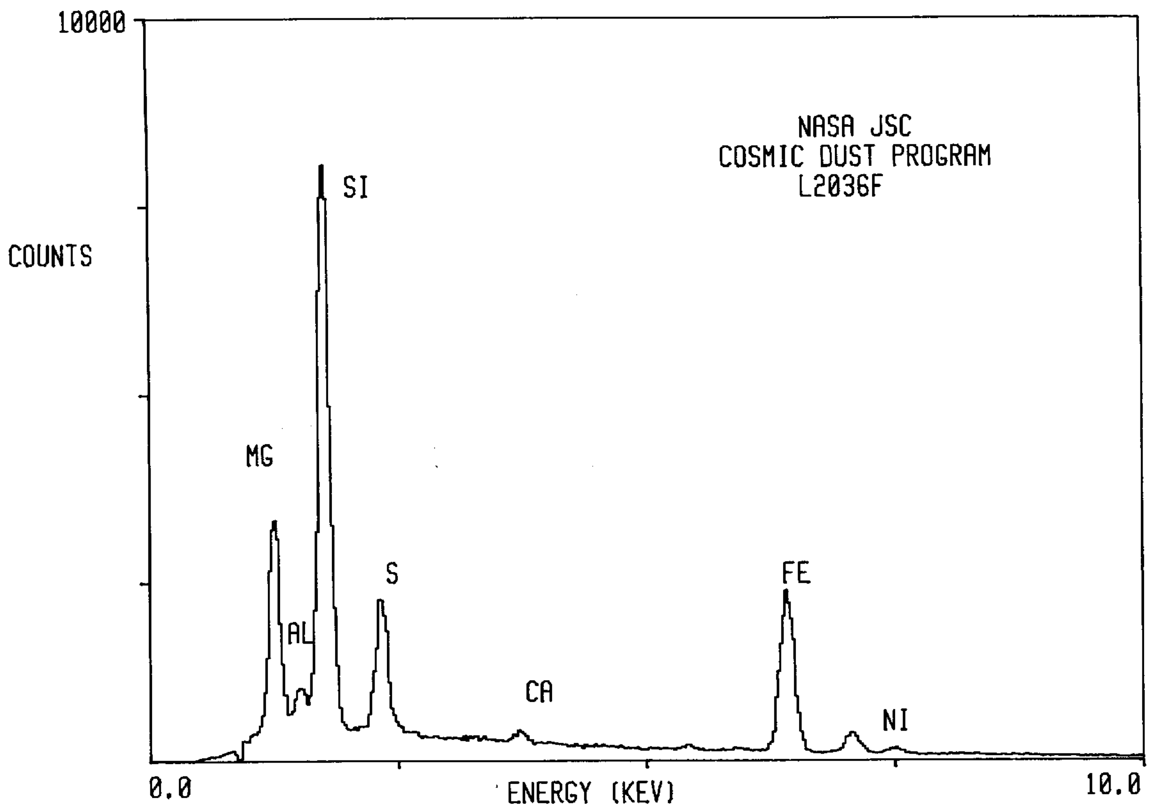


L2036F2

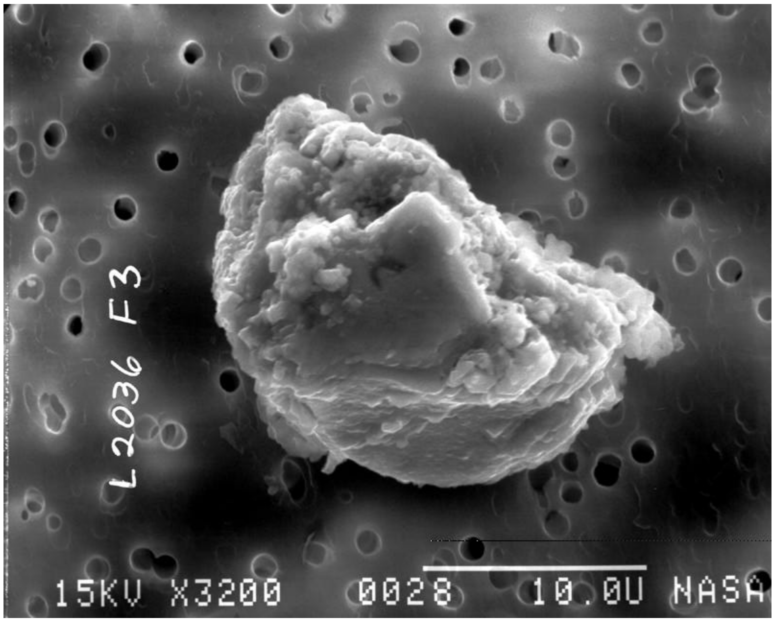


97E00074

Size: 22x14
Shape: E
Trans: O
Color: Black
Luster: P
Type: C
Comments:



L2036F3



97E00075

Size: 19x12

Shape: I

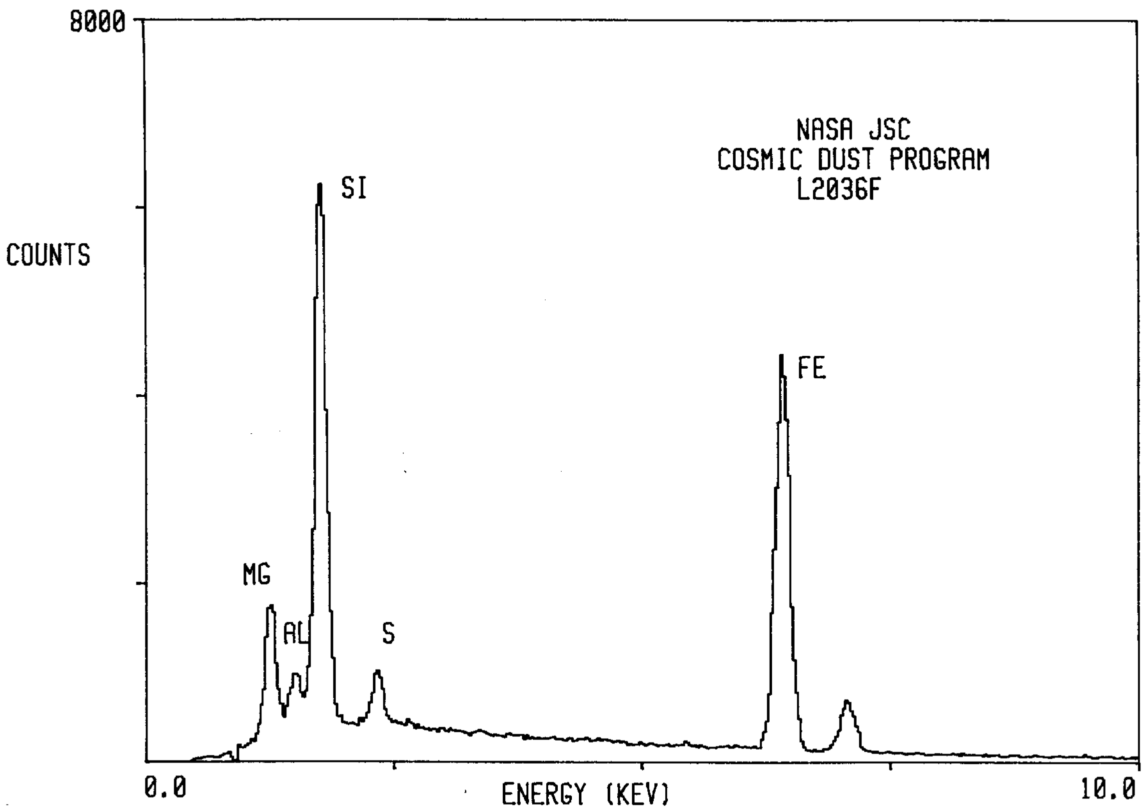
Trans: O

Color: Black

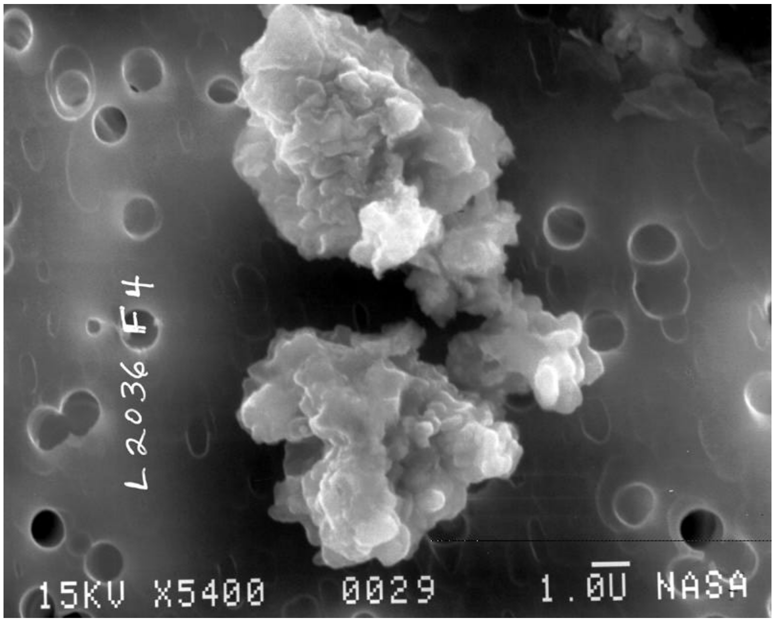
Luster: D

Type: C?

Comments:

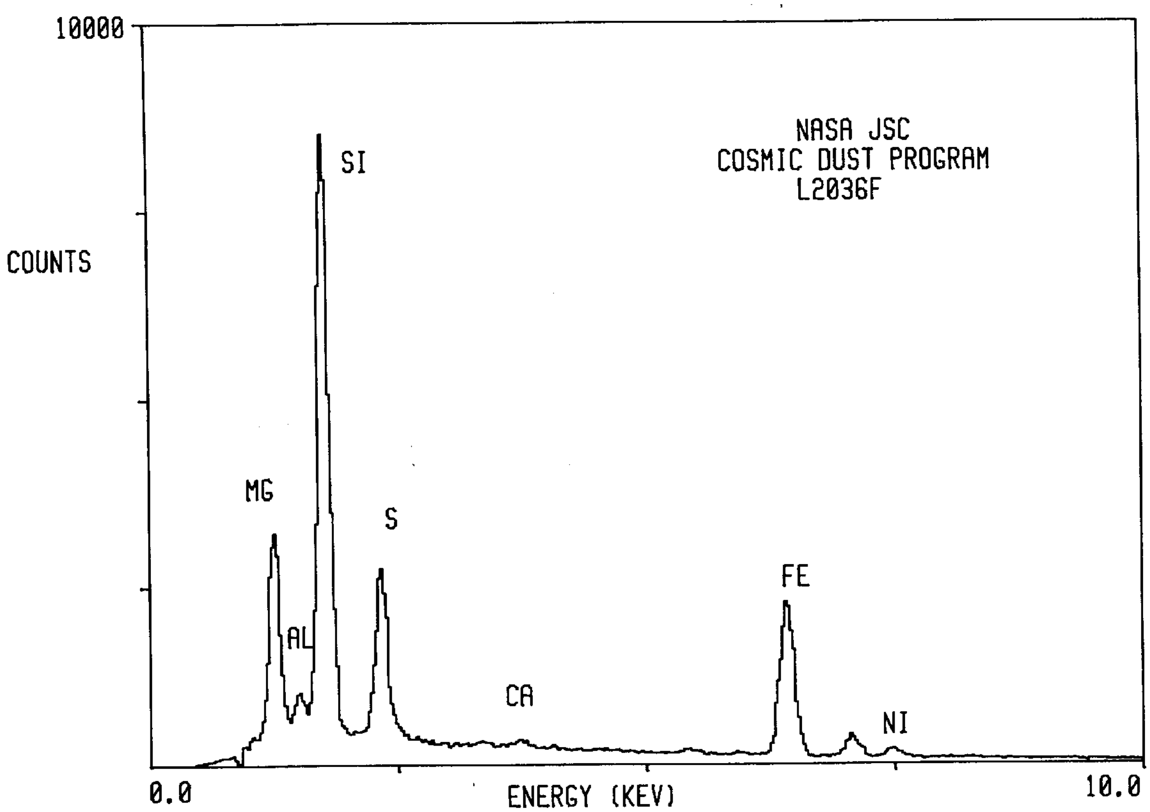


L2036F4

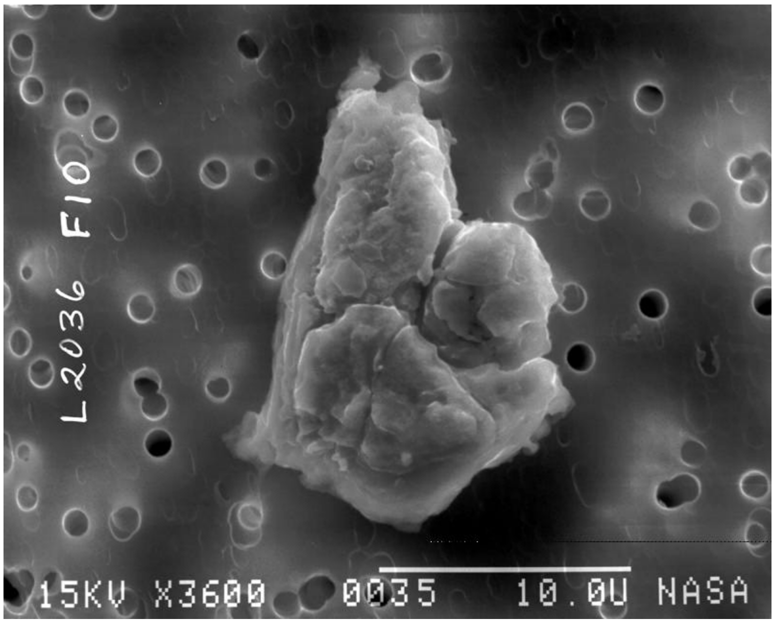


97E00076

Size: 5x4
Shape: I
Trans: O
Color: Black
Luster: D
Type: C
Comments:



L2036F10



97E00082

Size: 14x10

Shape: I

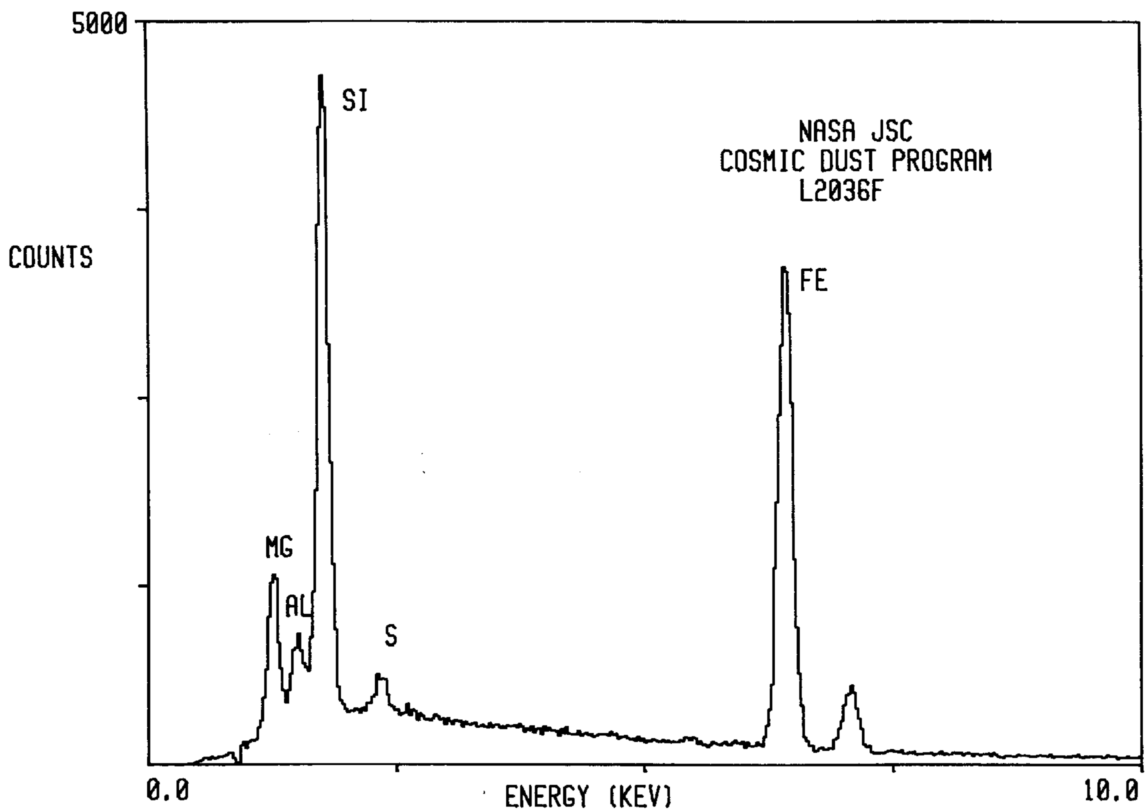
Trans: O

Color: Black

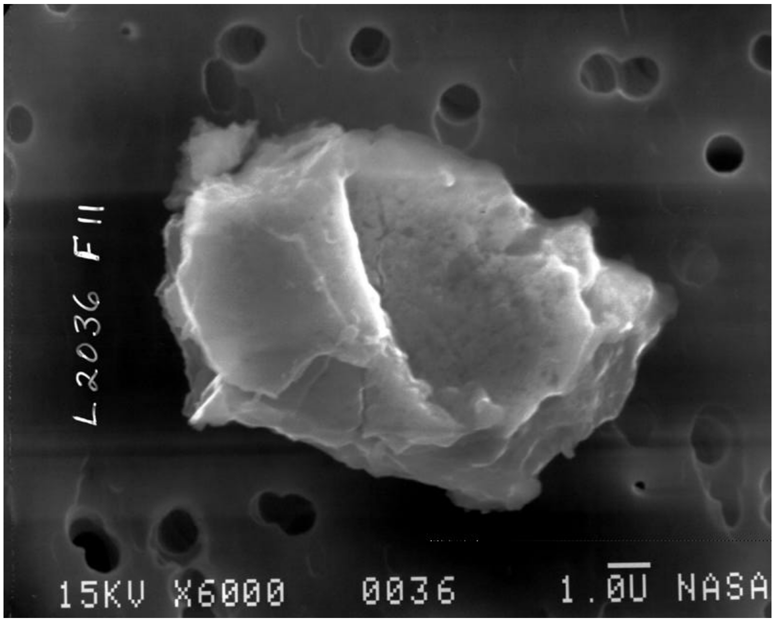
Luster: P

Type: C?

Comments:

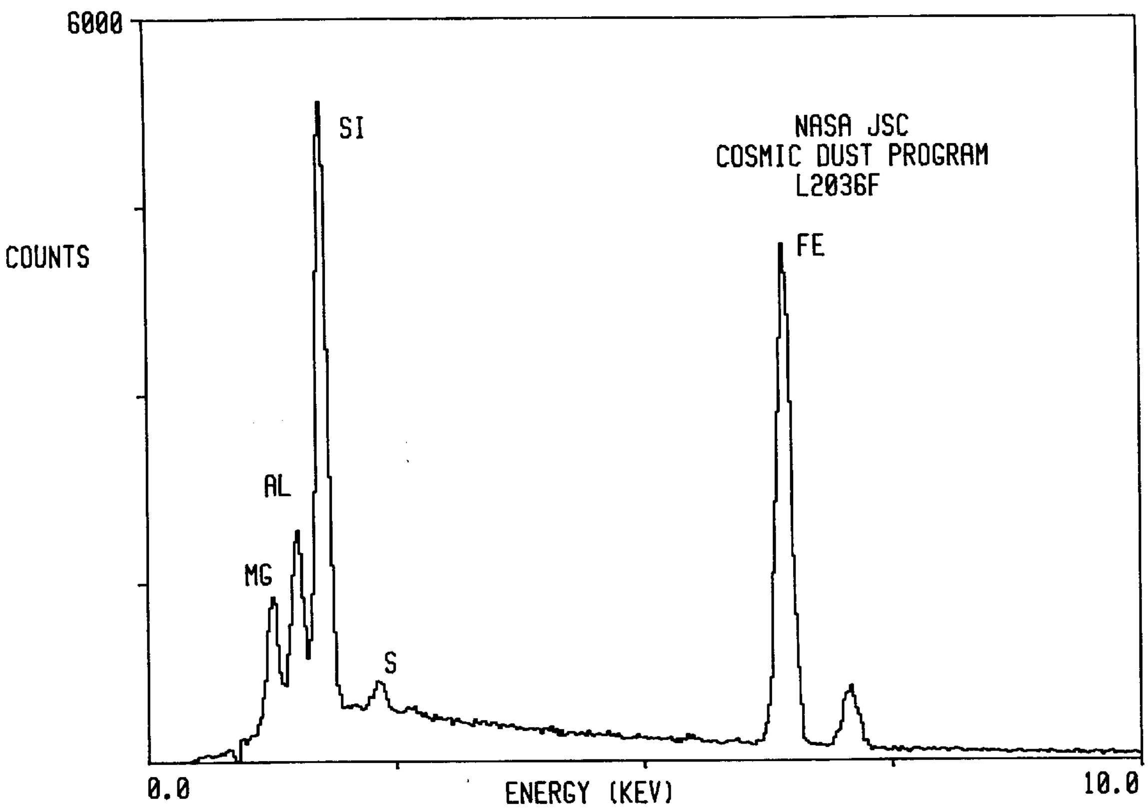


L2036F11

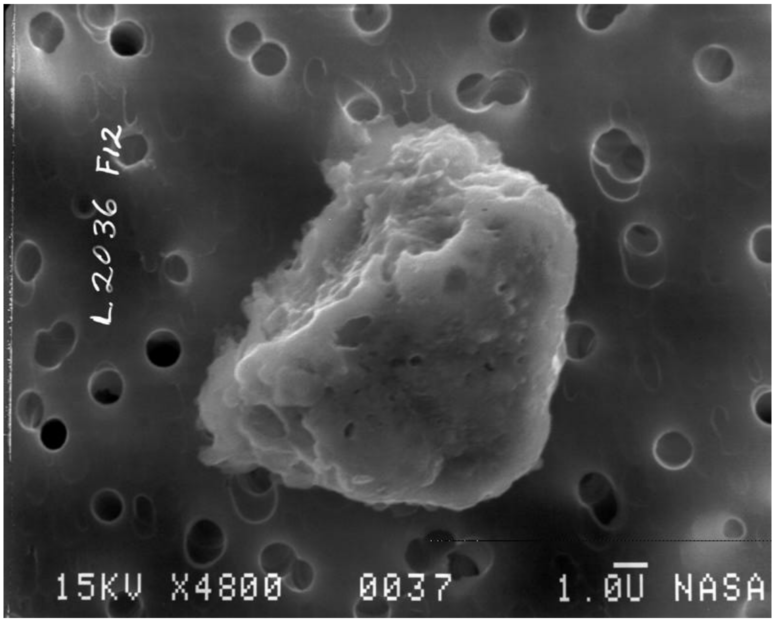


97E00083

Size: 22x14
Shape: I
Trans: O/TL
Color: Black/Brown
Luster: SV/D
Type: C?
Comments:



L2036F12



97E00084

Size: 11x9

Shape: I

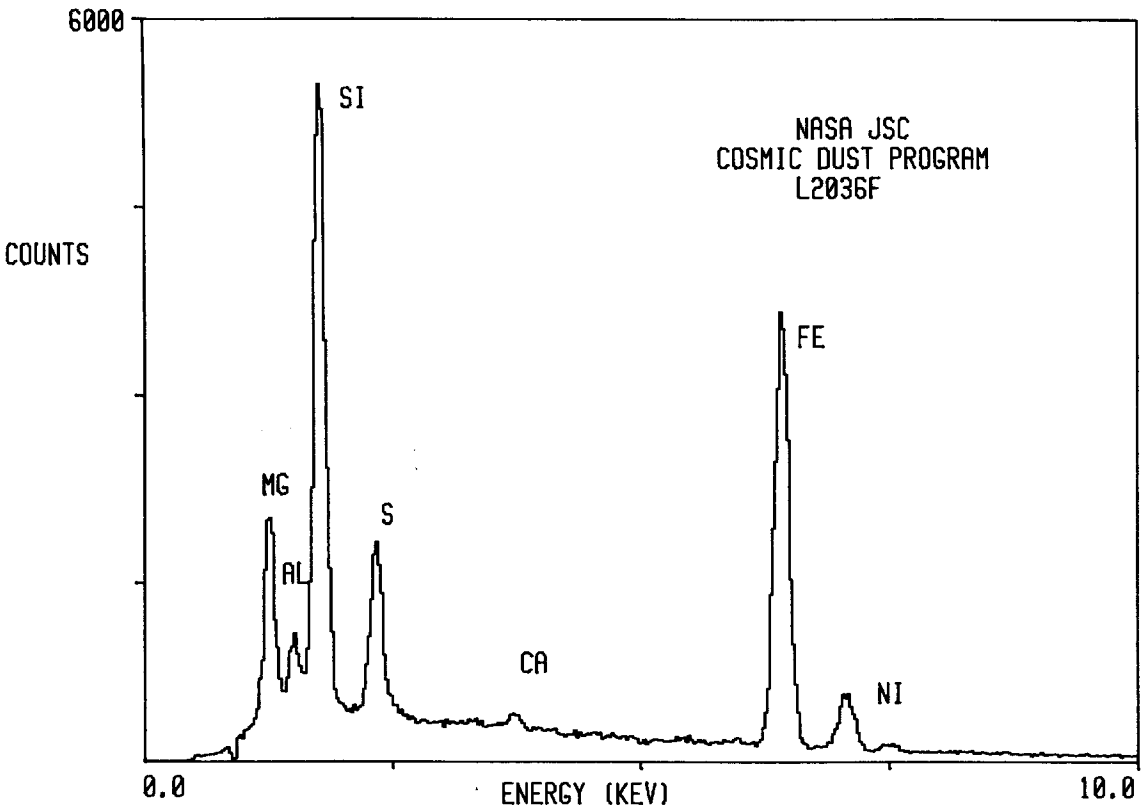
Trans: O

Color: Black

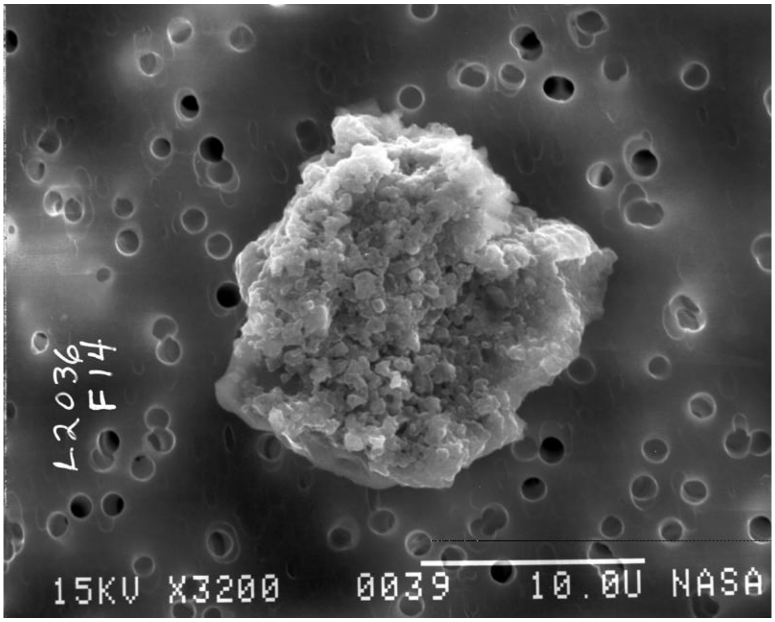
Luster: P

Type: C

Comments:

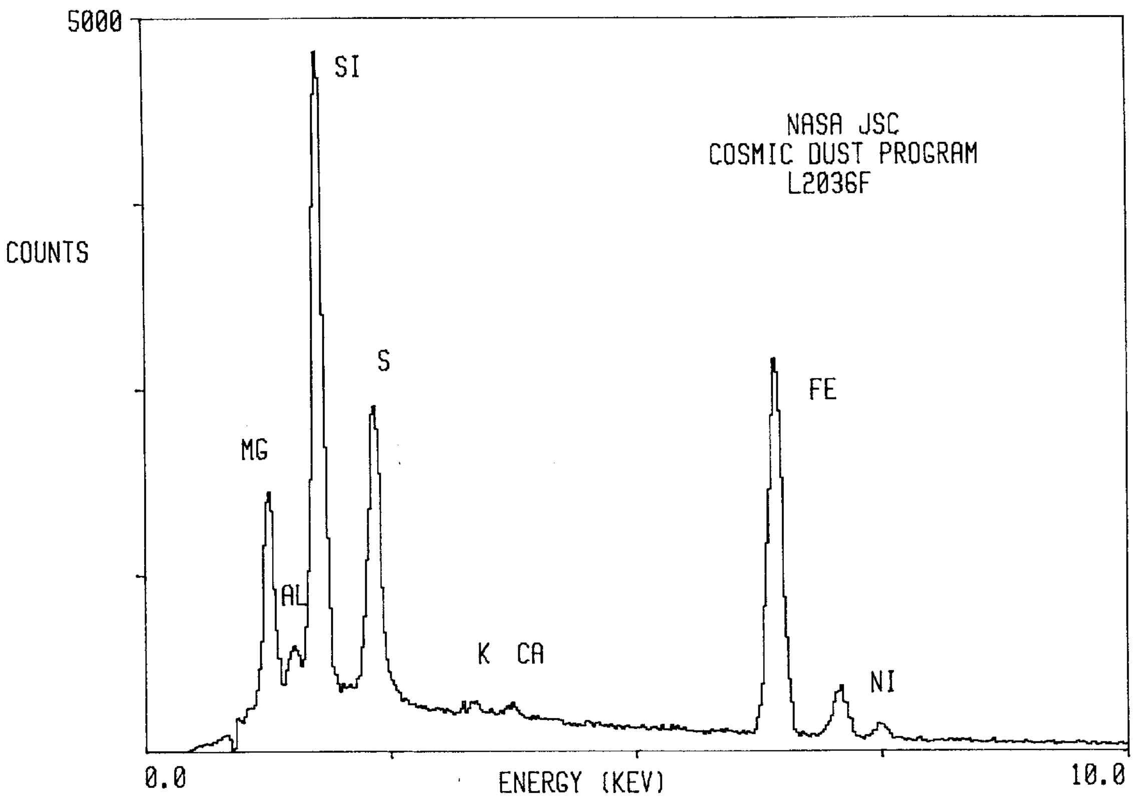


L2036F14

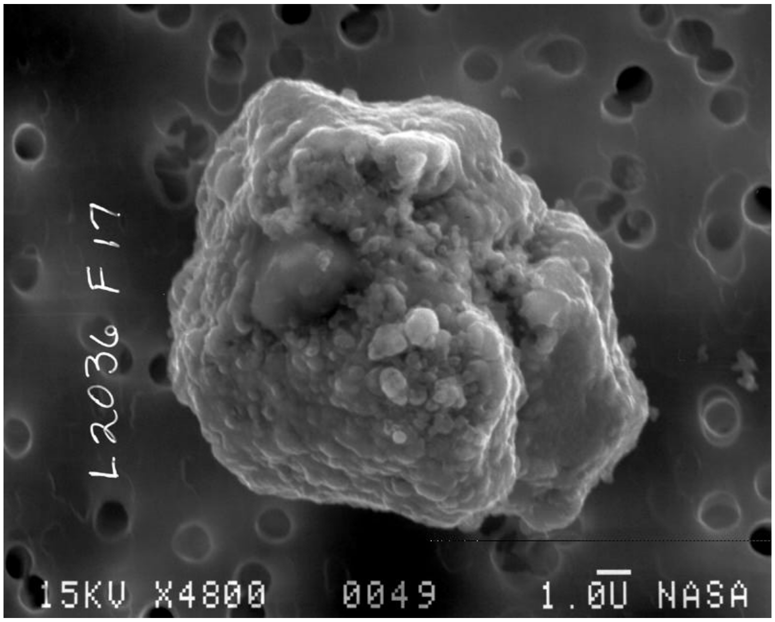


97E00086

Size: 15x14
Shape: E
Trans: O
Color: Sliver
Luster: M
Type: C
Comments:



L2036F17



97E00089

Size: 13

Shape: S

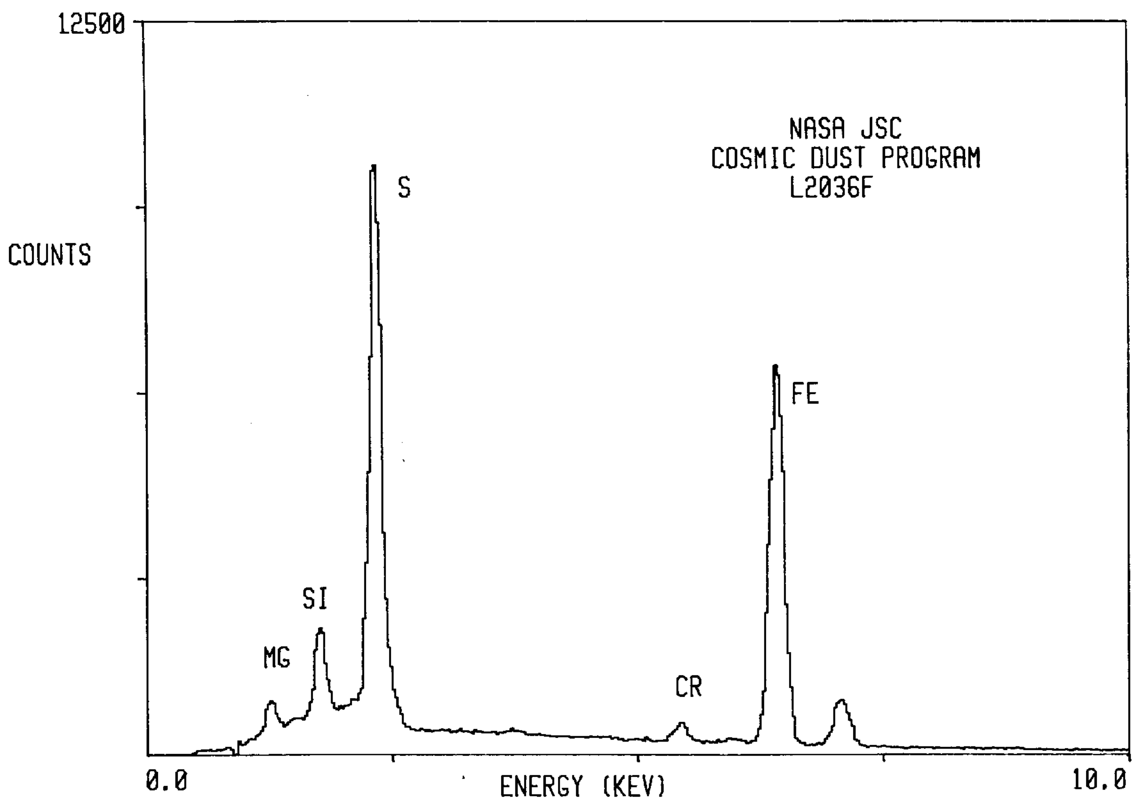
Trans: O

Color: Black

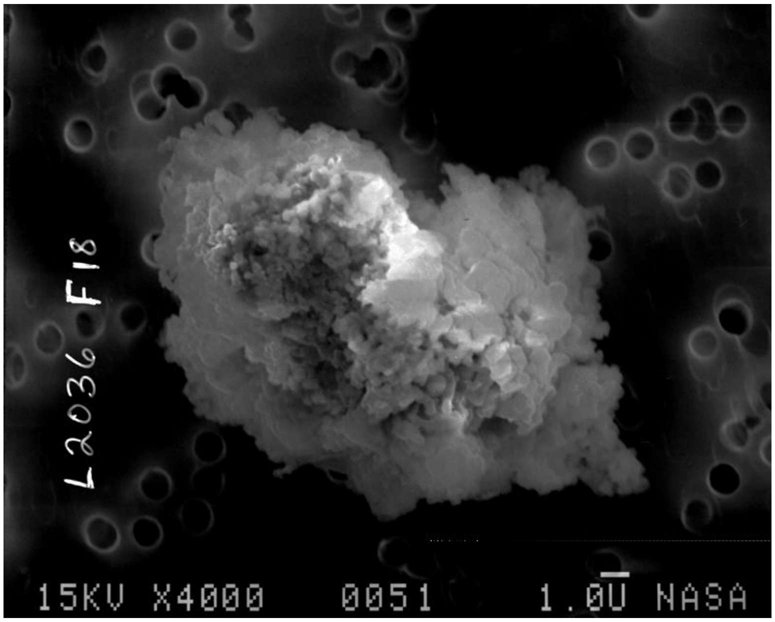
Luster: M

Type: C?

Comments:



L2036F18



97E00090

Size: 16x10

Shape: I

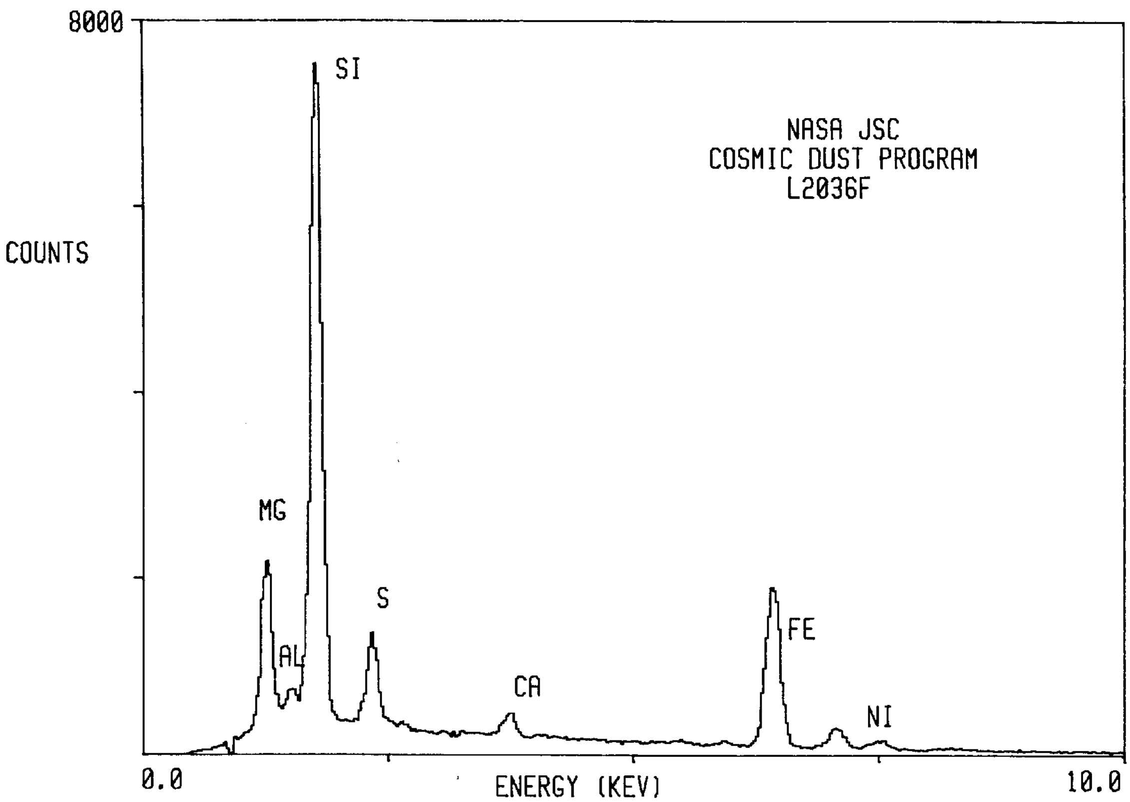
Trans: O

Color: Black

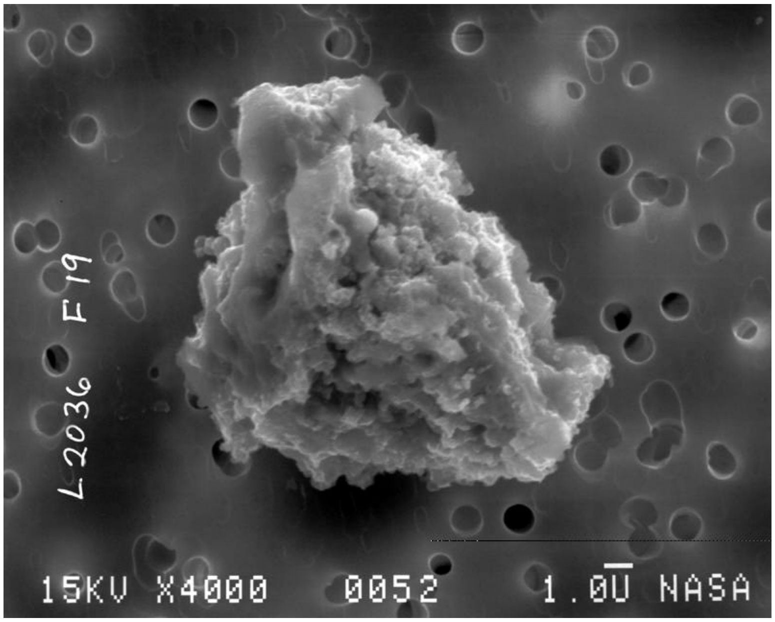
Luster: M

Type: C

Comments:

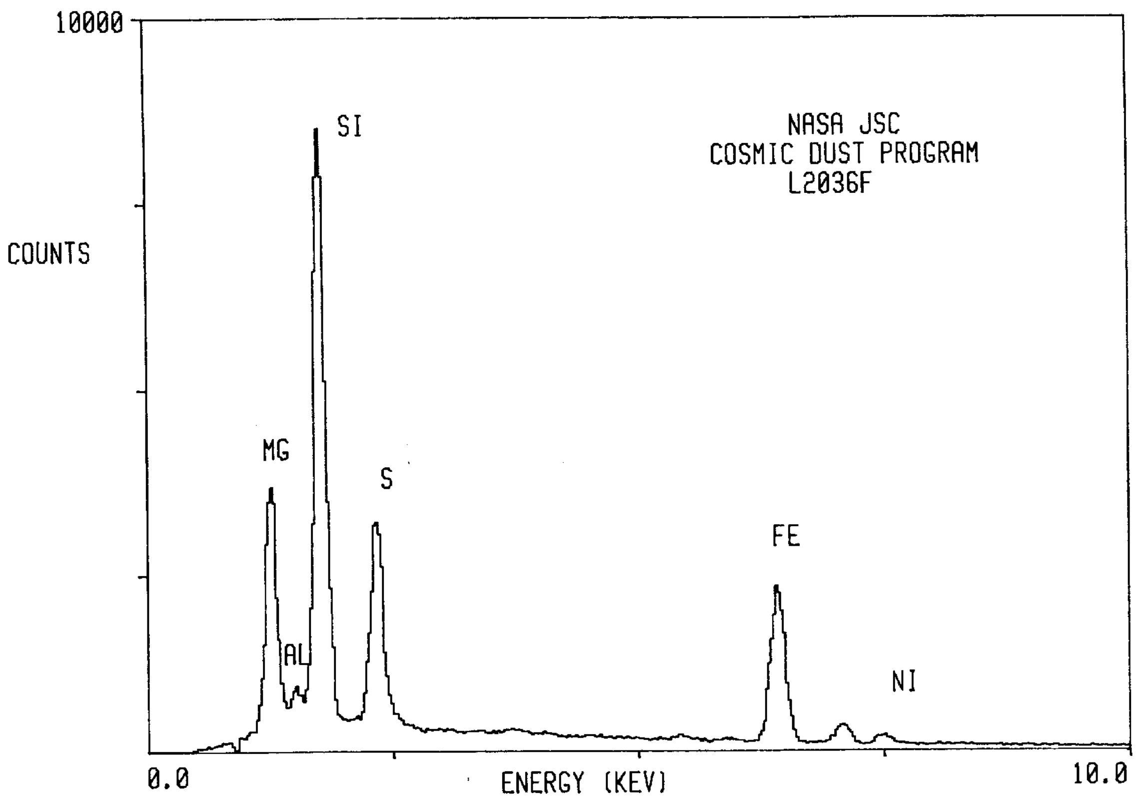


L2036F19

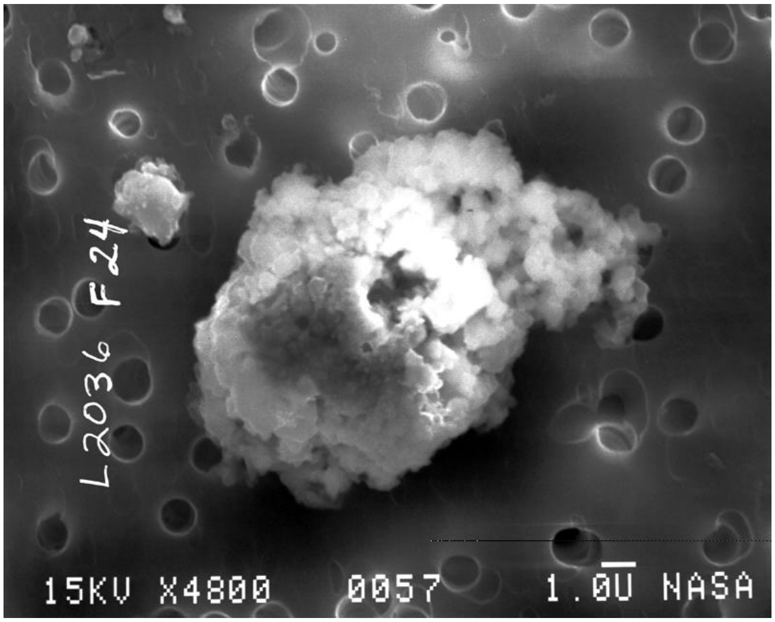


97E00091

Size: 15x12
Shape: I
Trans: O
Color: Black
Luster: P
Type: C
Comments:



L2036F24



97E00096

Size: 13x9

Shape: I

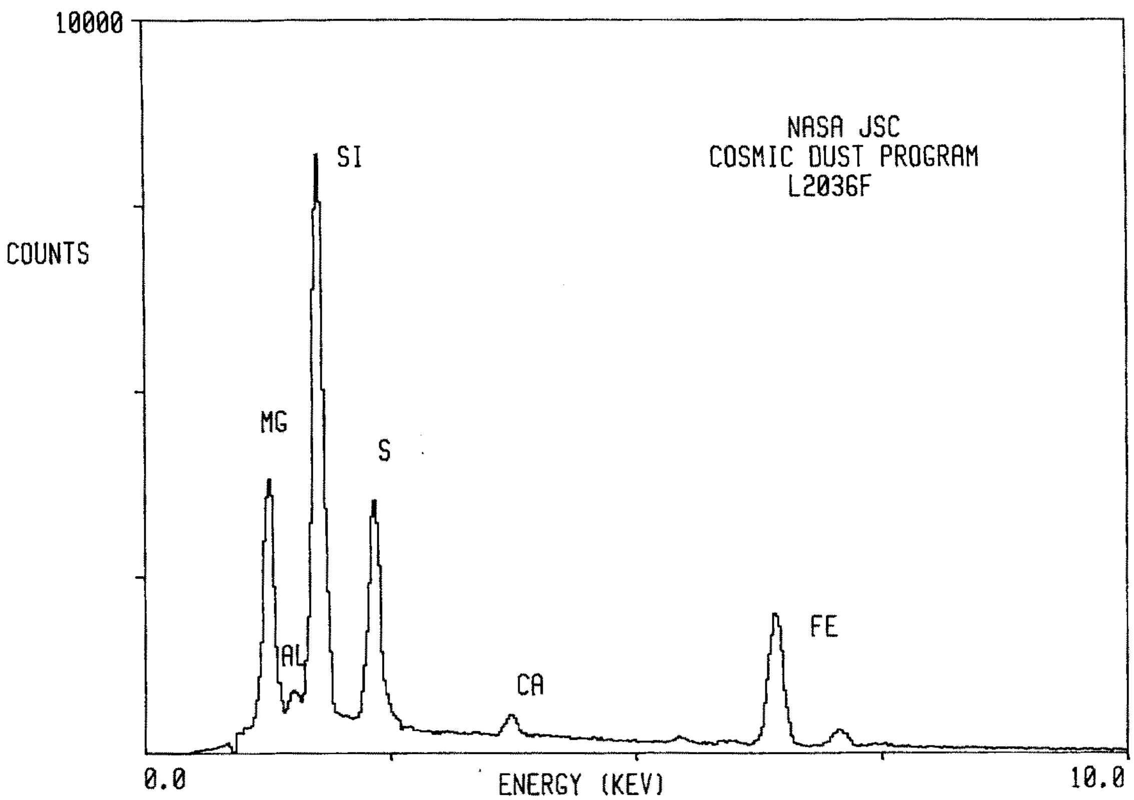
Trans: O/TL

Color: Black-Colorless

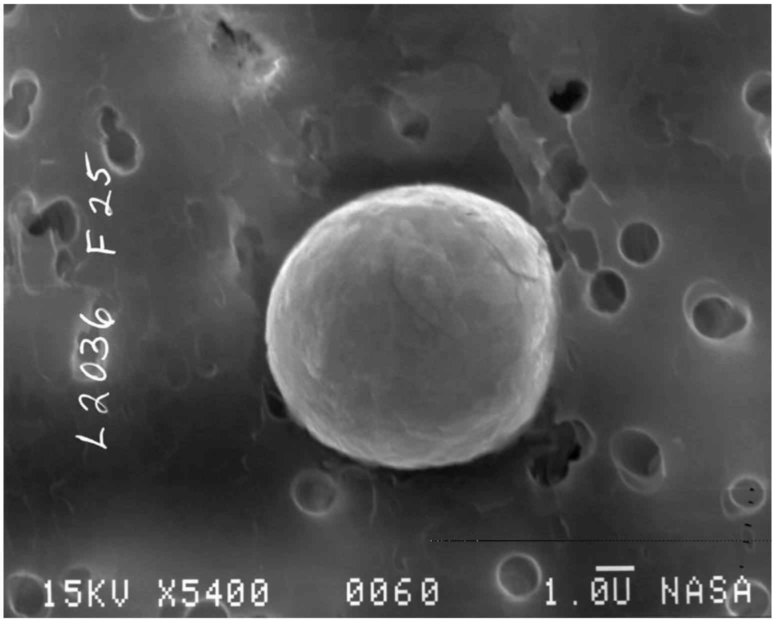
Luster: D/SV

Type: C

Comments:



L2036F25



97E00097

Size: 5

Shape: S

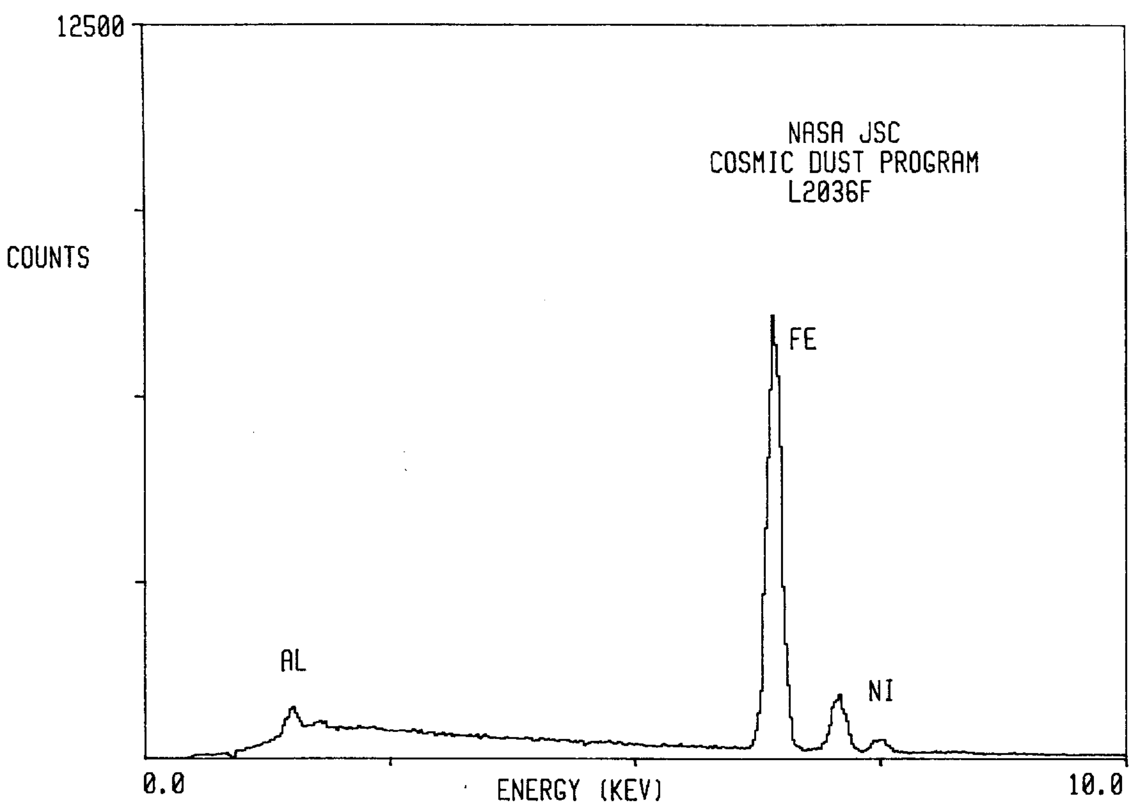
Trans: O

Color: Black

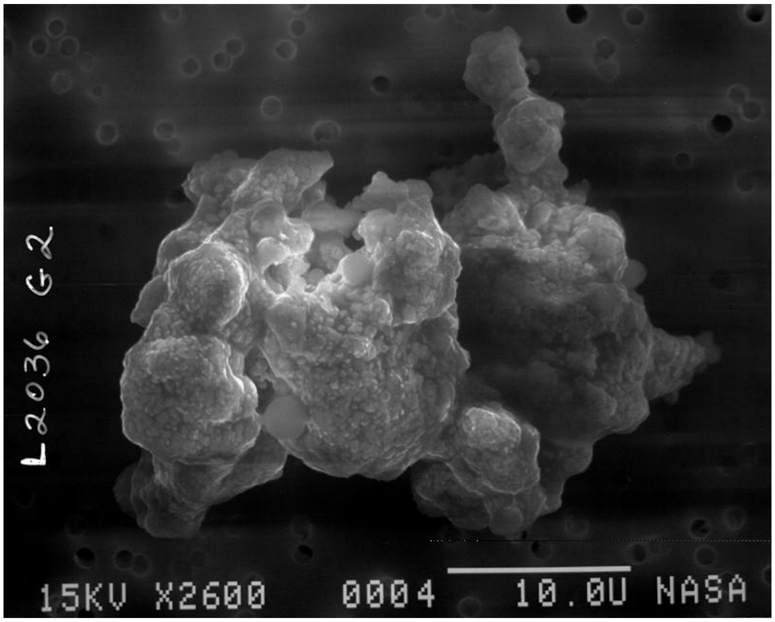
Luster: P

Type: C

Comments:



L2036G2



97E00100

Size:	29x18
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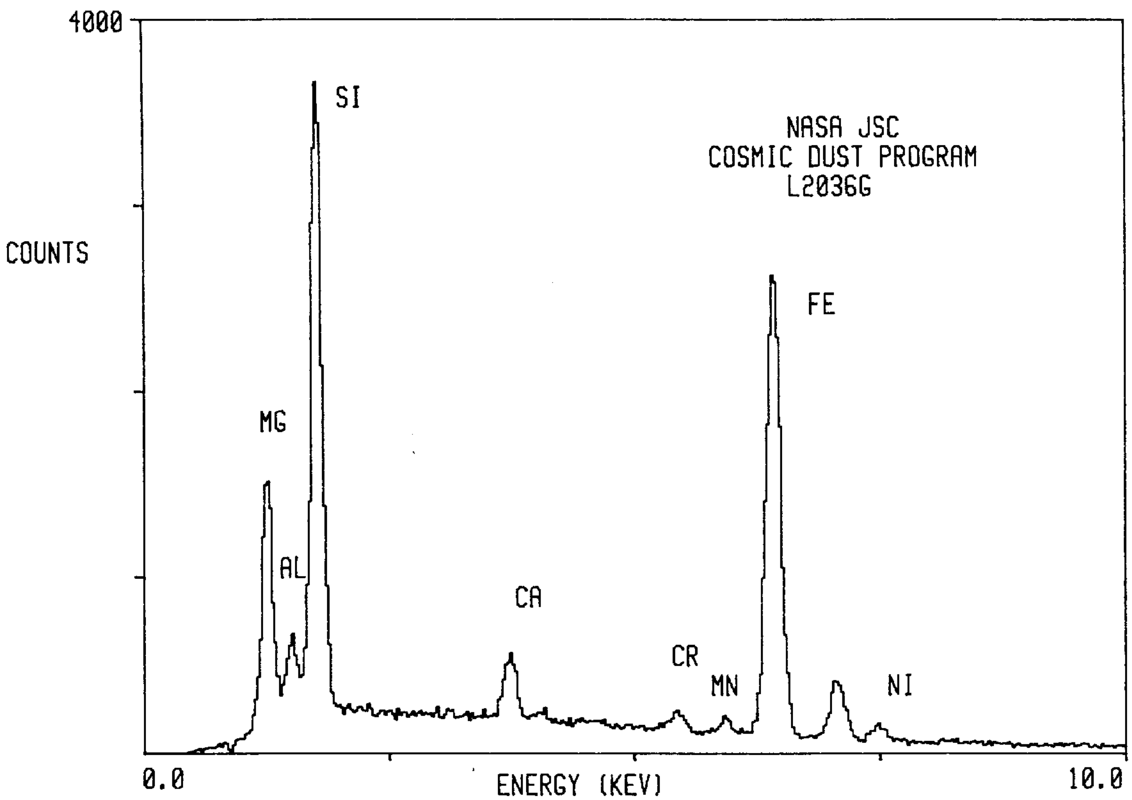
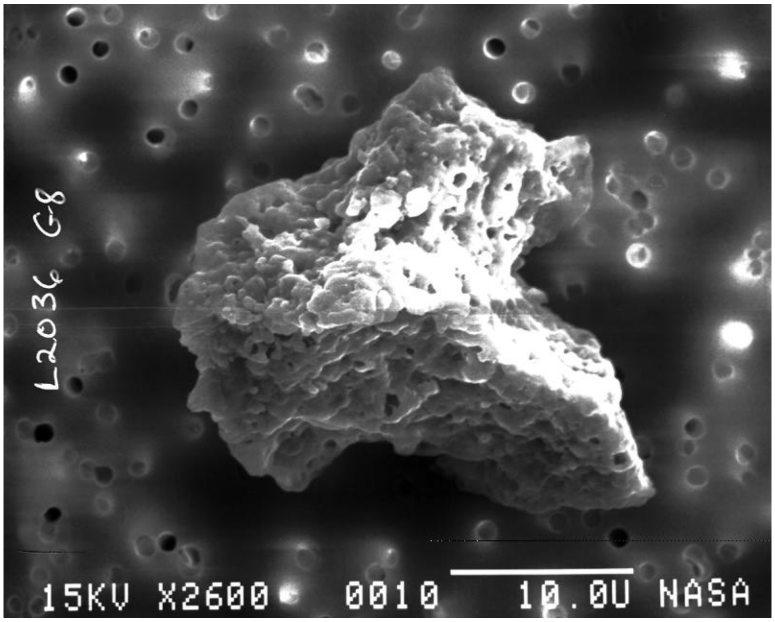
Trans:	O
Color:	Black
Luster:	M
Type:	C
Comments:	

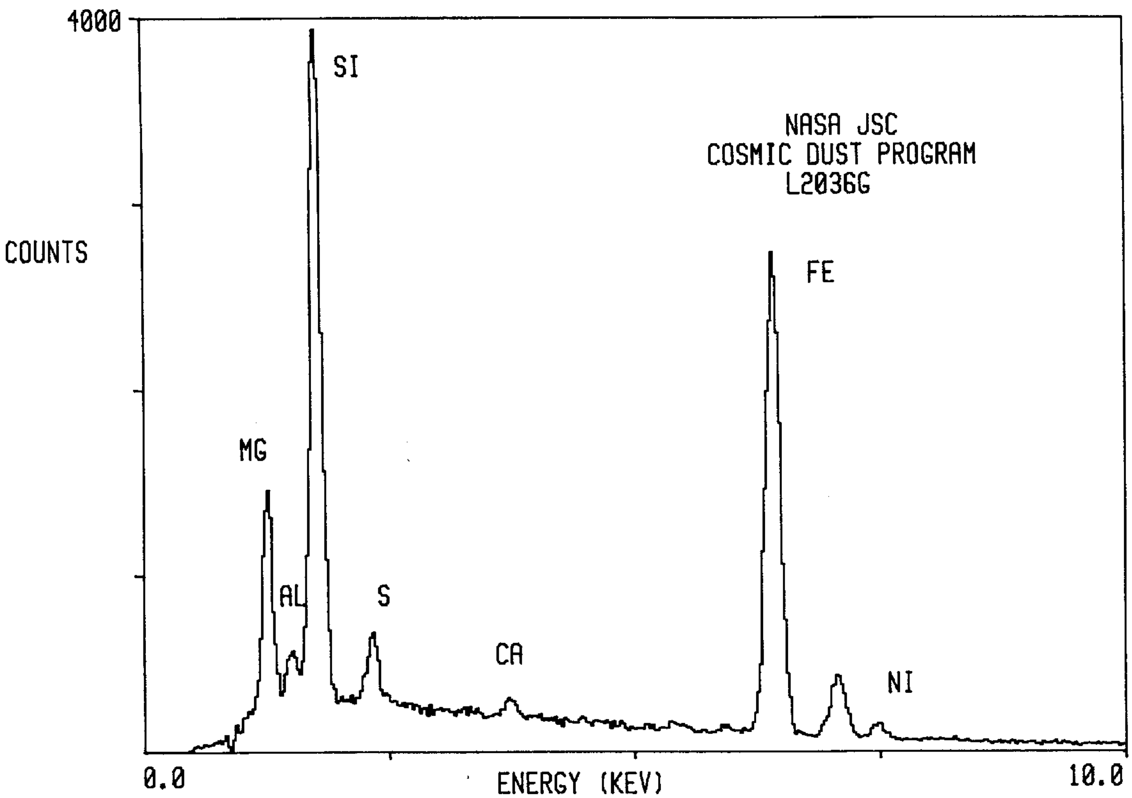


L2036G8

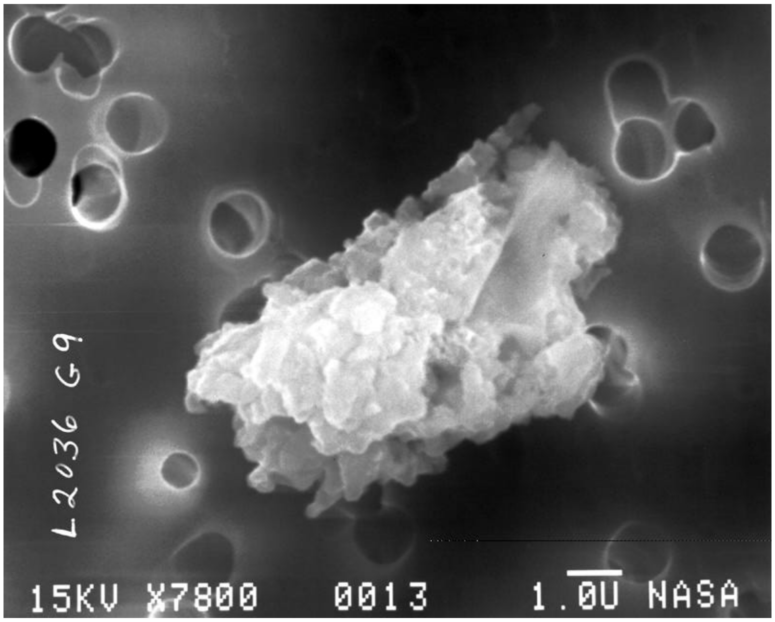


97E00106

Size: 25x23
Shape: I
Trans: O
Color: Black
Luster: SM
Type: C
Comments:



L2036G9



97E00107

Size: 6x3

Shape: I

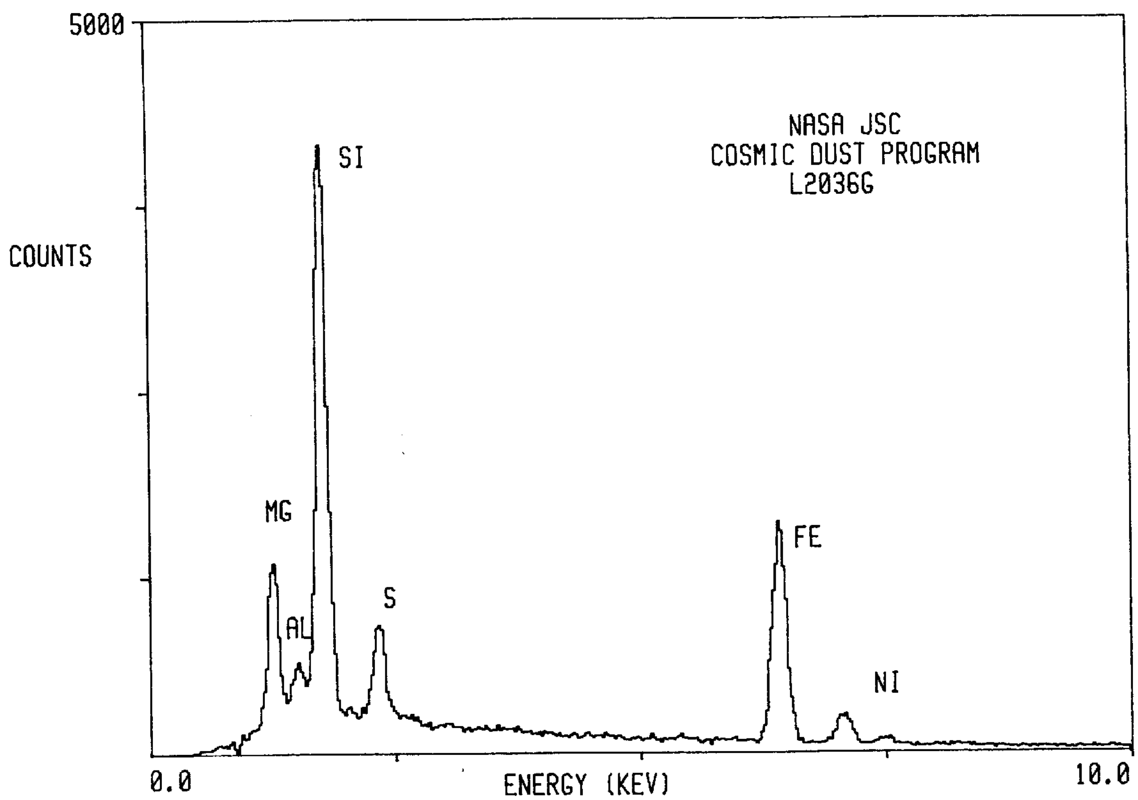
Trans: O

Color: Black

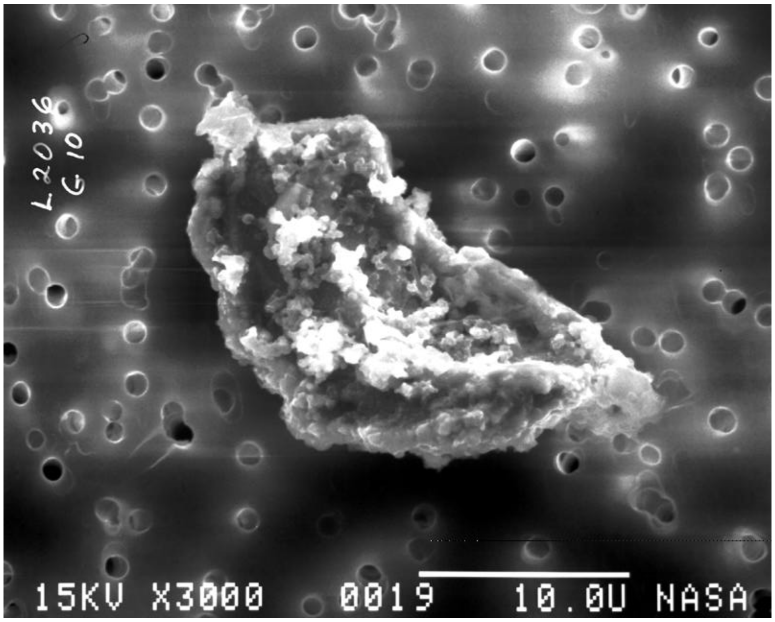
Luster: P

Type: C

Comments:



L2036G10



97E00108

Size: 22x13

Shape: I

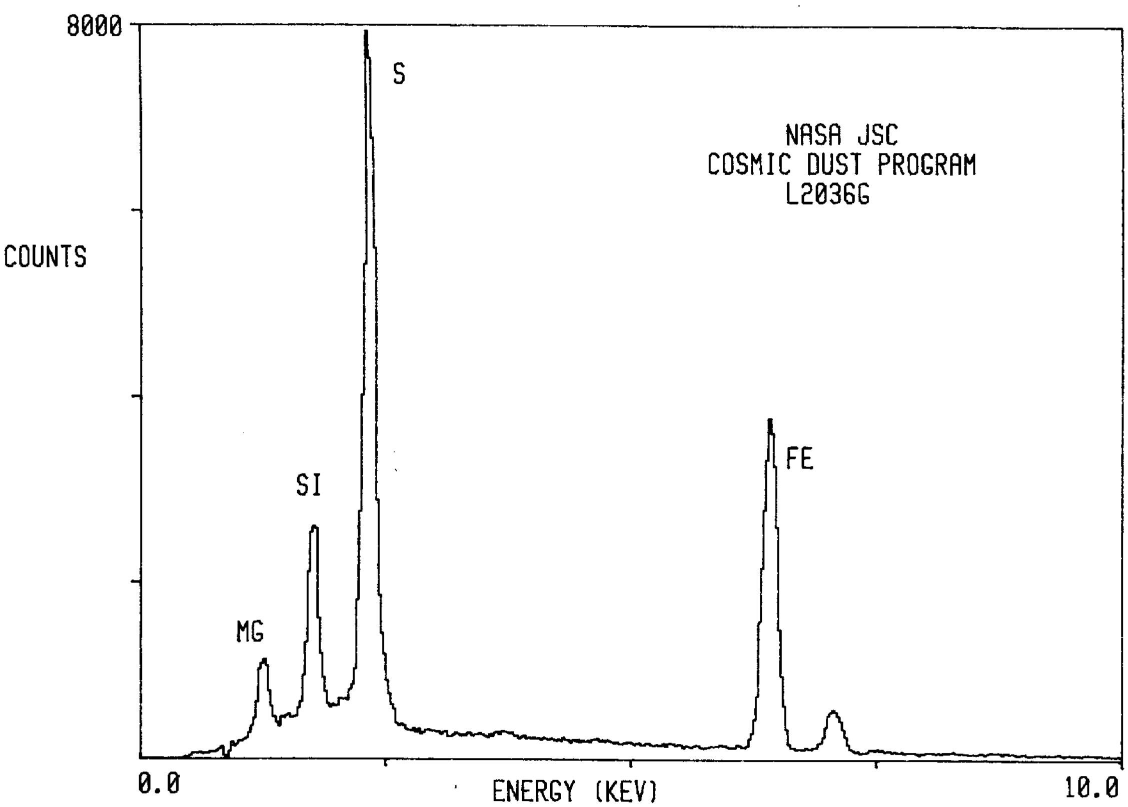
Trans: O

Color: Black

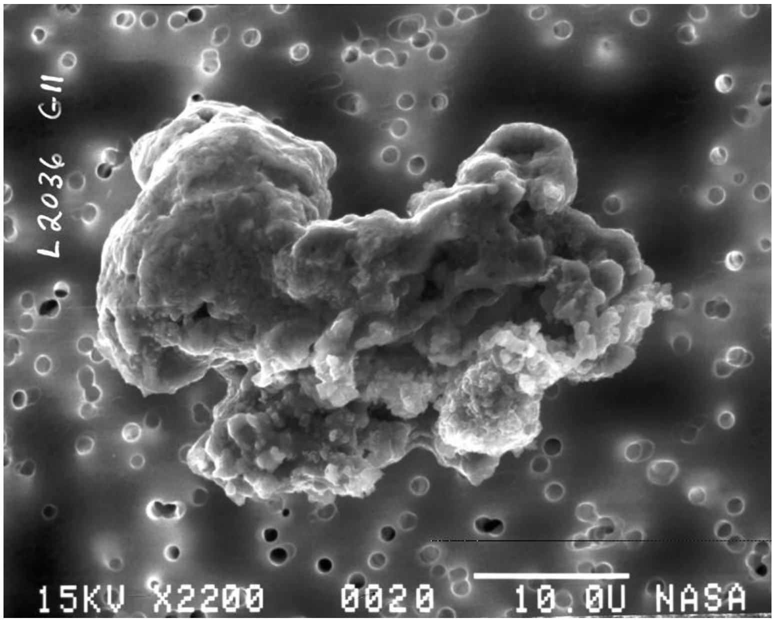
Luster: SM

Type: C?

Comments:



L2036G11



97E00109

Size: 33x22

Shape: I

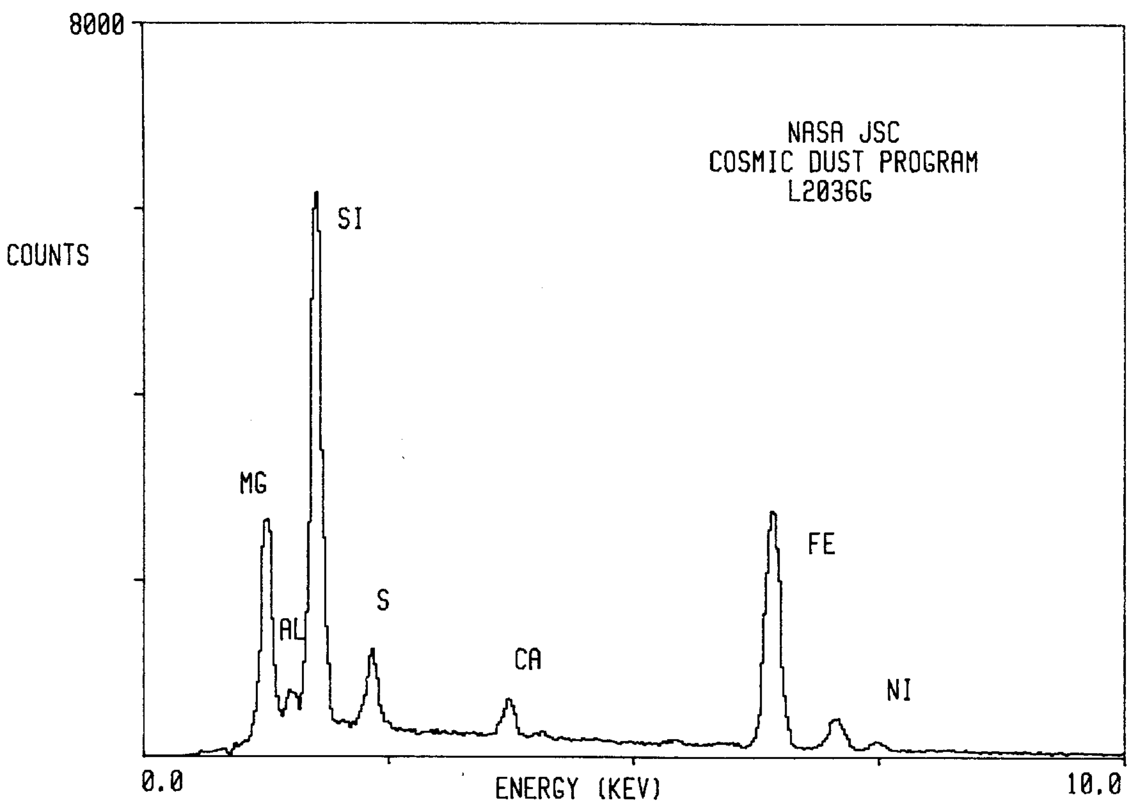
Trans: O/TL

Color: Black/White

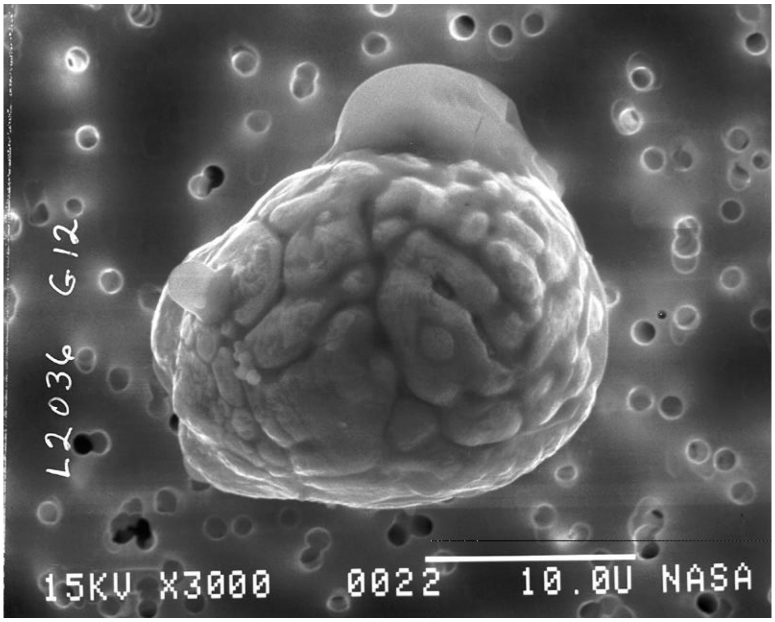
Luster: D/SV

Type: C

Comments:



L2036G12



97E00110

Size: 23x19

Shape: I

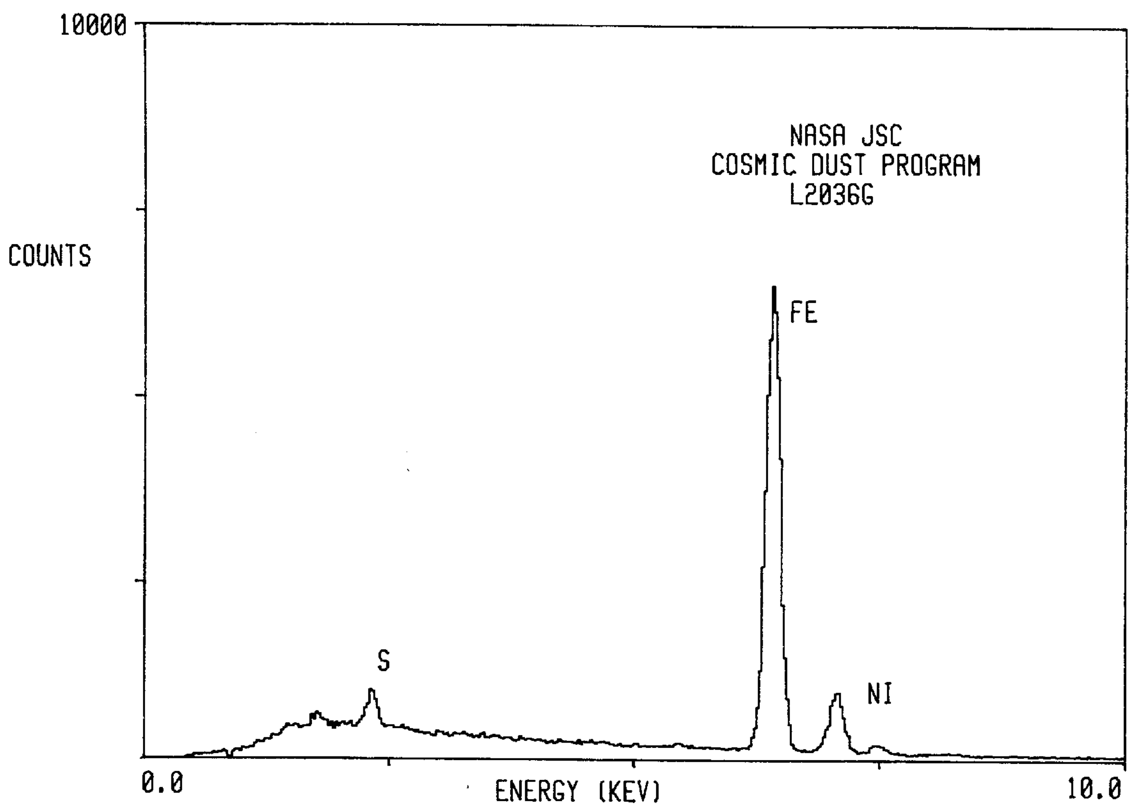
Trans: O/T

Color: Black-Colorless

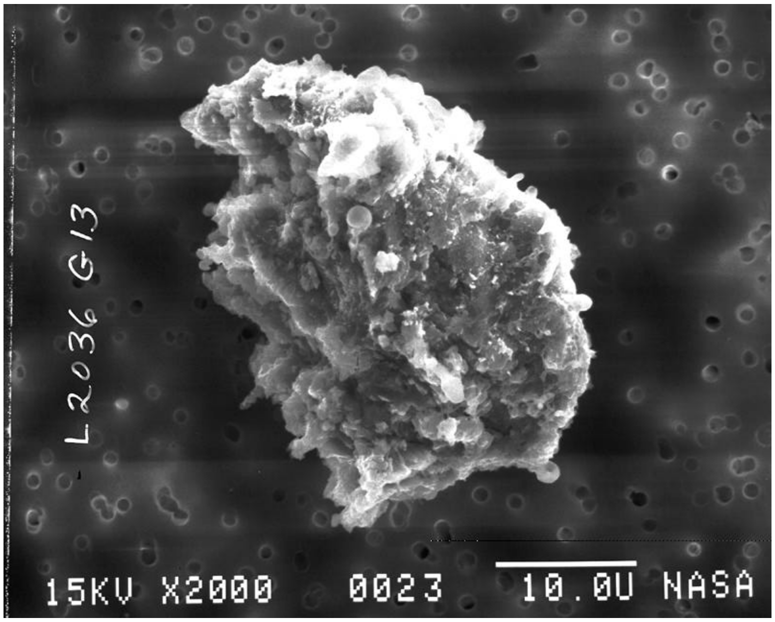
Luster: P/V

Type: C

Comments:



L2036G13



97E00111

Size: 30x23

Shape: I

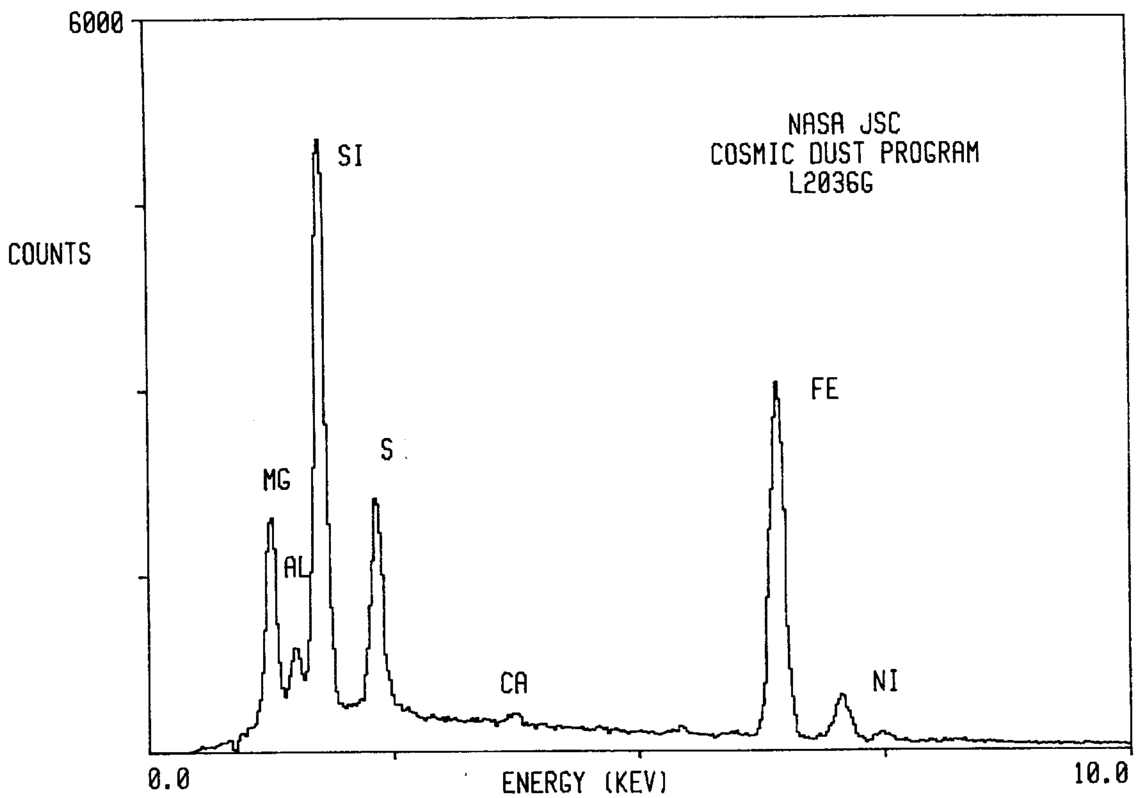
Trans: O

Color: Black

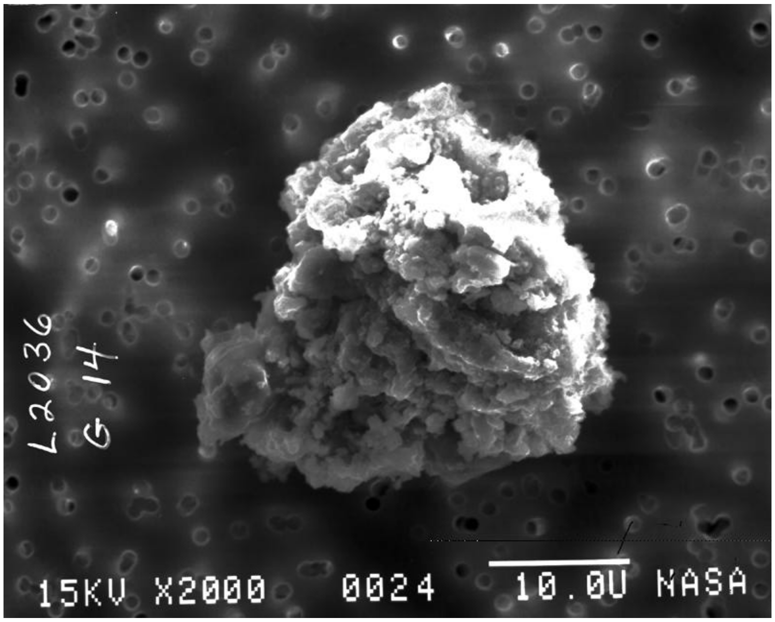
Luster: P

Type: C

Comments:



L2036G14



97E00112

Size: 27x23

Shape: I

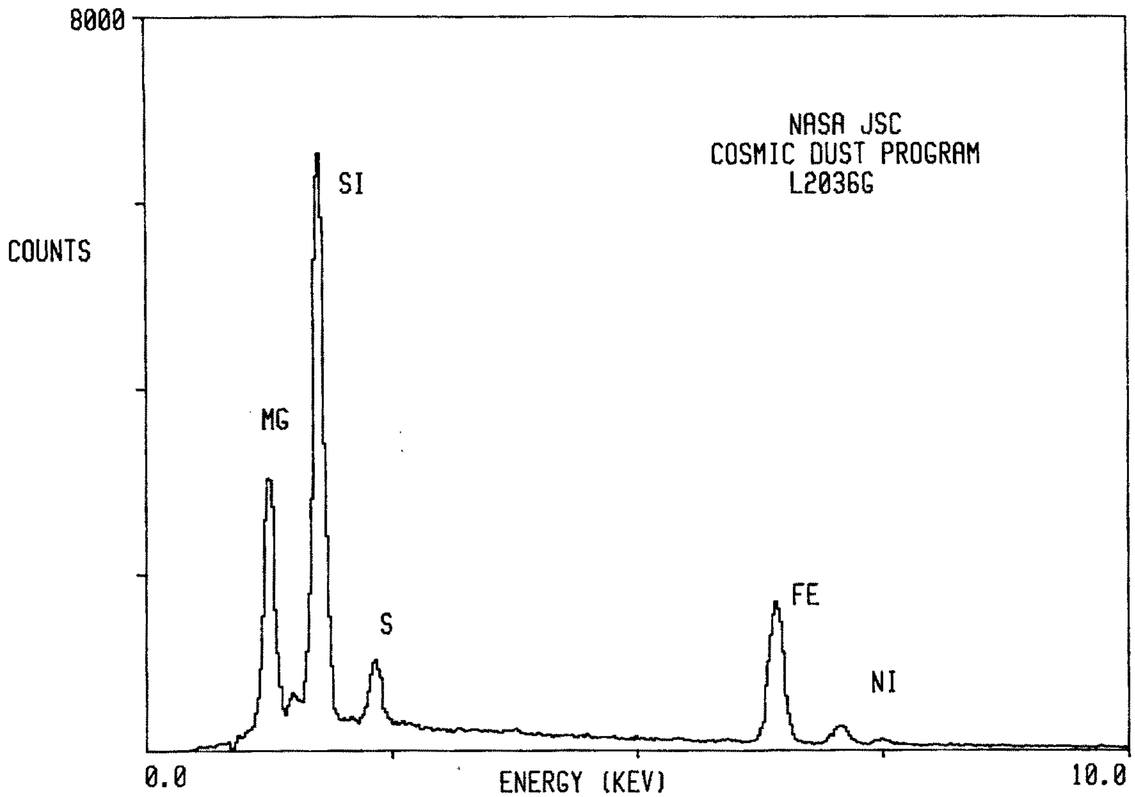
Trans: O/TL

Color: Black-Colorless

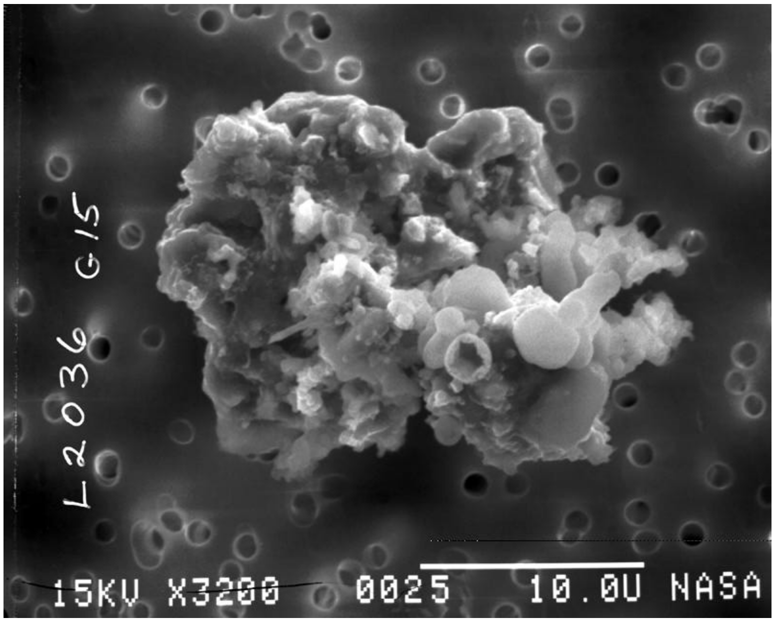
Luster: SM/SV

Type: C

Comments:

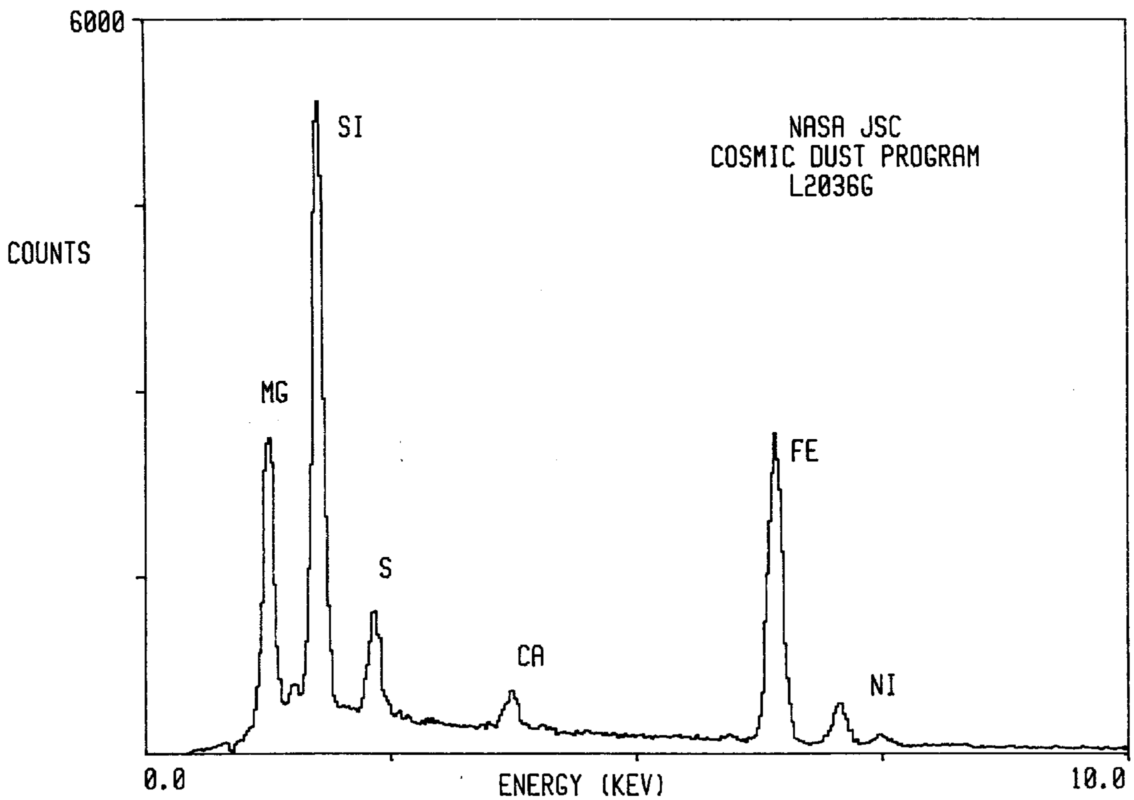


L2036G15

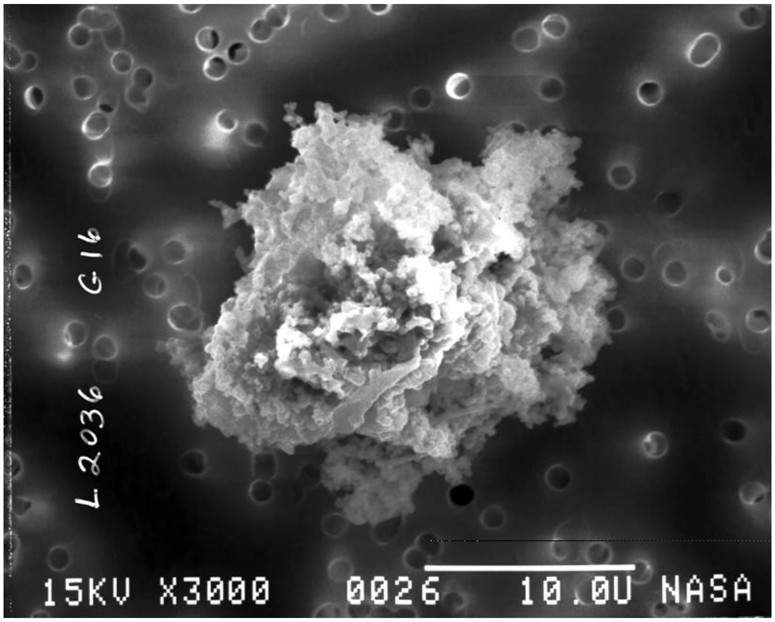


97E00113

Size:	20x14
Shape:	I
Trans:	O/TL
Color:	Black-White
Luster:	P/SV
Type:	C
Comments:	

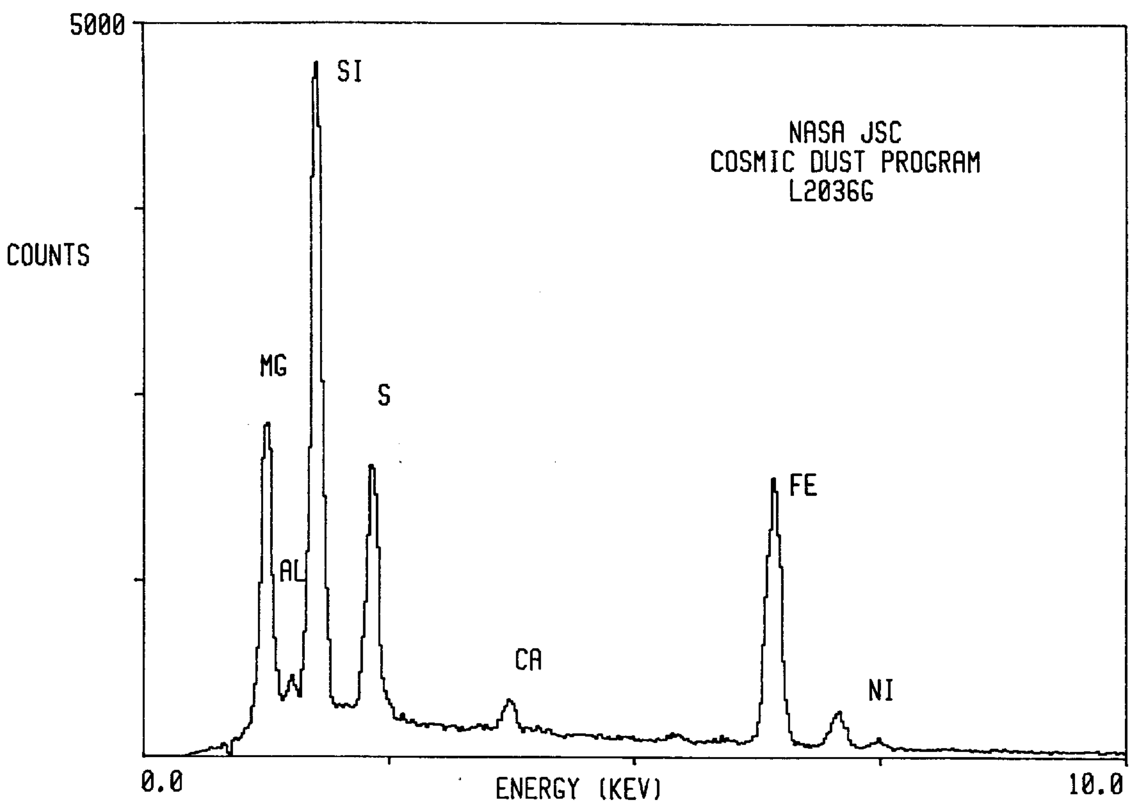


L2036G16

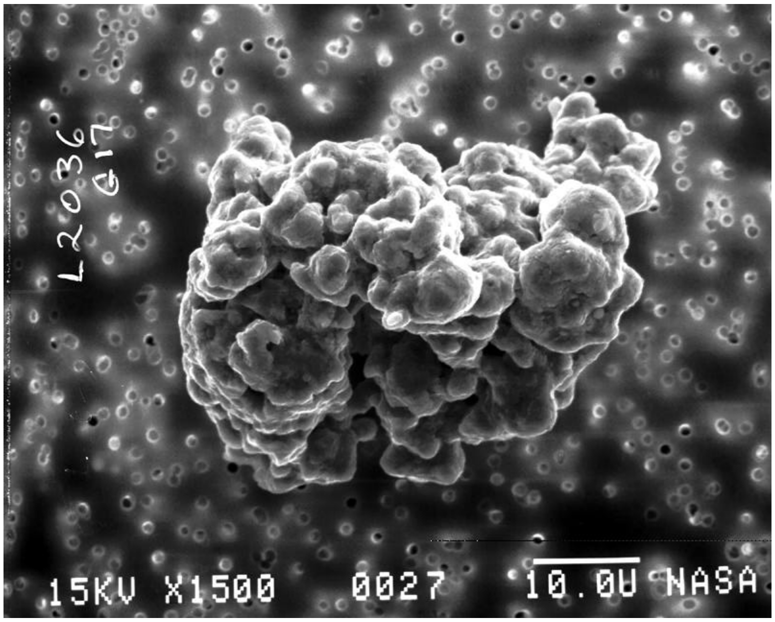


97E00114

Size: 14x12
Shape: I
Trans: O/TL
Color: Black-Brown
Luster: P/SV
Type: C
Comments:

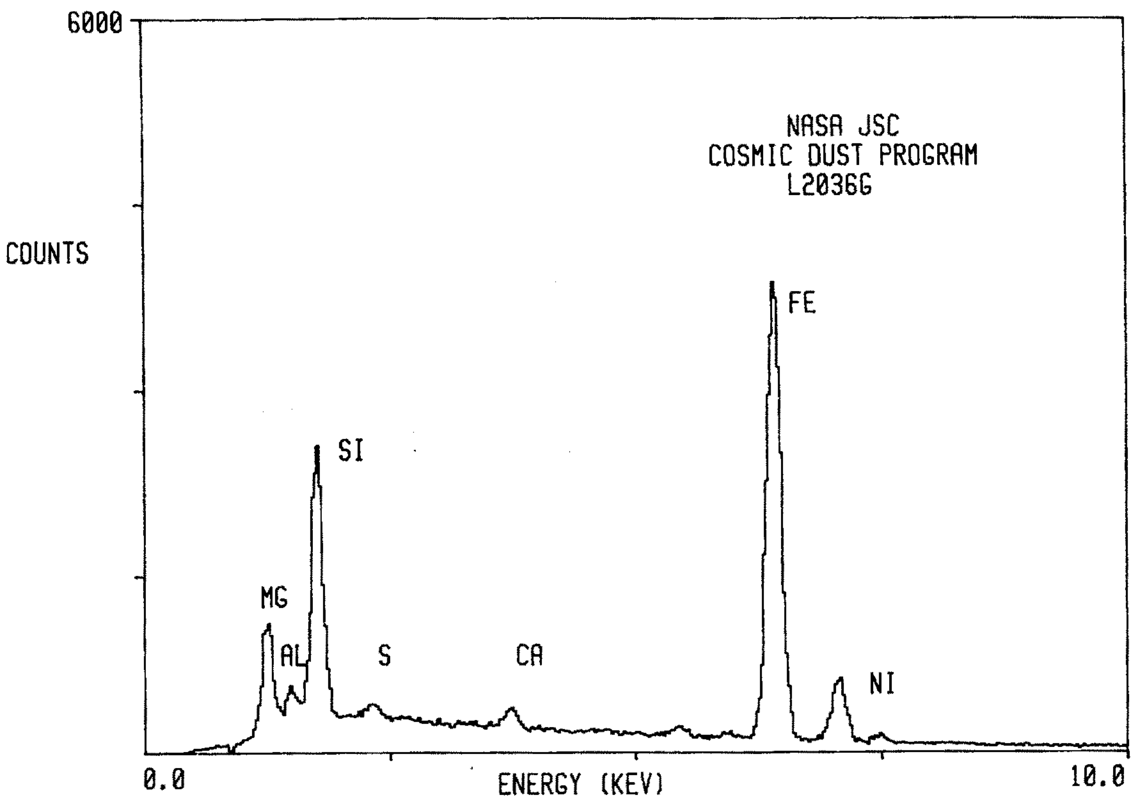


L2036G17

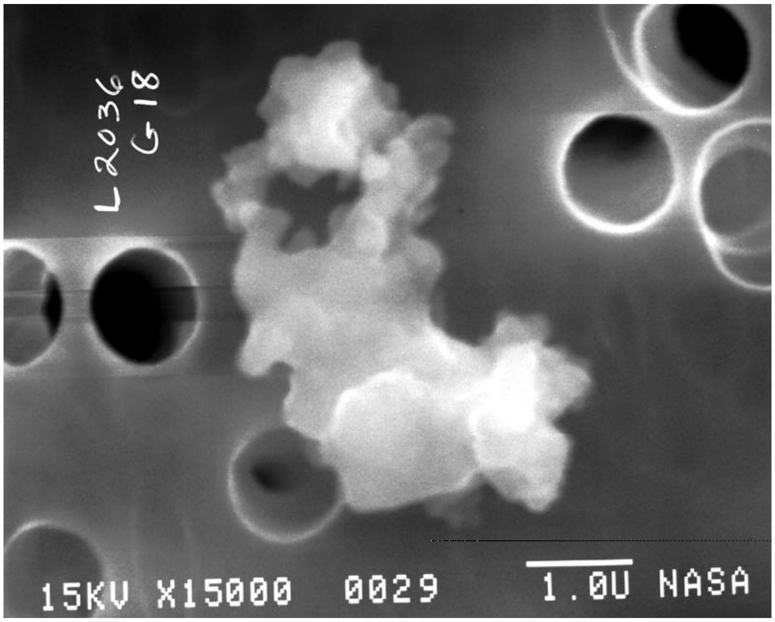


97E00115

Size:	39x33
Shape:	I
Trans:	O/TL
Color:	Black-White
Luster:	SM/SV
Type:	C?
Comments:	



L2036G18



97E00116

Size: 9x7

Shape: I

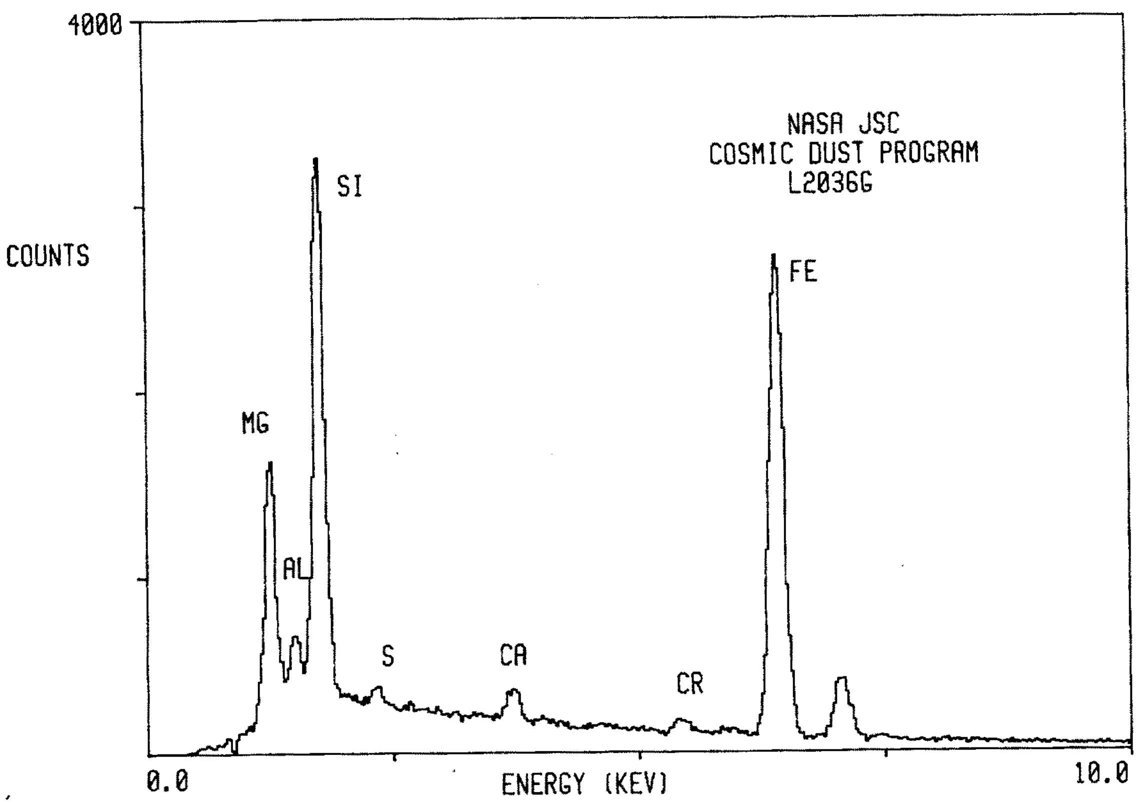
Trans: O

Color: Black

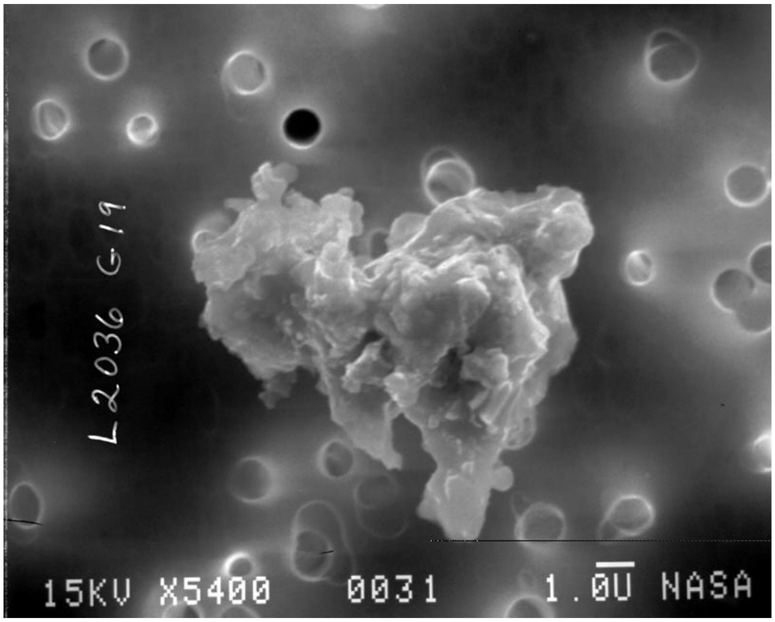
Luster: P

Type: C?

Comments:



L2036G19



97E00117

Size: 8
Shape: I
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Luster: D
Type: C
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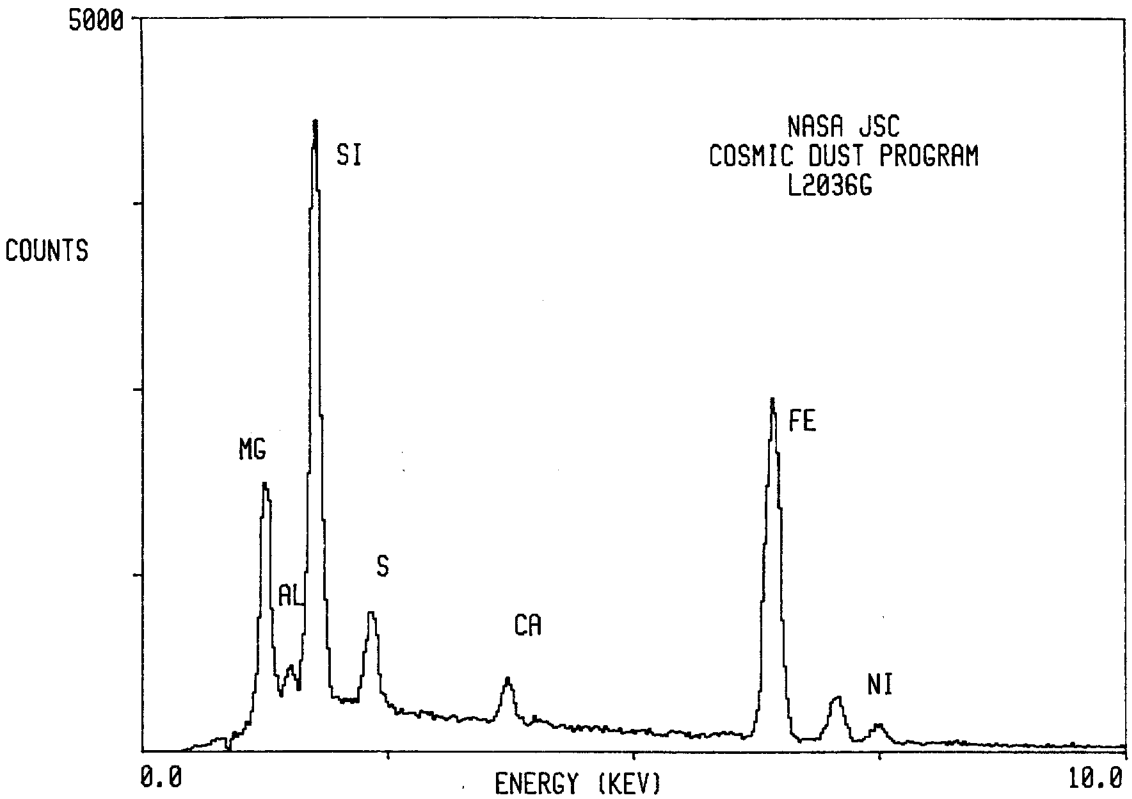
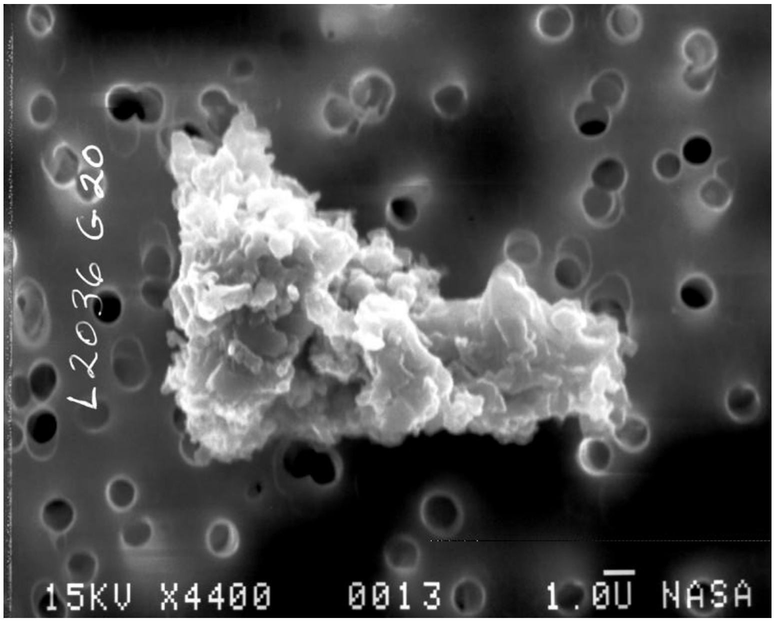


L2036G20



97E00118

Size: 14x10
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Trans: O
Color: Black
Luster: P
Type: C
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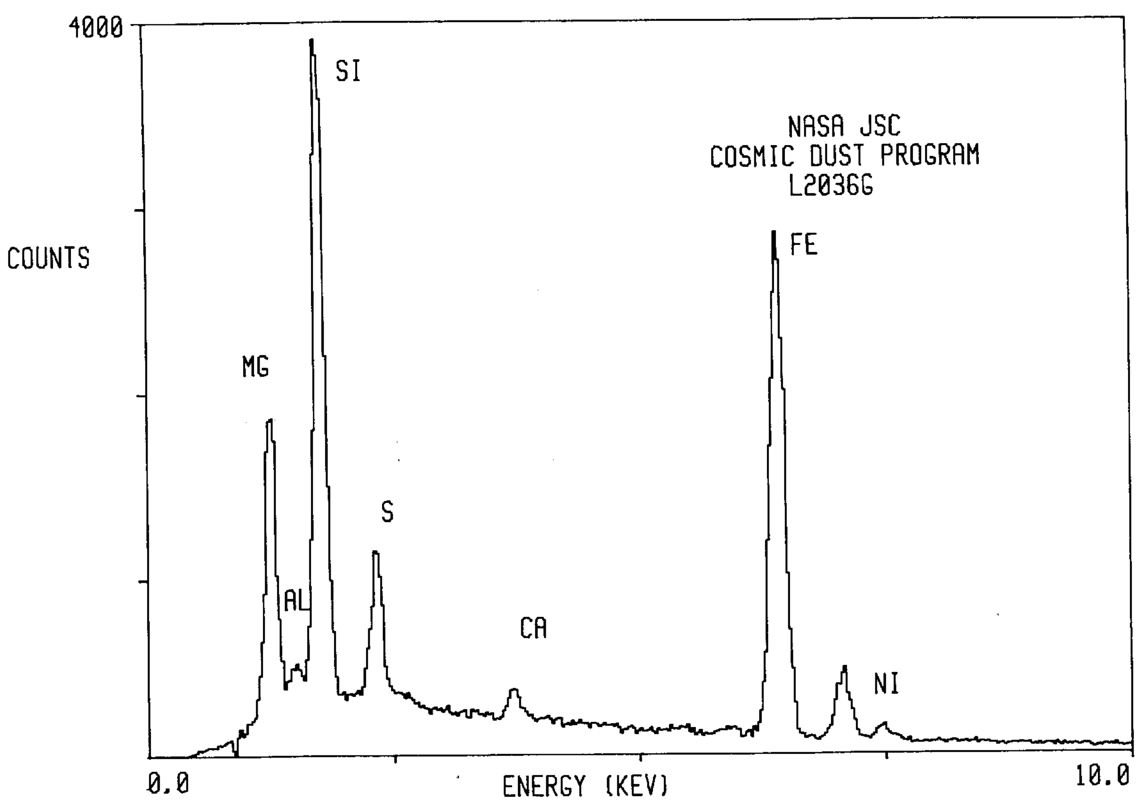
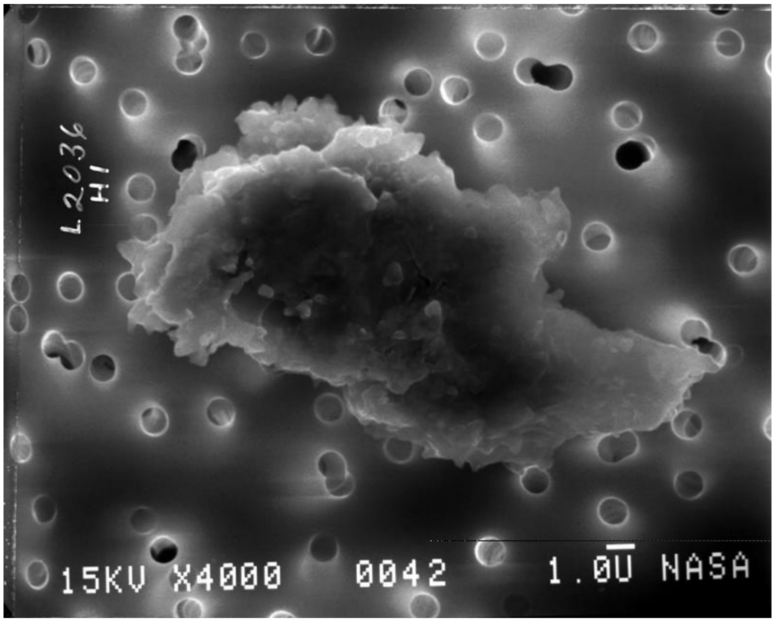


L2036H1



97E00119

Size: 20x10

Shape: I

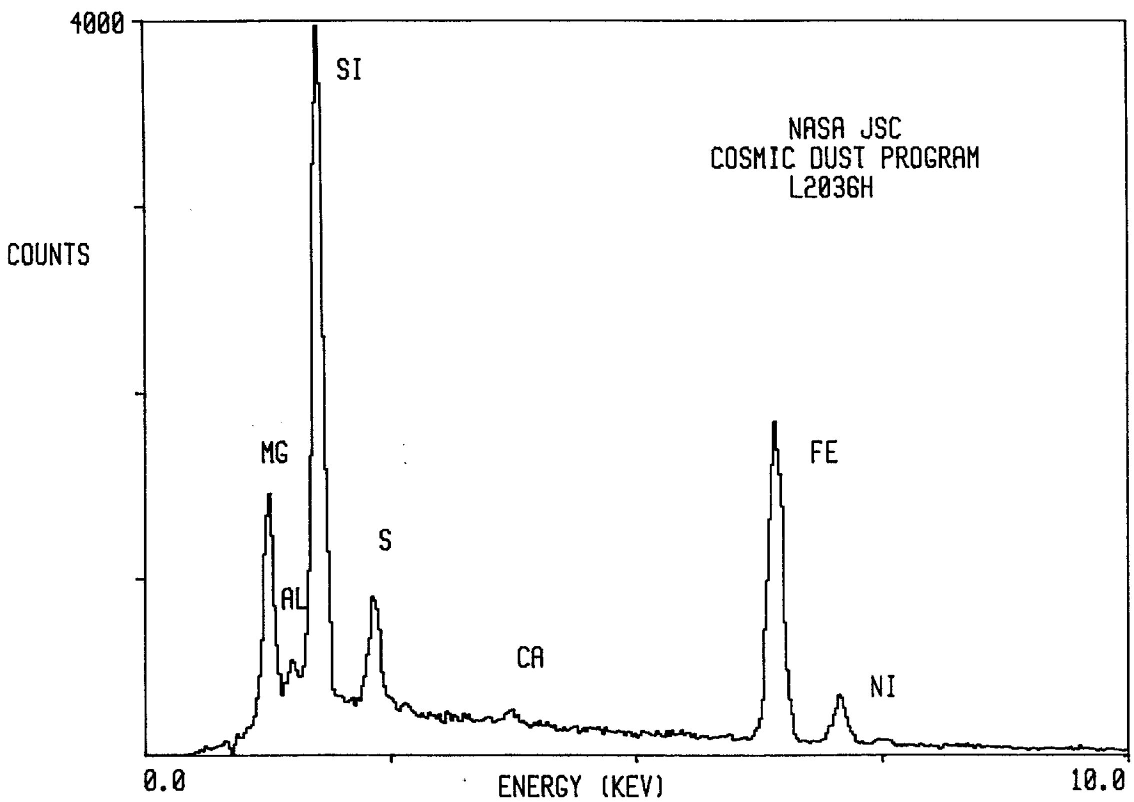
Trans: O

Color: Black

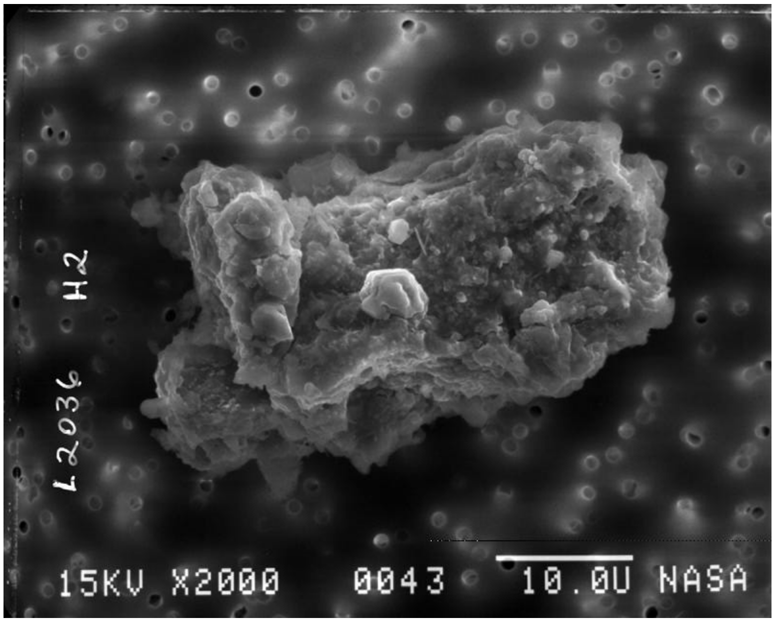
Luster: SM

Type: C

Comments:



L2036H2



97E00120

Size: 36x24
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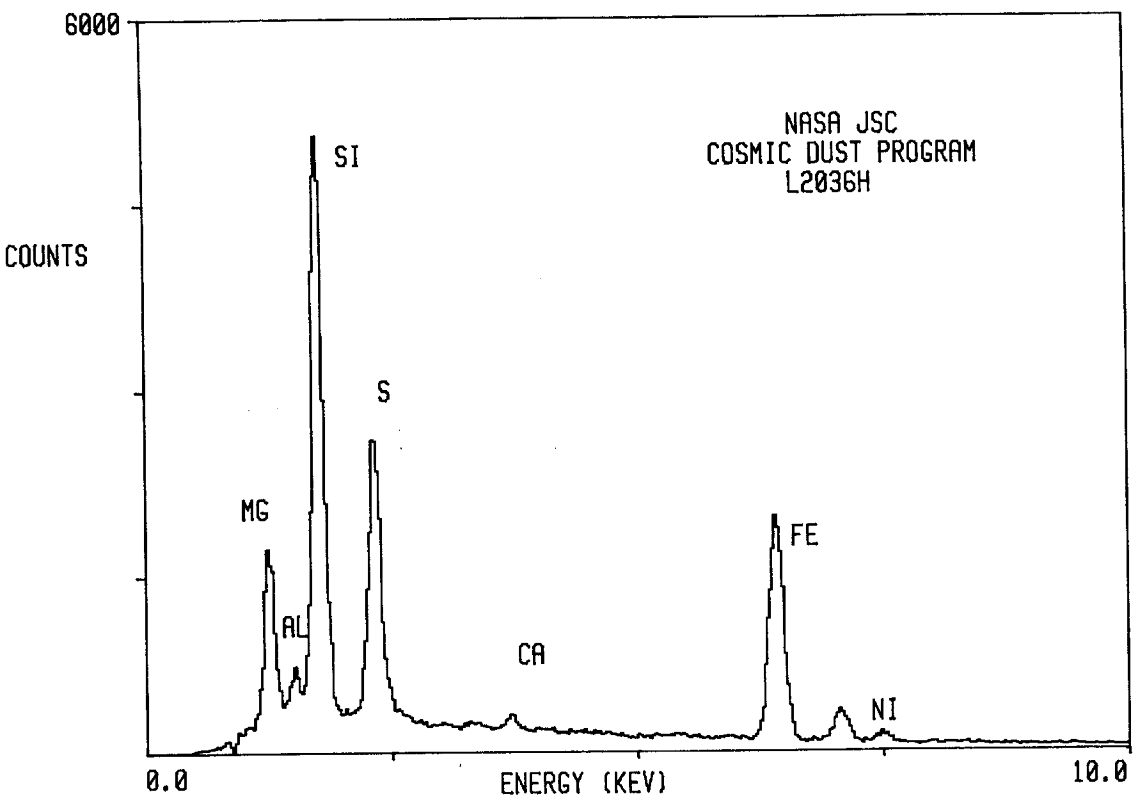
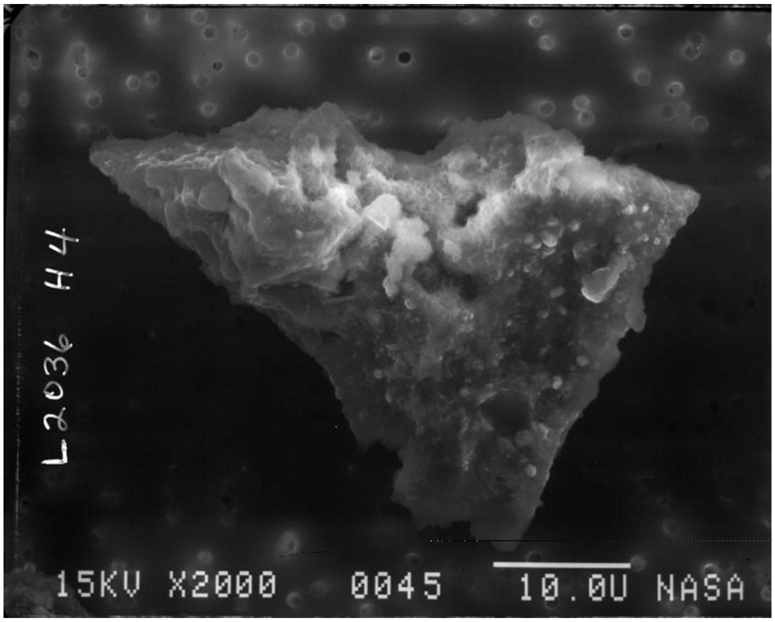
Trans: O
Color: Black
Luster: D
Type: C
Comments:



L2036H4



97E00122

Size: 37x28

Shape: I

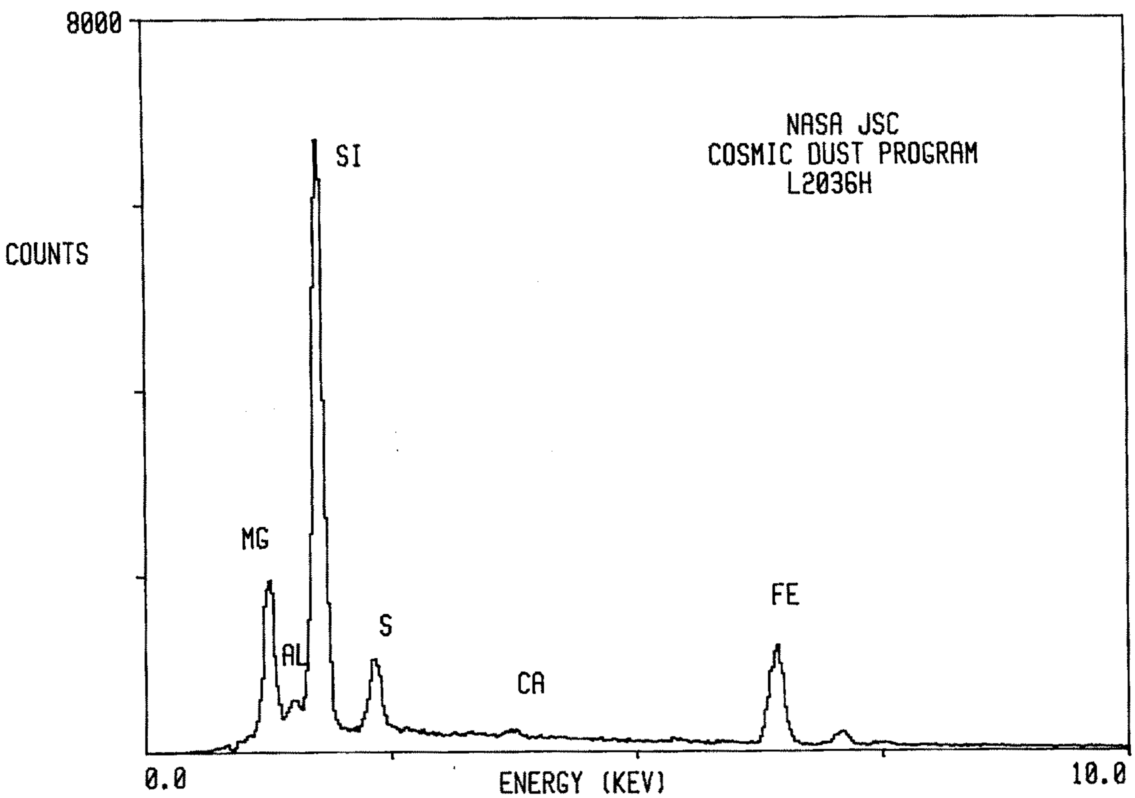
Trans: O

Color: Black

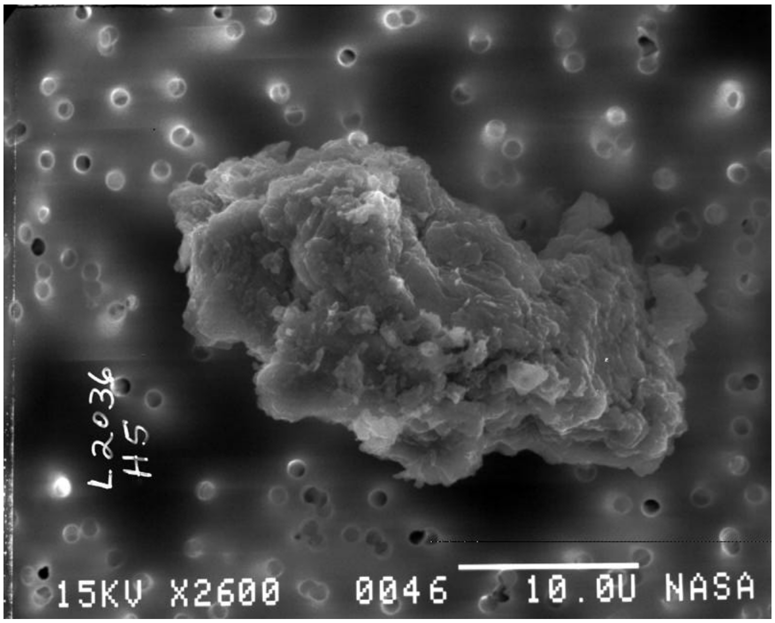
Luster: D

Type: C

Comments:



L2036H5



97E00123

Size: 28x15

Shape: I

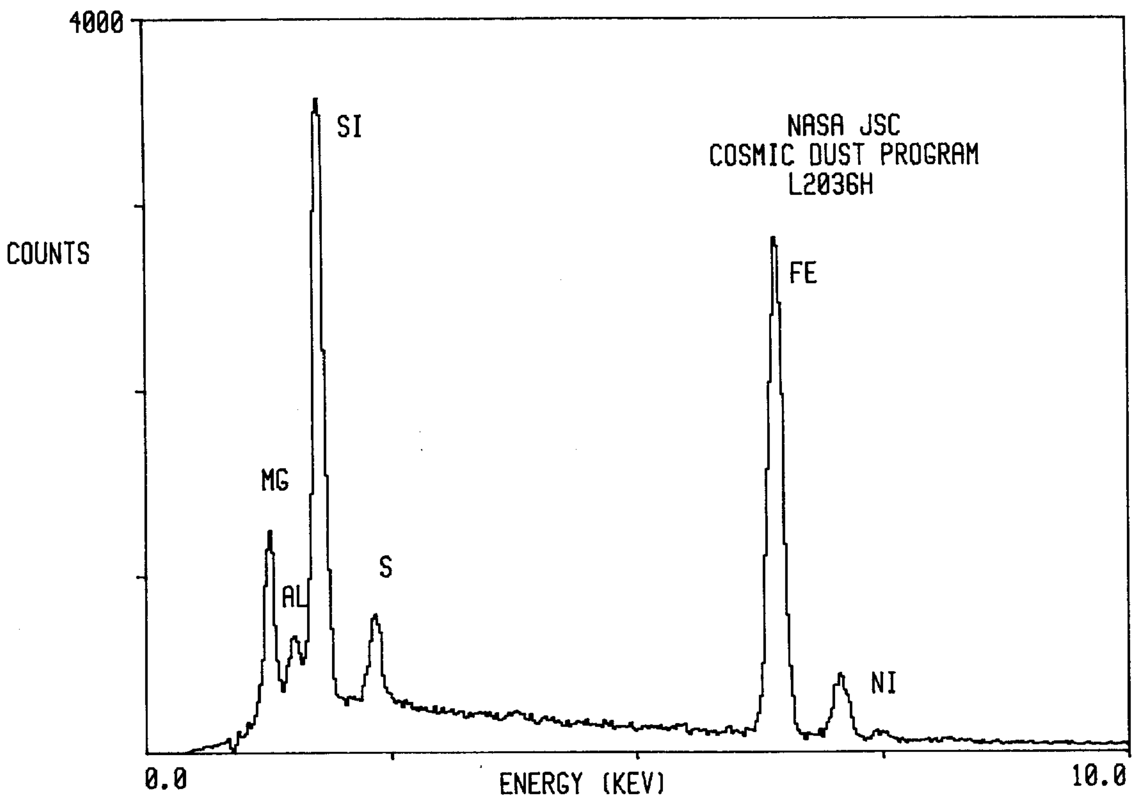
Trans: O

Color: Black

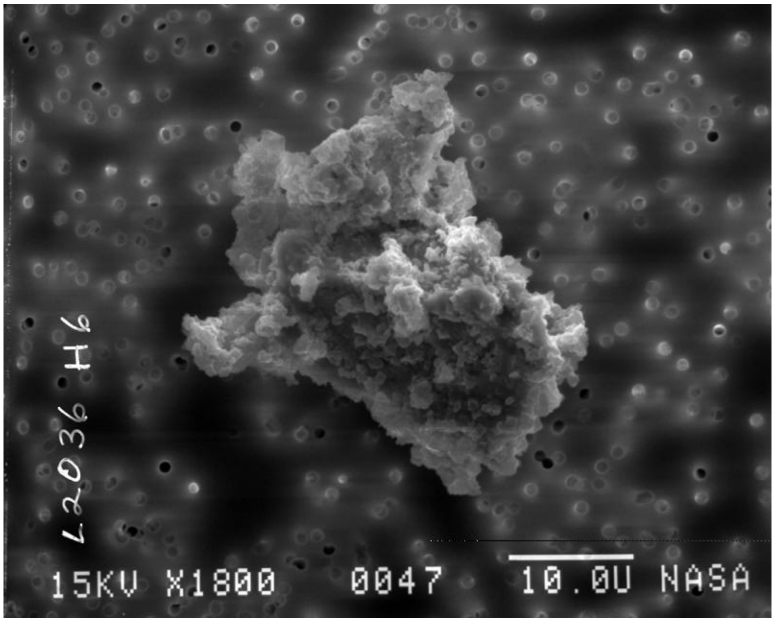
Luster: D

Type: C

Comments:

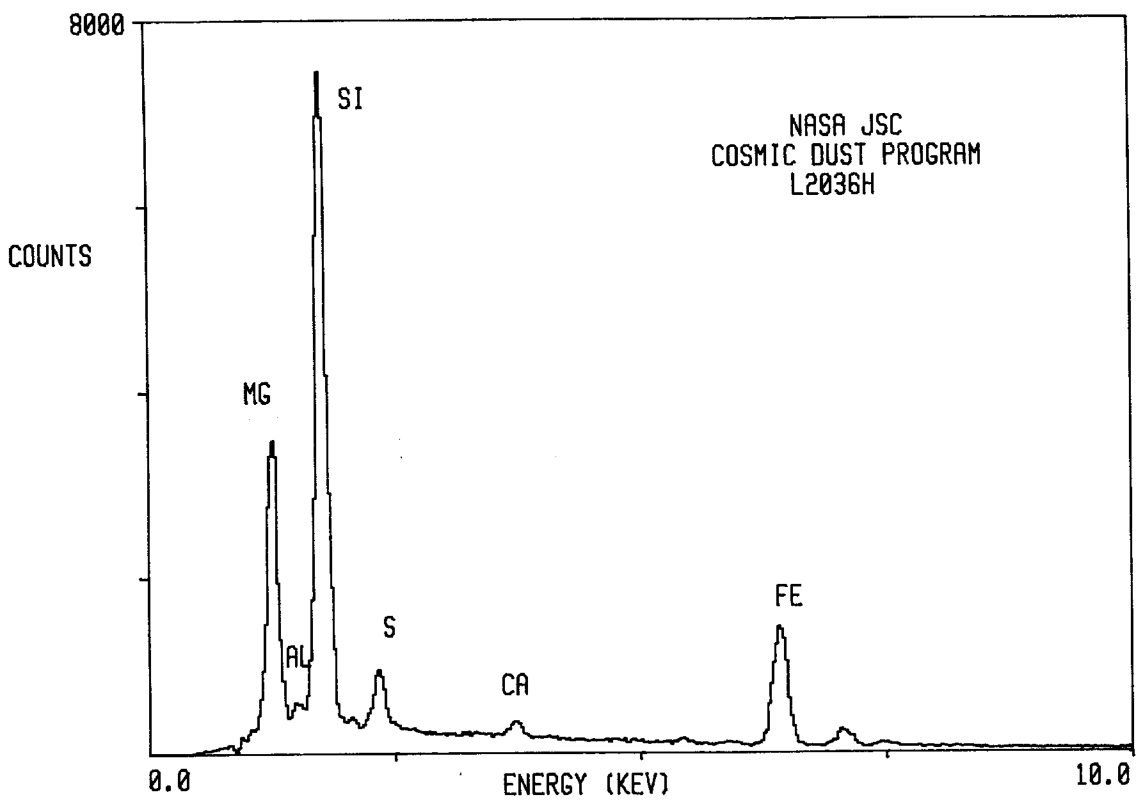


L2036H6

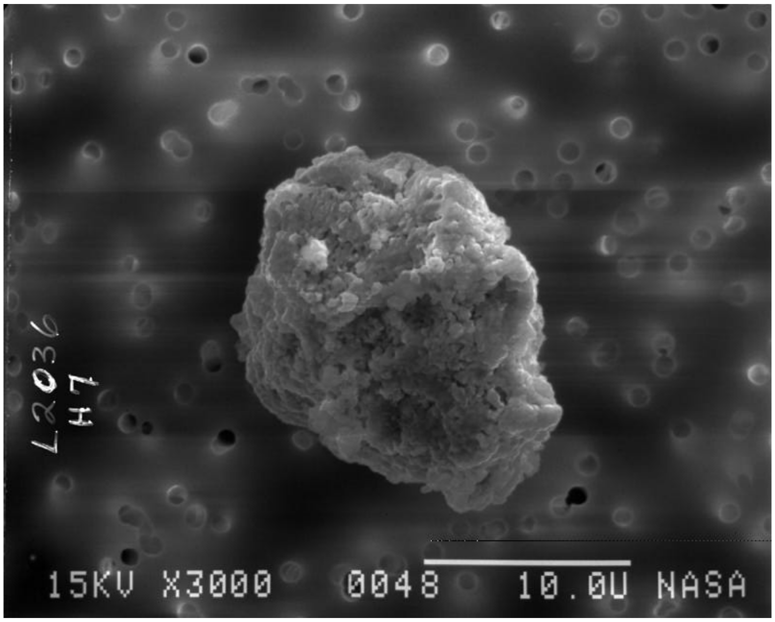


97E00124

Size: 33x22
Shape: I
Trans: O
Color: Gray-Brown
Luster: M
Type: C
Comments:

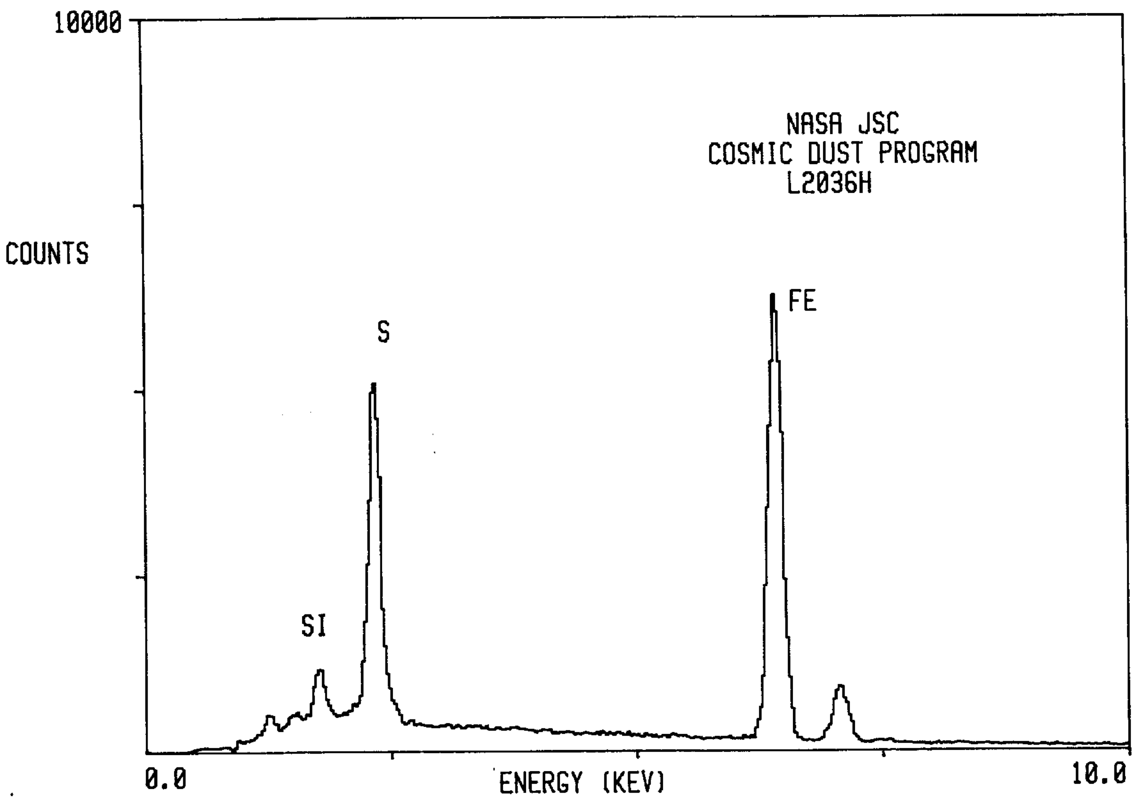


L2036H7

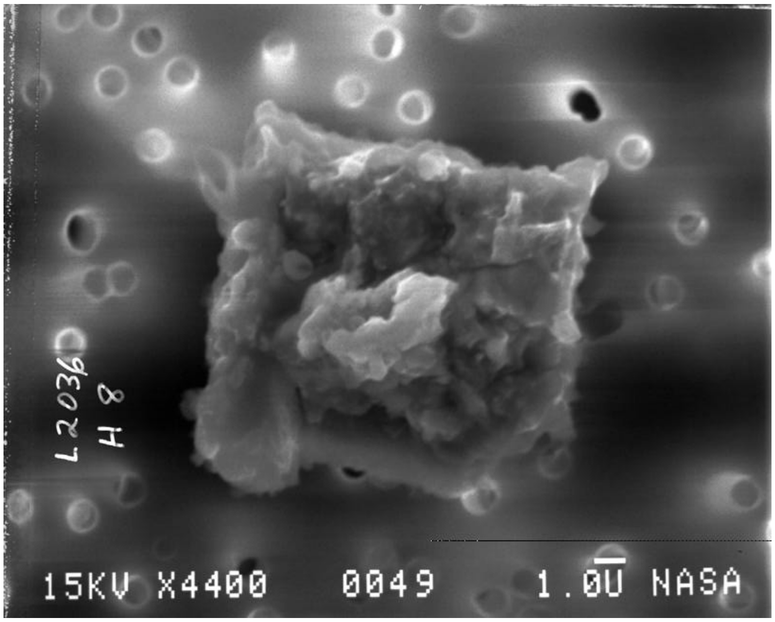


97E00125

Size: 15x13
Shape: I
Trans: O
Color: Black
Luster: SM
Type: C
Comments:

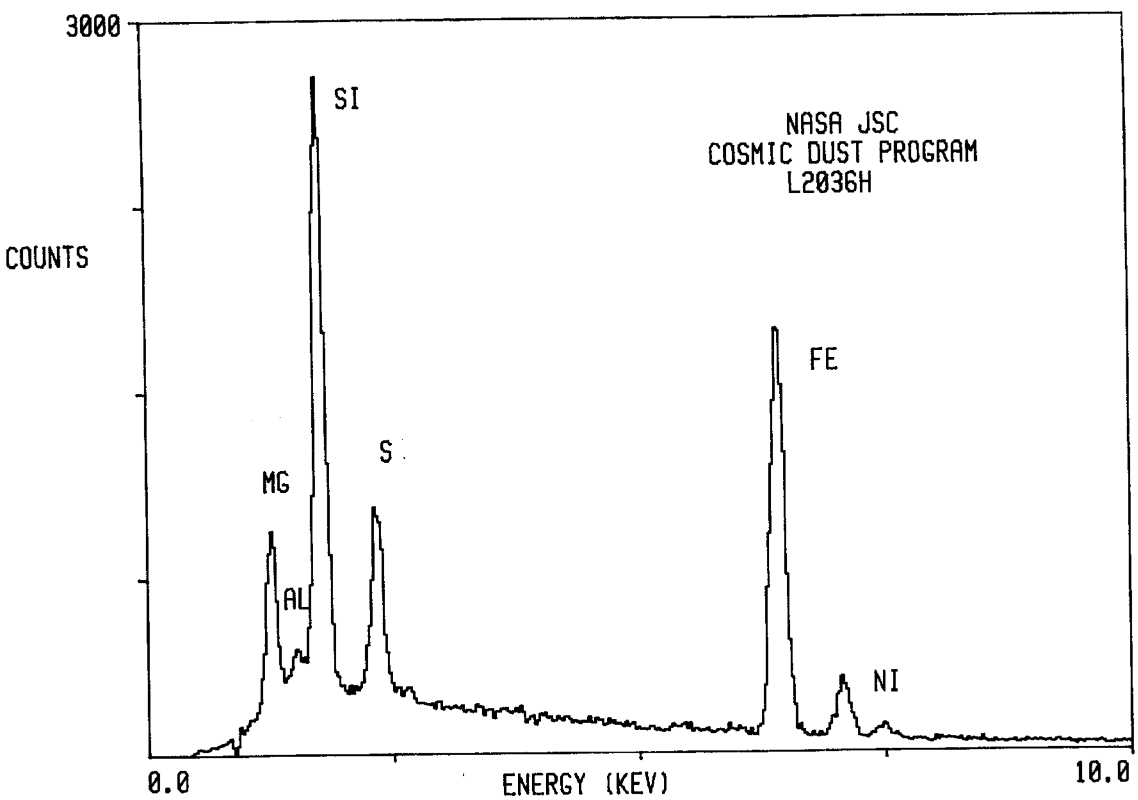


L2036H8

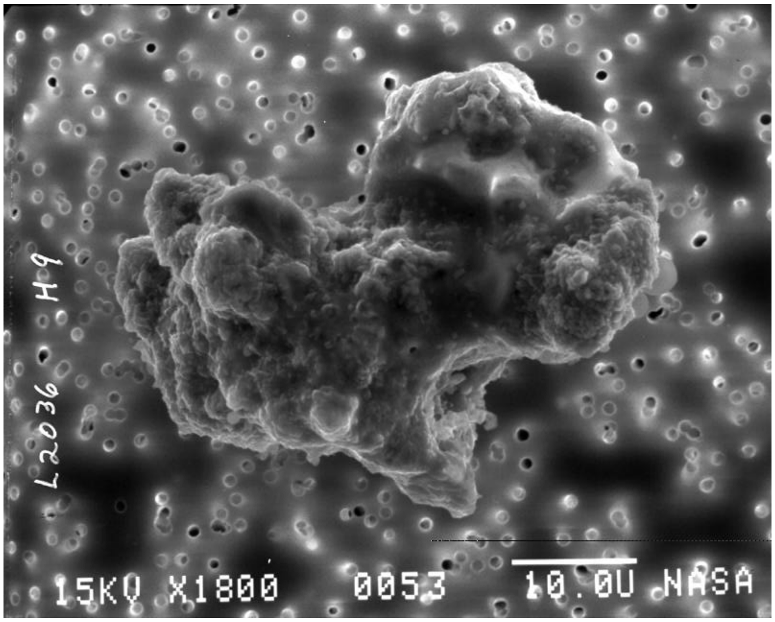


97E00126

Size: 12
Shape: E
Trans: O
Color: Black
Luster: D
Type: C
Comments:



L2036H9



97E00127

Size: 44x33

Shape: I

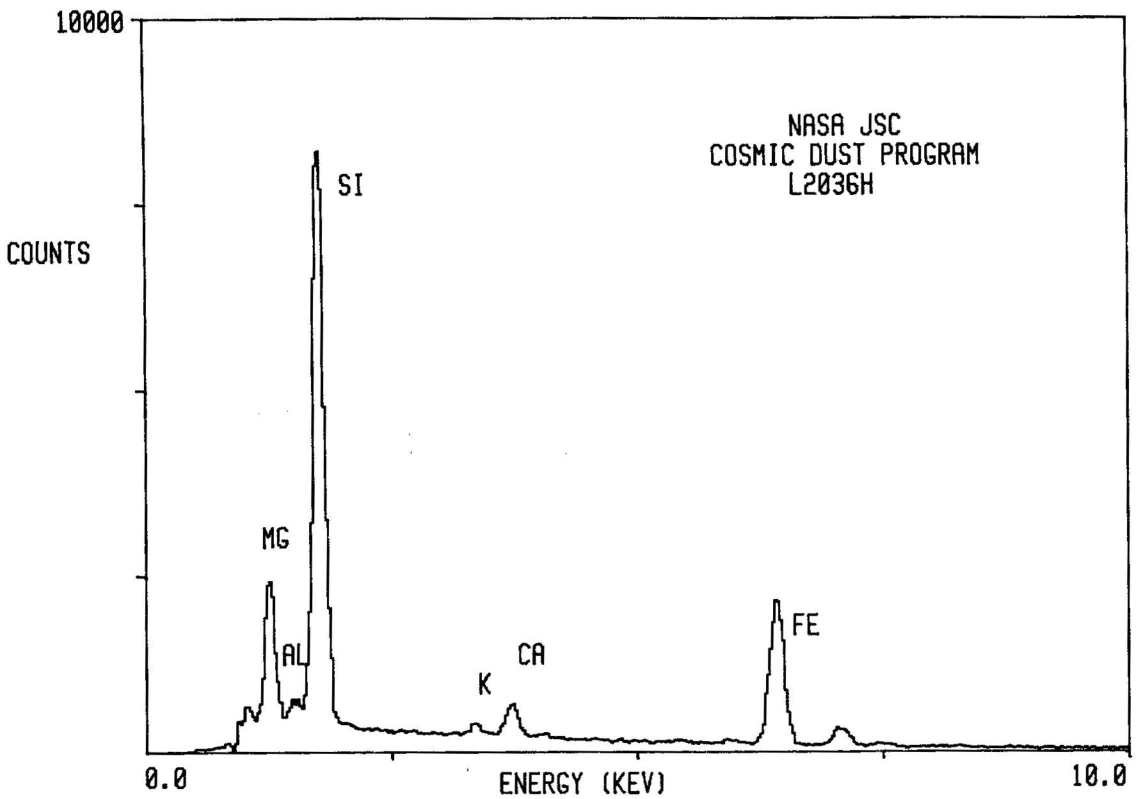
Trans: O

Color: Silver

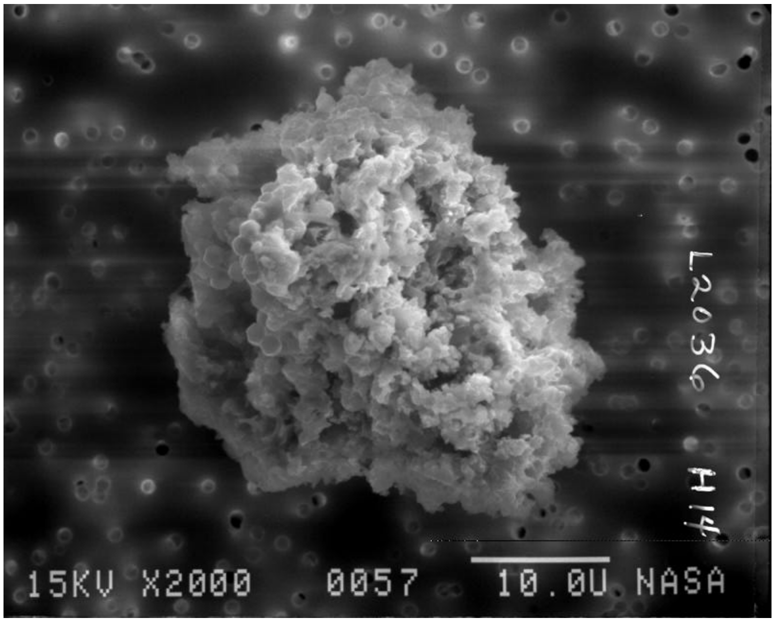
Luster: M

Type: C?

Comments:



L2036H14



97E00132

Size: 35x26

Shape: I

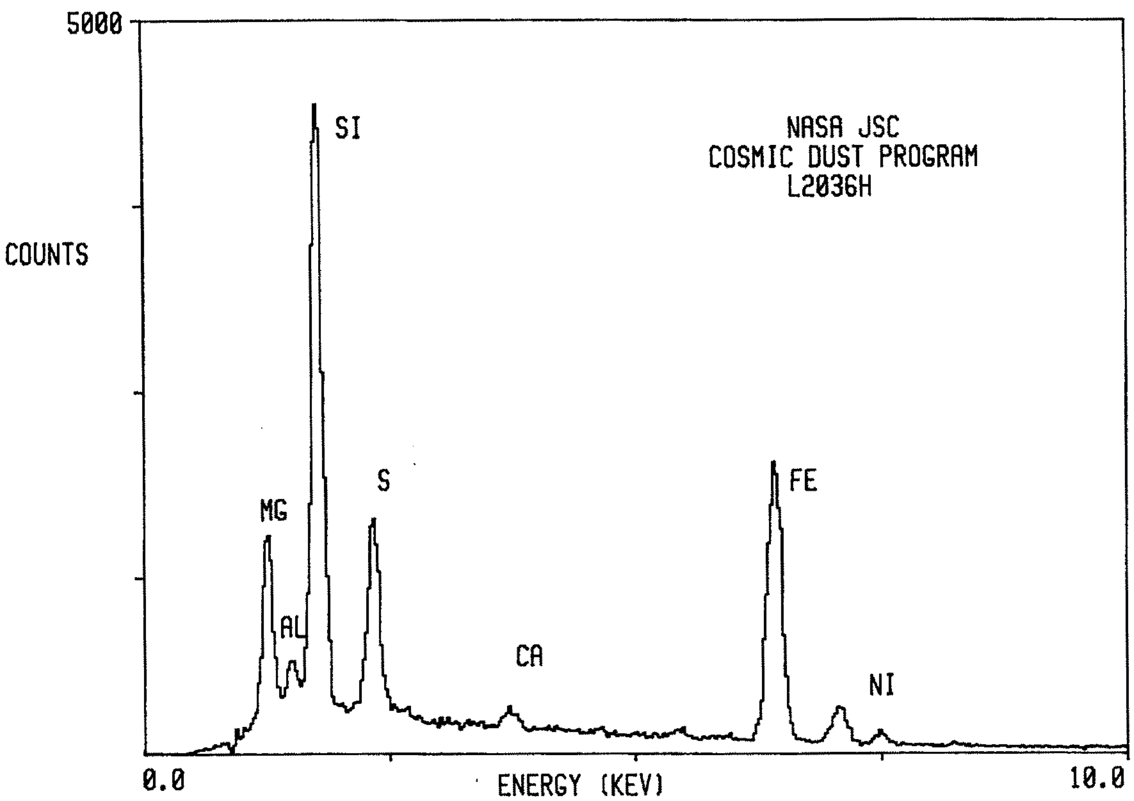
Trans: O

Color: Black

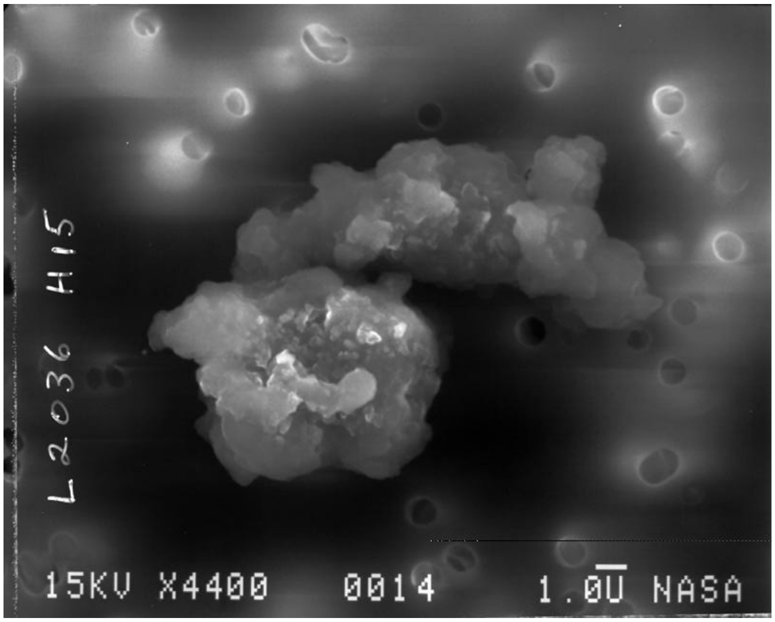
Luster: D

Type: C

Comments:



L2036H15



97E00133

Size: 16x9

Shape: I

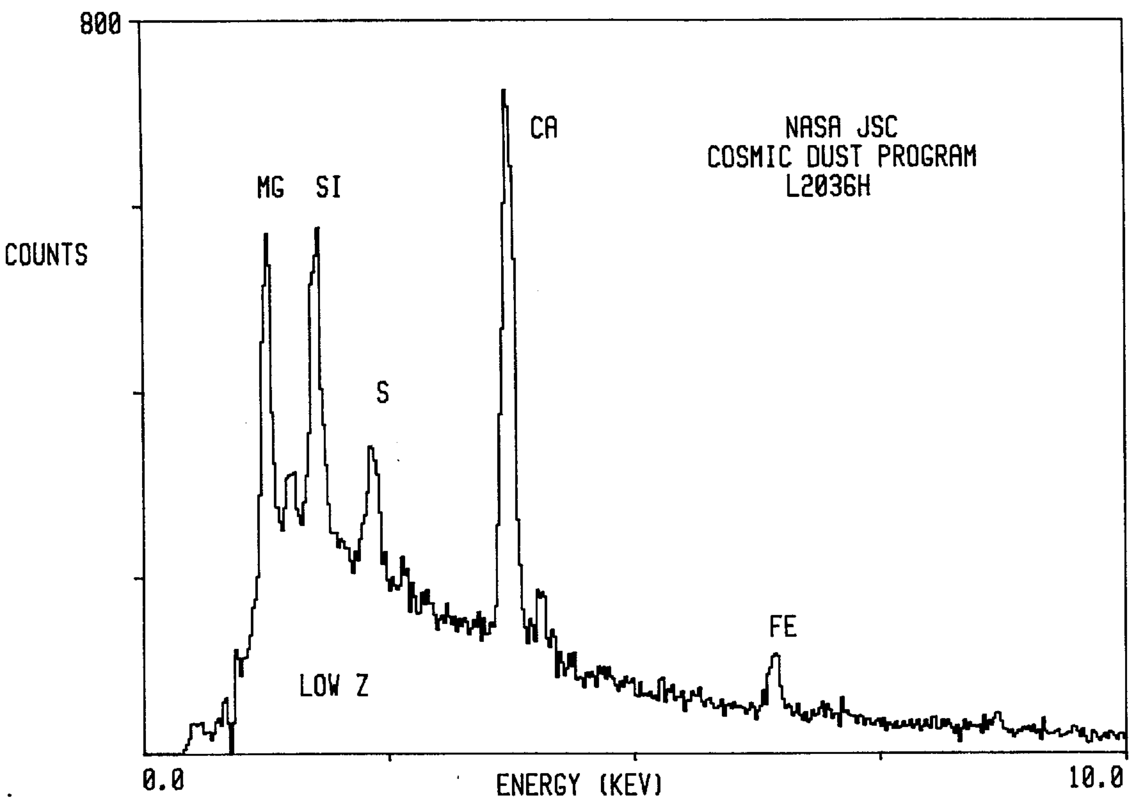
Trans: O

Color: Black

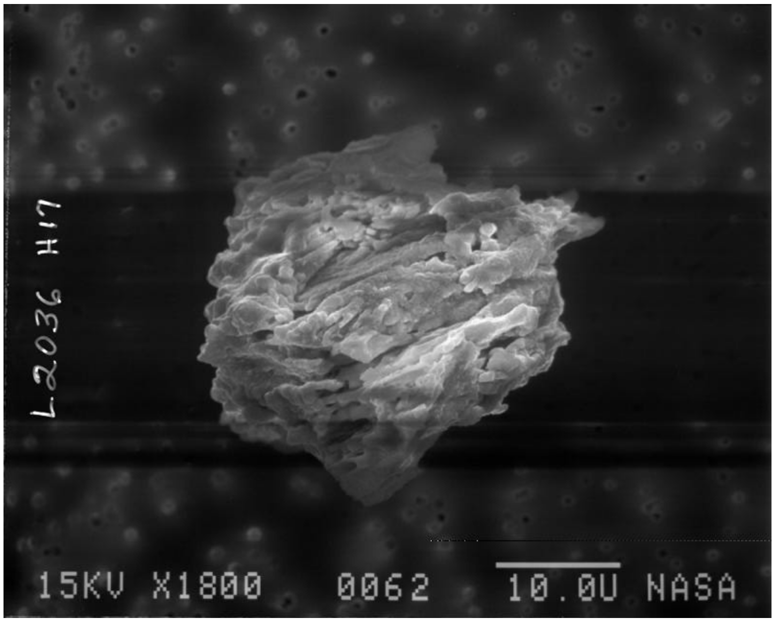
Luster: D

Type: C?

Comments:

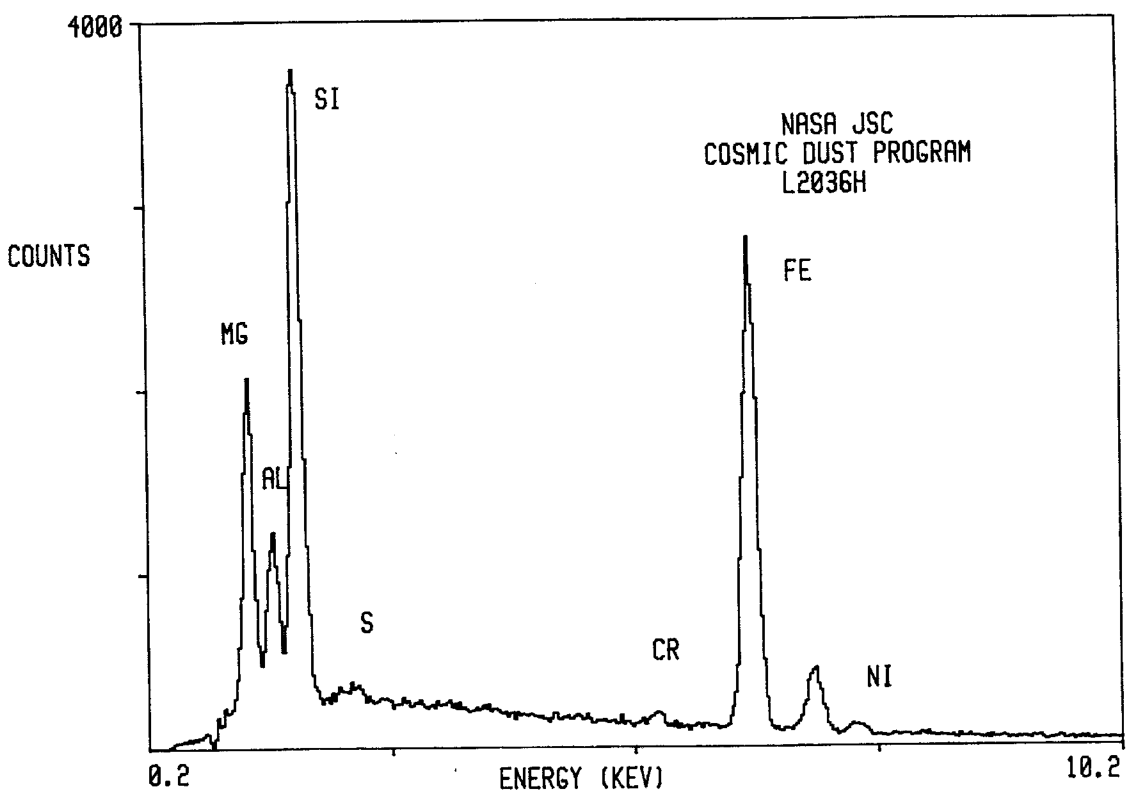


L2036H17

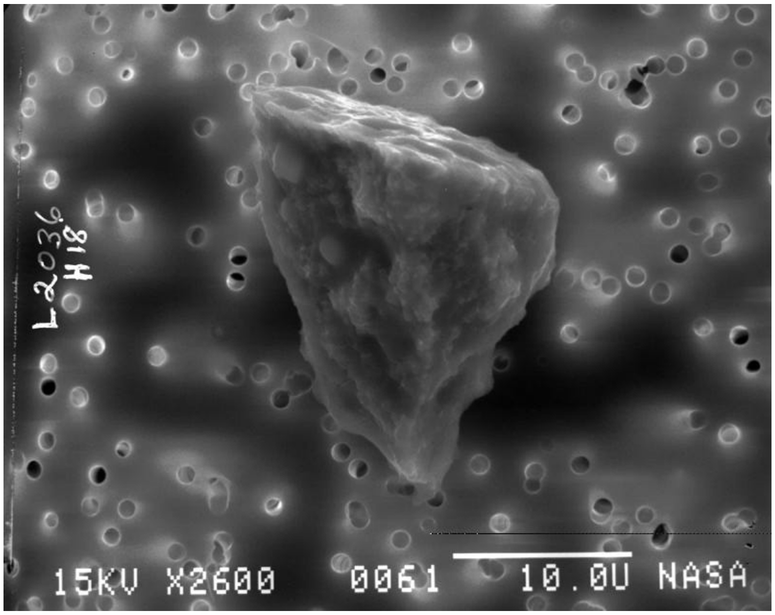


97E00135

Size: 50x30
Shape: I
Trans: O
Color: Black
Luster: M
Type: C?
Comments:



L2036H18



97E00136

Size: 24x16

Shape: I

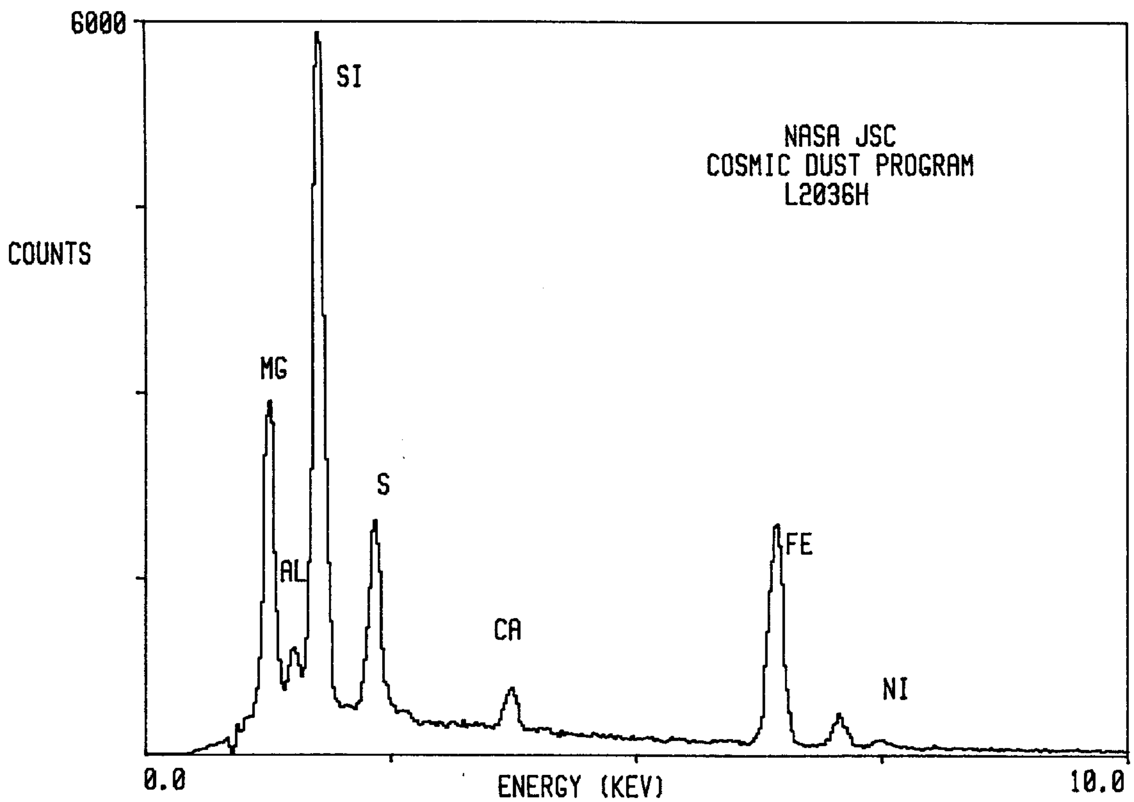
Trans: O

Color: Black

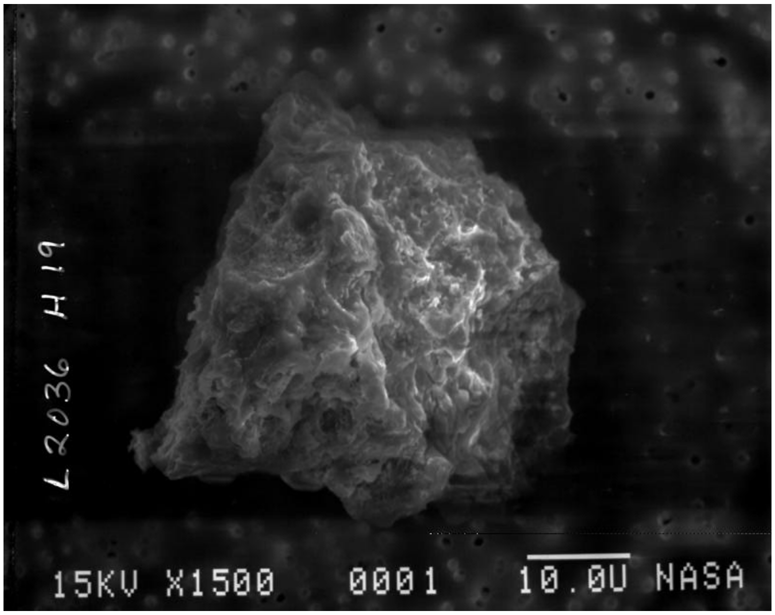
Luster: D

Type: C

Comments:



L2036H19



97E00137

Size: 37

Shape: I

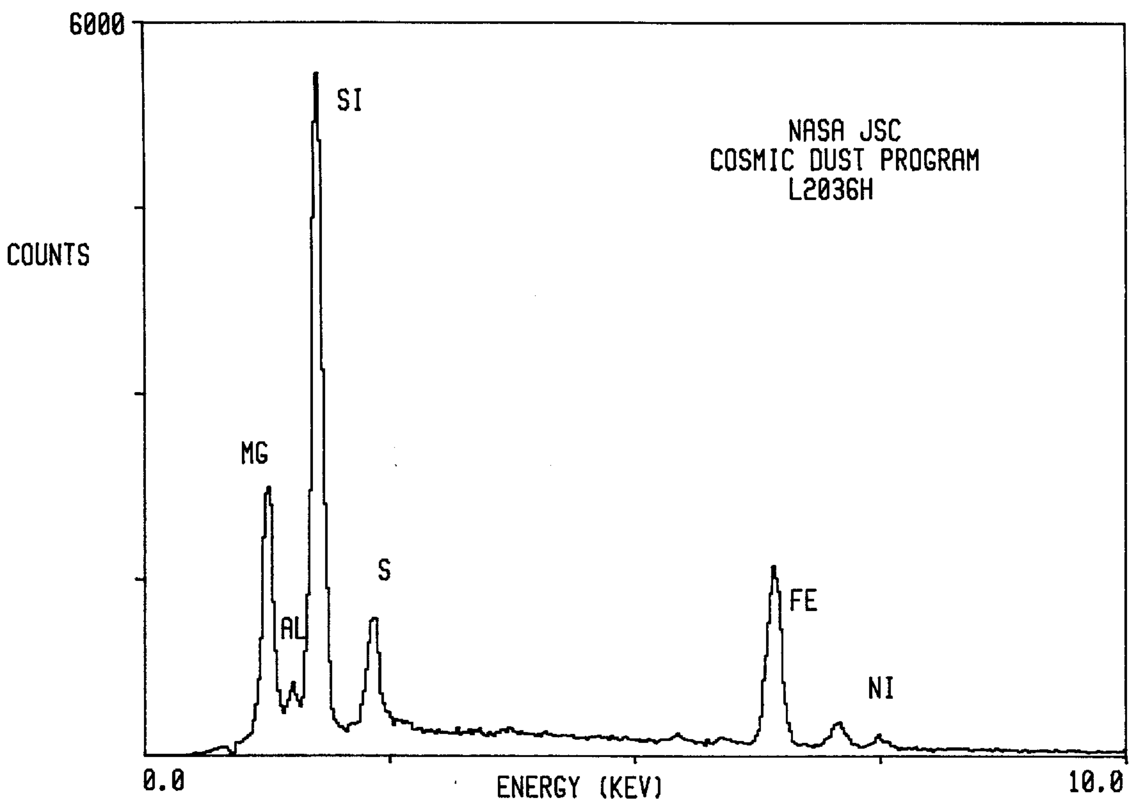
Trans: O

Color: Black

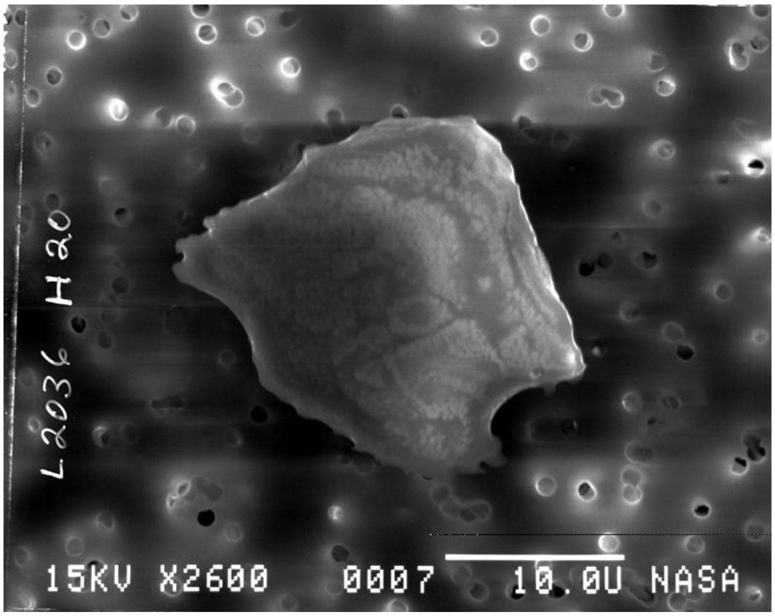
Luster: D

Type: C

Comments:

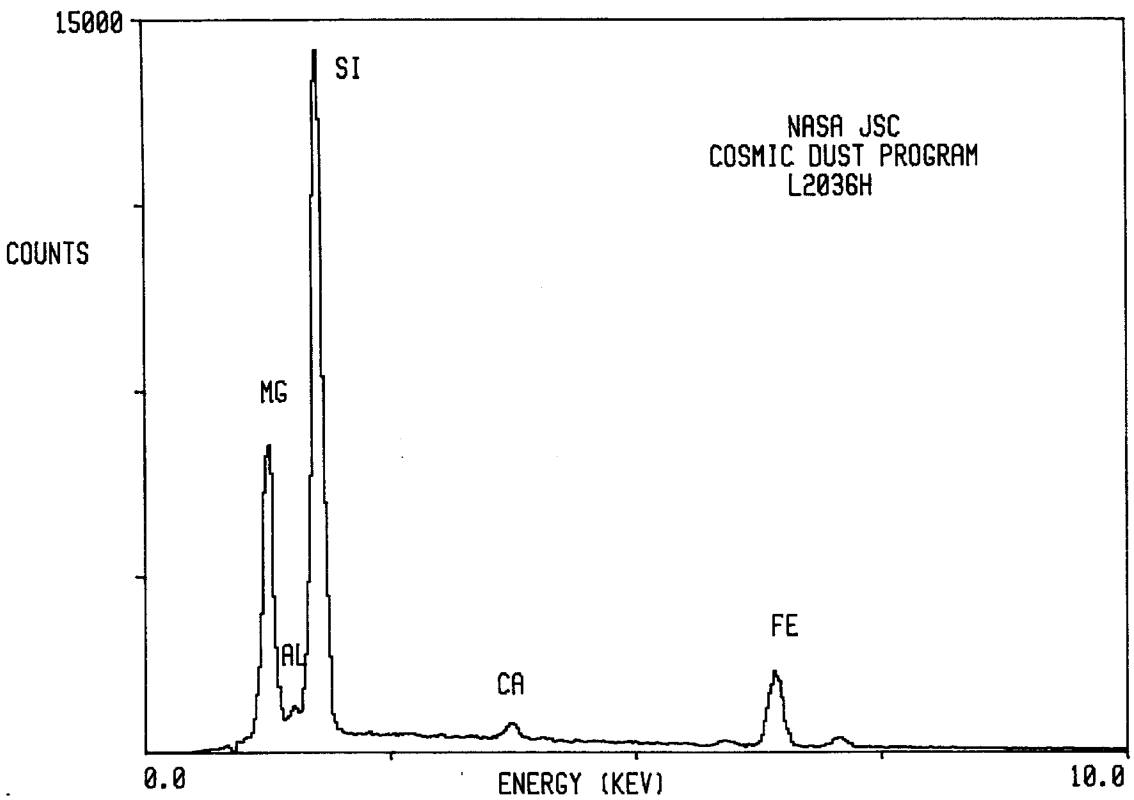


L2036H20

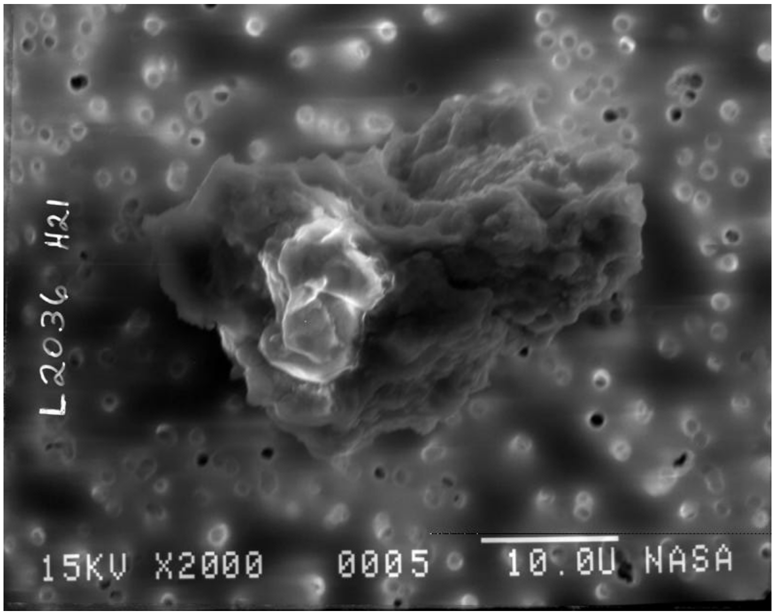


97E00138

Size:	23x17
Shape:	I
Trans:	O
Color:	Black
Luster:	P
Type:	C
Comments:	



L2036H21



97E00139

Size: 31x20

Shape: I

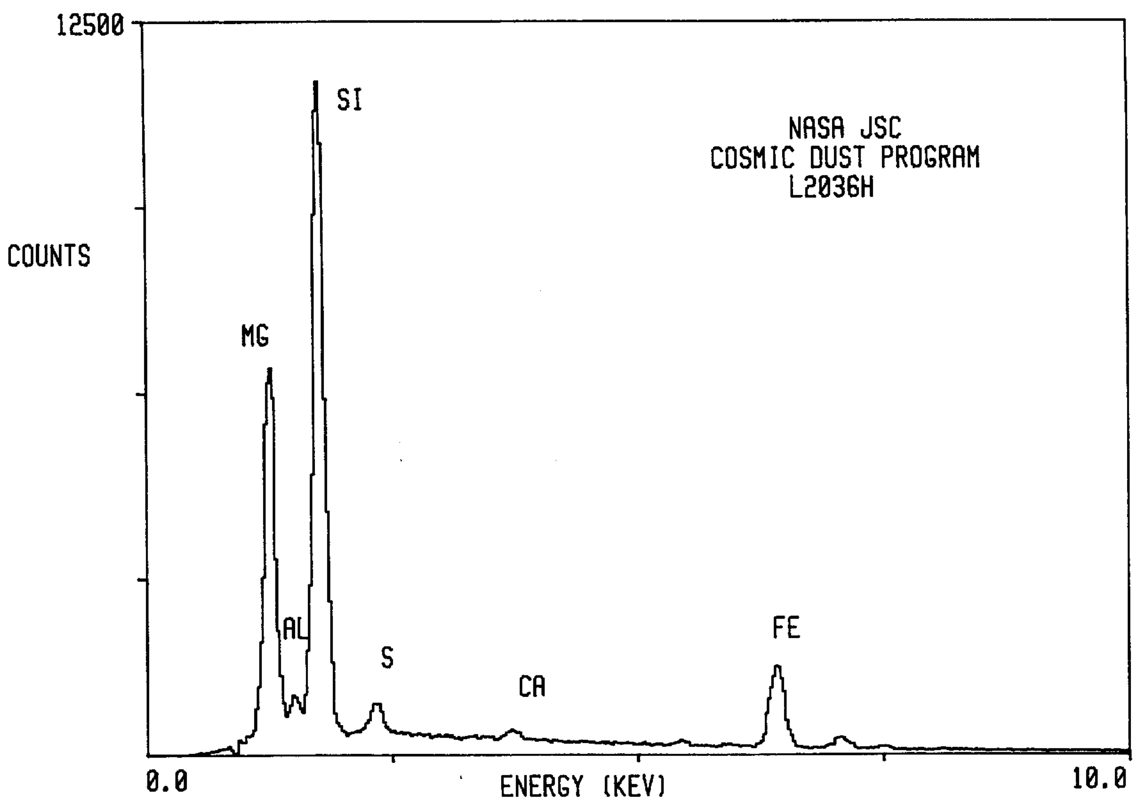
Trans: O

Color: Black

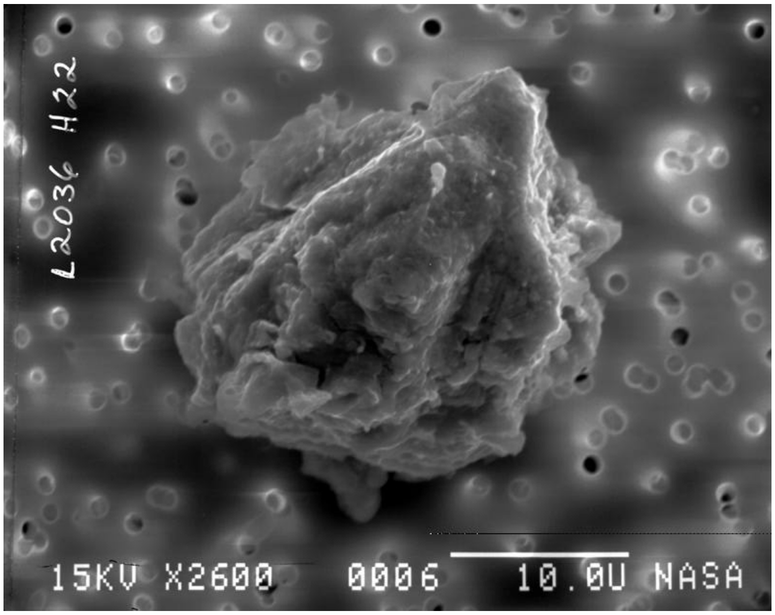
Luster: SM

Type: C

Comments:



L2036H22



97E00140

Size: 24x18

Shape: I

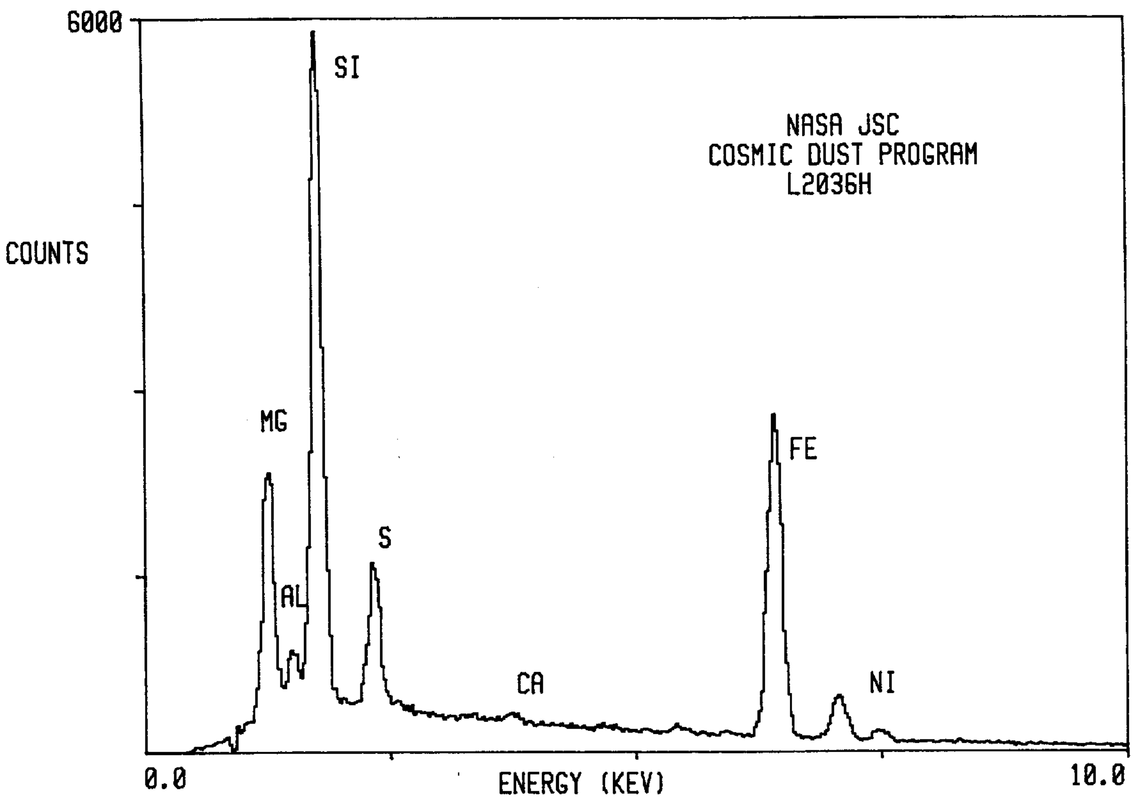
Trans: O

Color: Black

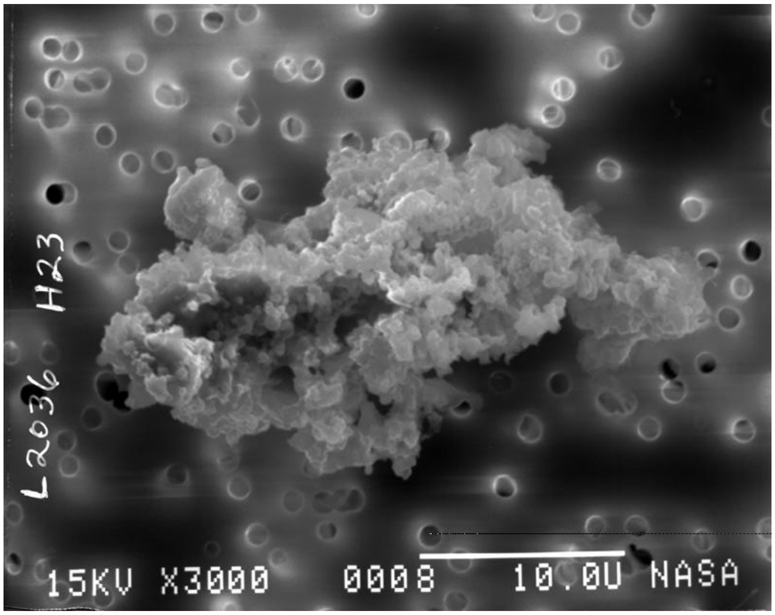
Luster: D

Type: C

Comments:

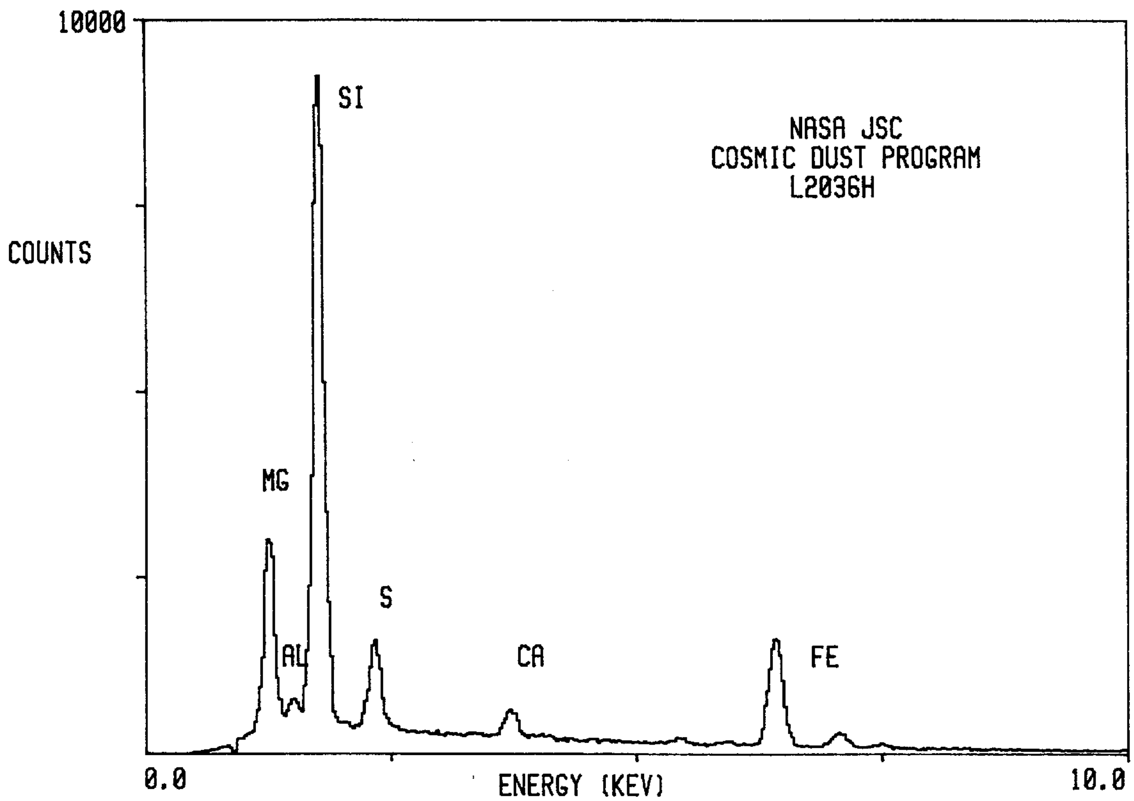


L2036H23

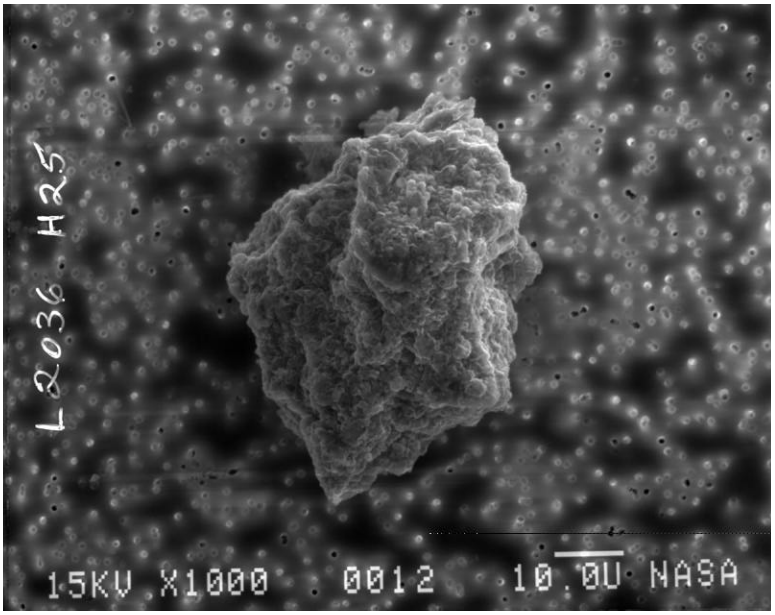


97E00141

Size: 28x14
Shape: I
Trans: O
Color: Black
Luster: SM
Type: C
Comments:



L2036H25



97E00143

Size: 44x40

Shape: I

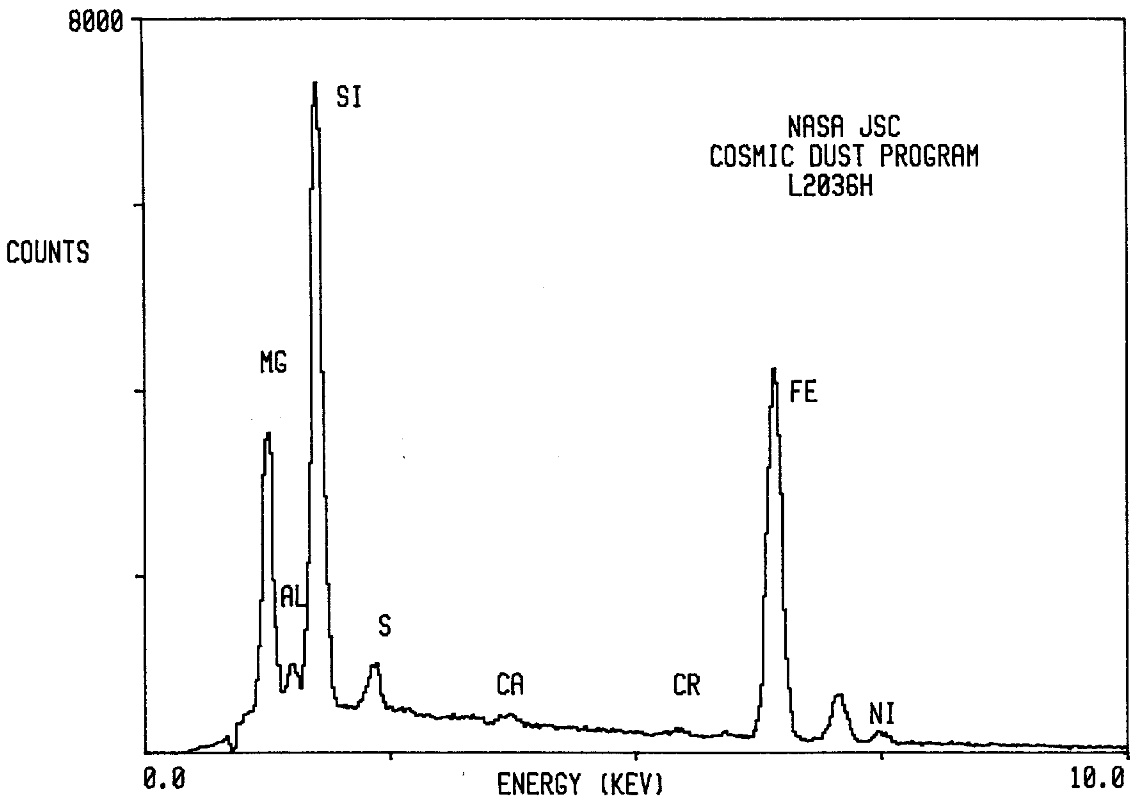
Trans: O

Color: Gray

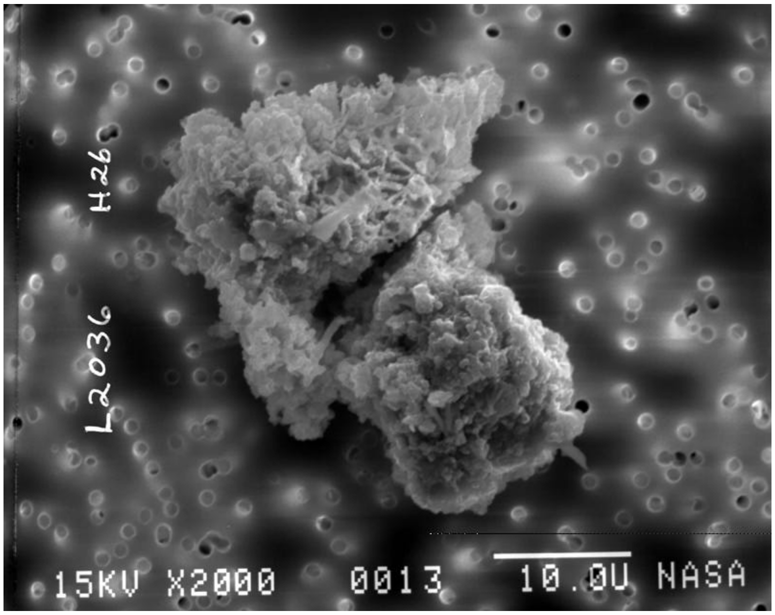
Luster: SM

Type: C

Comments:



L2036H26



97E00144

Size: 35x22

Shape: I

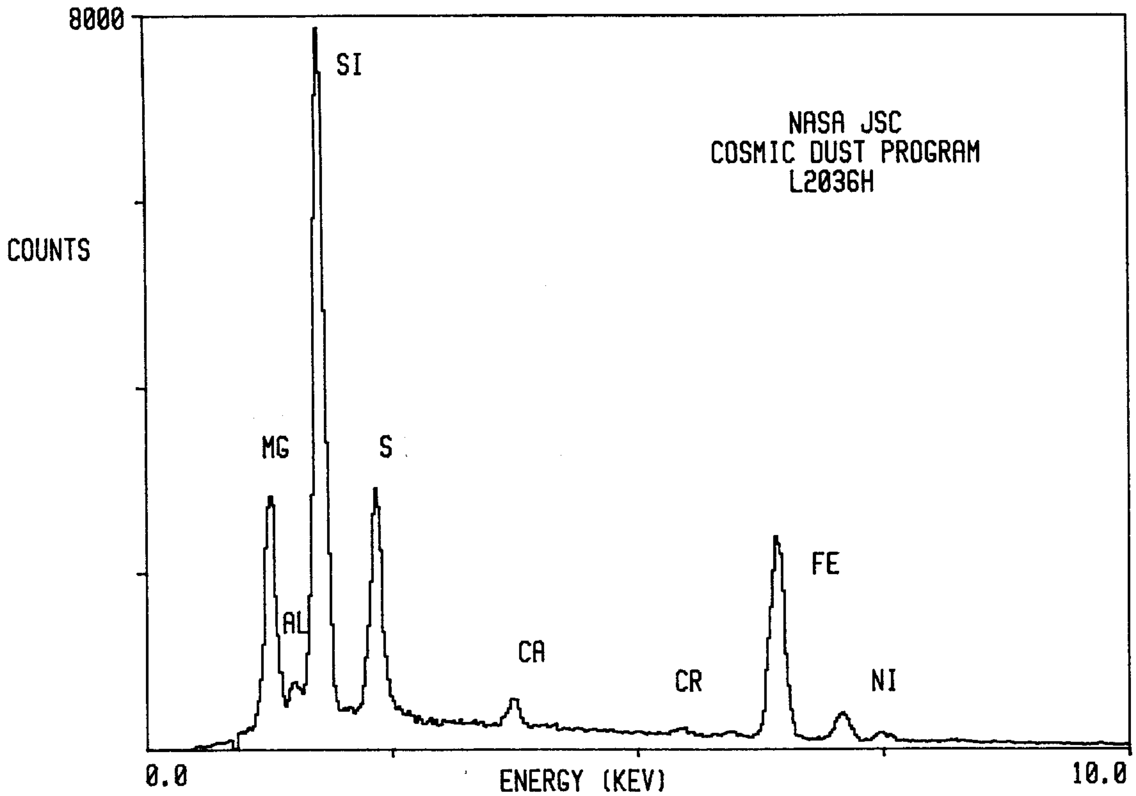
Trans: O

Color: Gray

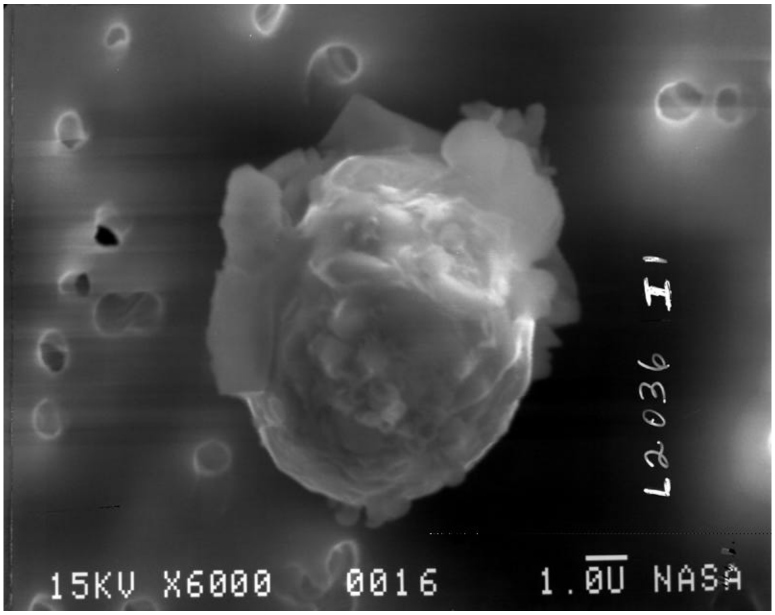
Luster: SM

Type: C

Comments:



L2036I1



97E00147

Size: 9

Shape: E

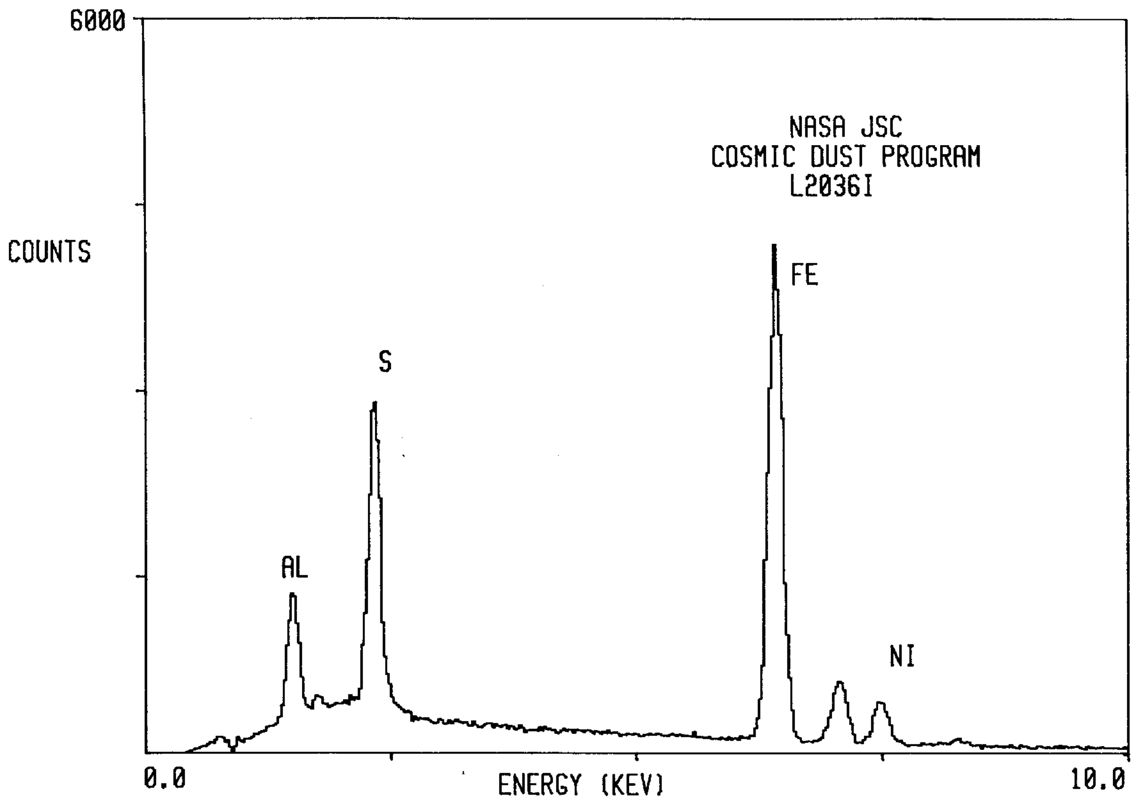
Trans: O

Color: Silver

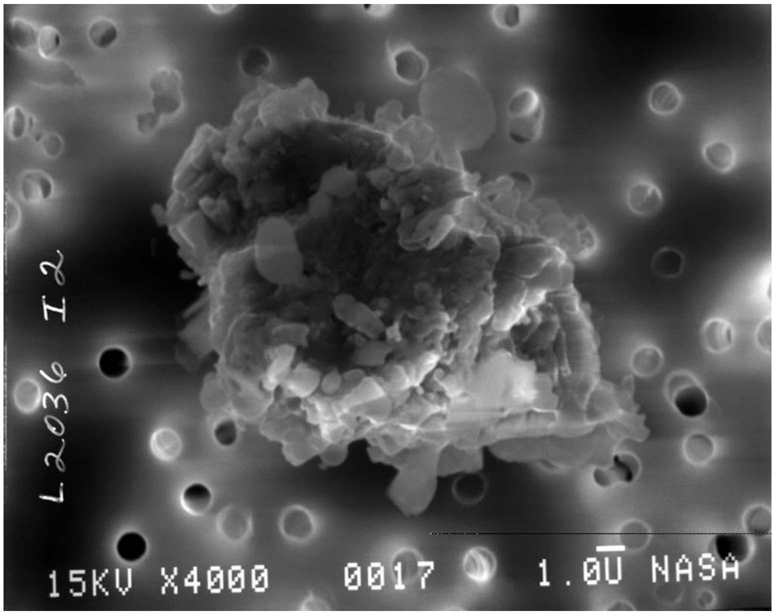
Luster: P

Type: C

Comments:



L2036I2



97E00148

Size: 15x12

Shape: I

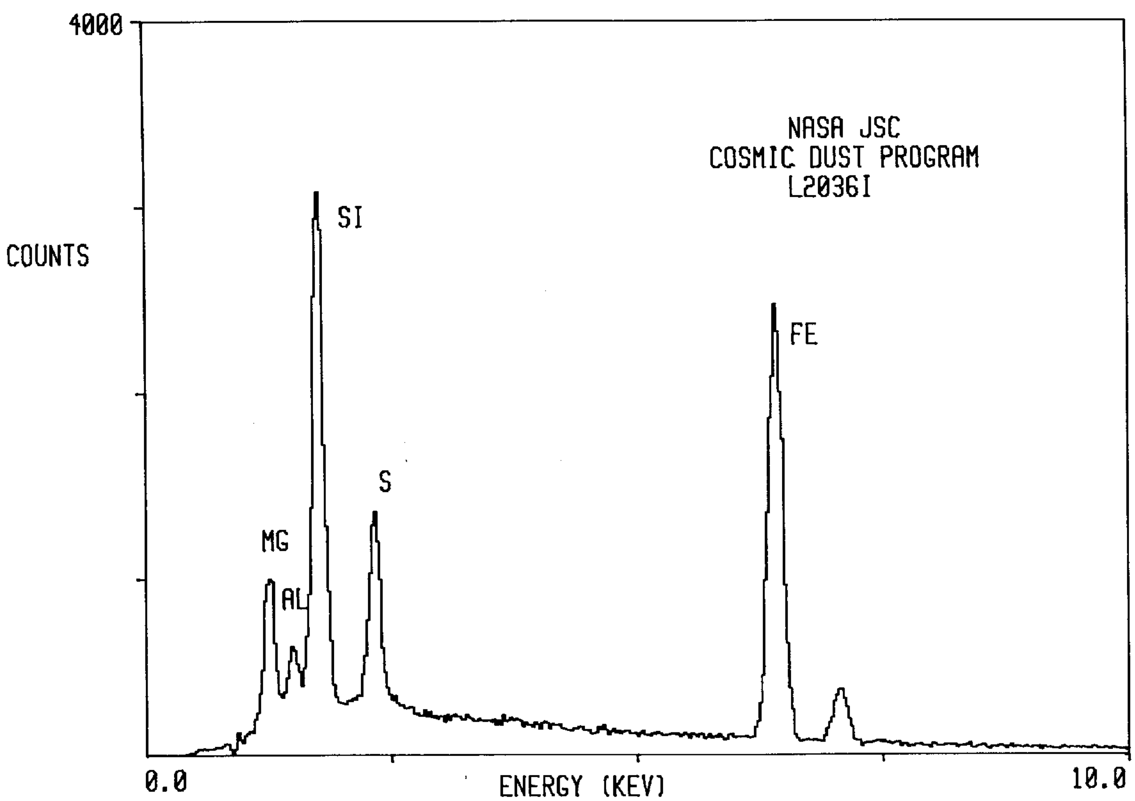
Trans: O/T

Color: Black-Colorless

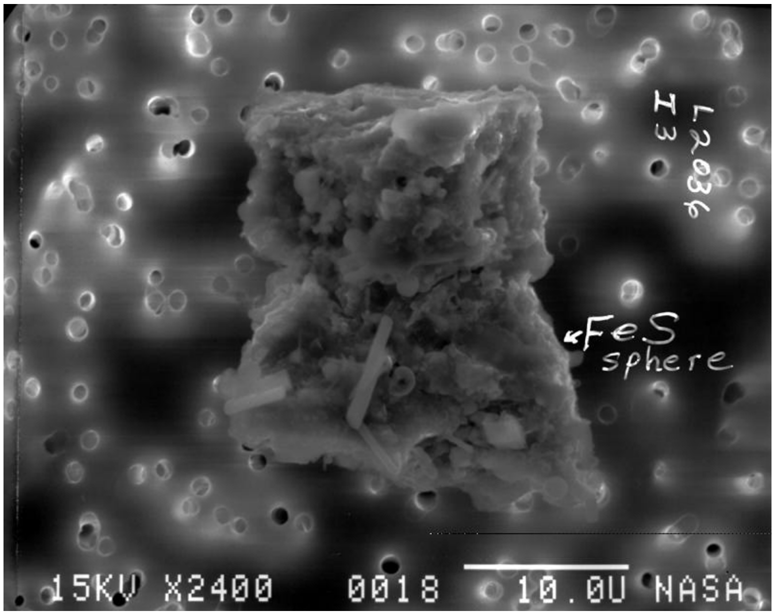
Luster: D/V

Type: C

Comments:



L2036I3



97E00149

Size: 24x22

Shape: I

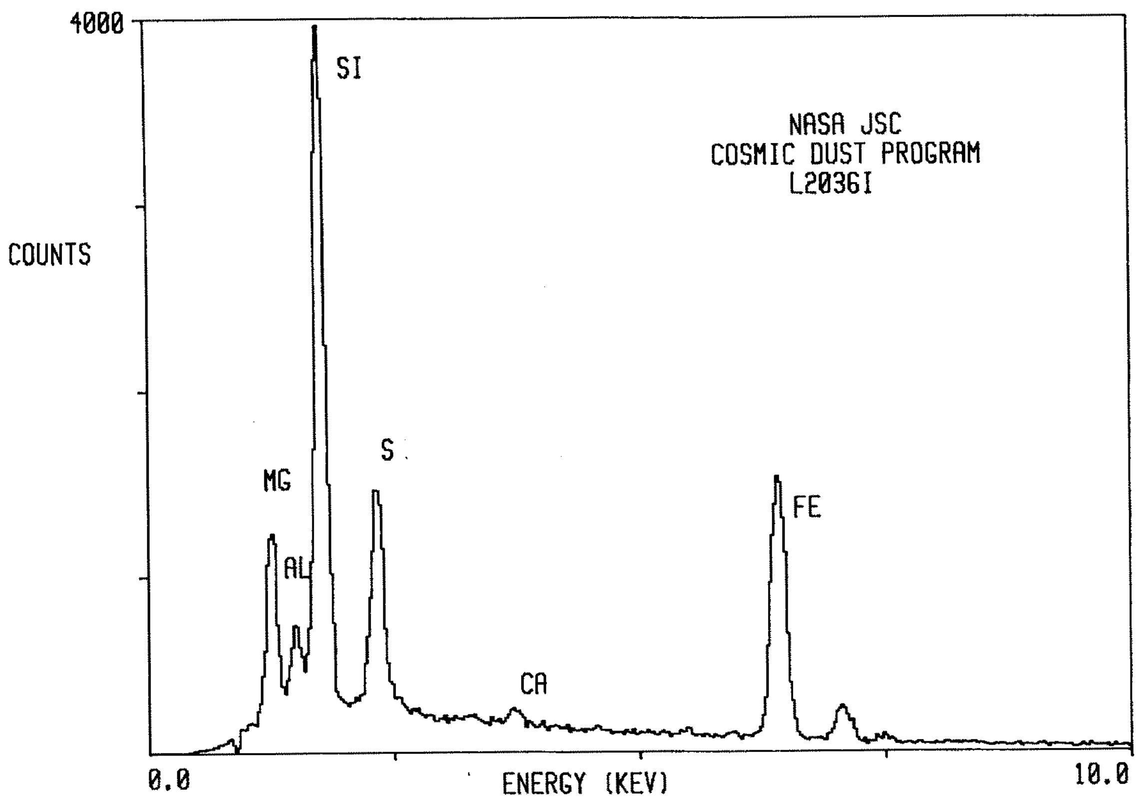
Trans: O

Color: Black

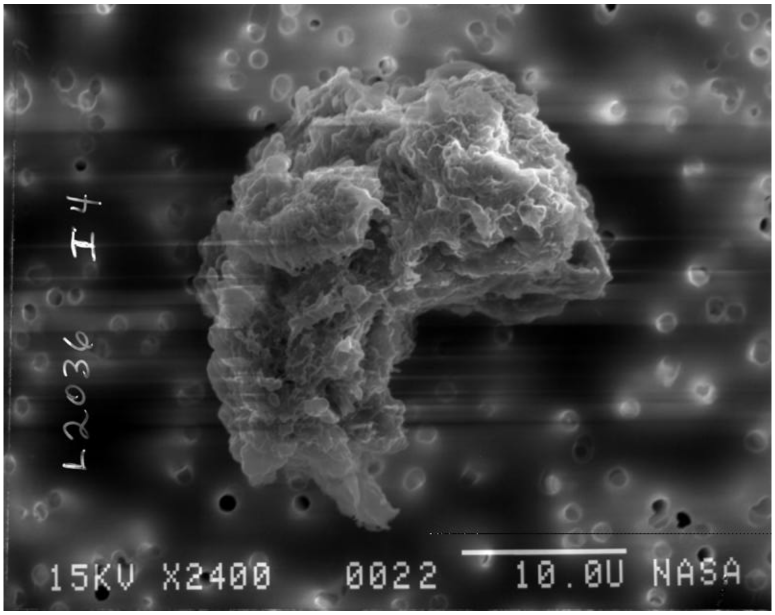
Luster: P

Type: C

Comments:

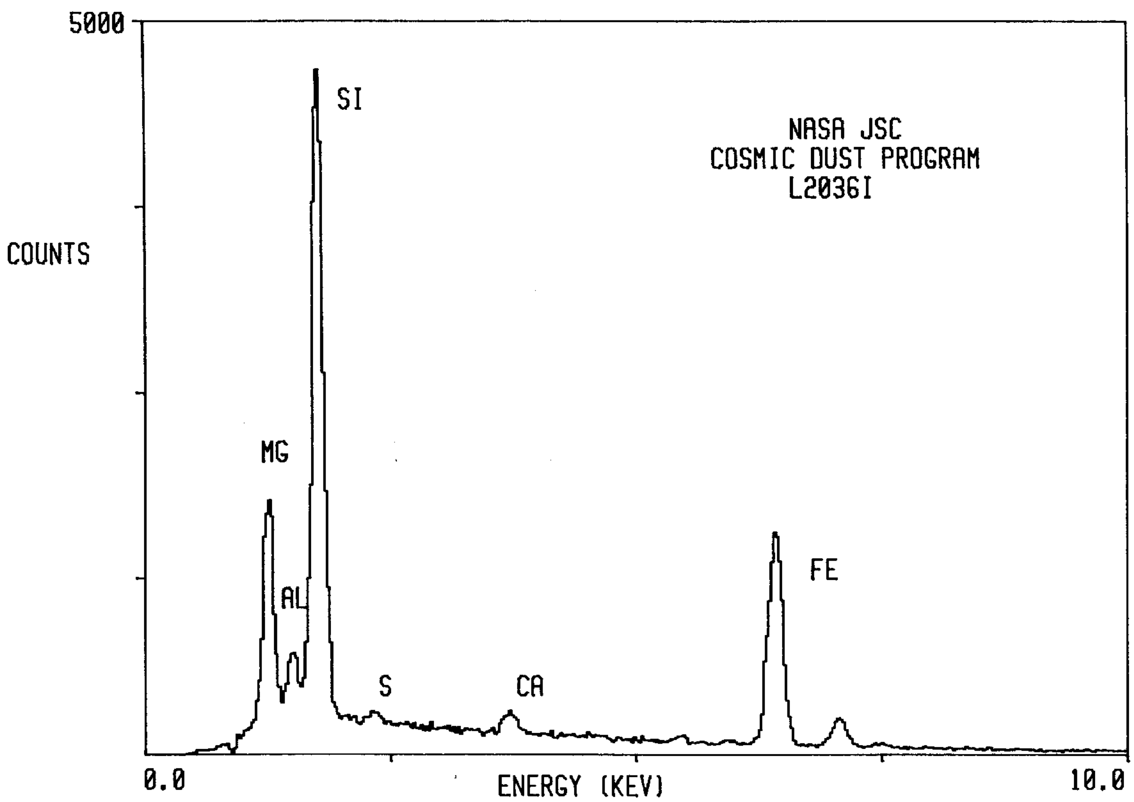


L2036I4

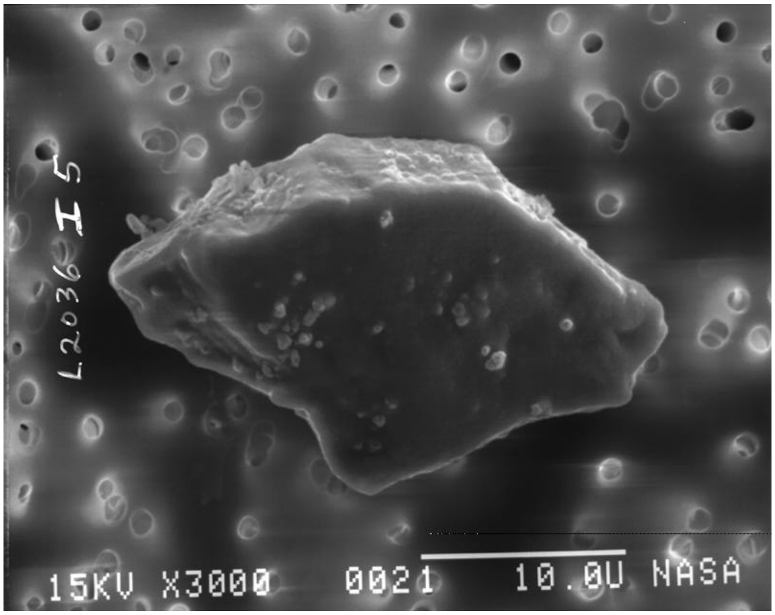


97E00150

Size: 28x13
Shape: I
Trans: TL
Color: White
Luster: SV
Type: C
Comments:



L2036I5



97E00151

Size: 24x16

Shape: I

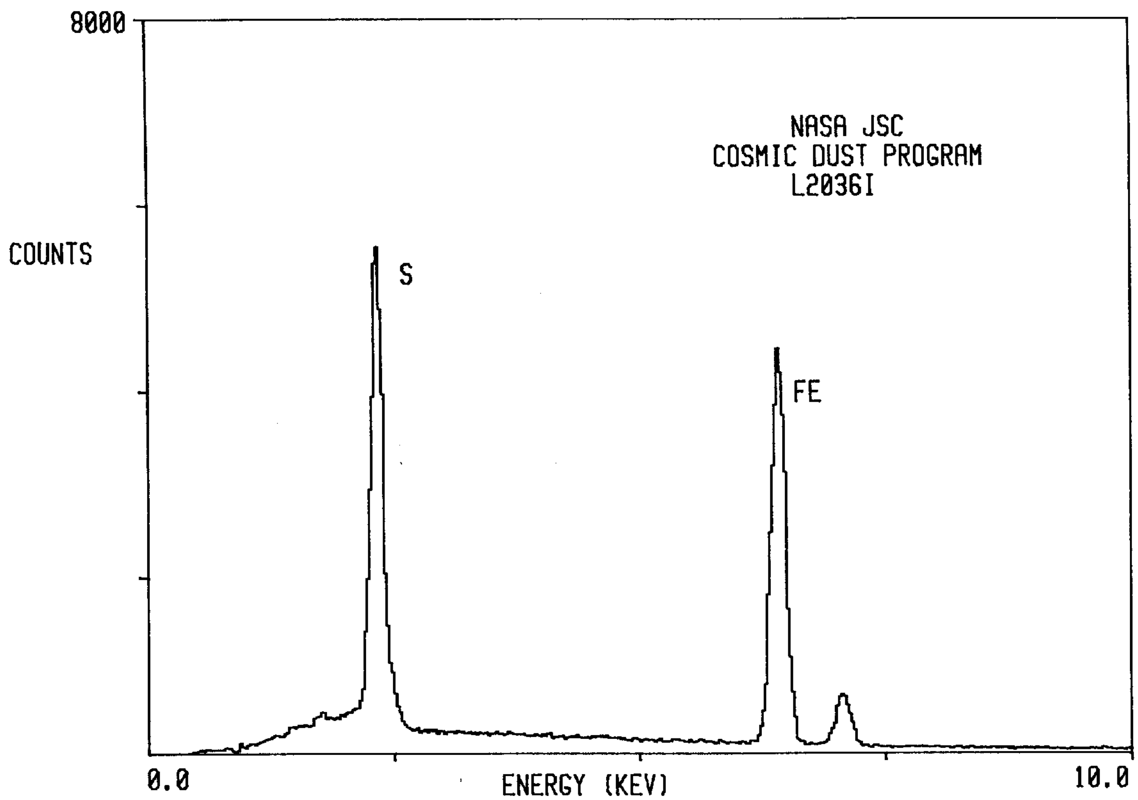
Trans: O

Color: Black

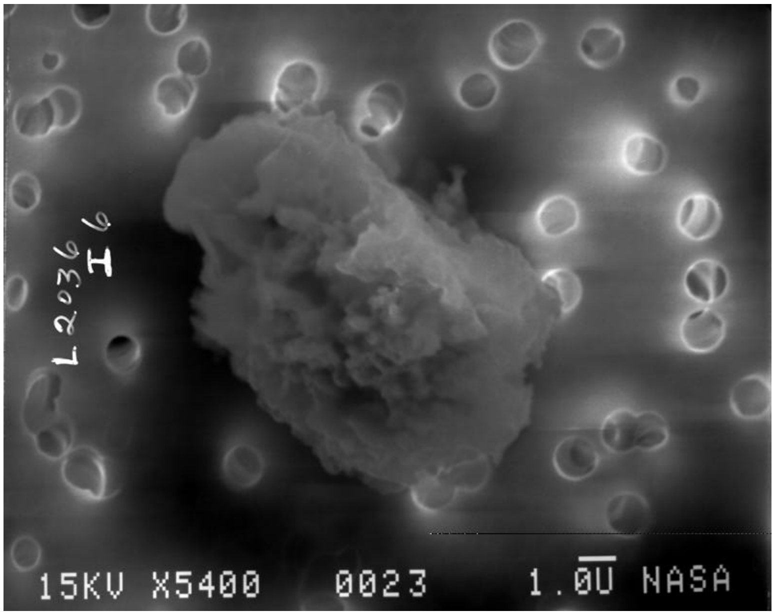
Luster: SM

Type: C?

Comments:



L2036I6



97E00152

Size: 13x8

Shape: I

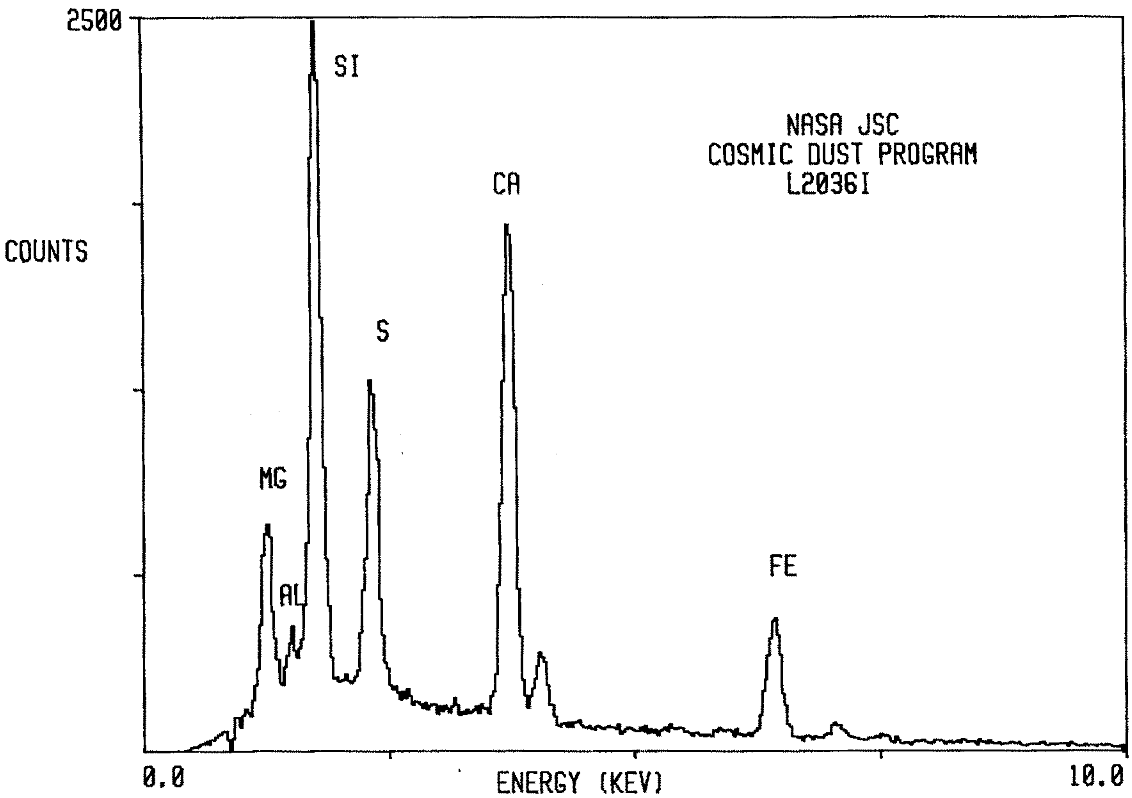
Trans: O

Color: Black

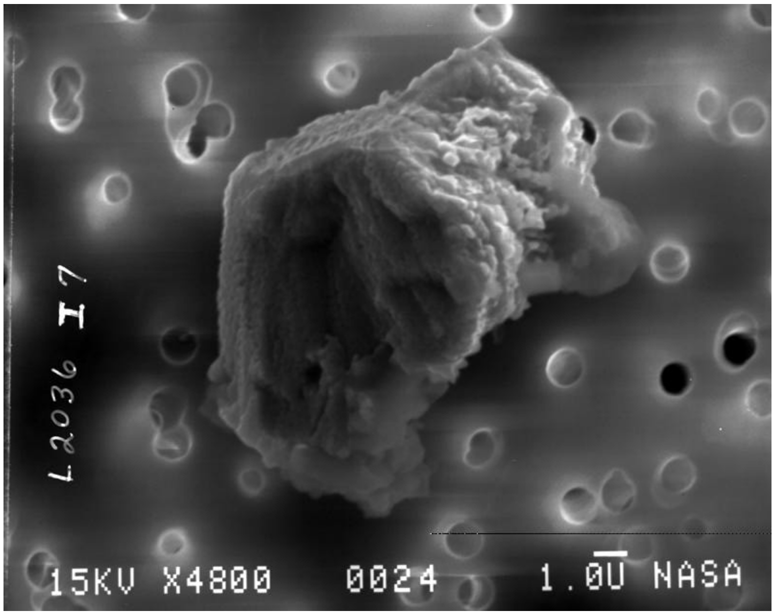
Luster: D

Type: C?

Comments:



L2036I7



97E00153

Size: 14x8

Shape: I

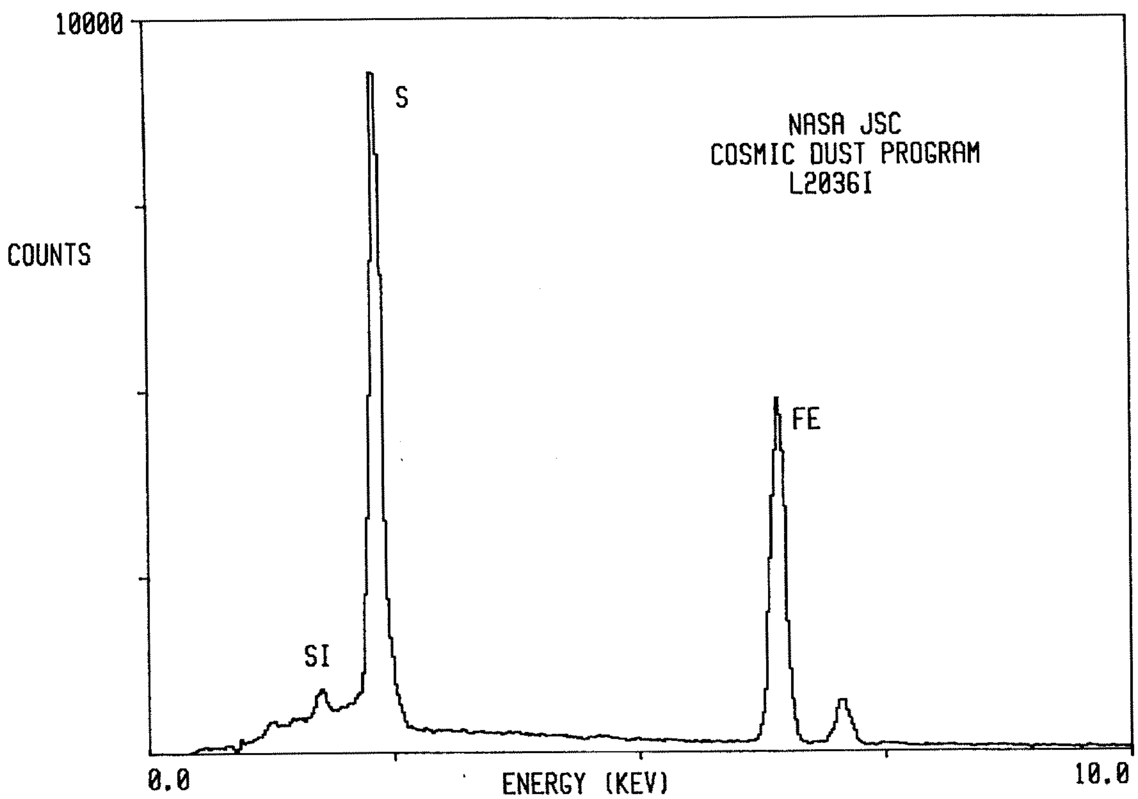
Trans: O

Color: Black

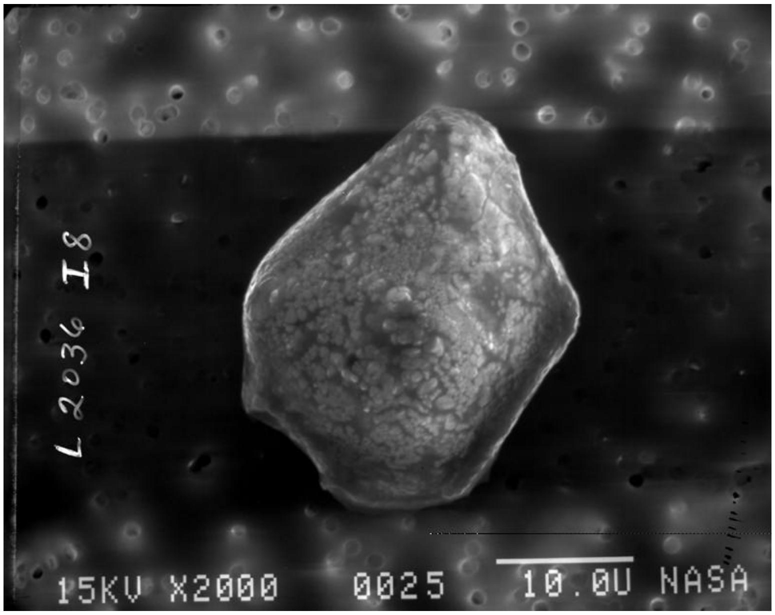
Luster: P

Type: C?

Comments:



L2036I8



97E00154

Size: 26x19

Shape: E

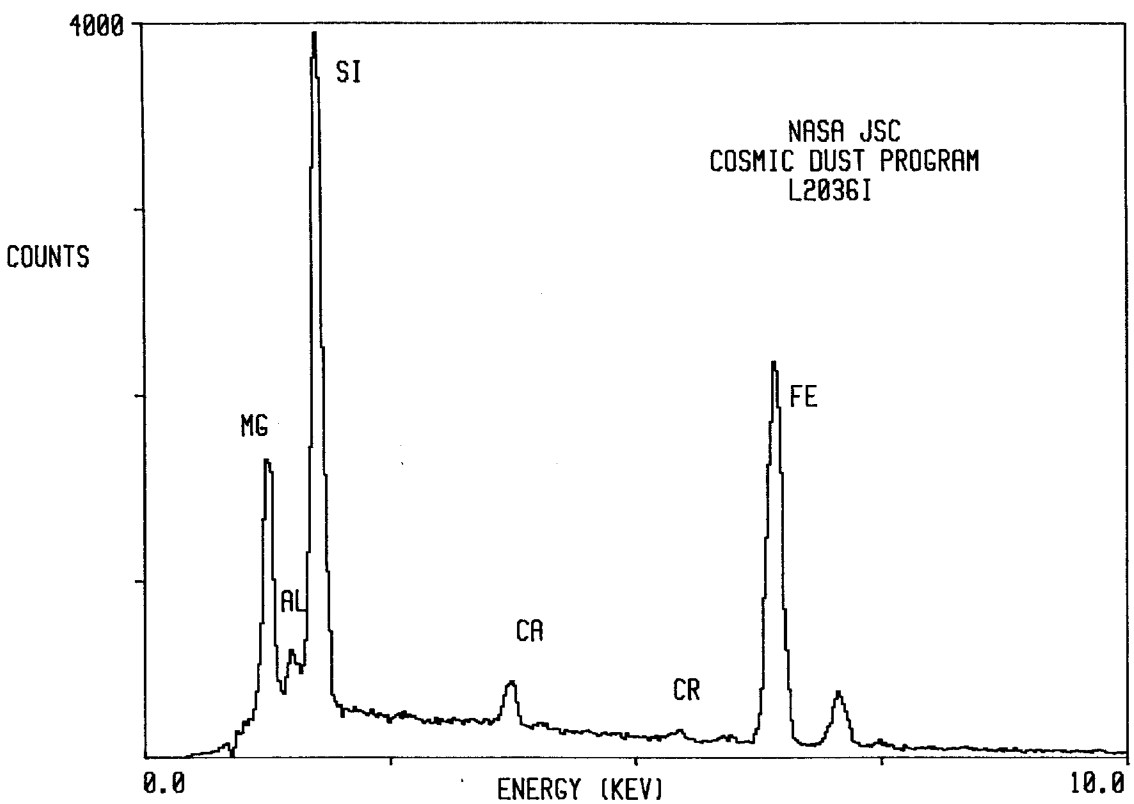
Trans: O

Color: Black

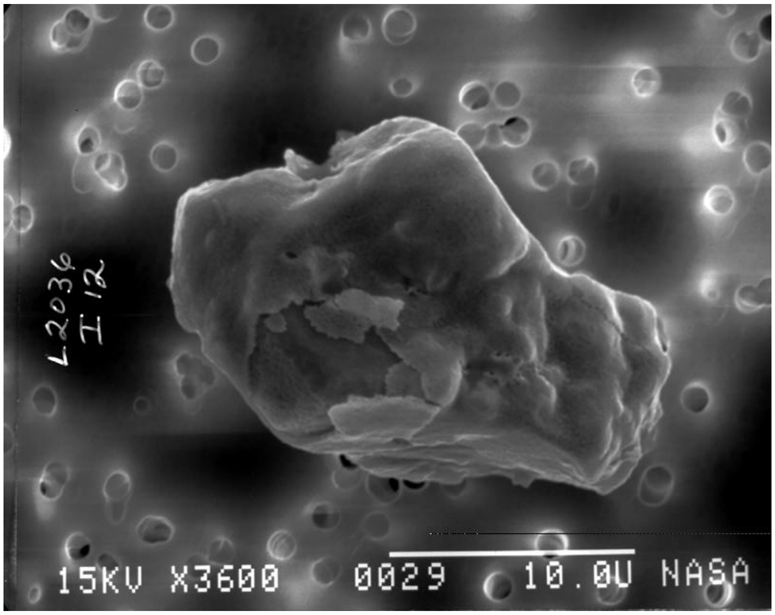
Luster: P

Type: C

Comments:



L2036I12



97E00158

Size: 16x12

Shape: I

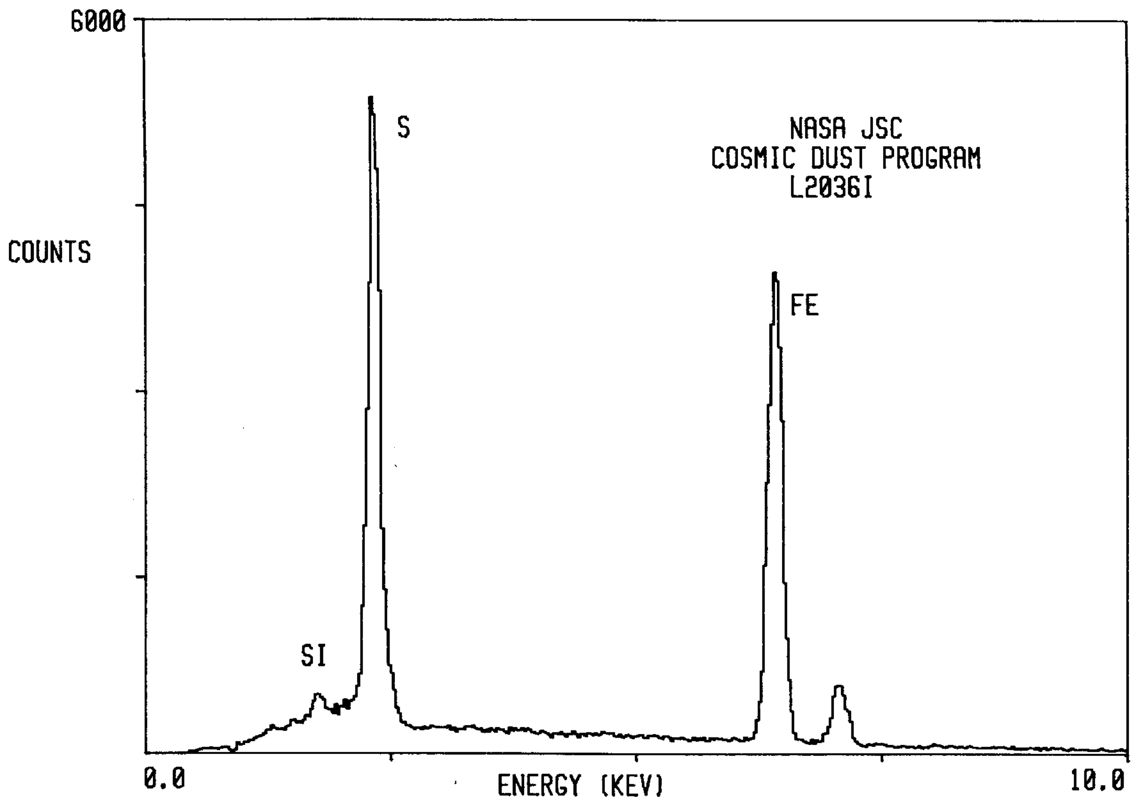
Trans: O

Color: Black

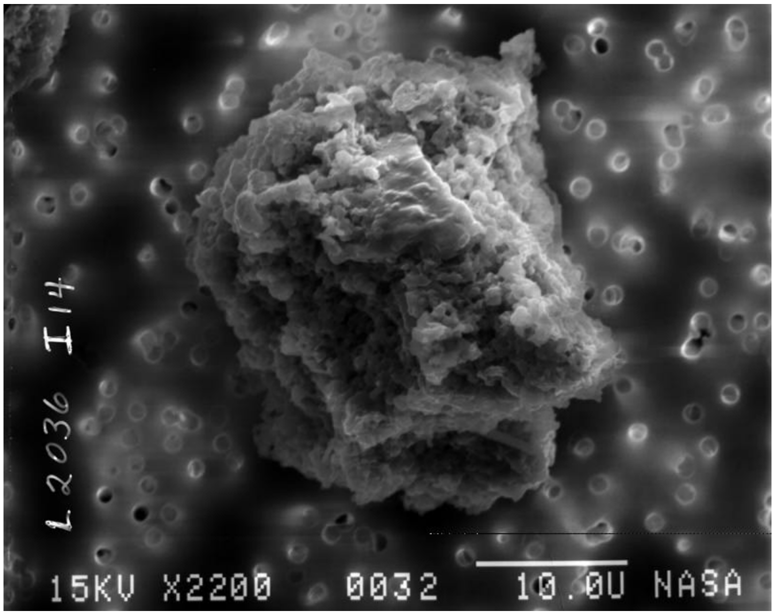
Luster: P

Type: C?

Comments:

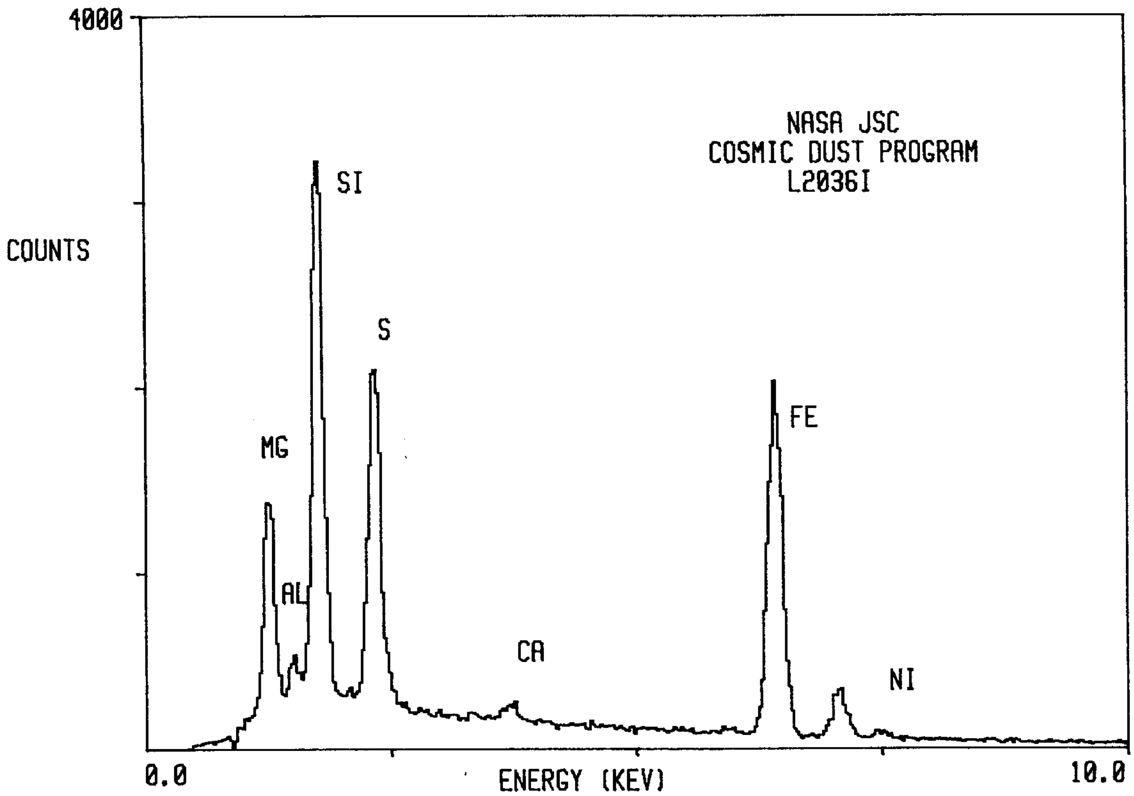


L2036I14

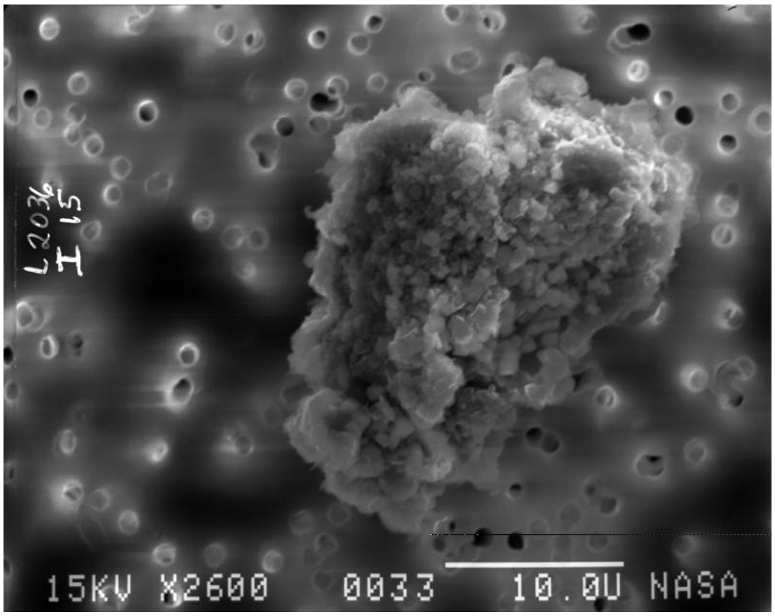


97E00160

Size: 25x19
Shape: I
Trans: O
Color: Gray
Luster: D
Type: C
Comments:



L2036I15



97E00161

Size: 25x14

Shape: I

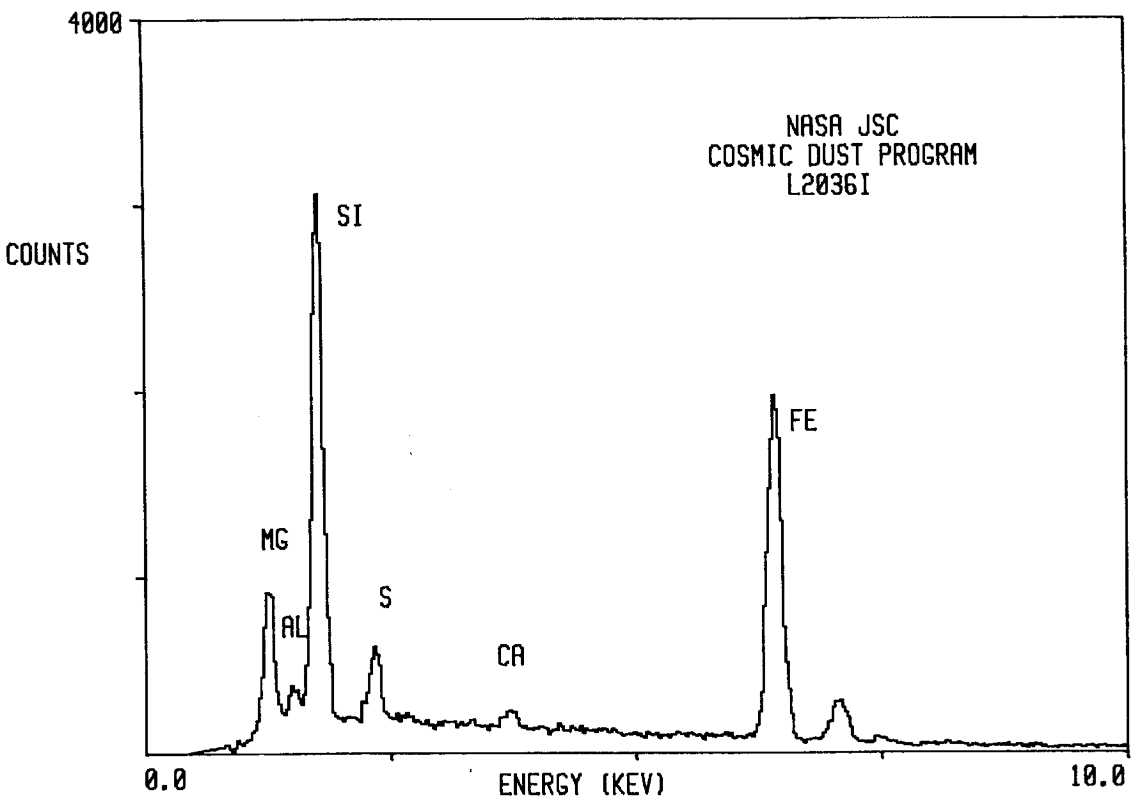
Trans: O

Color: Gray

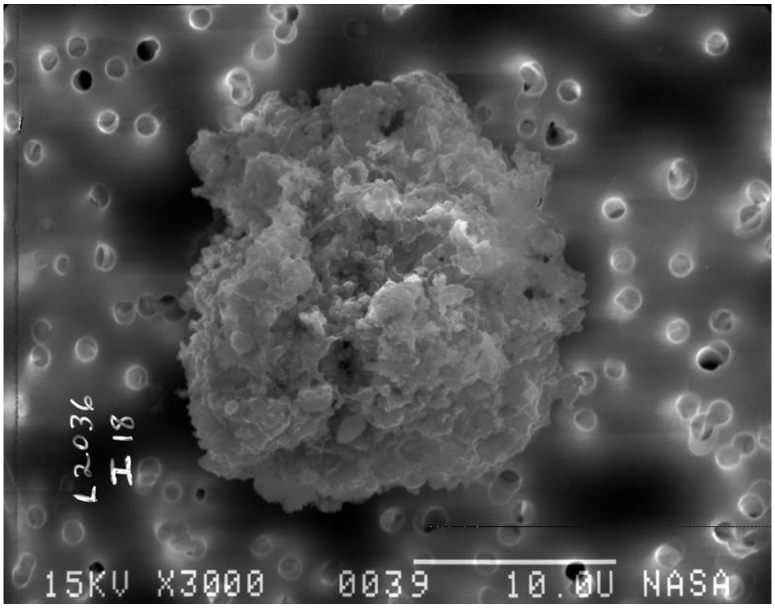
Luster: D

Type: C

Comments:

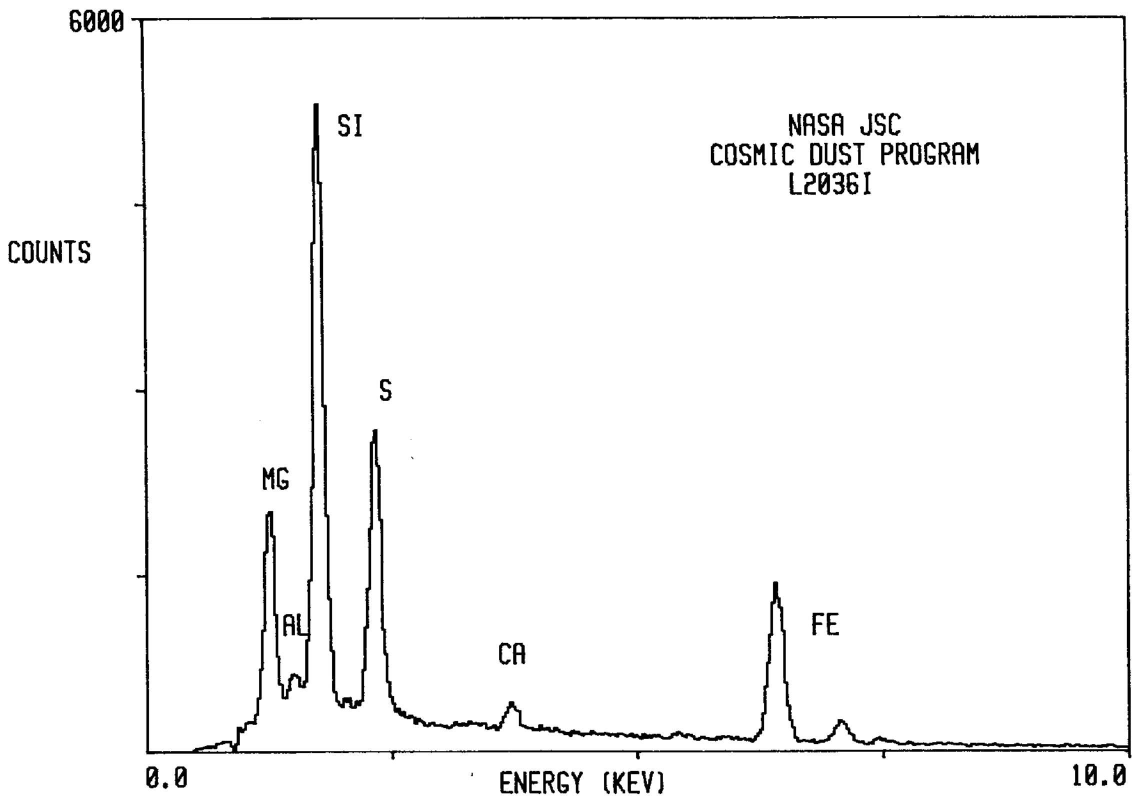


L2036I18

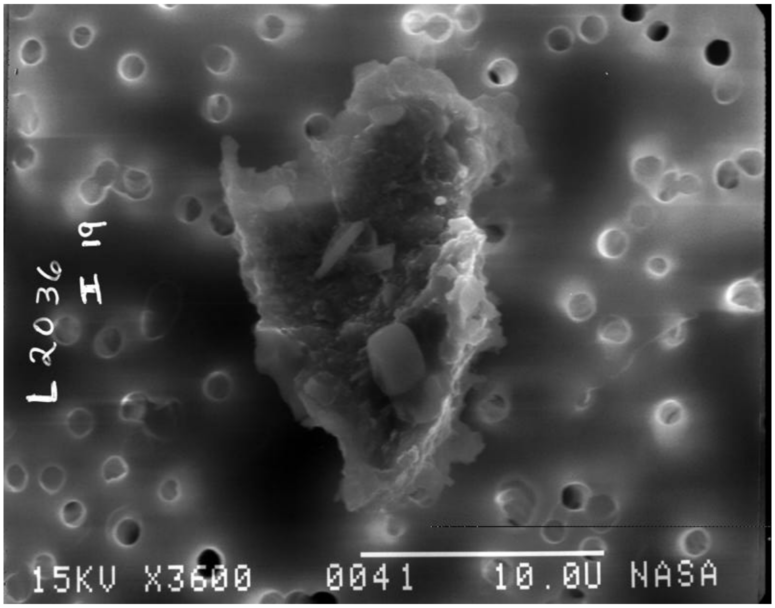


97E00164

Size:	19x16
Shape:	I
Trans:	O
Color:	Gray
Luster:	D
Type:	C
Comments:	



L2036I19



97E00165

Size: 17x10

Shape: I

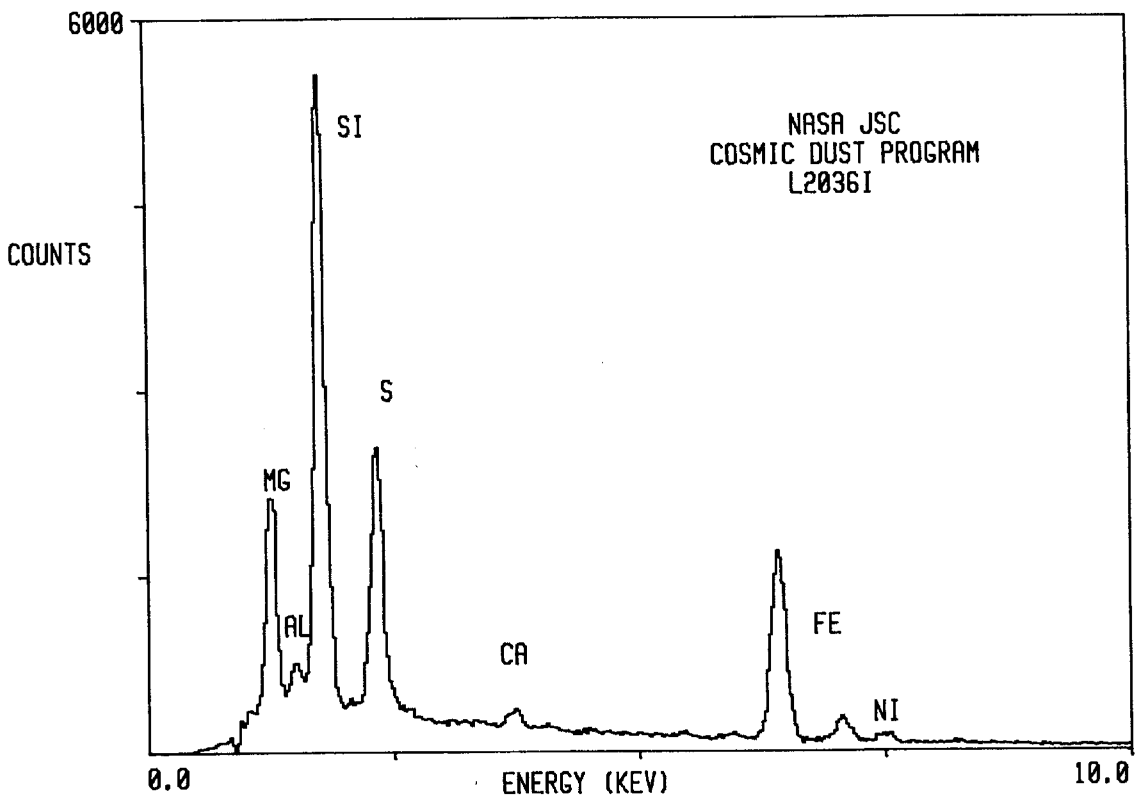
Trans: O

Color: Black

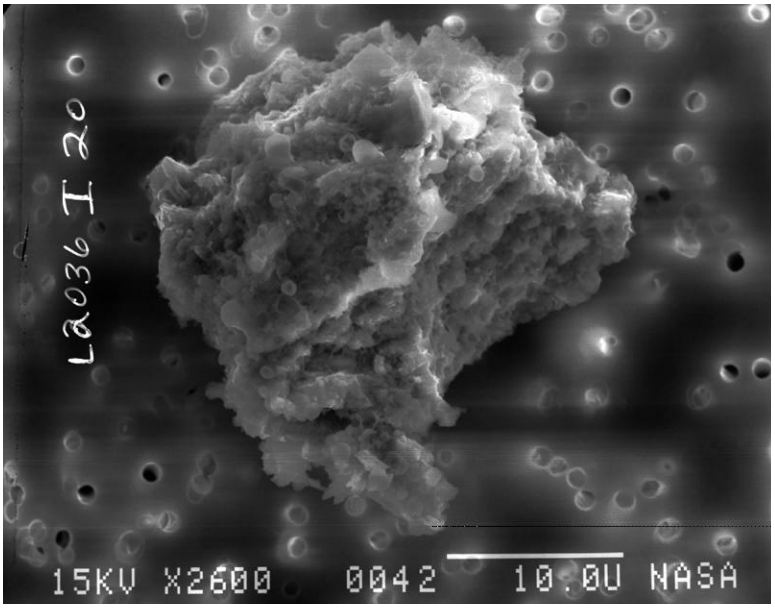
Luster: P

Type: C

Comments:



L2036I20



97E00166

Size: 35x24

Shape: I

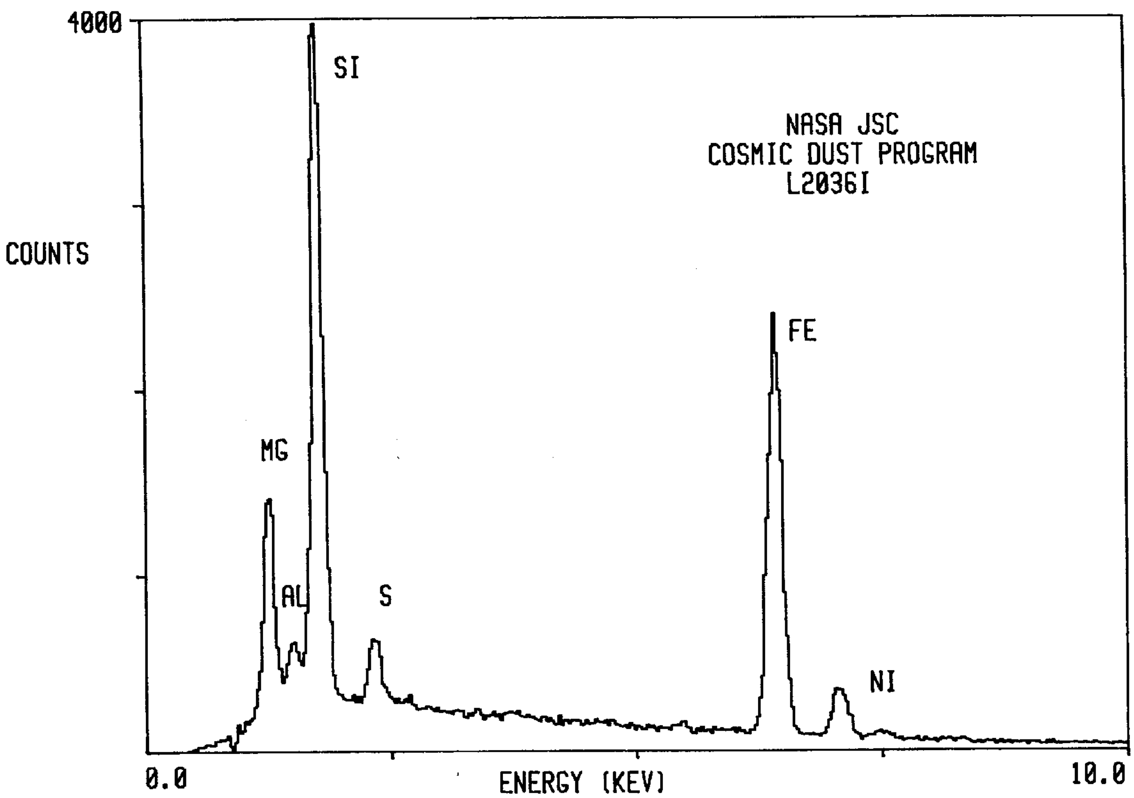
Trans: TL

Color: Black-White

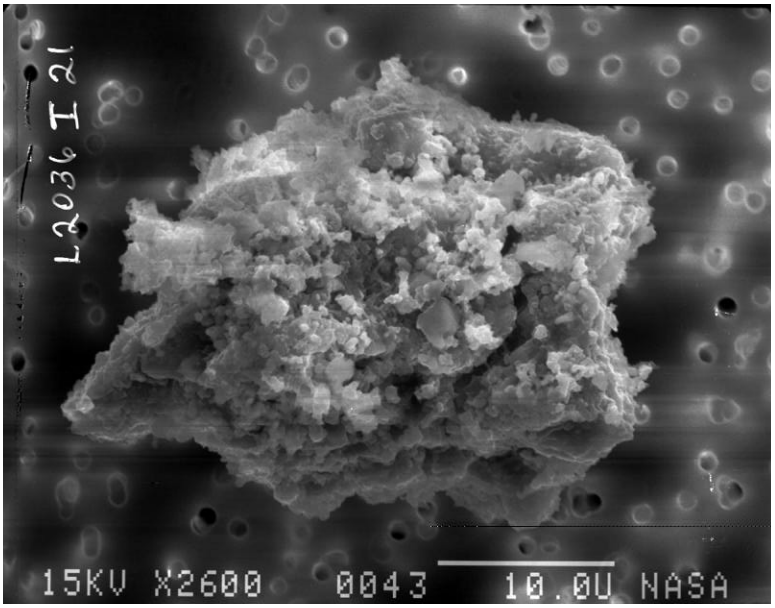
Luster: D/SV

Type: C

Comments:



L2036I21



97E00167

Size: 26x18

Shape: I

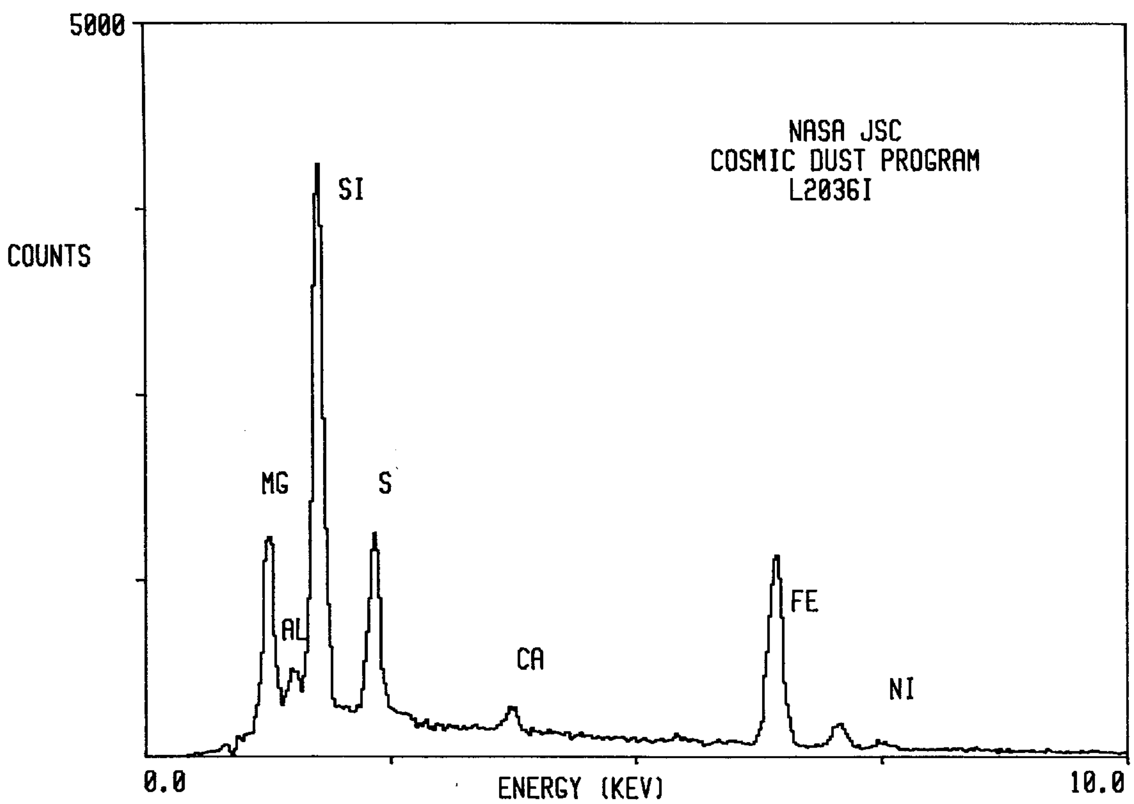
Trans: O

Color: Black-Brown

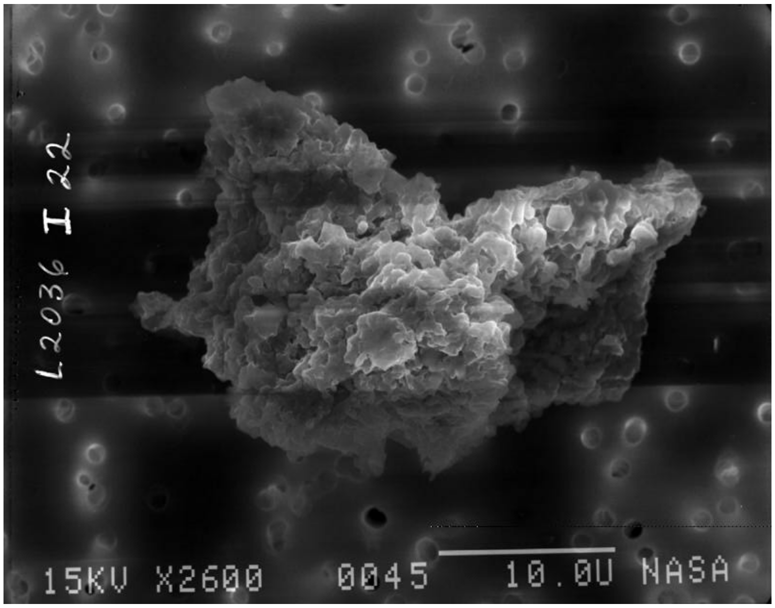
Luster: D

Type: C

Comments:



L2036I22



97E00168

Size: 37x17

Shape: I

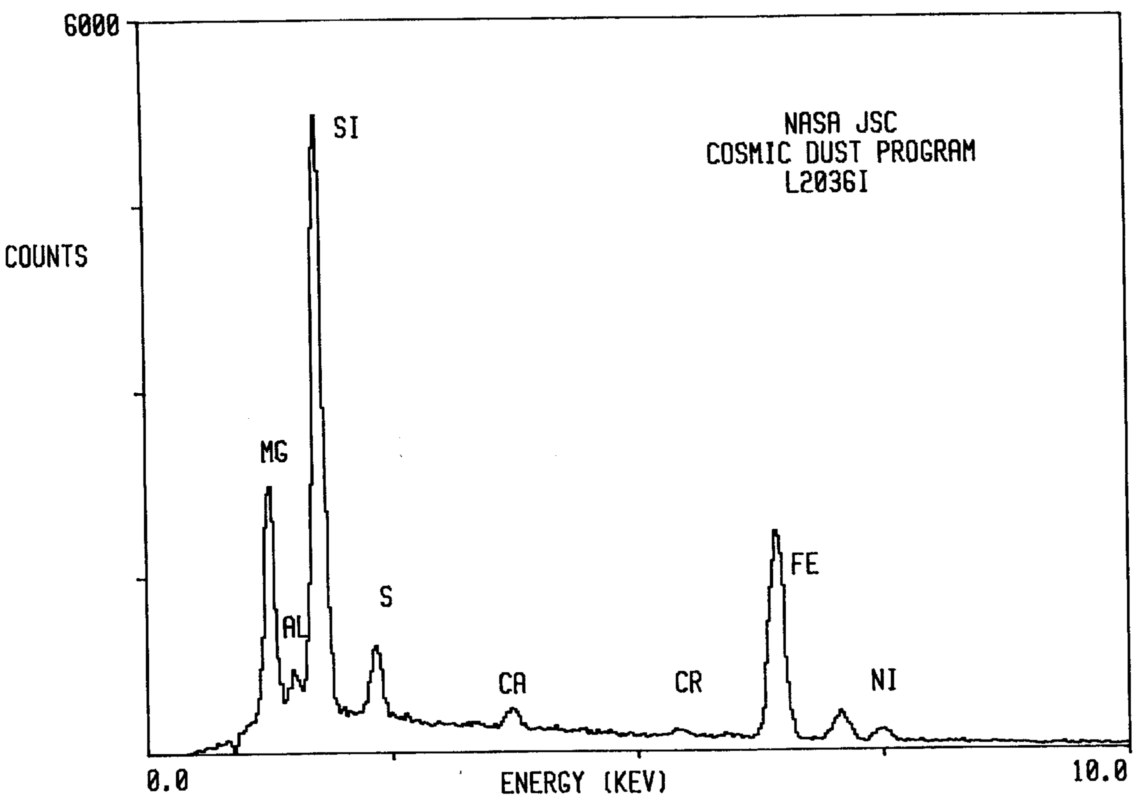
Trans: O

Color: Gray

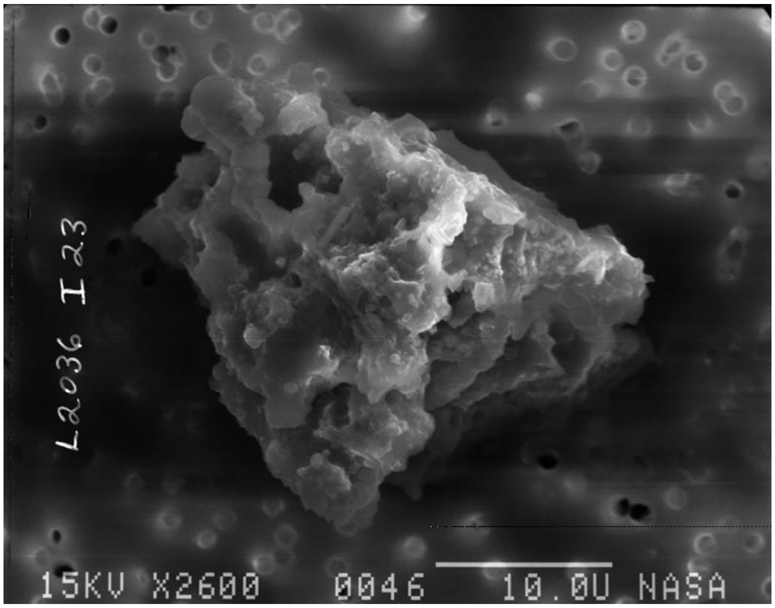
Luster: D

Type: C

Comments:

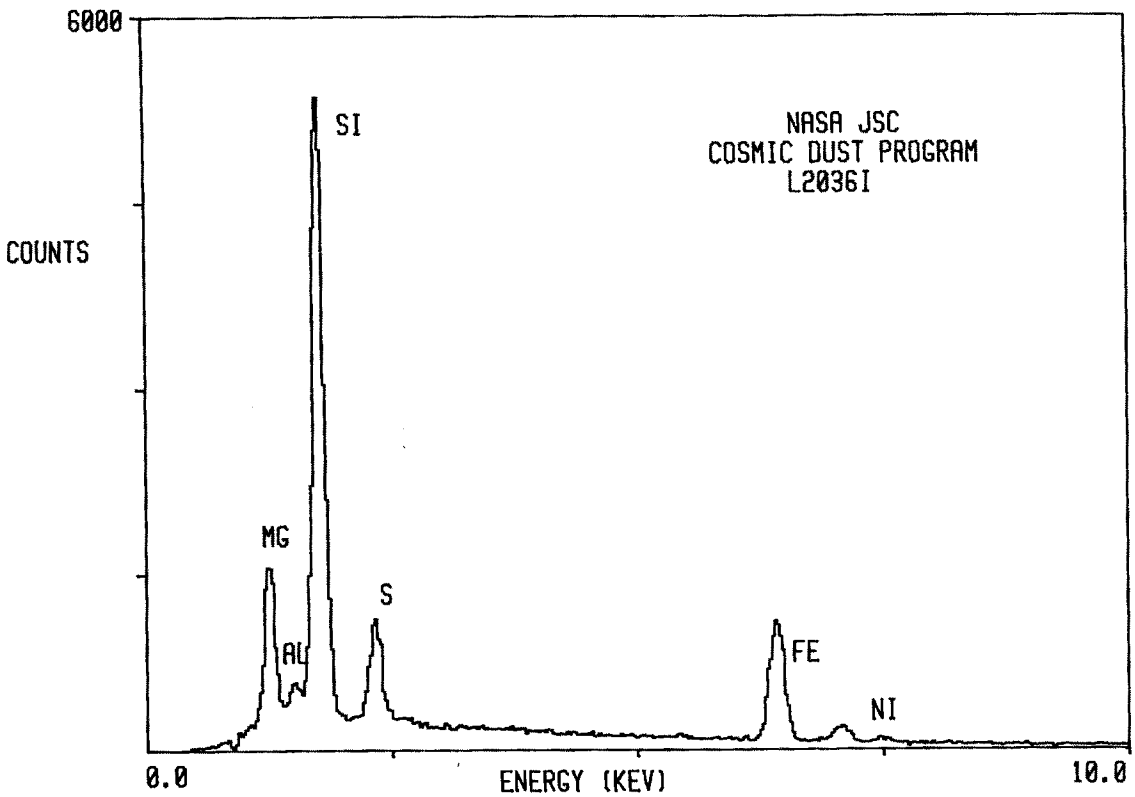


L2036I23

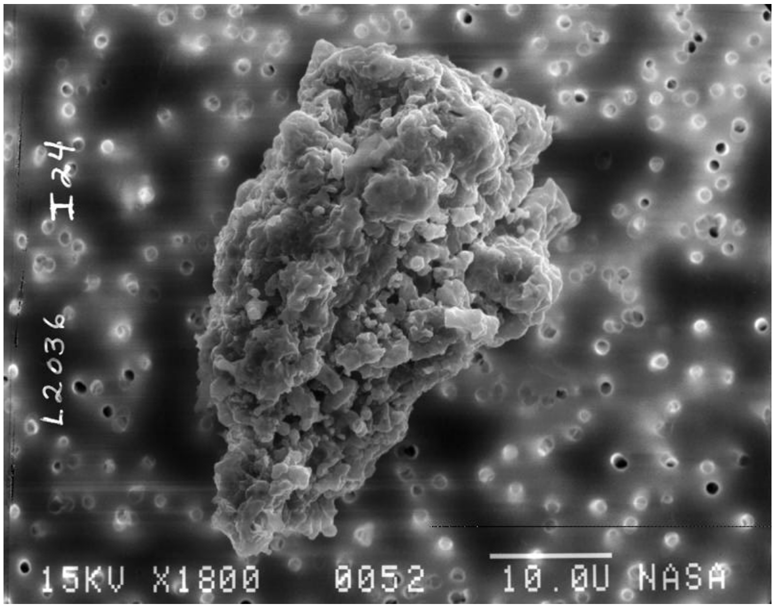


97E00169

Size:	22x20
Shape:	I
Trans:	O
Color:	Gray
Luster:	D
Type:	C
Comments:	



L2036I24



97E00170

Size: 44x26

Shape: I

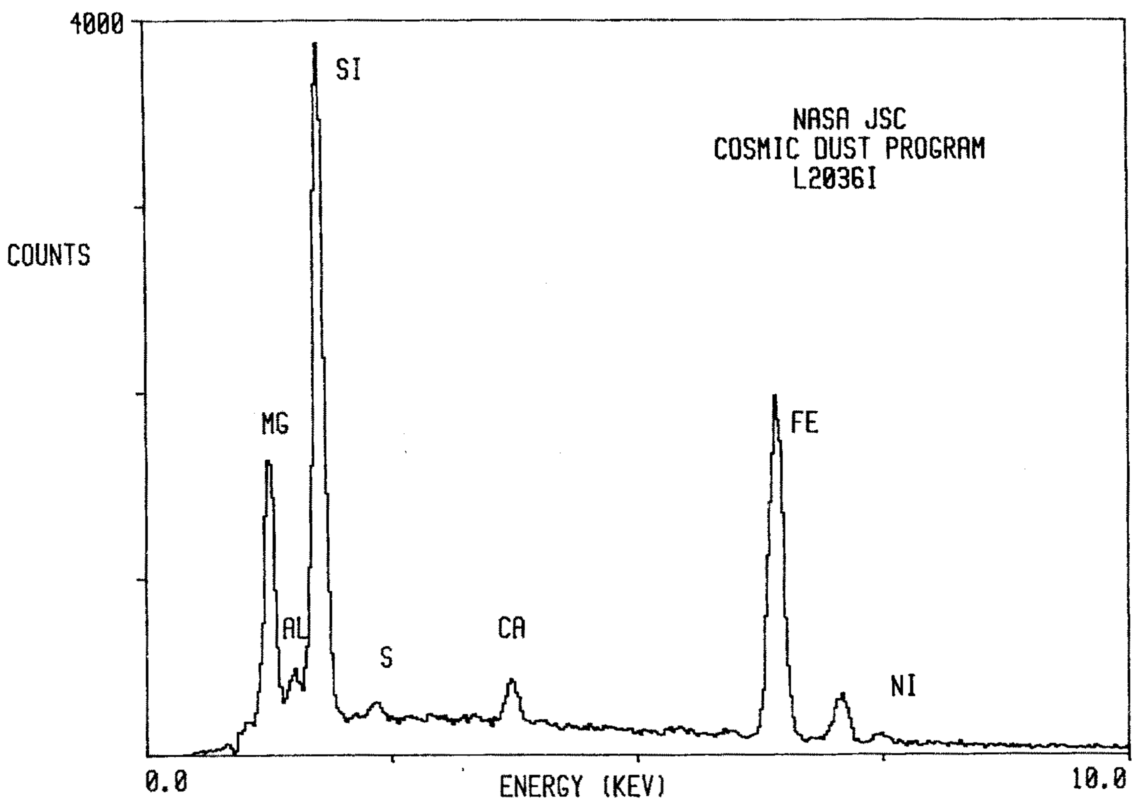
Trans: TL

Color: White-Brown

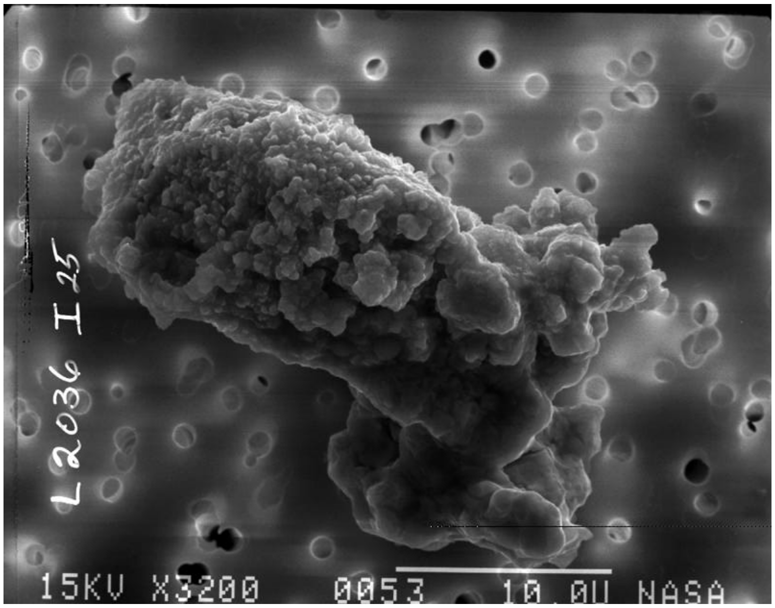
Luster: SV

Type: C

Comments:

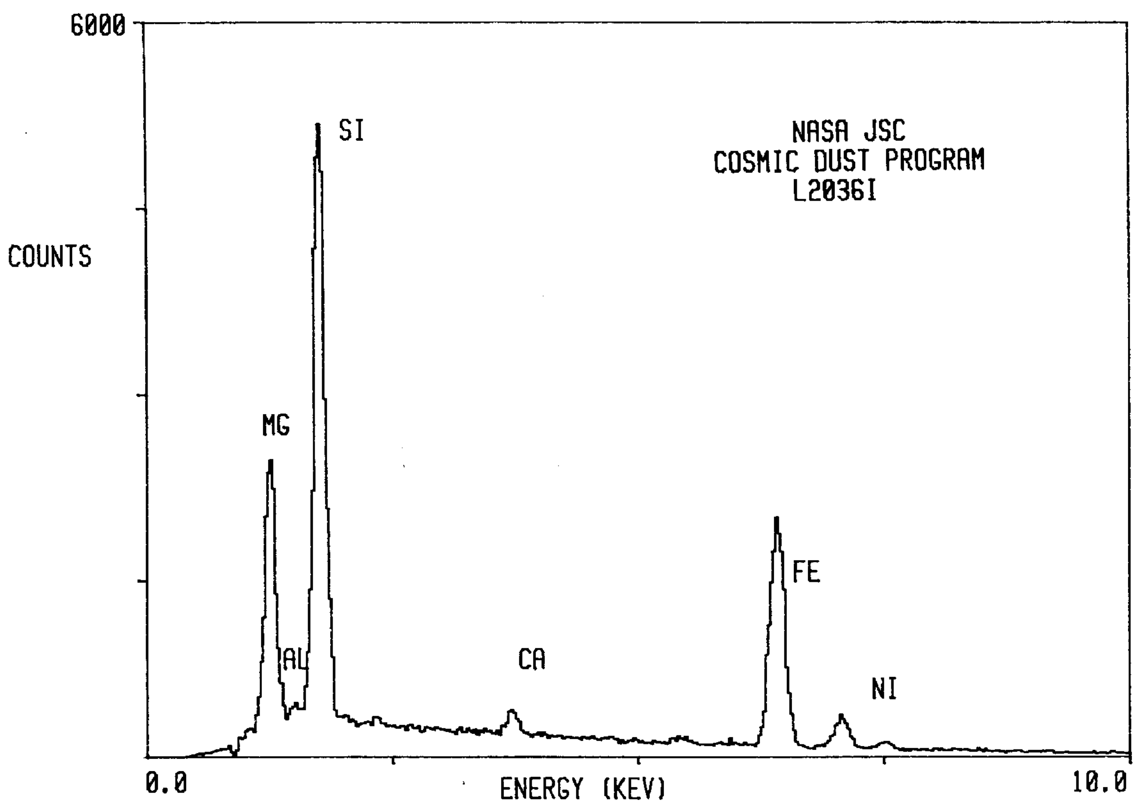


L2036I25

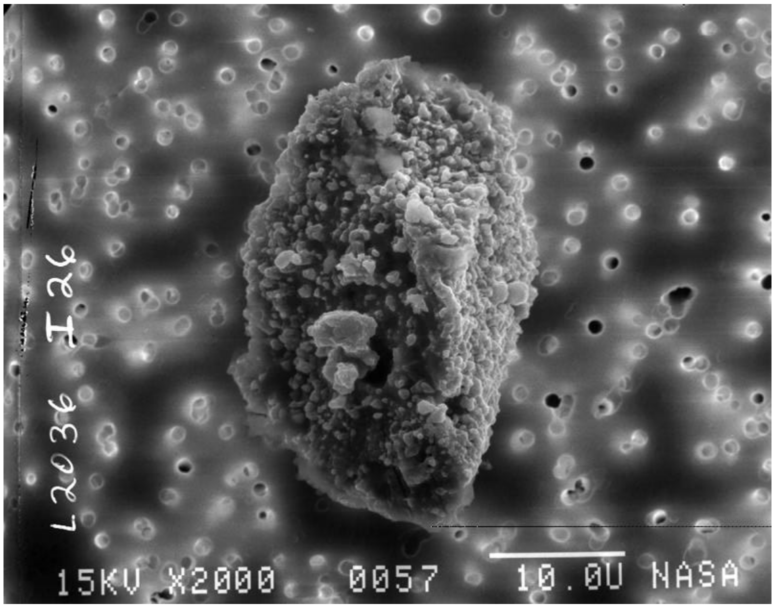


97E00171

Size:	24x12
Shape:	I
Trans:	O
Color:	Gray
Luster:	SM
Type:	C
Comments:	

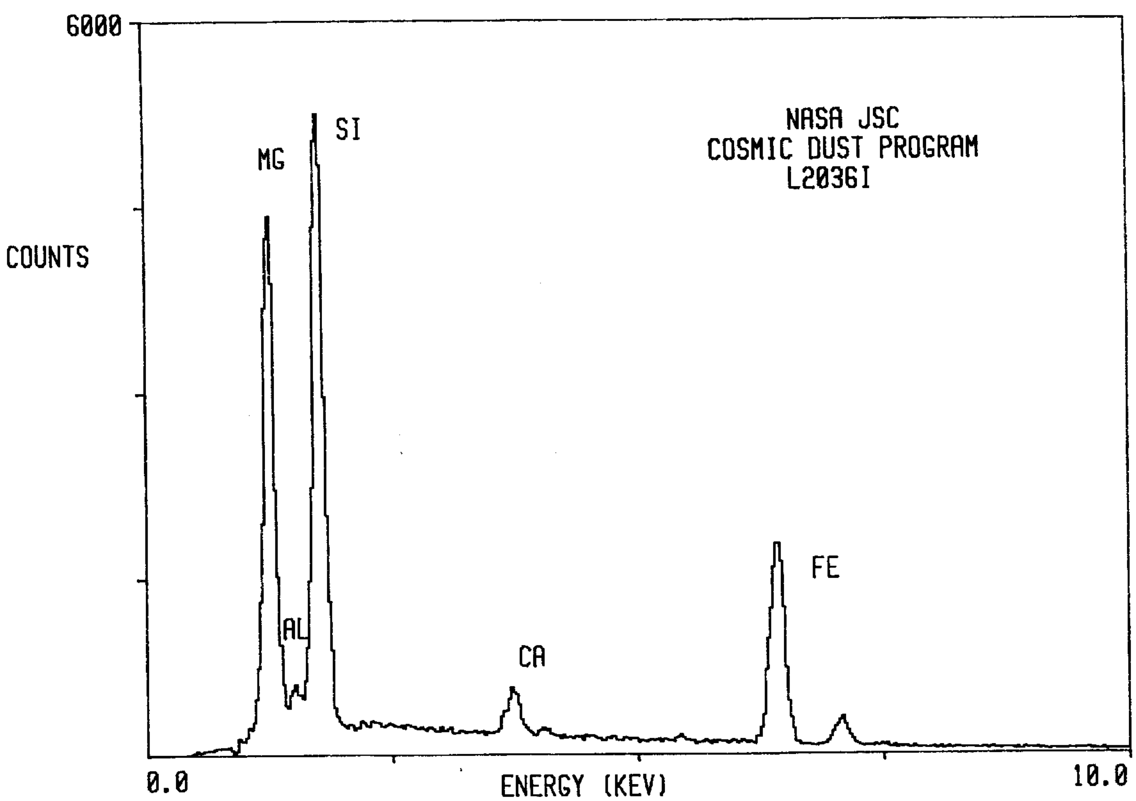


L2036I26

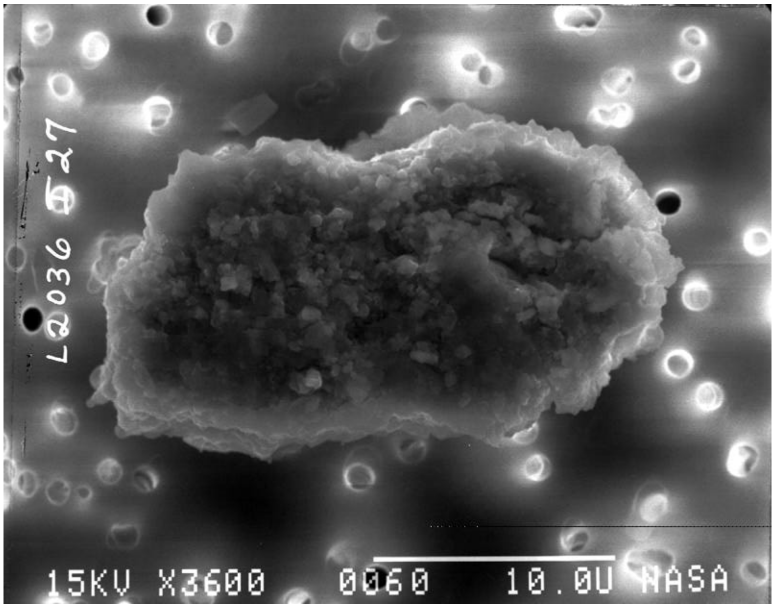


97E00172

Size: 33x19
Shape: I
Trans: TL
Color: Brown-Colorless
Luster: SV
Type: C?
Comments:

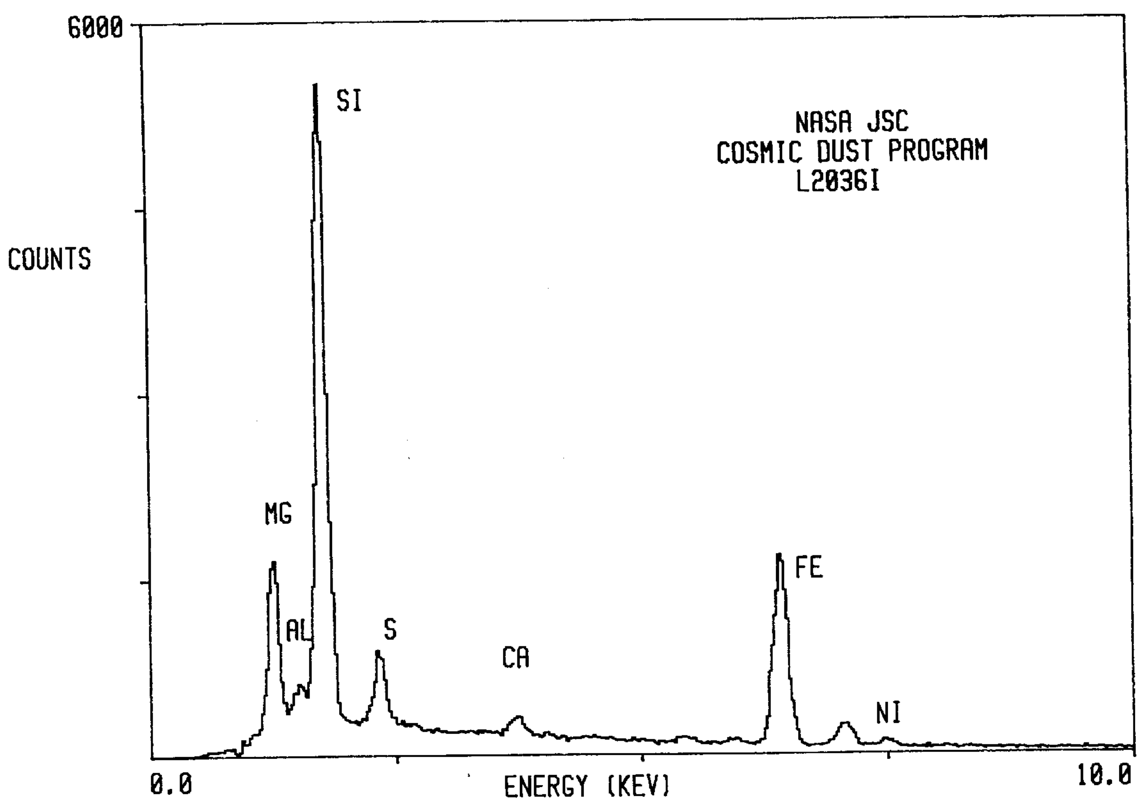


L2036I27

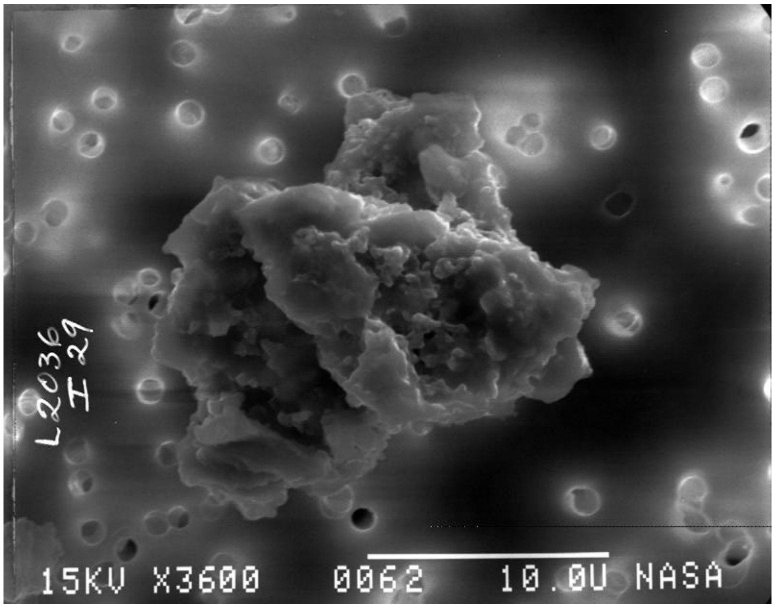


97E00173

Size: 22x13
Shape: I
Trans: O
Color: Black
Luster: D
Type: C
Comments:



L2036I29



97E00175

Size: 17x13

Shape: I

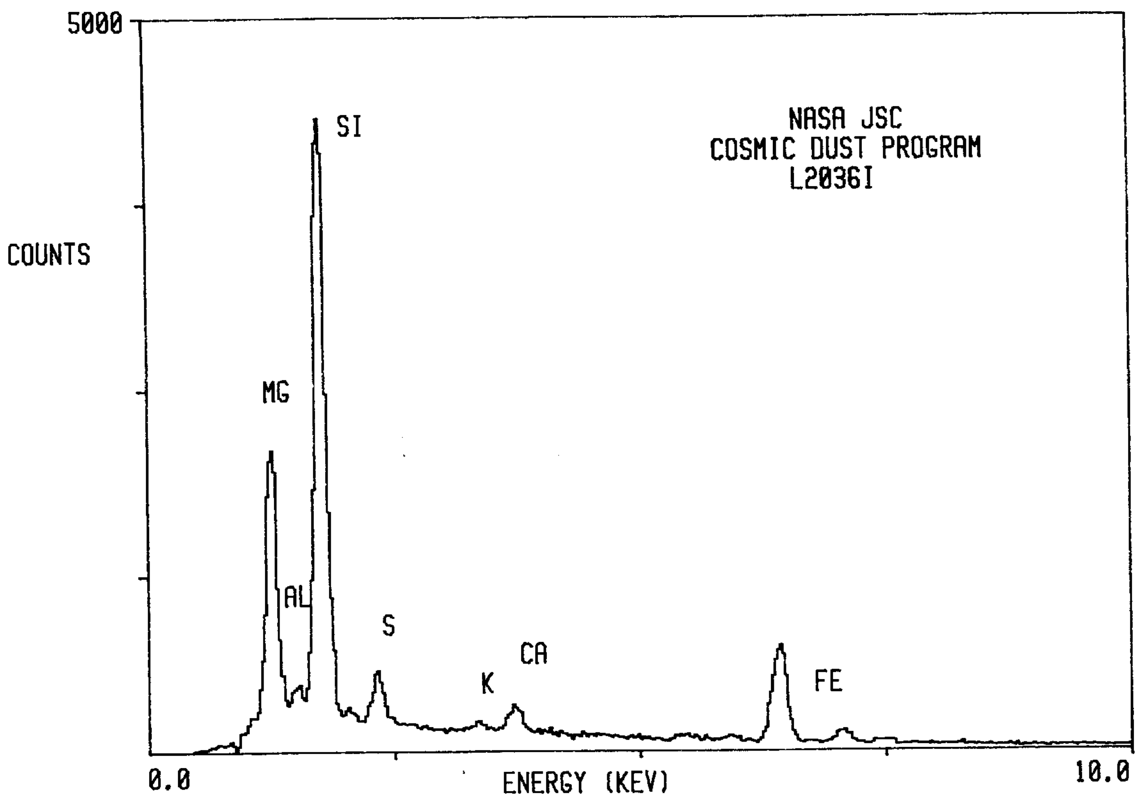
Trans: O

Color: Black

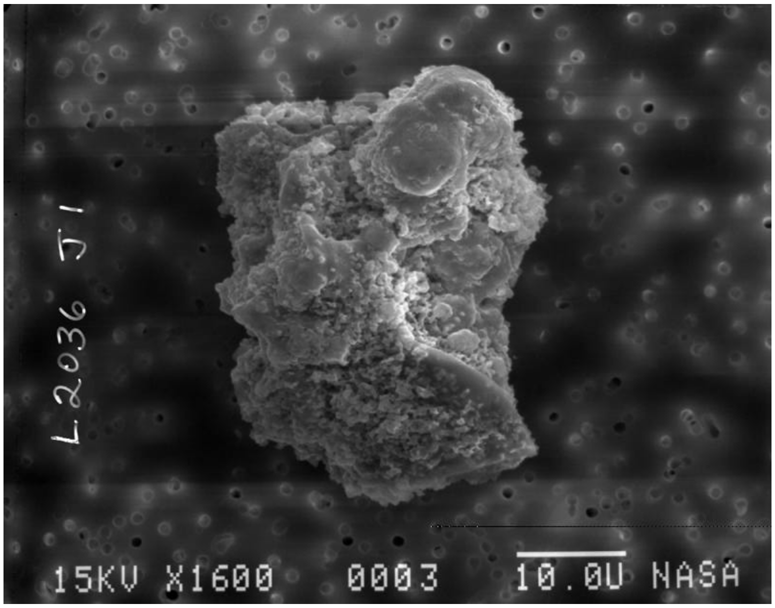
Luster: D

Type: C?

Comments:

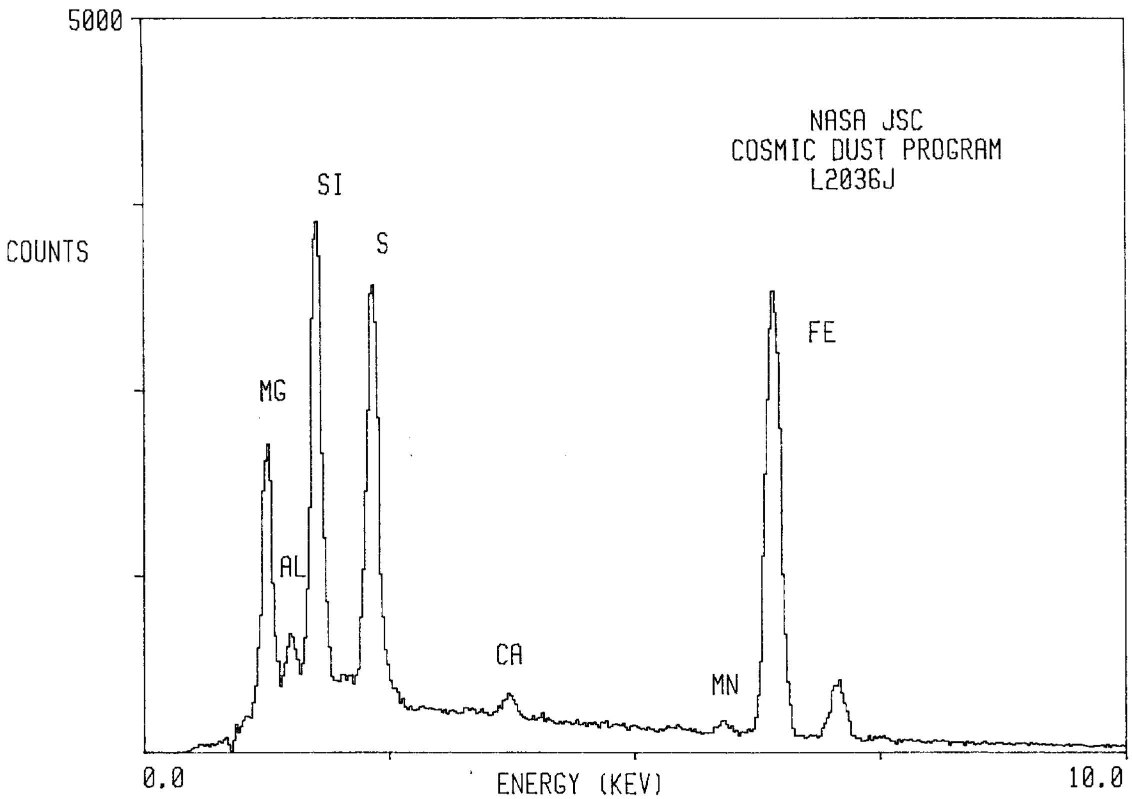


L2036J1

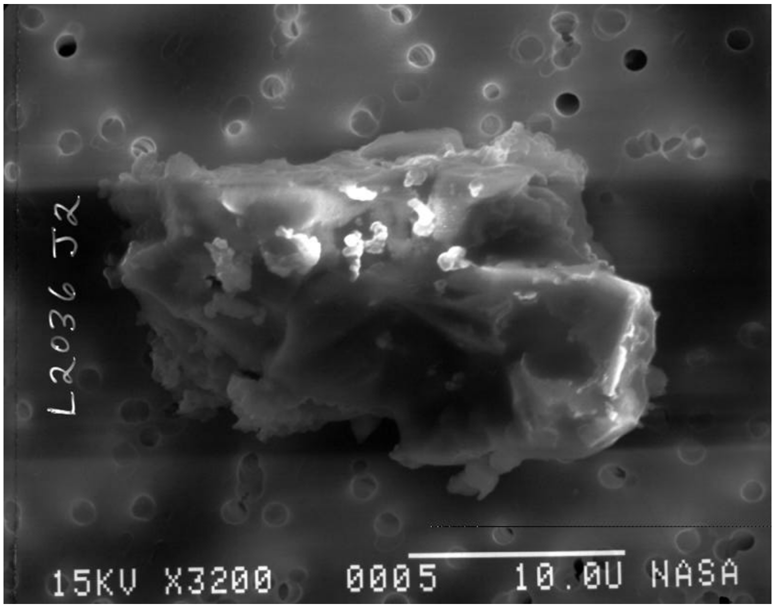


97E00177

Size:	39x26
Shape:	I
Trans:	O
Color:	Black
Luster:	M
Type:	C
Comments:	

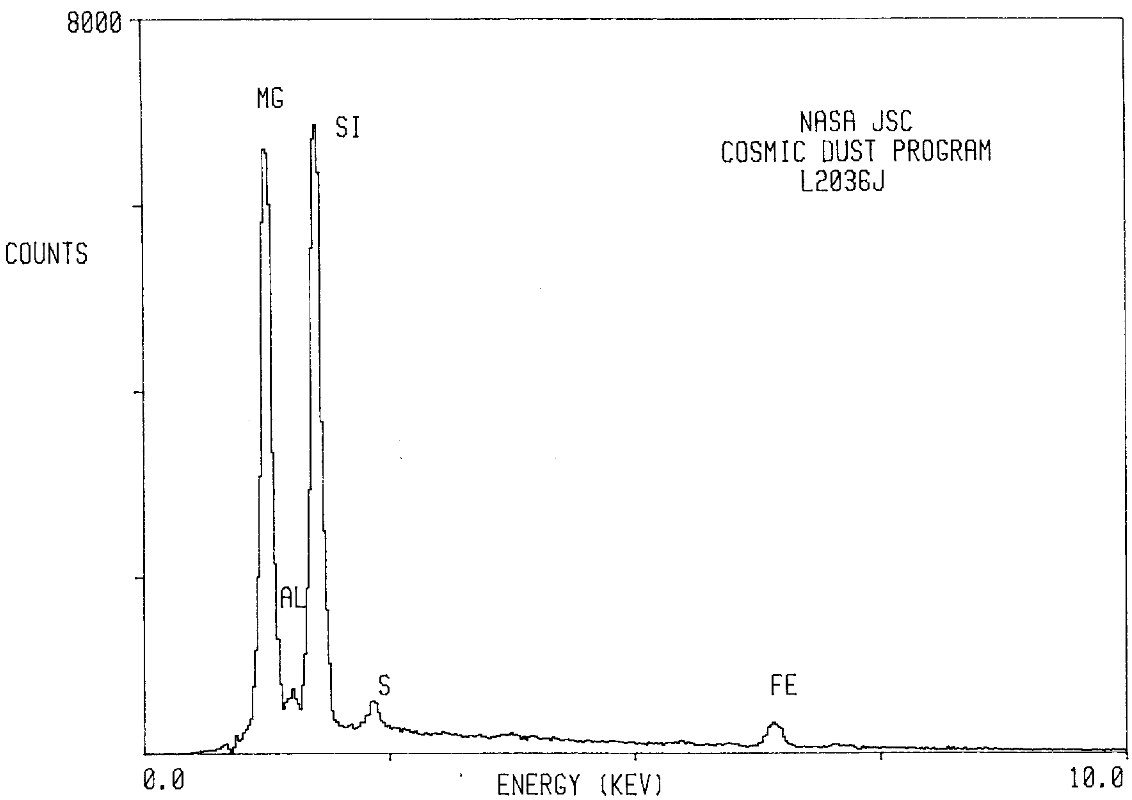


L2036J2

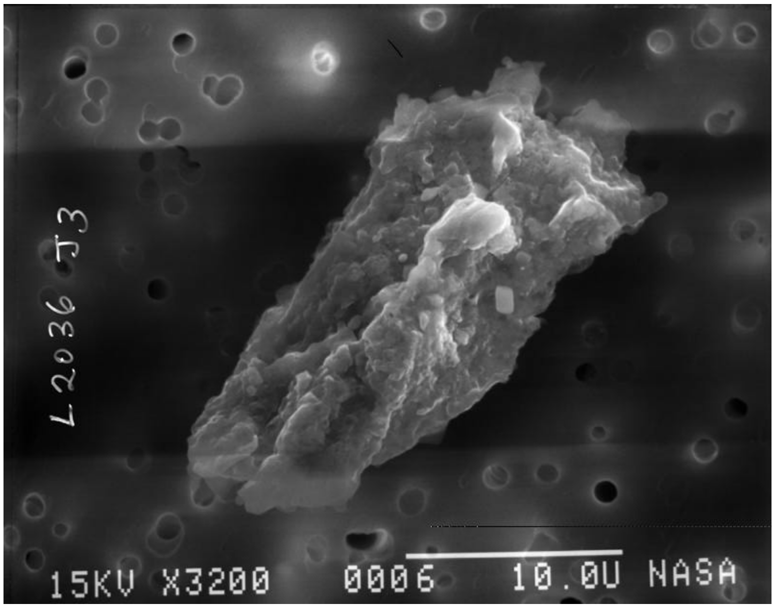


97E00178

Size: 26x14
Shape: I
Trans: TL
Color: Colorless
Luster: SV
Type: C?
Comments:

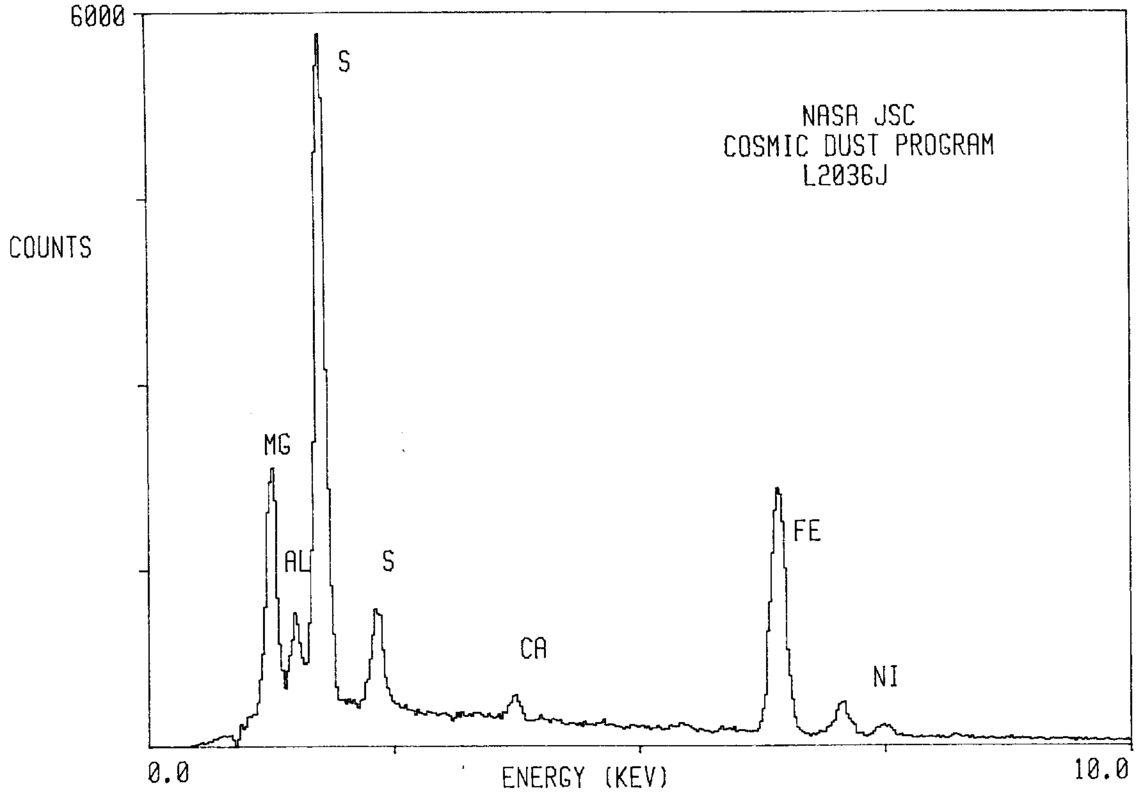


L2036J3

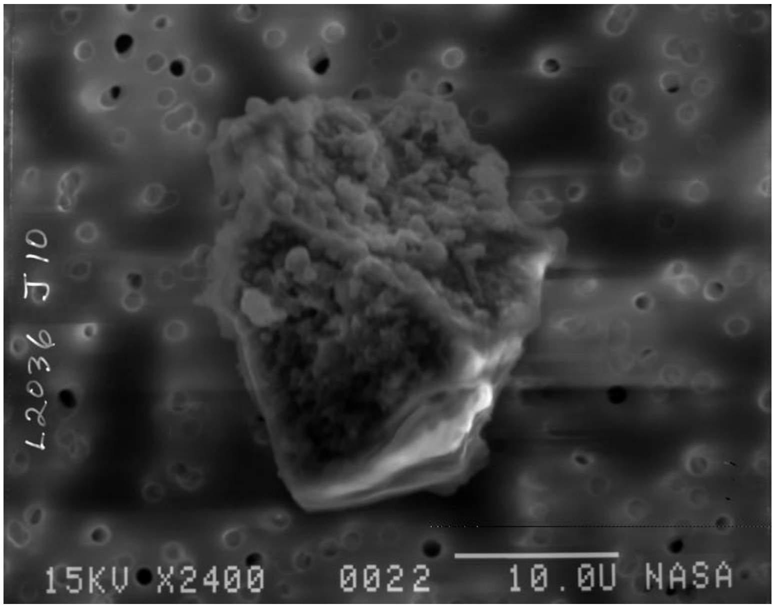


97E00179

Size:	14x8
Shape:	I
Trans:	O
Color:	Black
Luster:	M
Type:	C
Comments:	

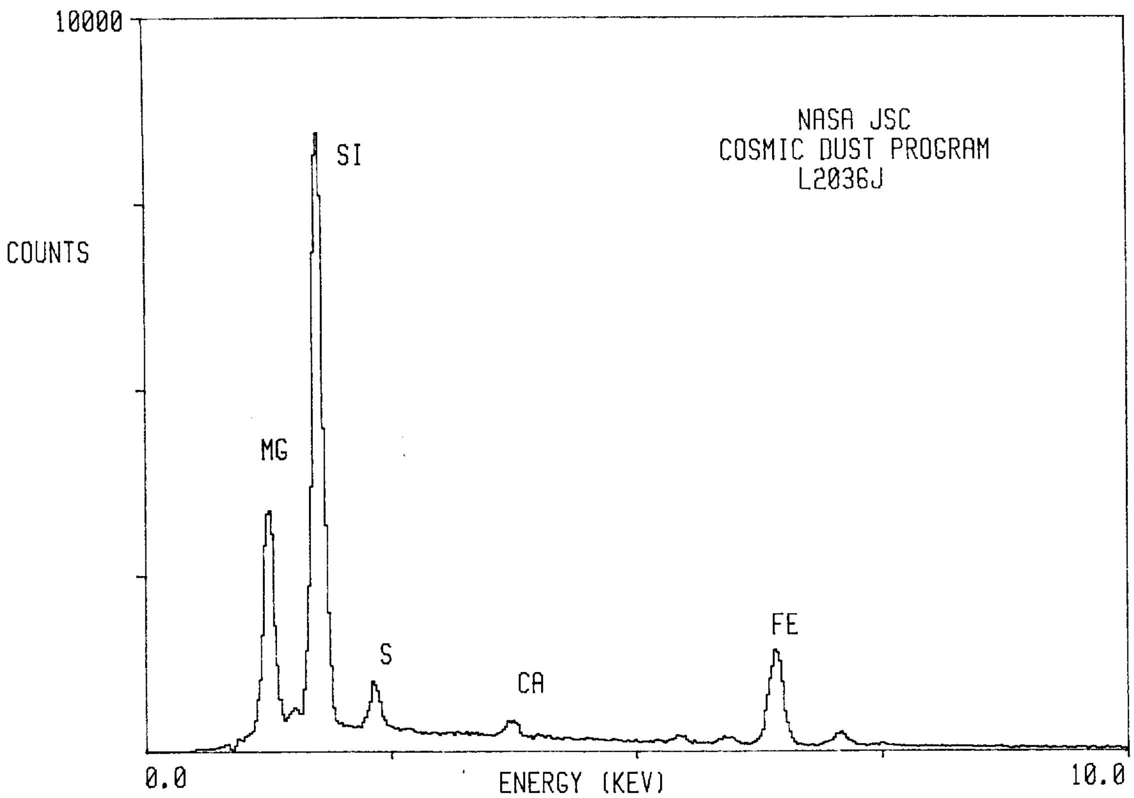


L2036J10

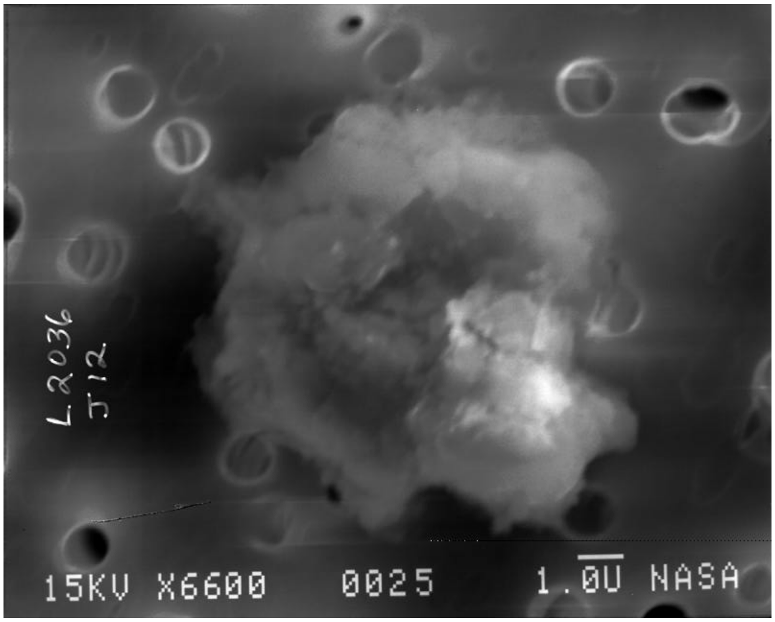


Size: 24x19
Shape: I
Trans: O
Color: Black-Gray
Luster: SM
Type: C?
Comments:

97E00186



L2036J12



97E00188

Size: 9x8

Shape: I

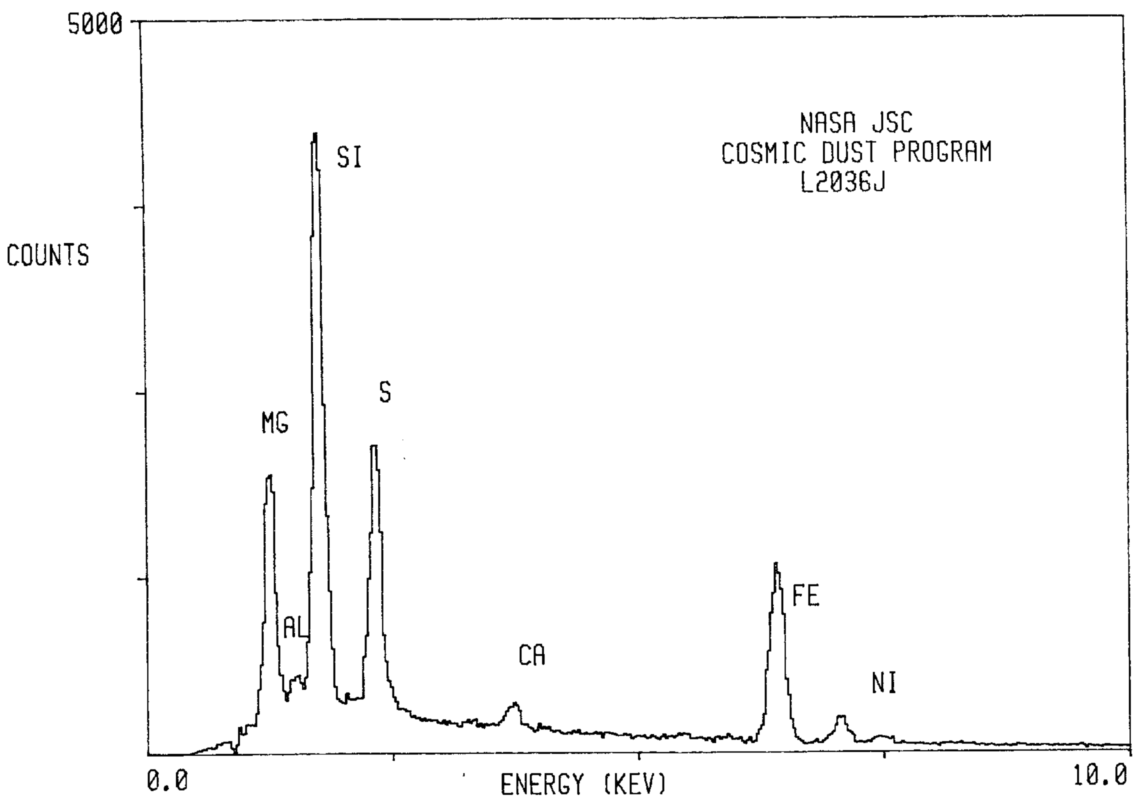
Trans: O

Color: Black

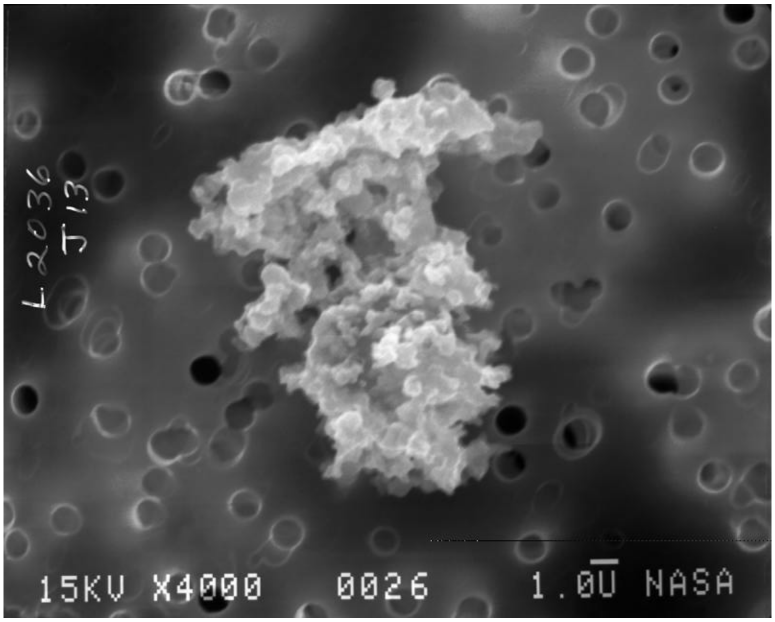
Luster: SM

Type: C

Comments:



L2036J13



97E00189

Size: 12x7

Shape: I

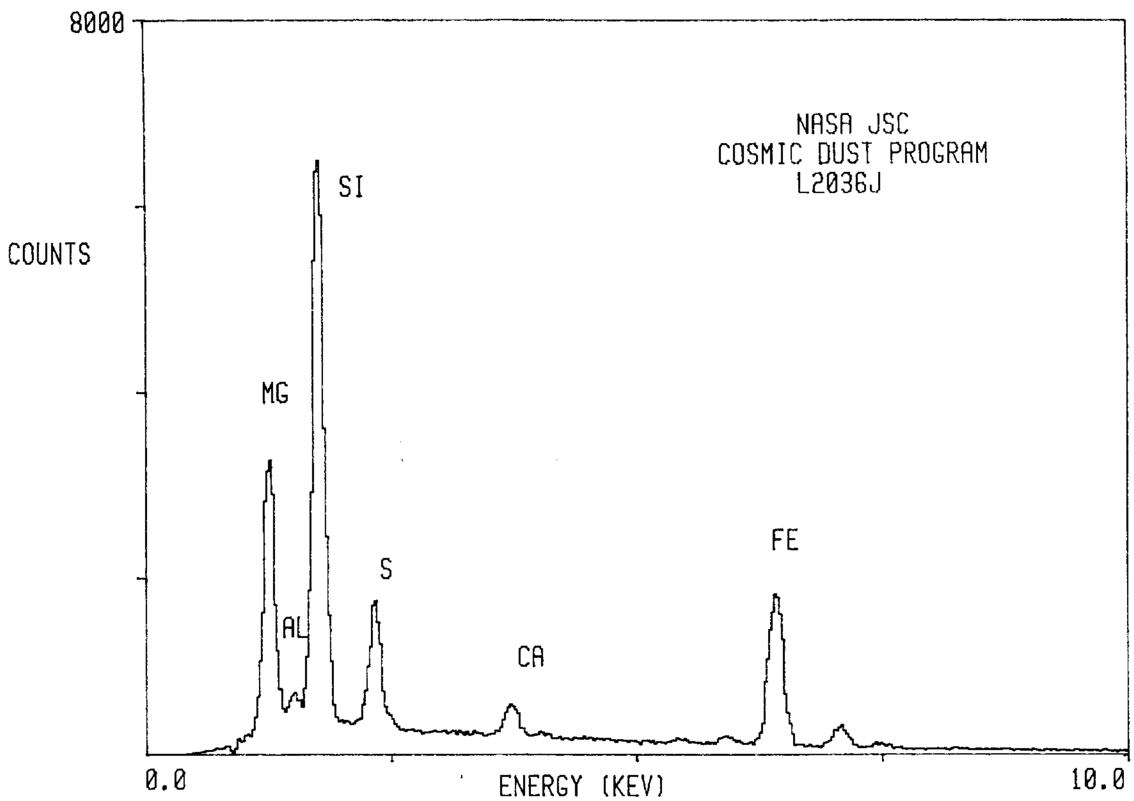
Trans: O

Color: Black

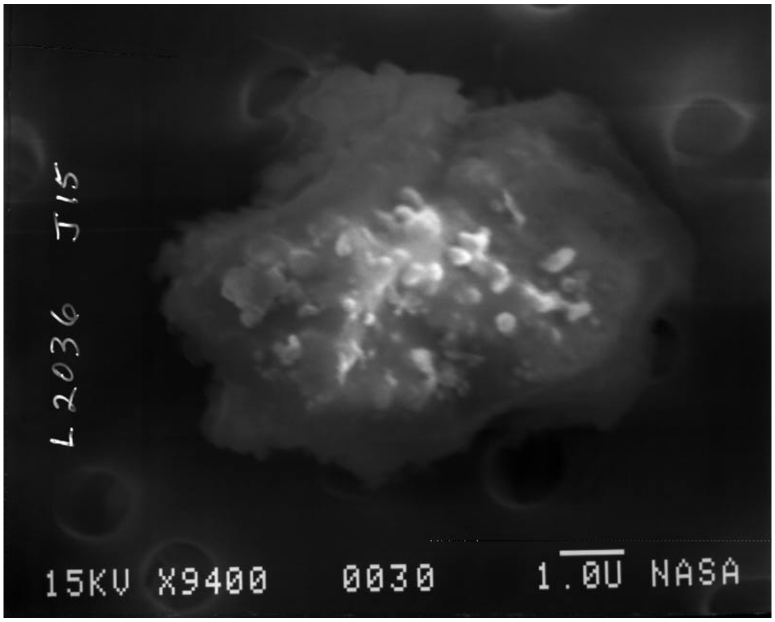
Luster: SM

Type: C

Comments:

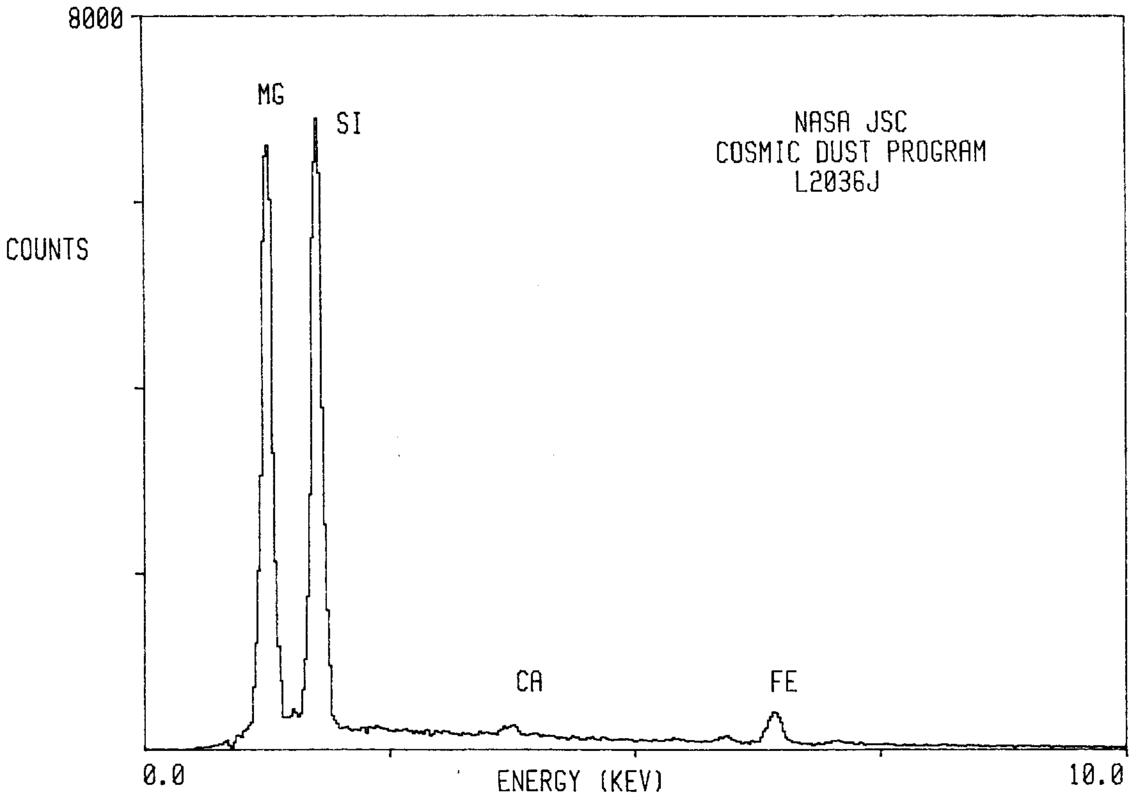


L2036J15

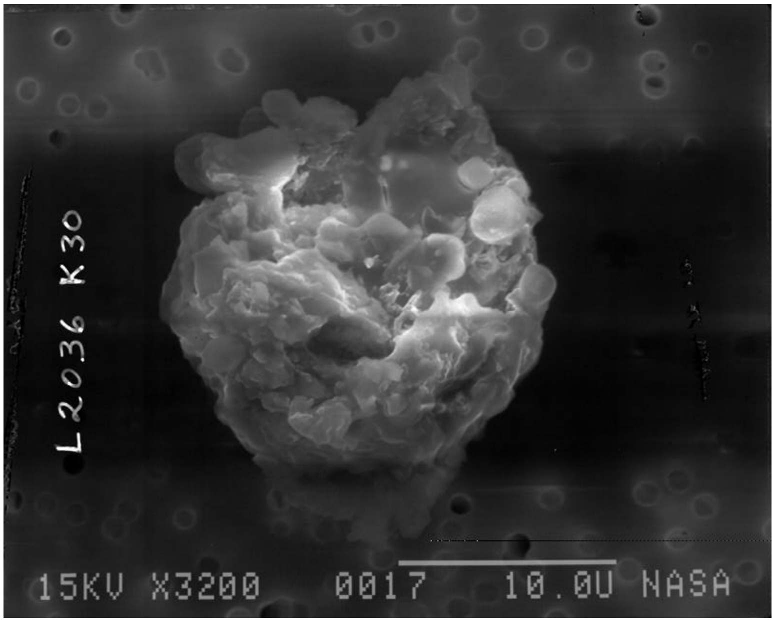


97E00191

Size: 15x10
Shape: I
Trans: O/T
Color: Black-Colorless
Luster: P/V
Type: C?
Comments:



L2036K30



97E00221

Size: 18x14

Shape: I

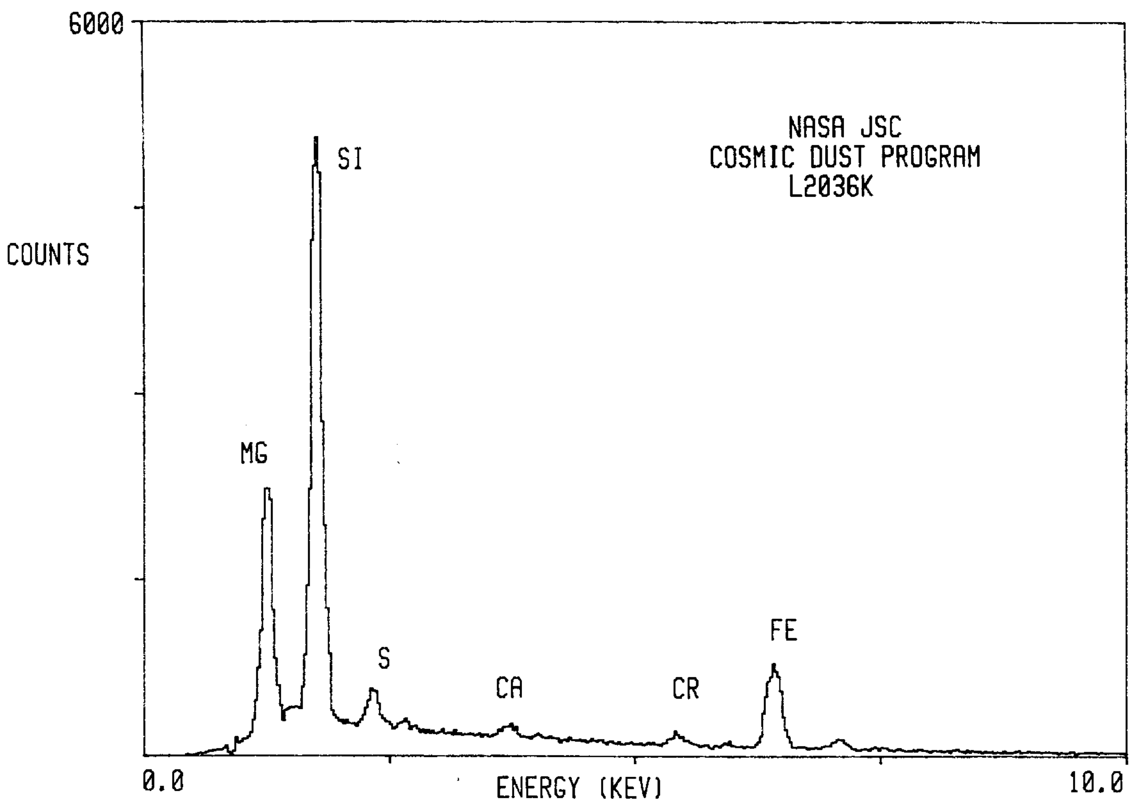
Trans: TL

Color: White

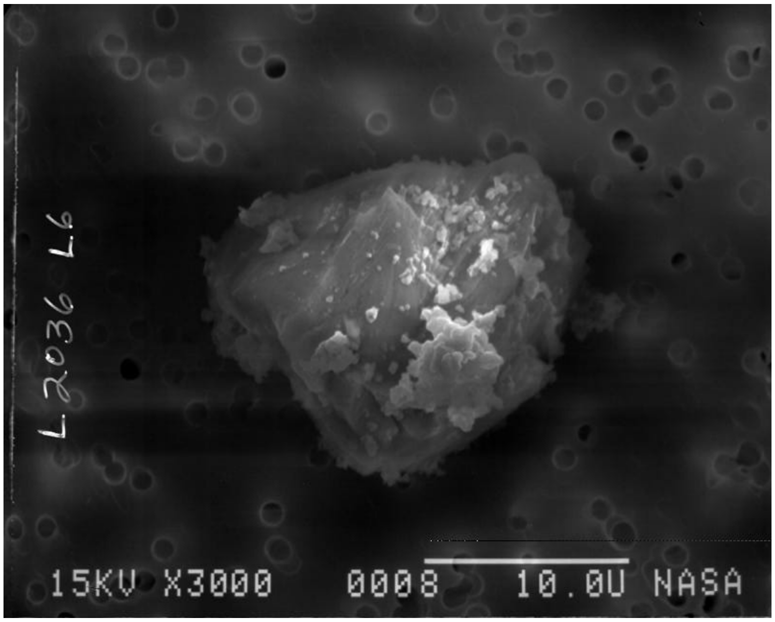
Luster: SV

Type: C?

Comments:



L2036L6



97E00229

Size: 18x14

Shape: I

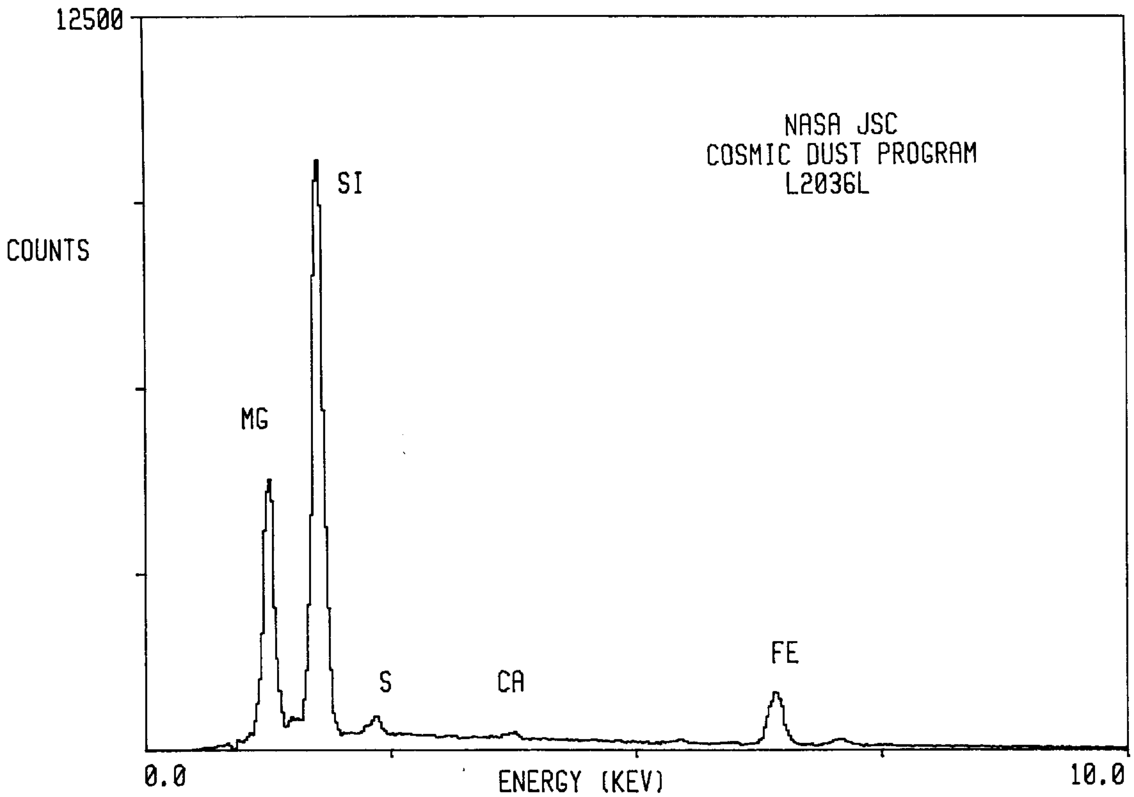
Trans: T

Color: Colorless

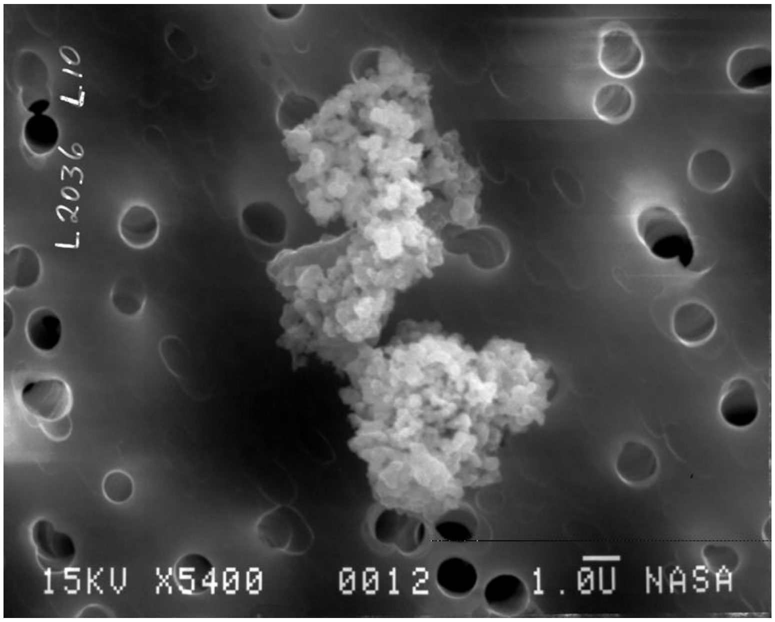
Luster: V

Type: C?

Comments:

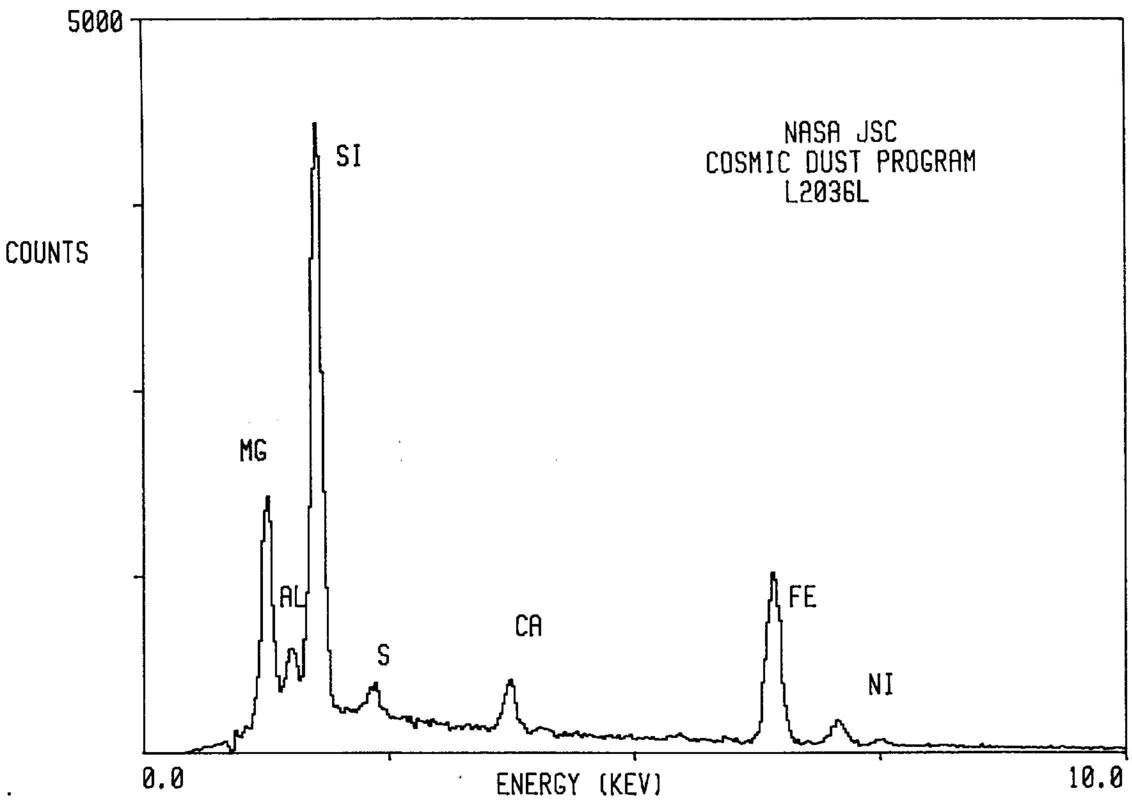


L2036L10

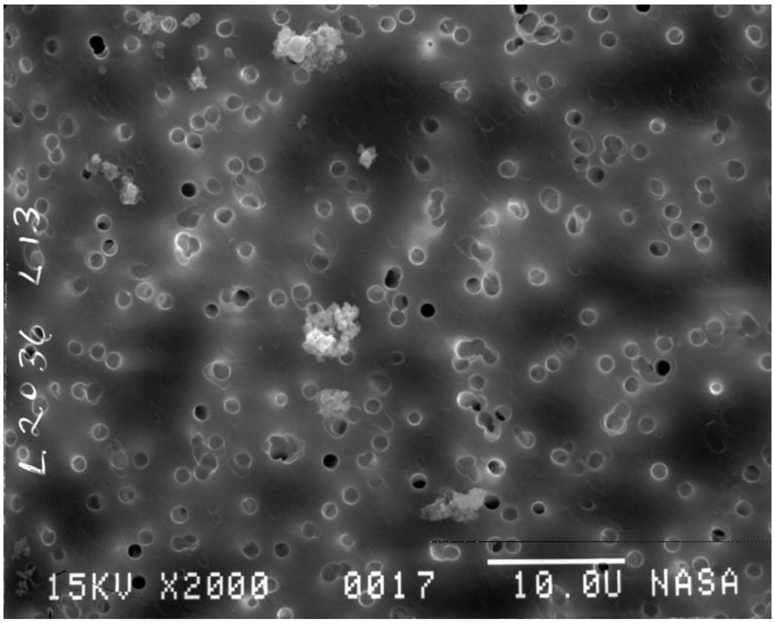


97E00233

Size:	5
Shape:	S
Trans:	O
Color:	Black
Luster:	D
Type:	C?
Comments:	



L2036L13



97E00236

Size: 9x6

Shape: I

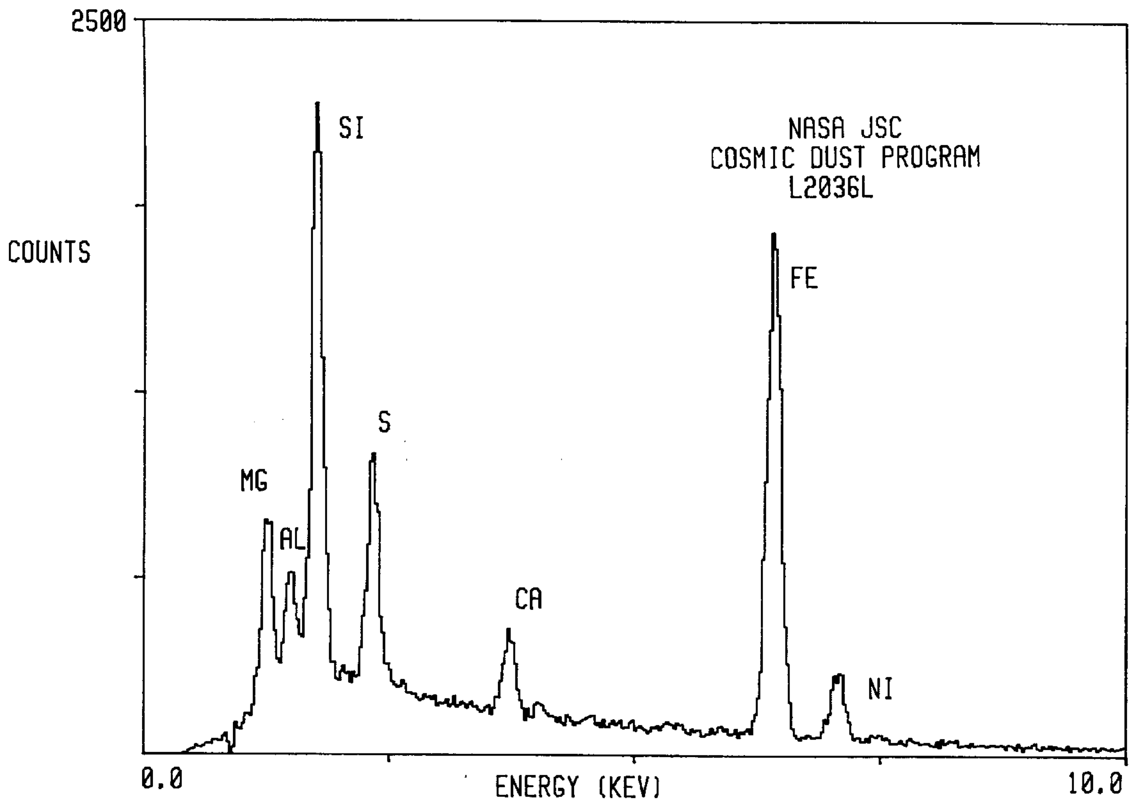
Trans: O/T

Color: Black-Colorless

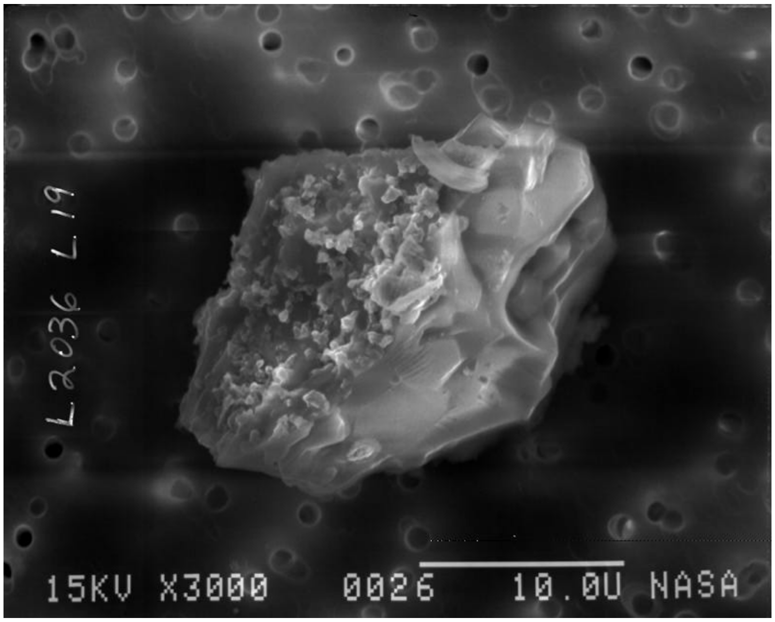
Luster: D/SV

Type: C

Comments: Field of particles



L2036L19



97E00242

Size: 24x16

Shape: I

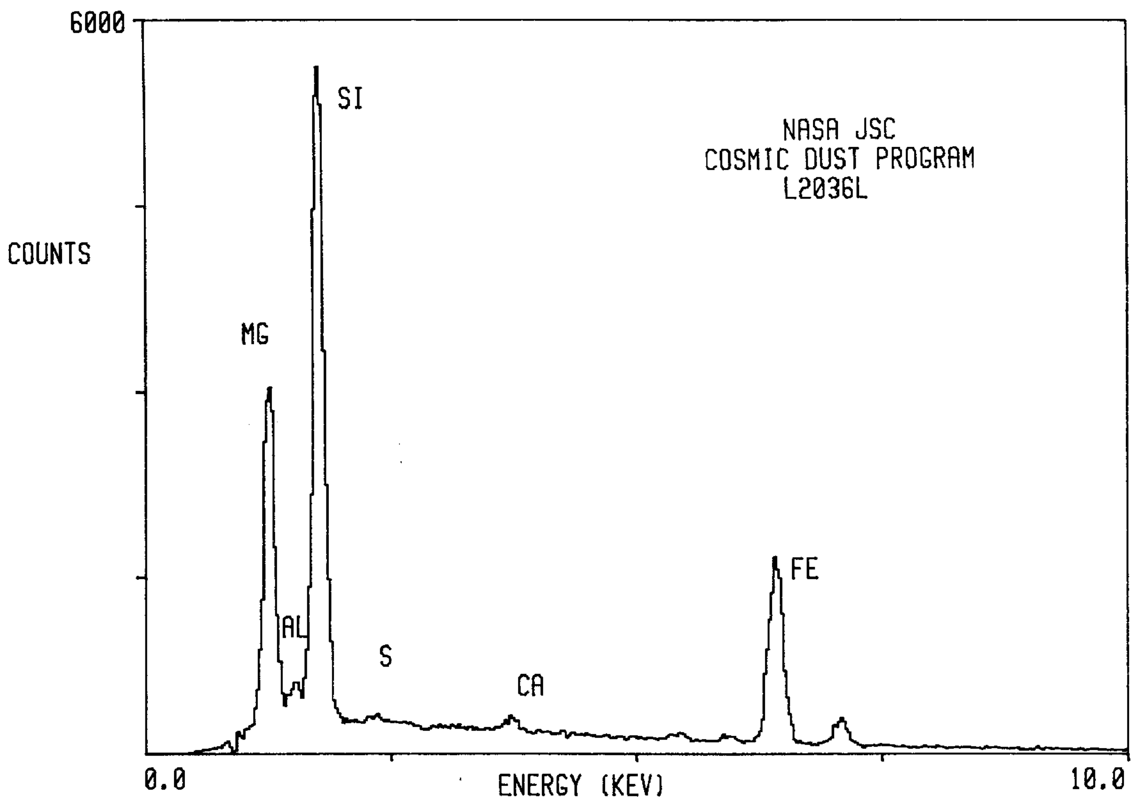
Trans: TL

Color: Colorless-Brown

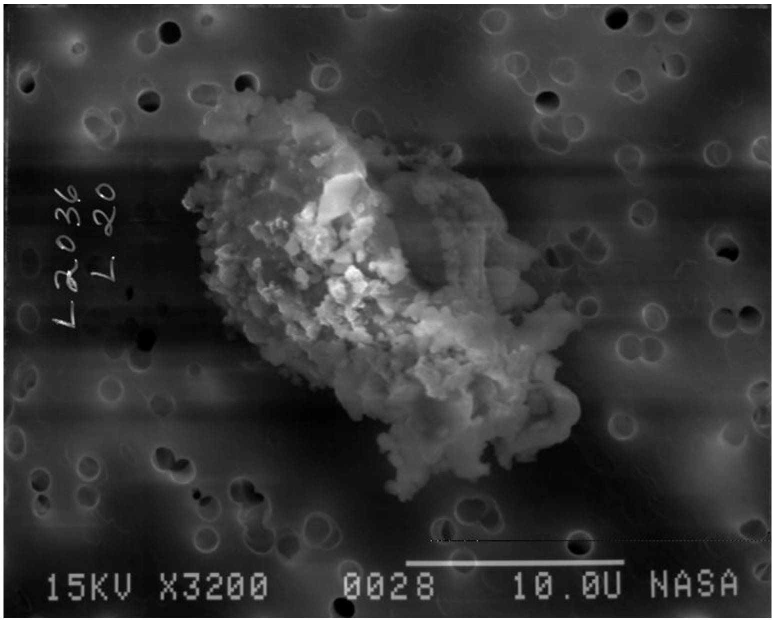
Luster: SV

Type: C?

Comments:

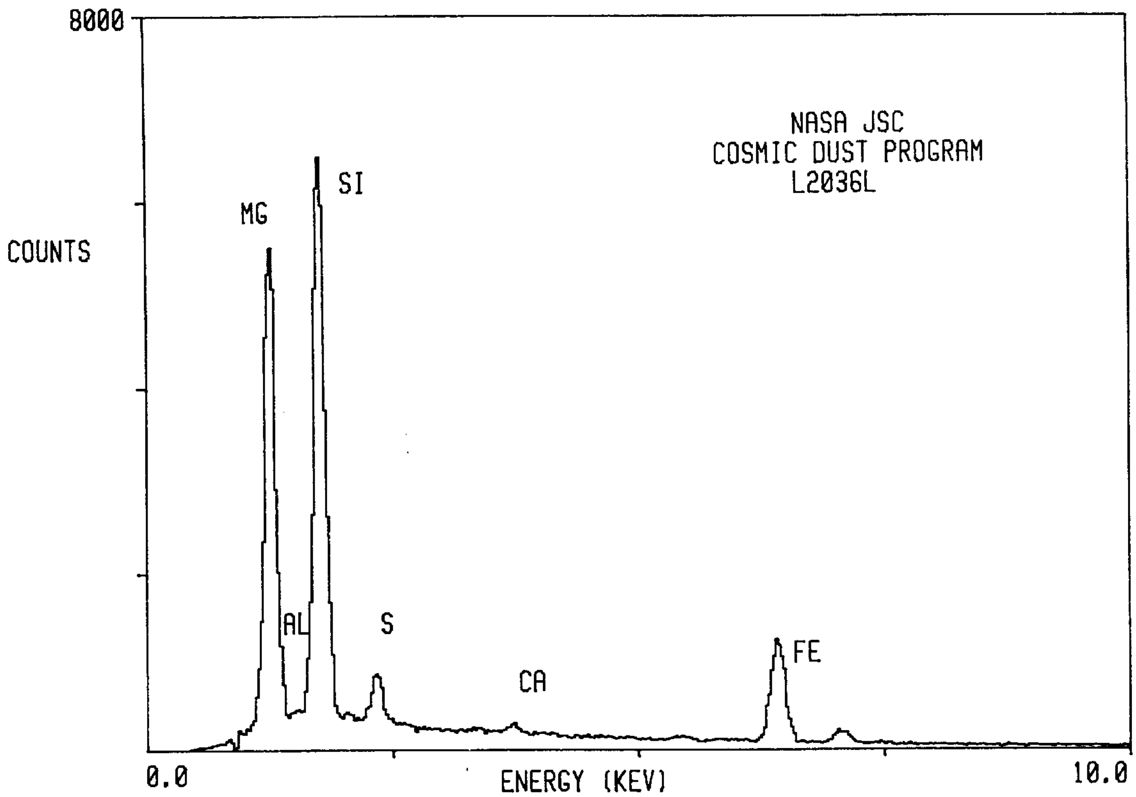


L2036L20

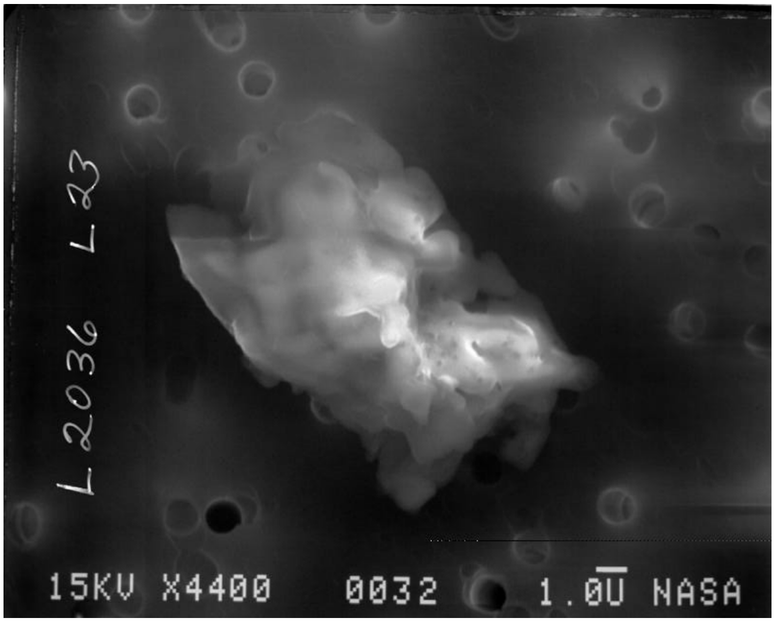


97E00243

Size:	19x13
Shape:	I
Trans:	TL
Color:	Colorless
Luster:	V
Type:	C?
Comments:	

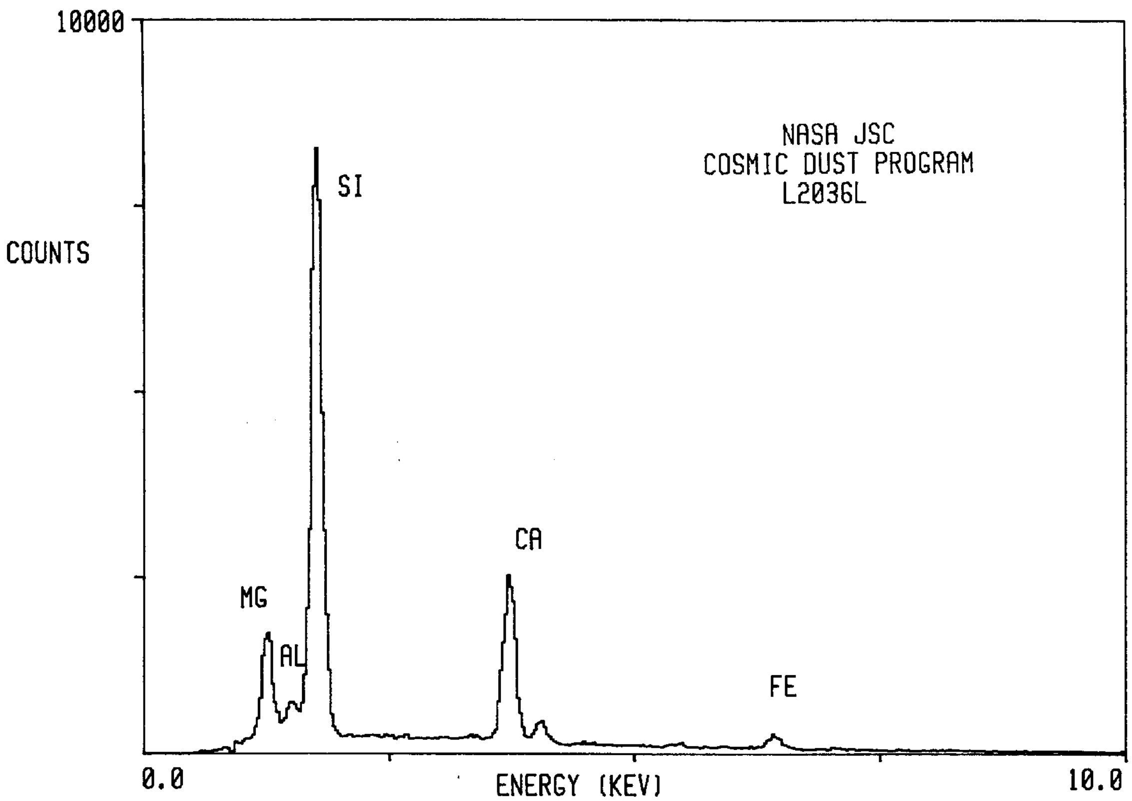


L2036L23

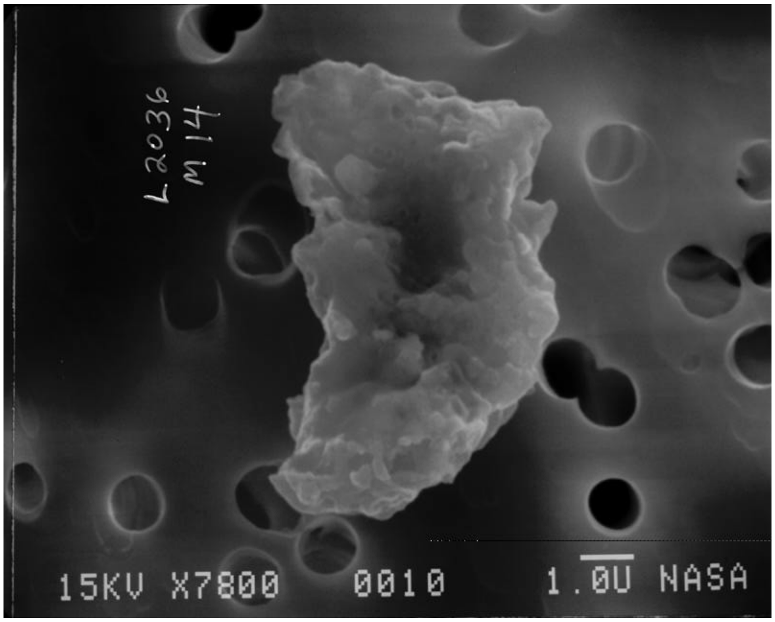


97E00246

Size:	12x7
Shape:	I
Trans:	TL
Color:	White
Luster:	SV
Type:	C?
Comments:	



L2036M14



97E00265

Size: 8x5

Shape: I

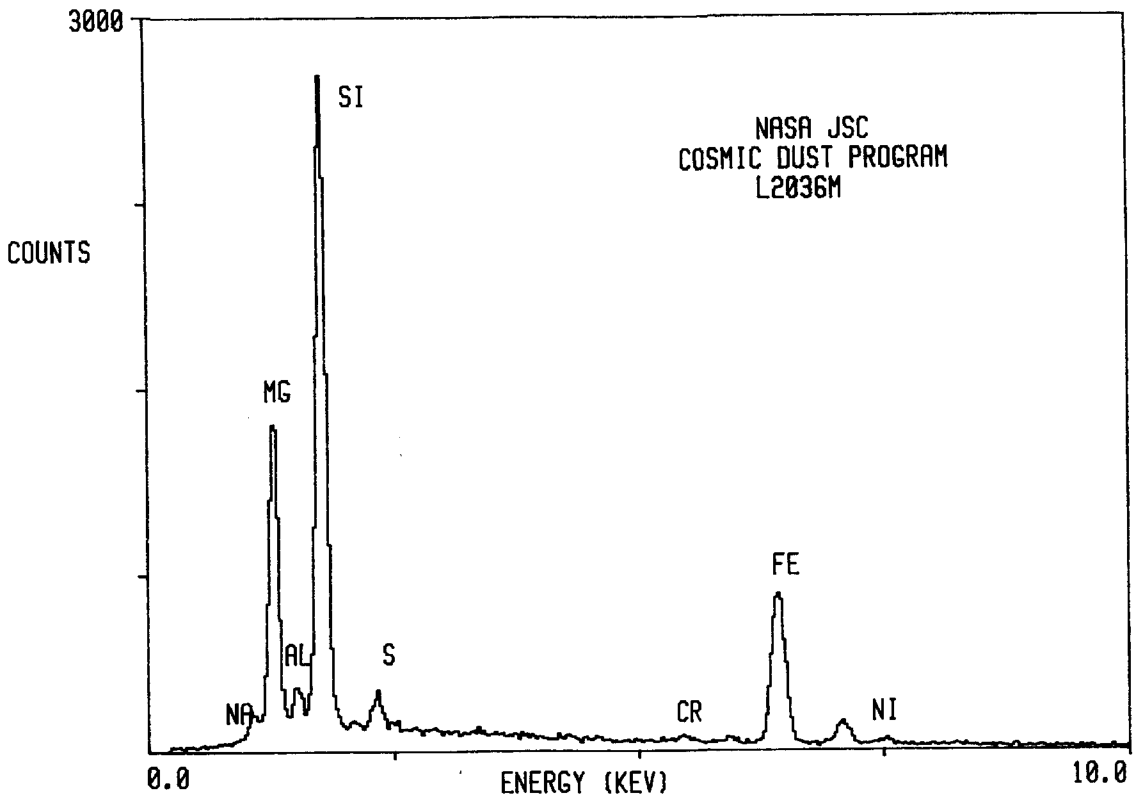
Trans: T

Color: Colorless

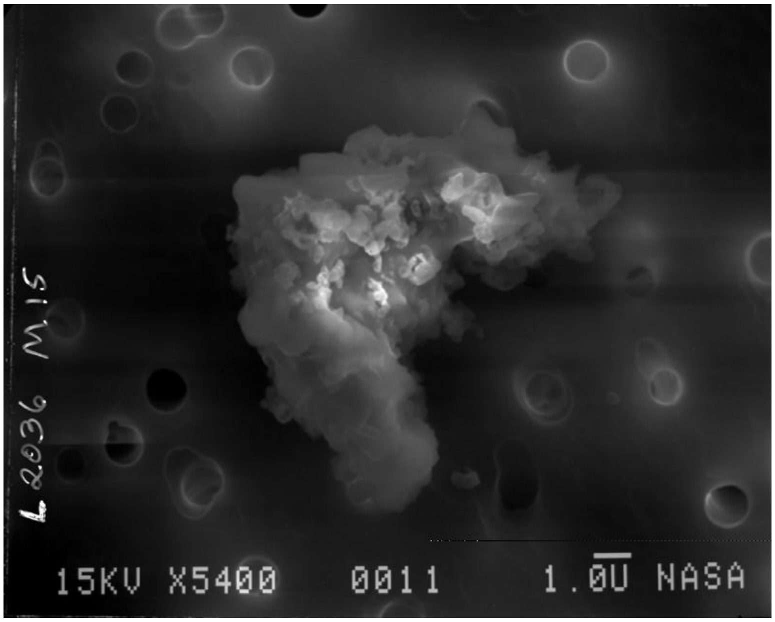
Luster: V

Type: C

Comments:



L2036M15



97E00266

Size: 11x8

Shape: I

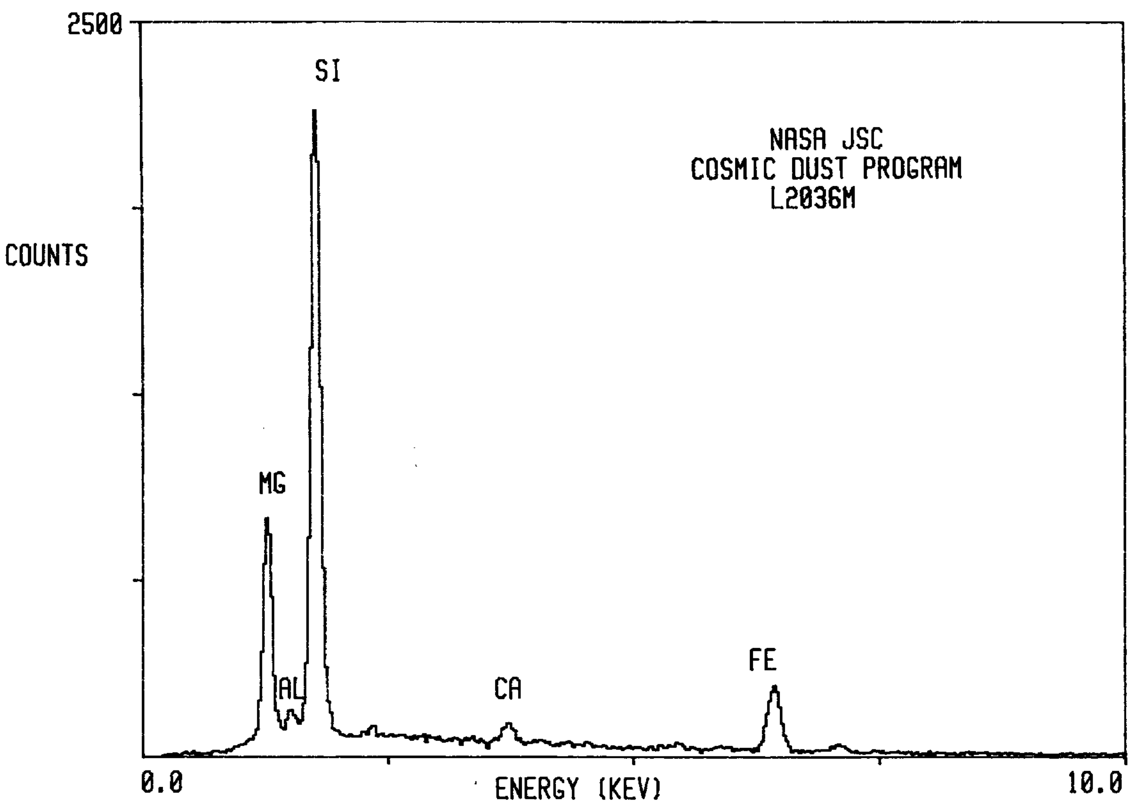
Trans: T

Color: Colorless

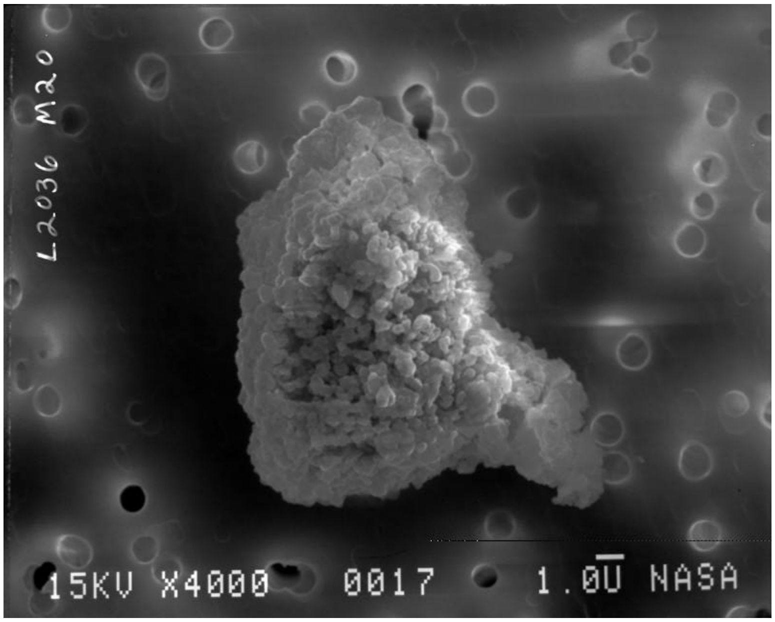
Luster: V

Type: C?

Comments:

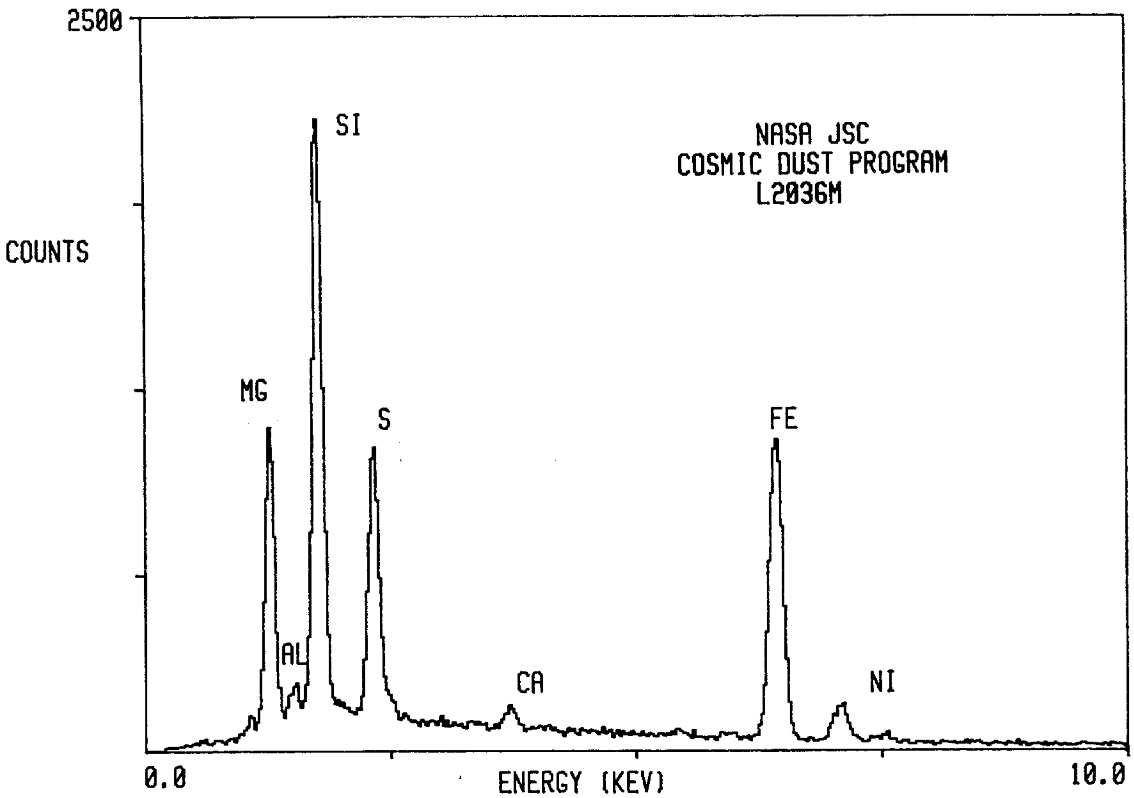


L2036M20

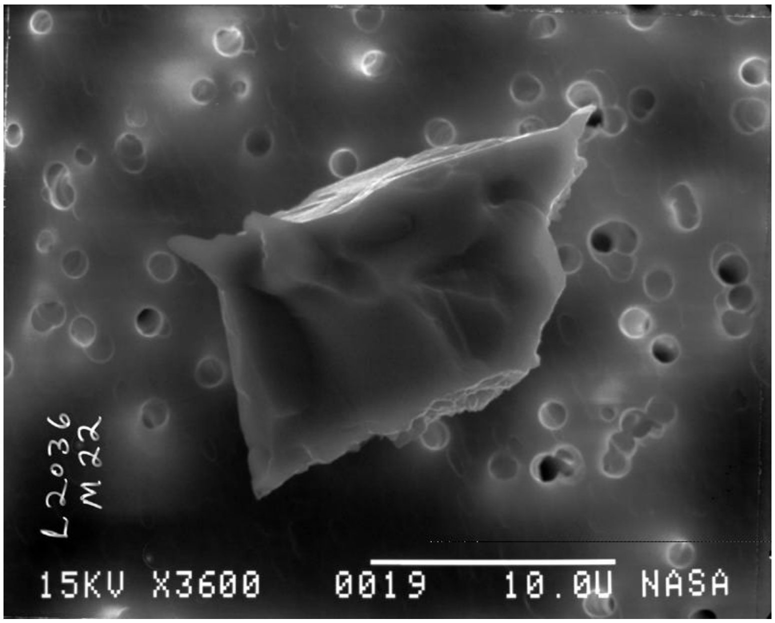


97E00271

Size: 12
Shape: I
Trans: O
Color: Black
Luster: D
Type: C
Comments:

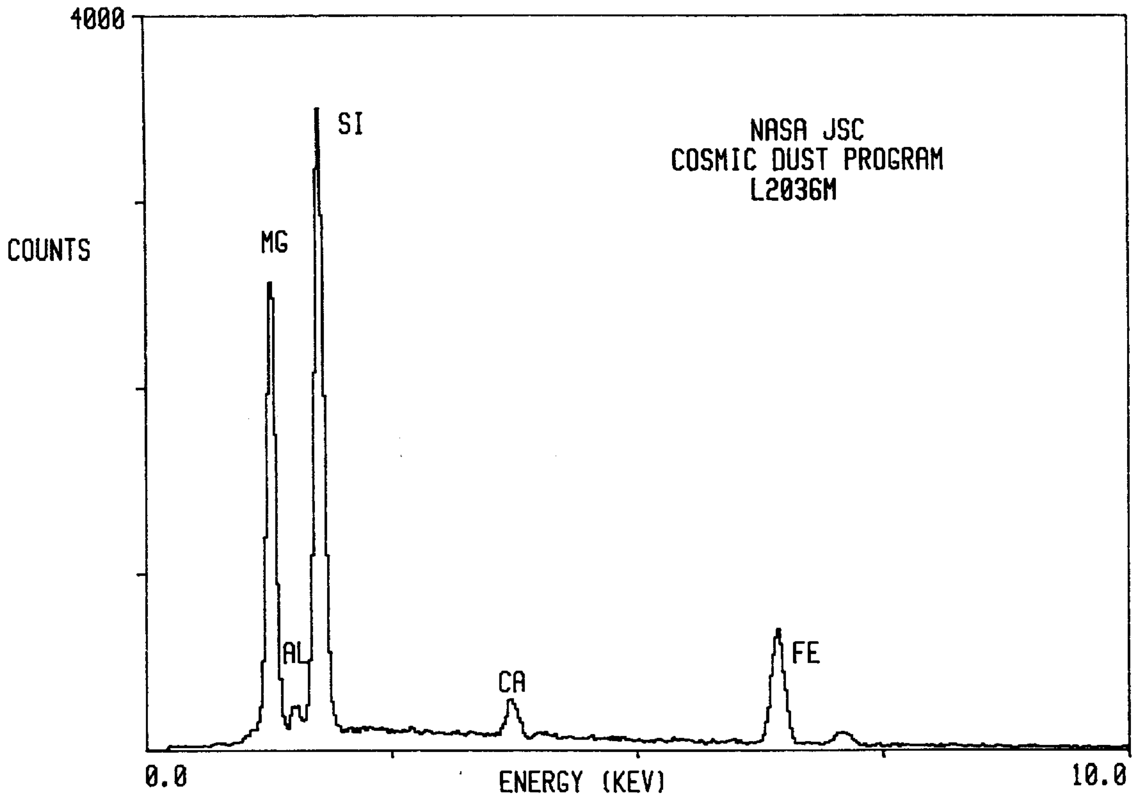


L2036M22

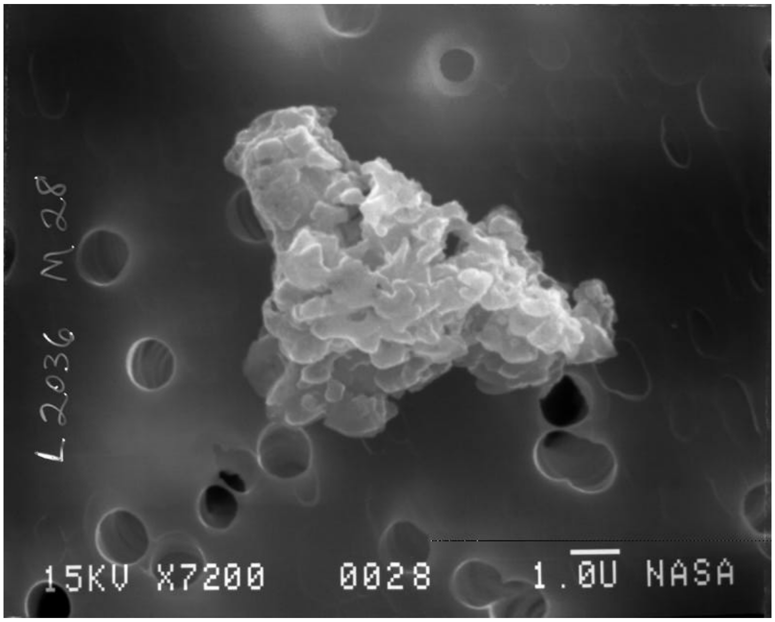


97E00273

Size: 14x10
Shape: I
Trans: TL
Color: Brown-Red
Luster: SV
Type: C?
Comments:



L2036M28



97E00279

Size: 8x6

Shape: I

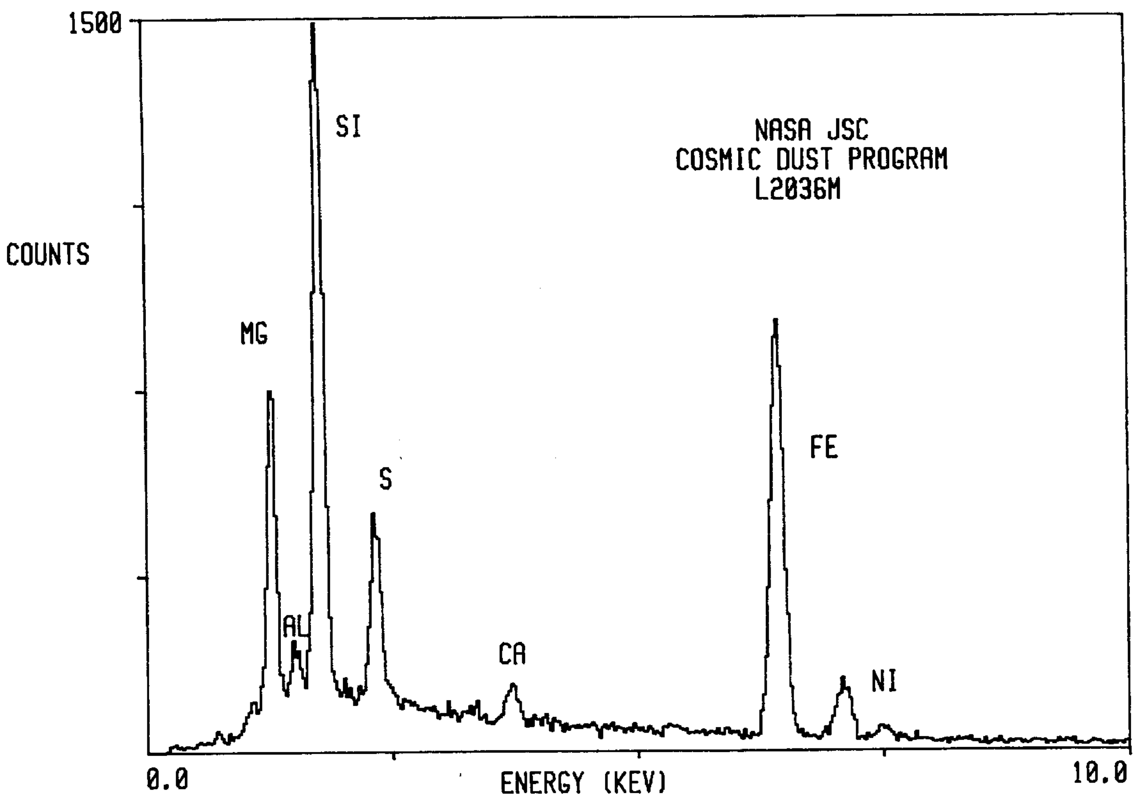
Trans: O

Color: Black

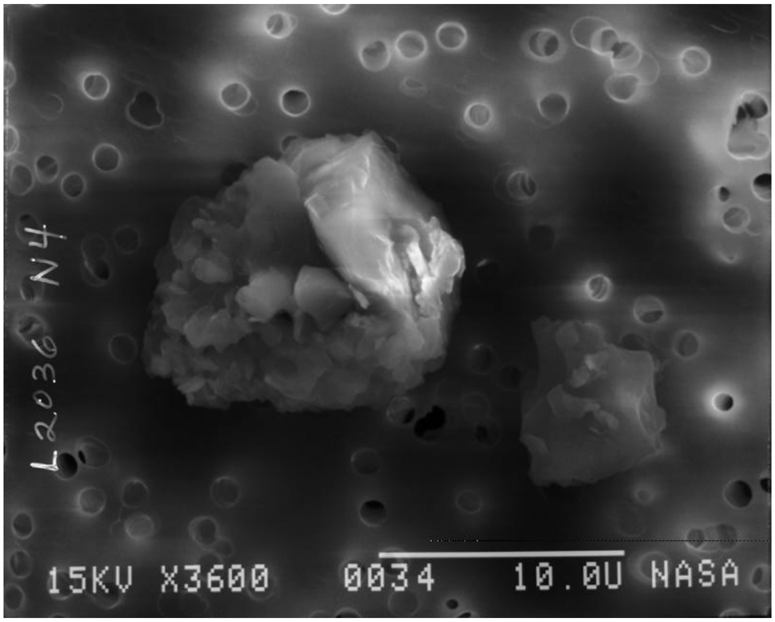
Luster: D

Type: C

Comments: Smaller particle



L2036N4



97E00284

Size: 14x10

Shape: I

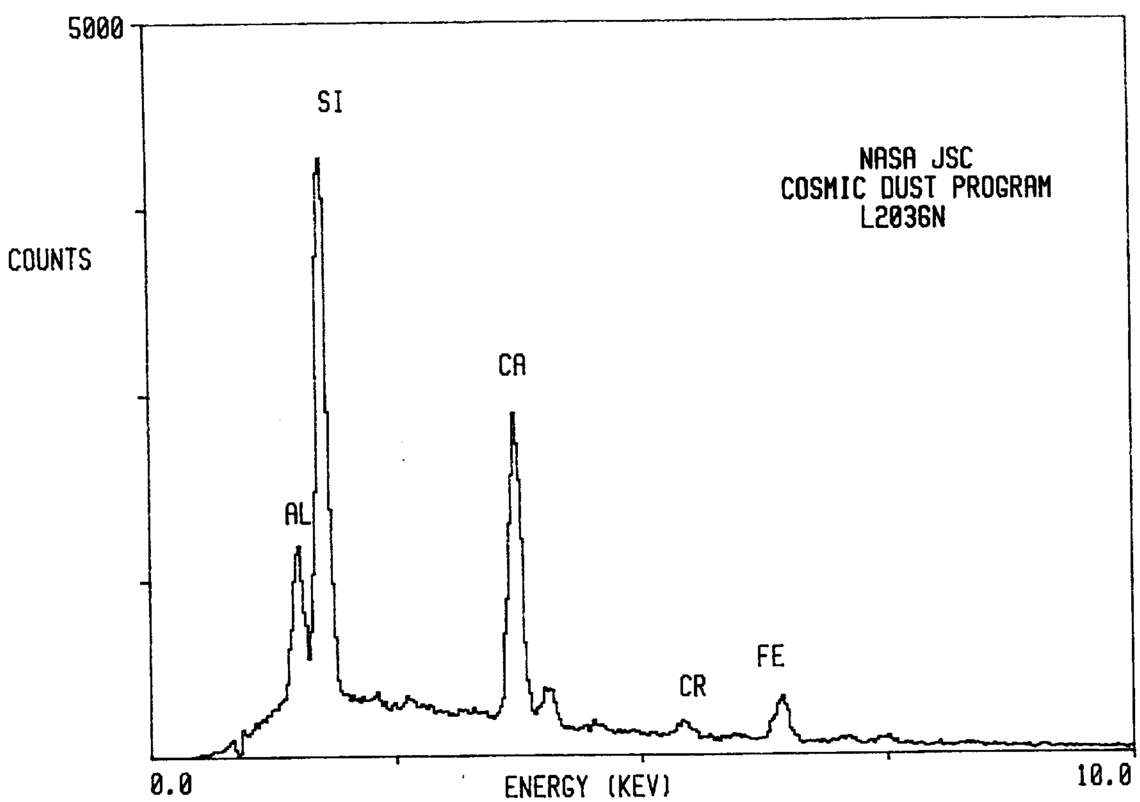
Trans: TL

Color: White

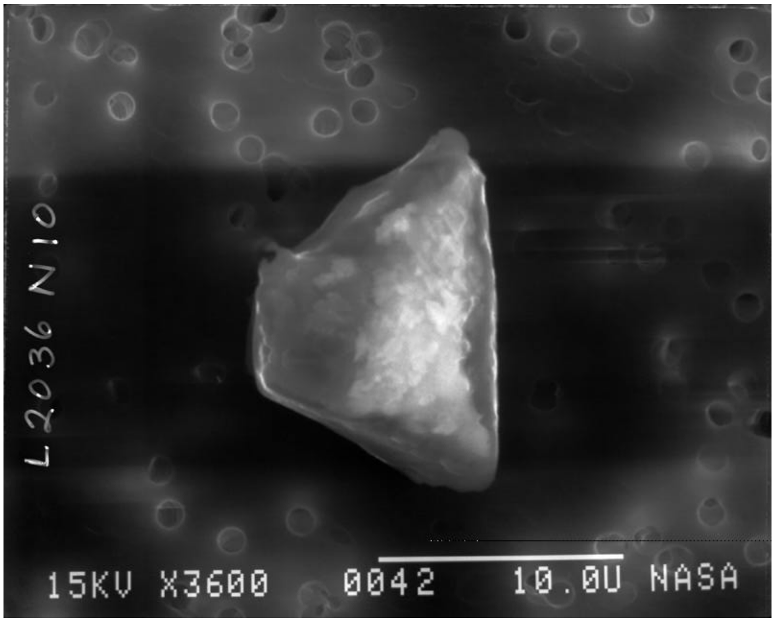
Luster: SV

Type: C?

Comments:



L2036N10



97E00290

Size: 12x10

Shape: I

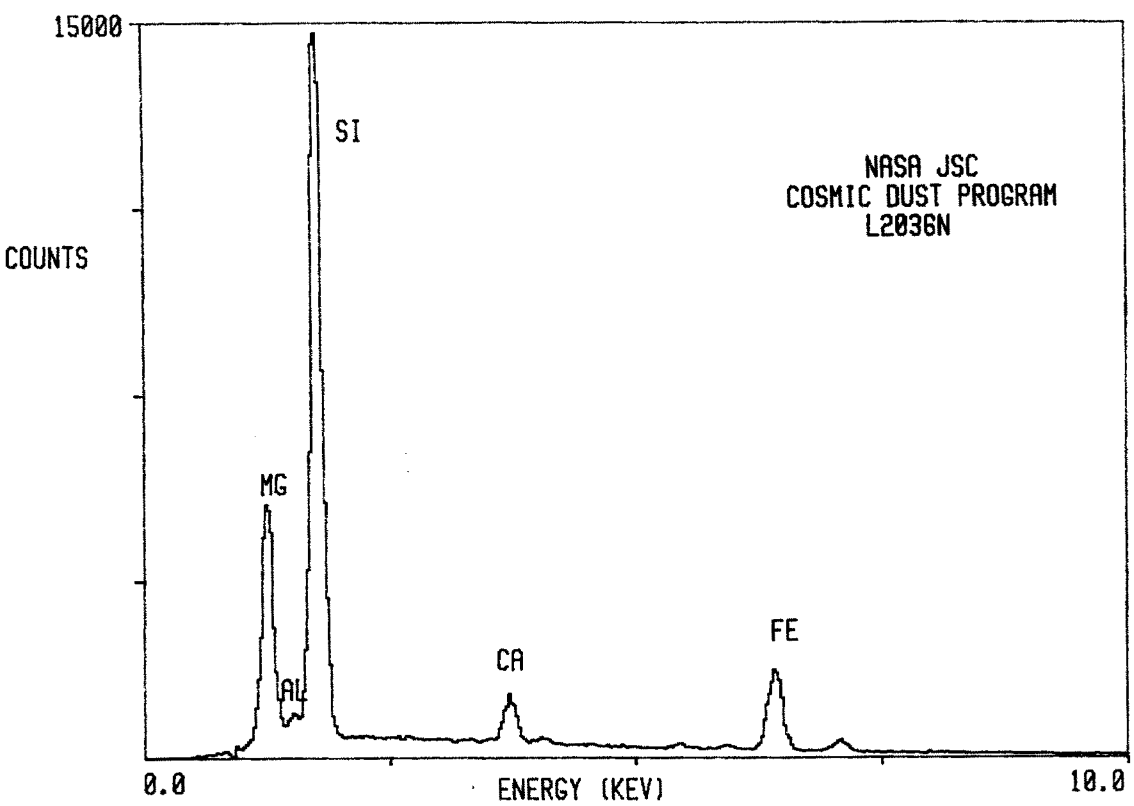
Trans: TL

Color: Colorless-Brown

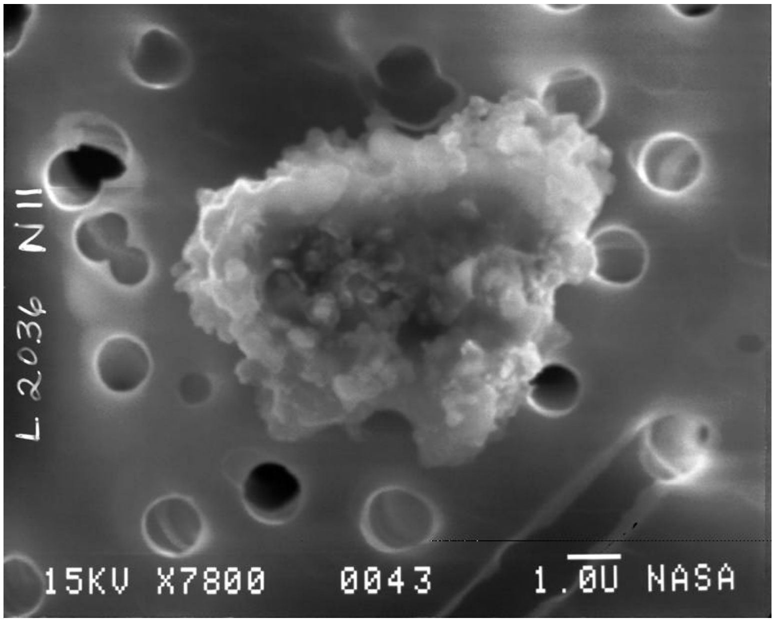
Luster: V

Type: C

Comments:



L2036N11



97E00291

Size: 14x12

Shape: I

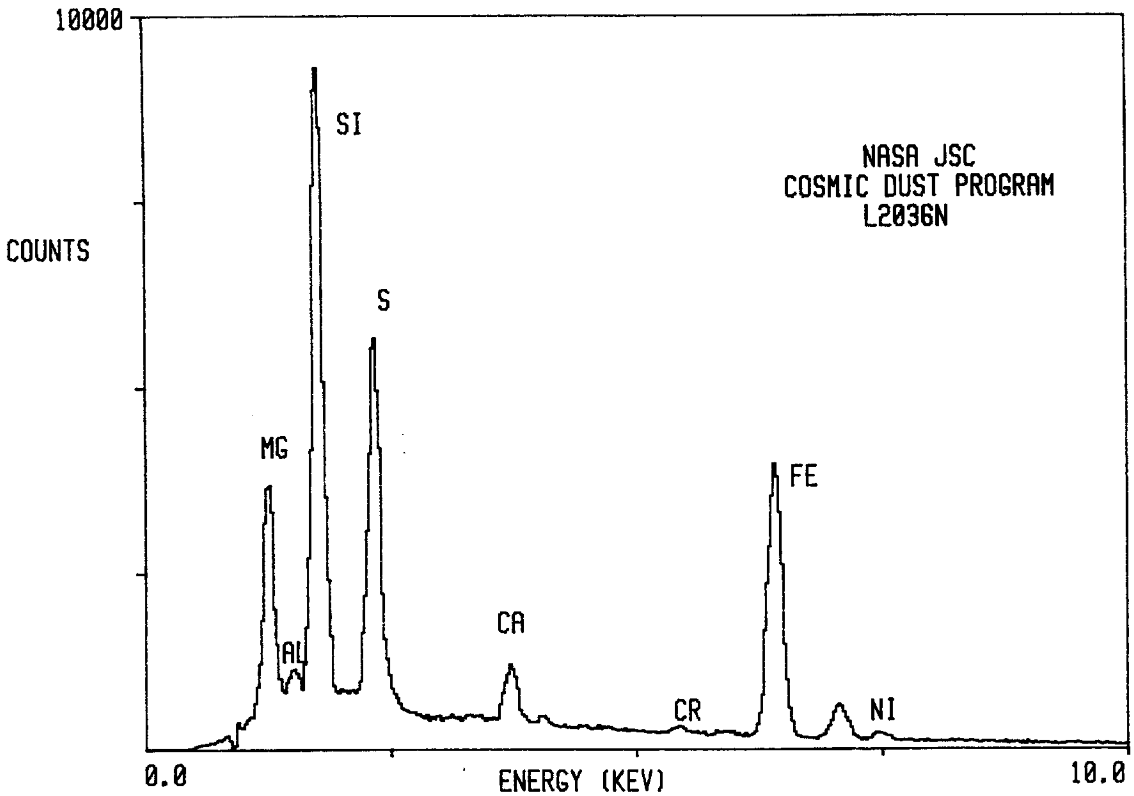
Trans: O

Color: White

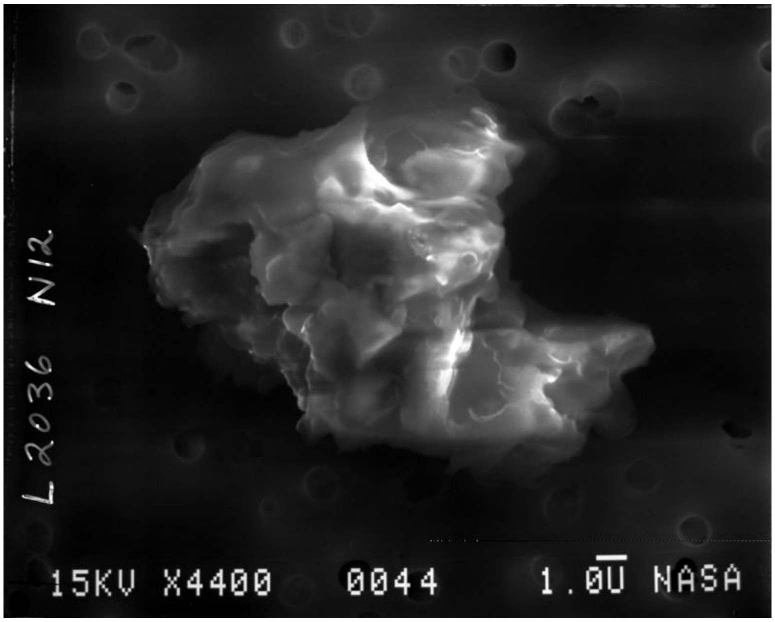
Luster: SV

Type: C

Comments:

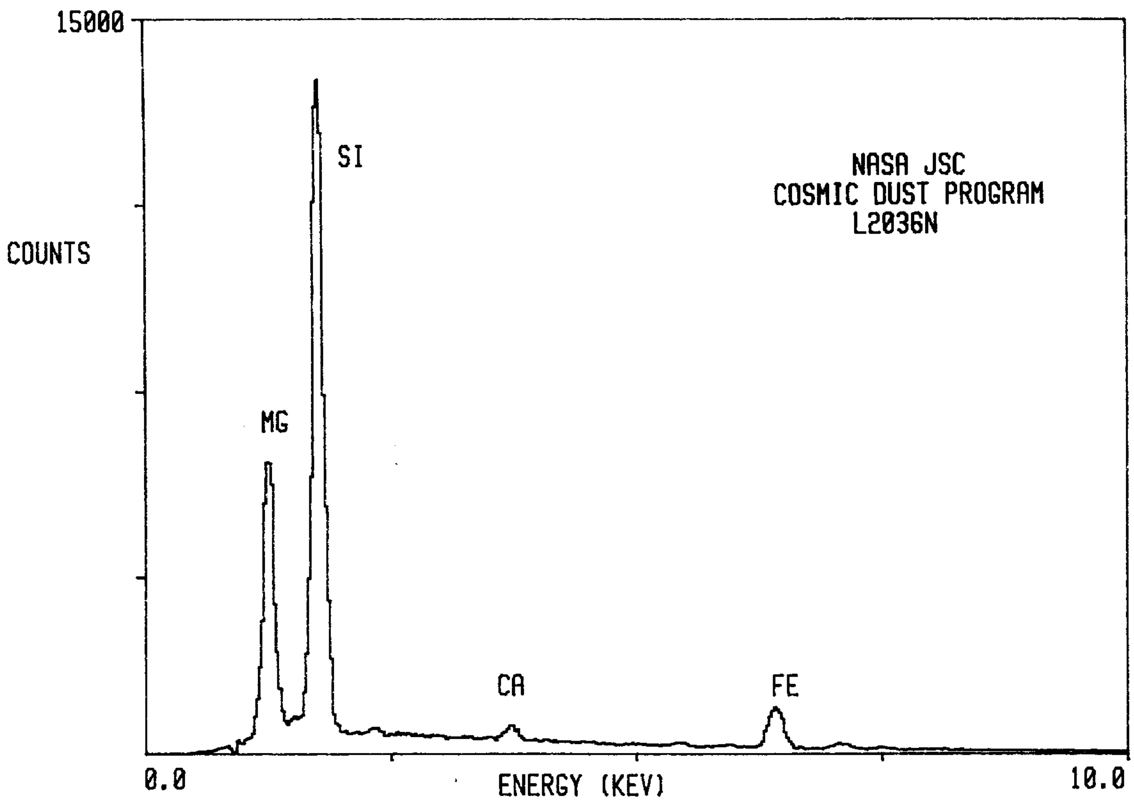


L2036N12

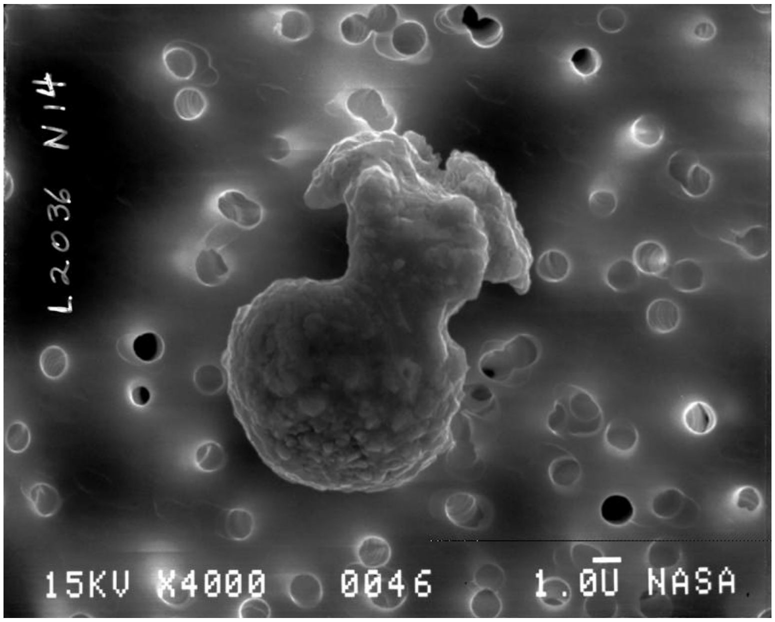


97E00292

Size: 16x12
Shape: I
Trans: O
Color: White
Luster: SV
Type: C?
Comments:



L2036N14



97E00294

Size: 11x7

Shape: I

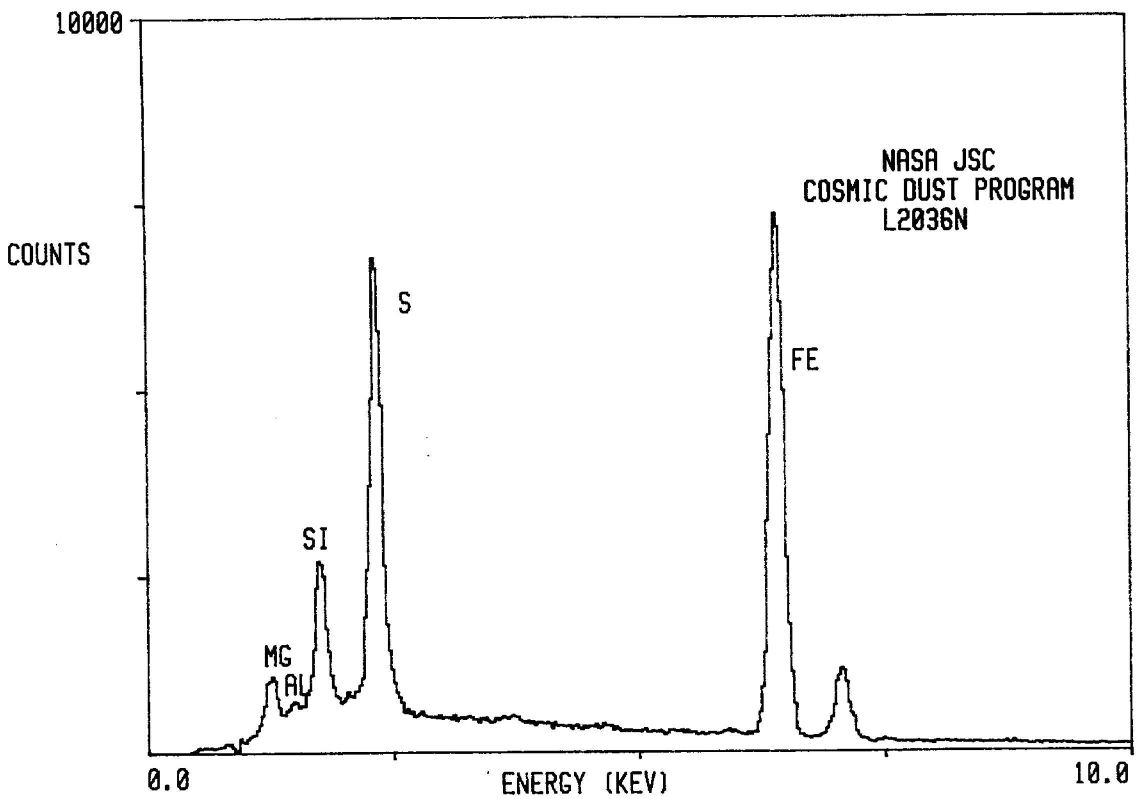
Trans: O

Color: Black

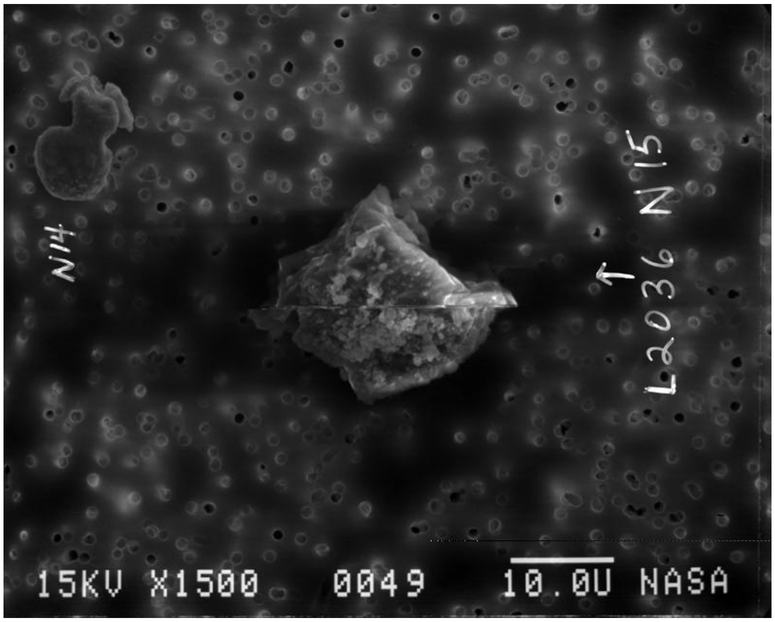
Luster: P

Type: C?

Comments:



L2036N15



97E00295

Size: 22x19

Shape: I

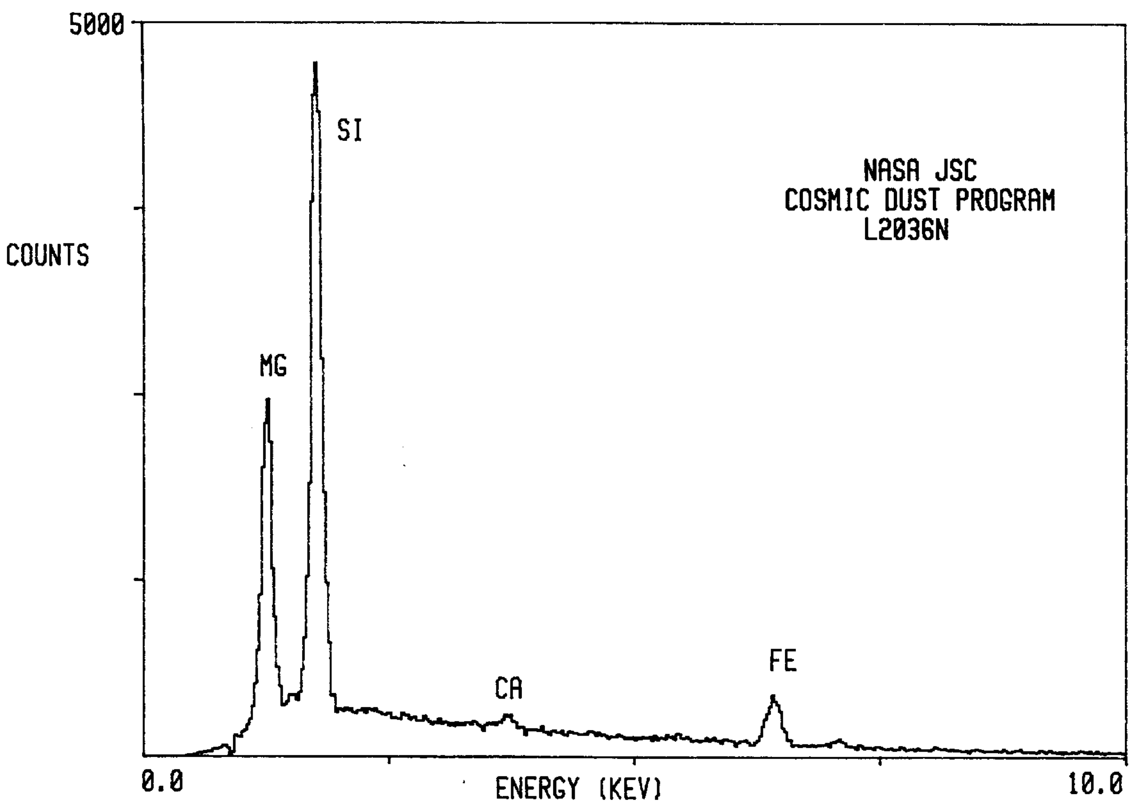
Trans: TL

Color: Colorless

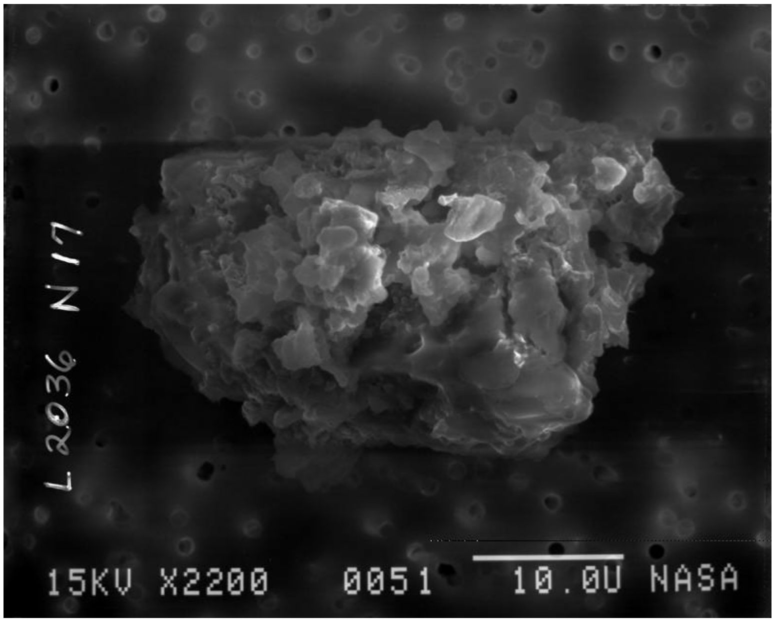
Luster: SV

Type: C?

Comments:



L2036N17



97E00297

Size: 35x14

Shape: I

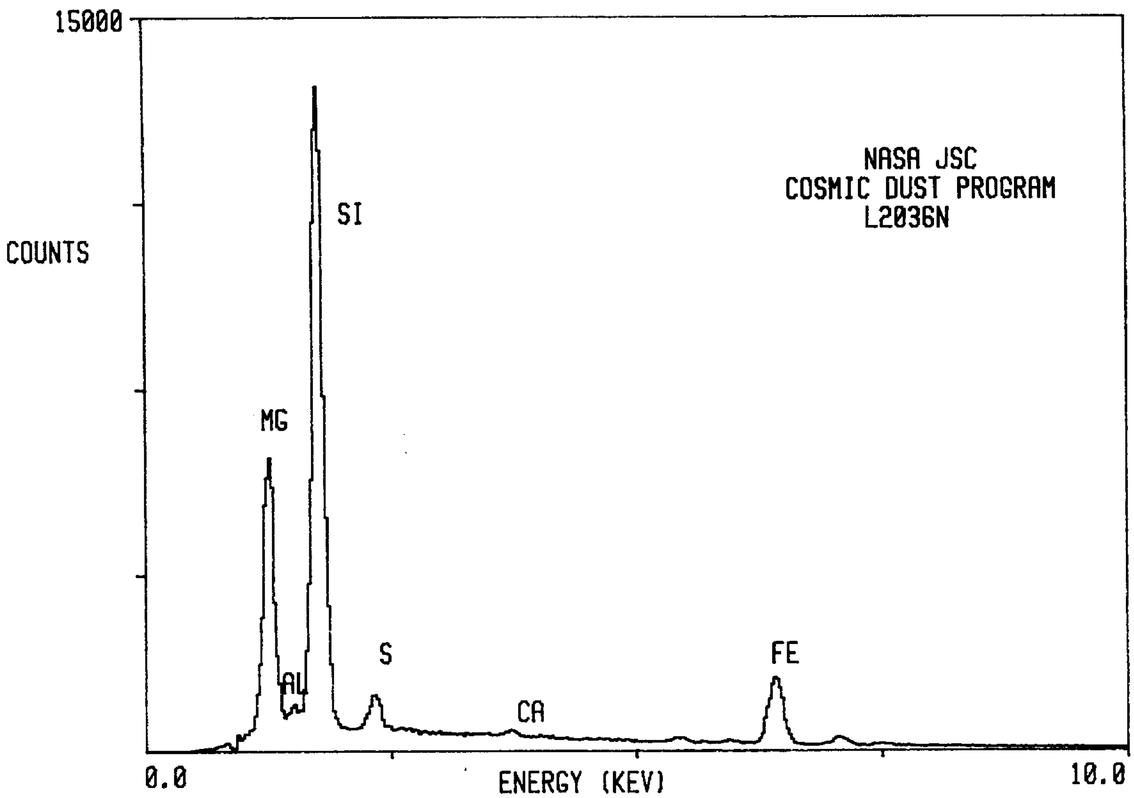
Trans: O

Color: White-Brown

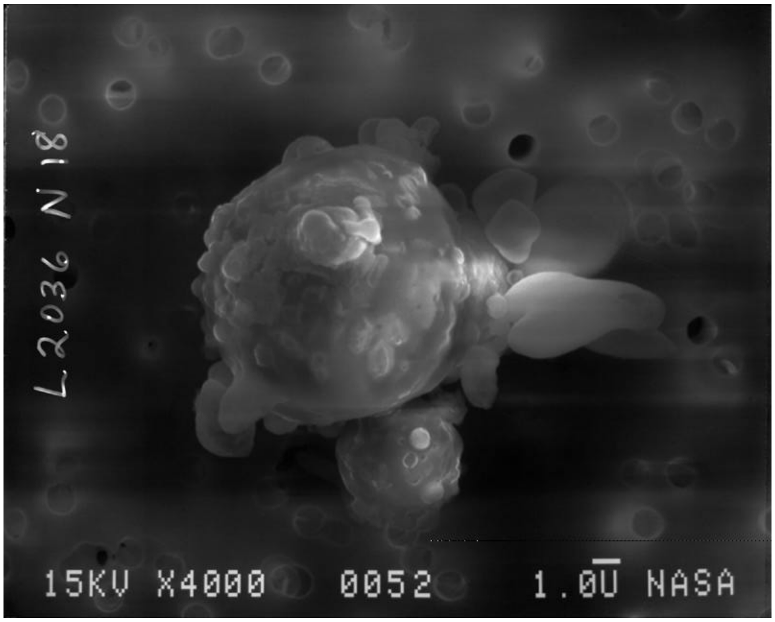
Luster: SV

Type: C?

Comments:

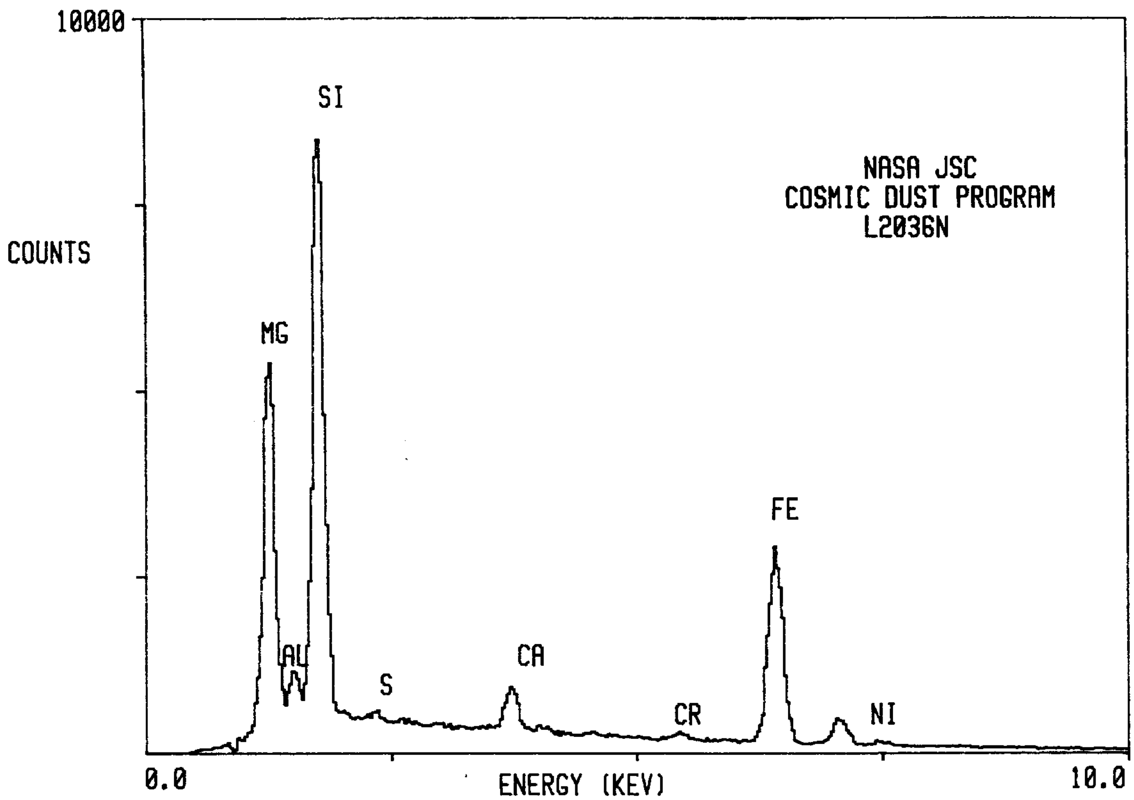


L2036N18

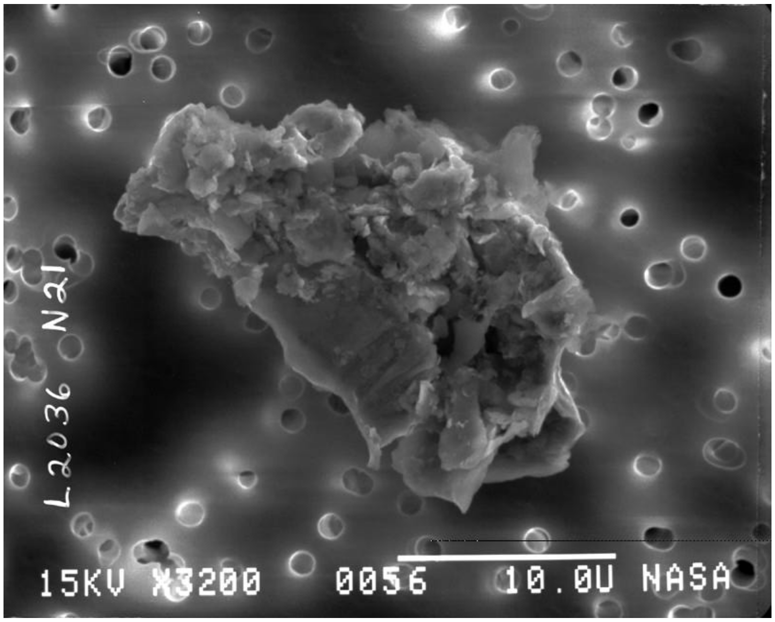


97E00298

Size: 16x12
Shape: I
Trans: TL
Color: Brown
Luster: SV
Type: C?
Comments:



L2036N21



97E00301

Size: 23x16

Shape: I

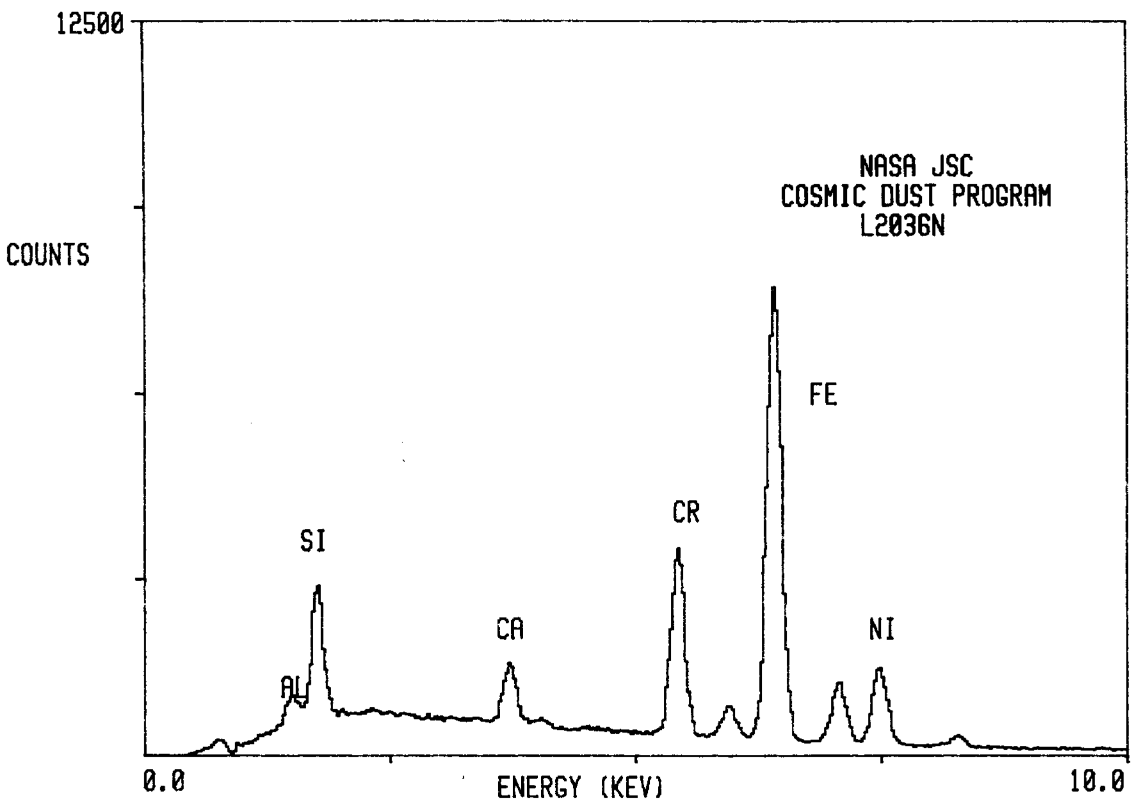
Trans: O

Color: Black

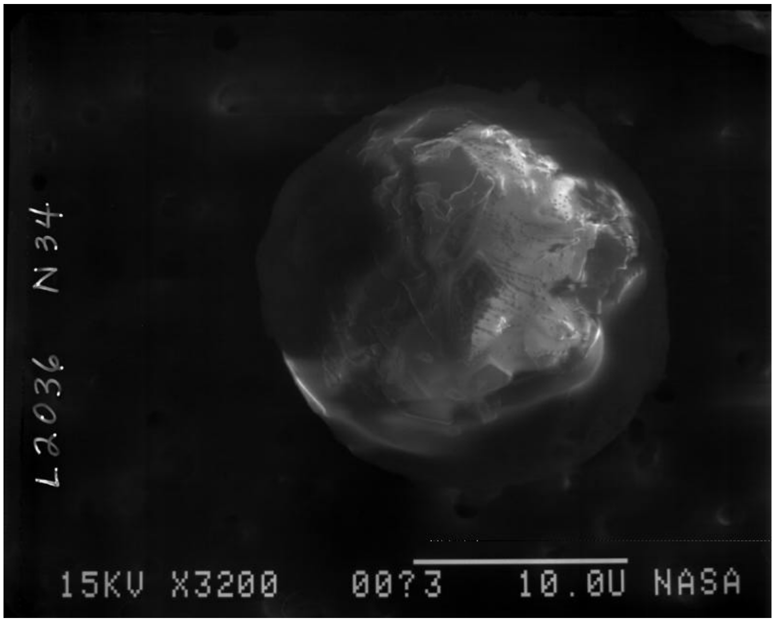
Luster: P

Type: C?

Comments:



L2036N34



97E00314

Size: 17

Shape: S

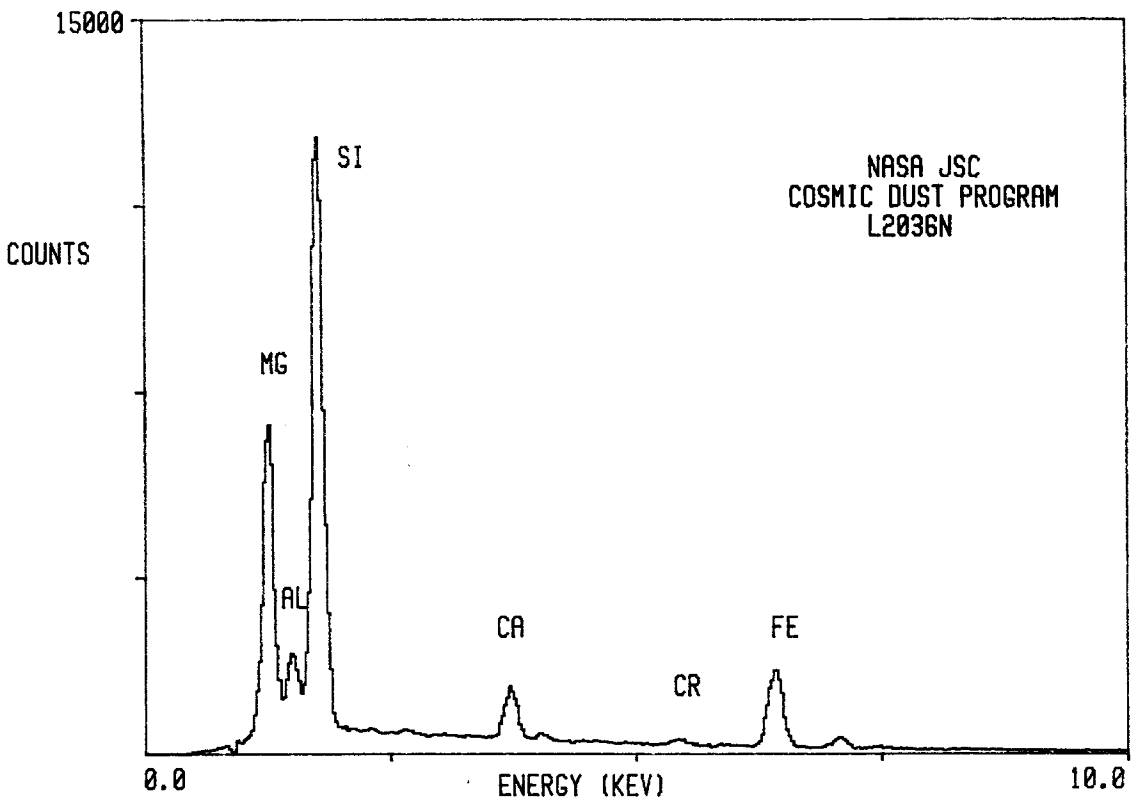
Trans: TL

Color: Colorless-White

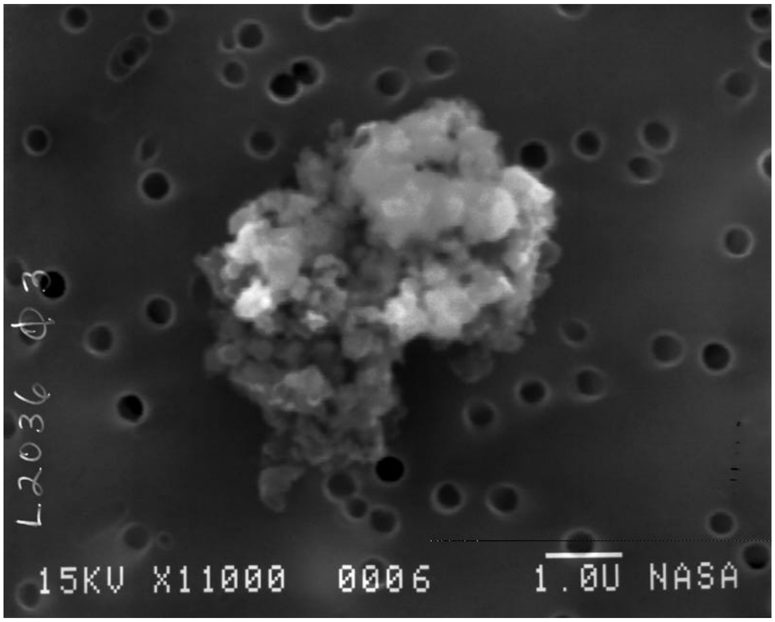
Luster: SV

Type: C

Comments:



L2036O3



97E00320

Size: 3

Shape: I

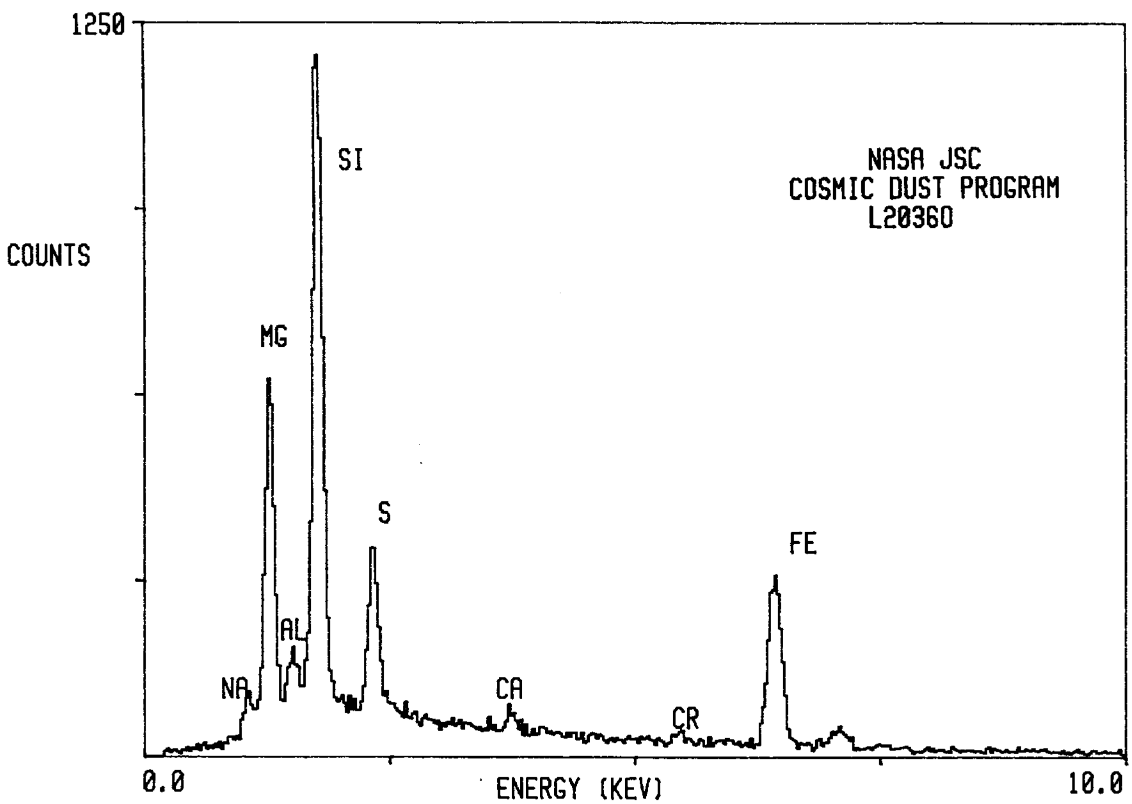
Trans: O

Color: Black

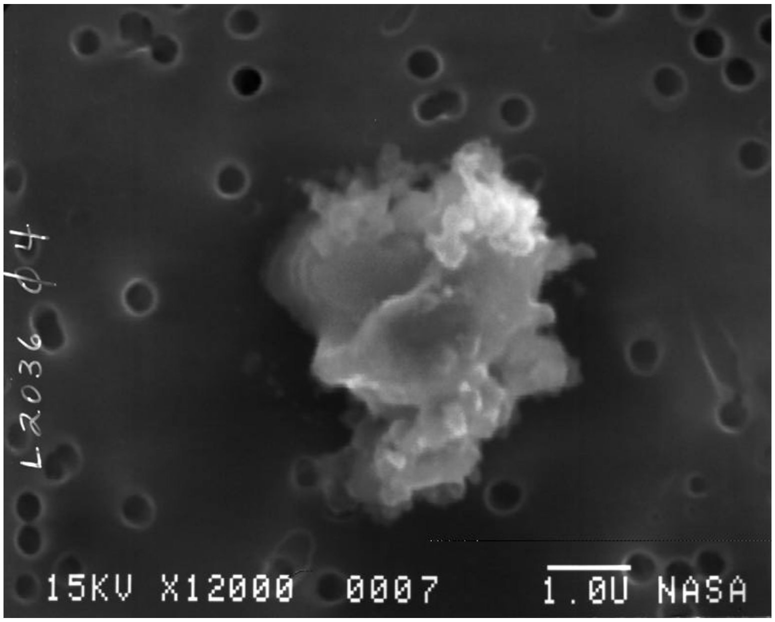
Luster: D

Type: C

Comments: Cluster 6, Related to L2036 O4-O7

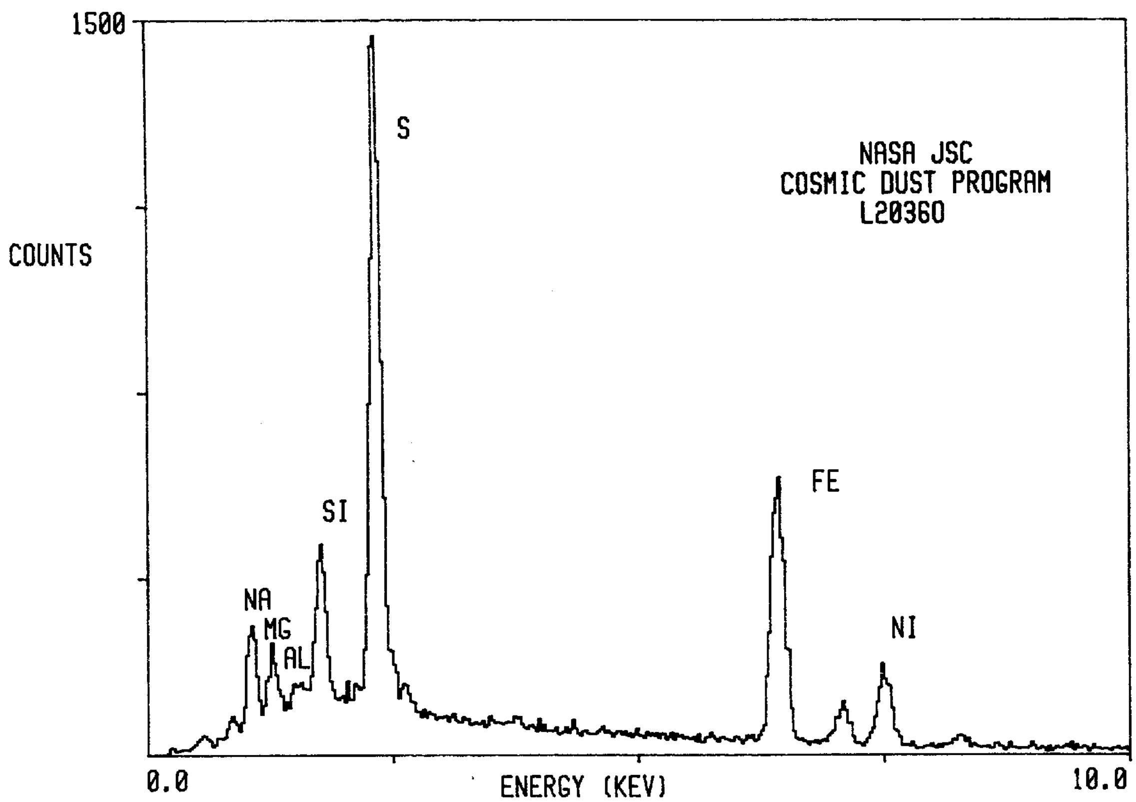


L2036O4

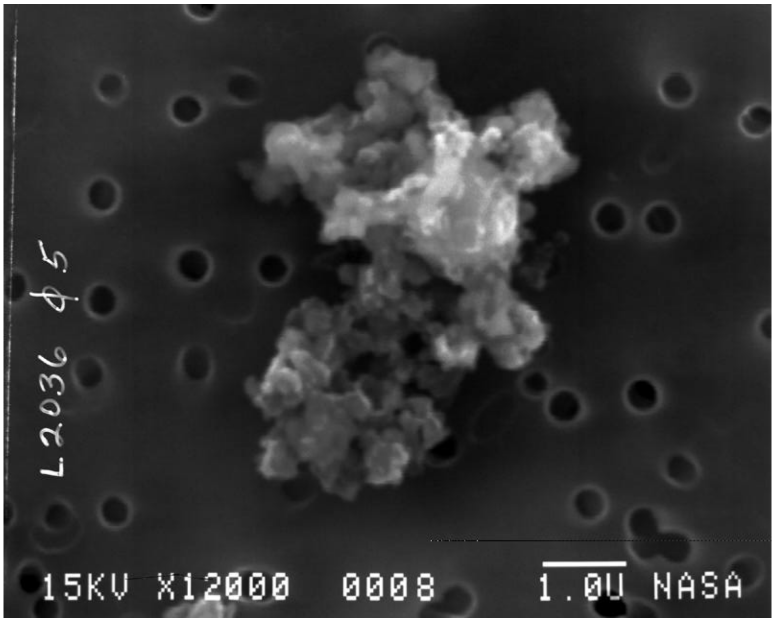


97E00321

Size:	4
Shape:	I
Trans:	O
Color:	Black
Luster:	D
Type:	C
Comments:	Cluster 6, Related to L2036 O3, O5-O7



L2036O5



97E00322

Size: 3

Shape: I

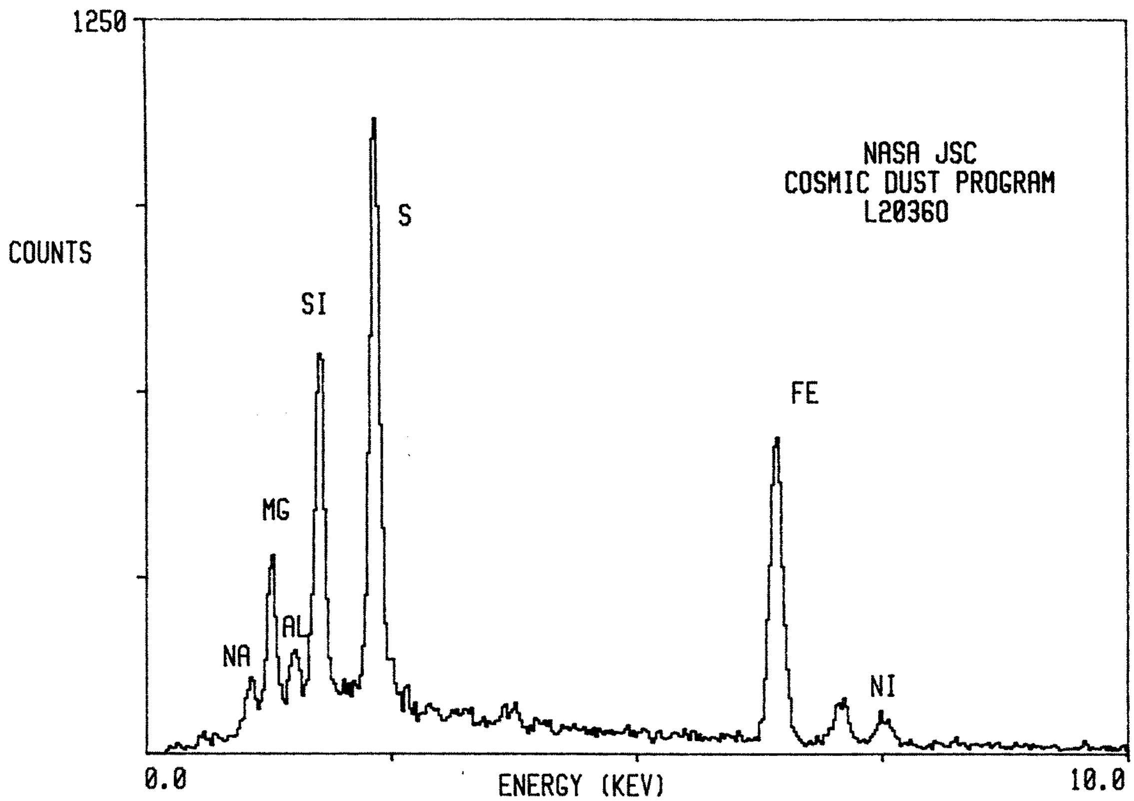
Trans: O

Color: Black

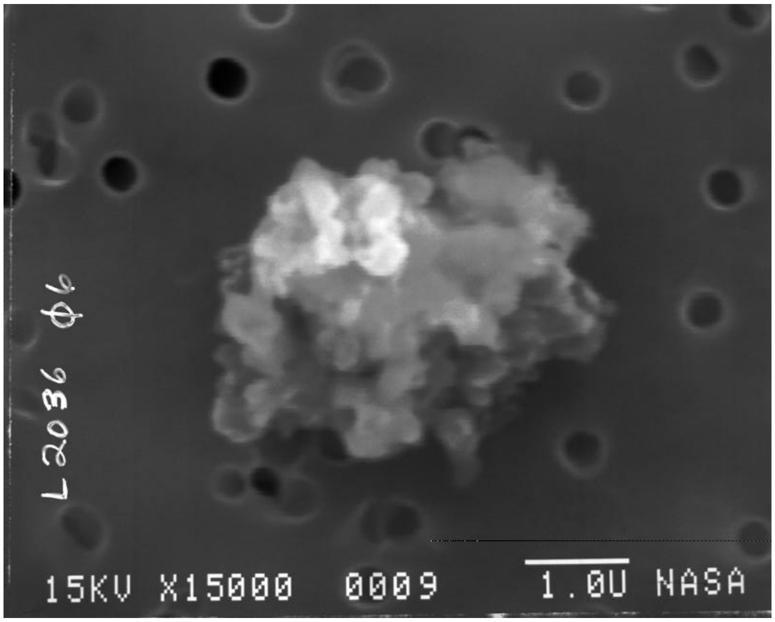
Luster: D

Type: C

Comments: Cluster 6, Related to L2036 O3-O4, O6-O7



L2036O6



97E00323

Size: 4

Shape: I

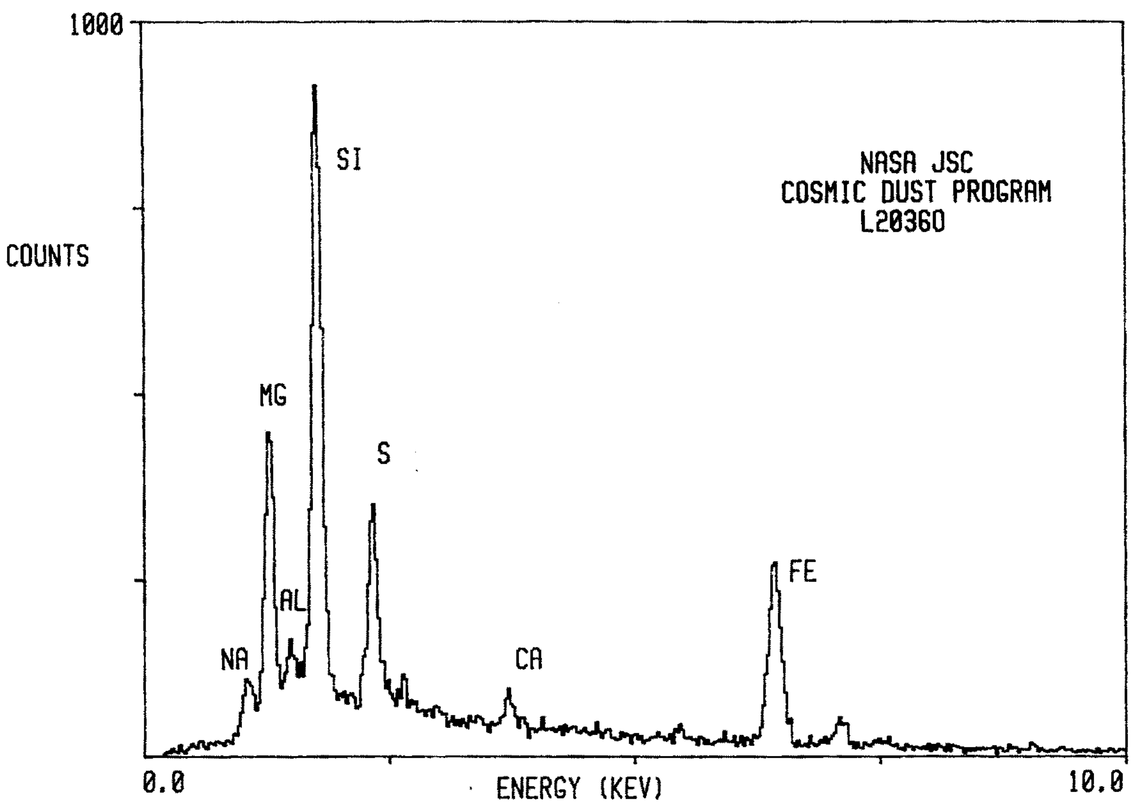
Trans: O

Color: Black

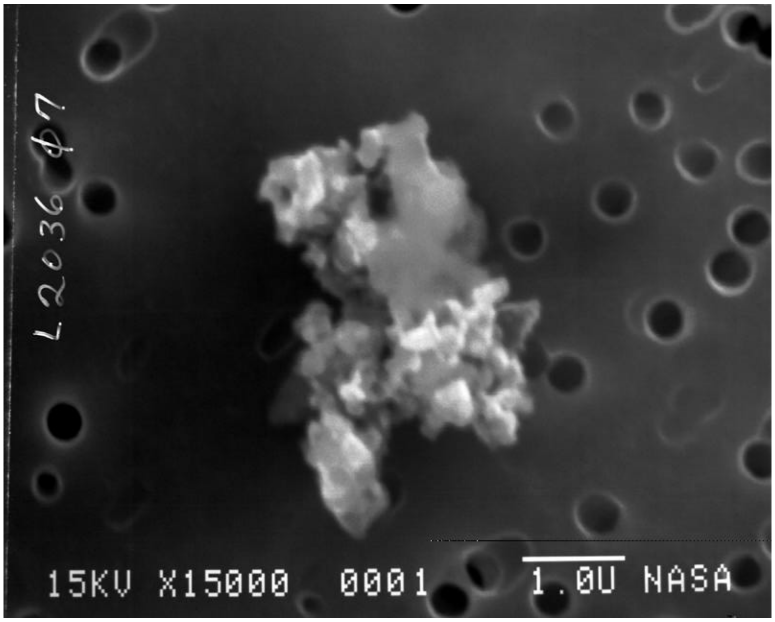
Luster: D

Type: C

Comments: Cluster 6, Related to L2036 O3-O5, O7



L2036O7



97E00324

Size: 2

Shape: I

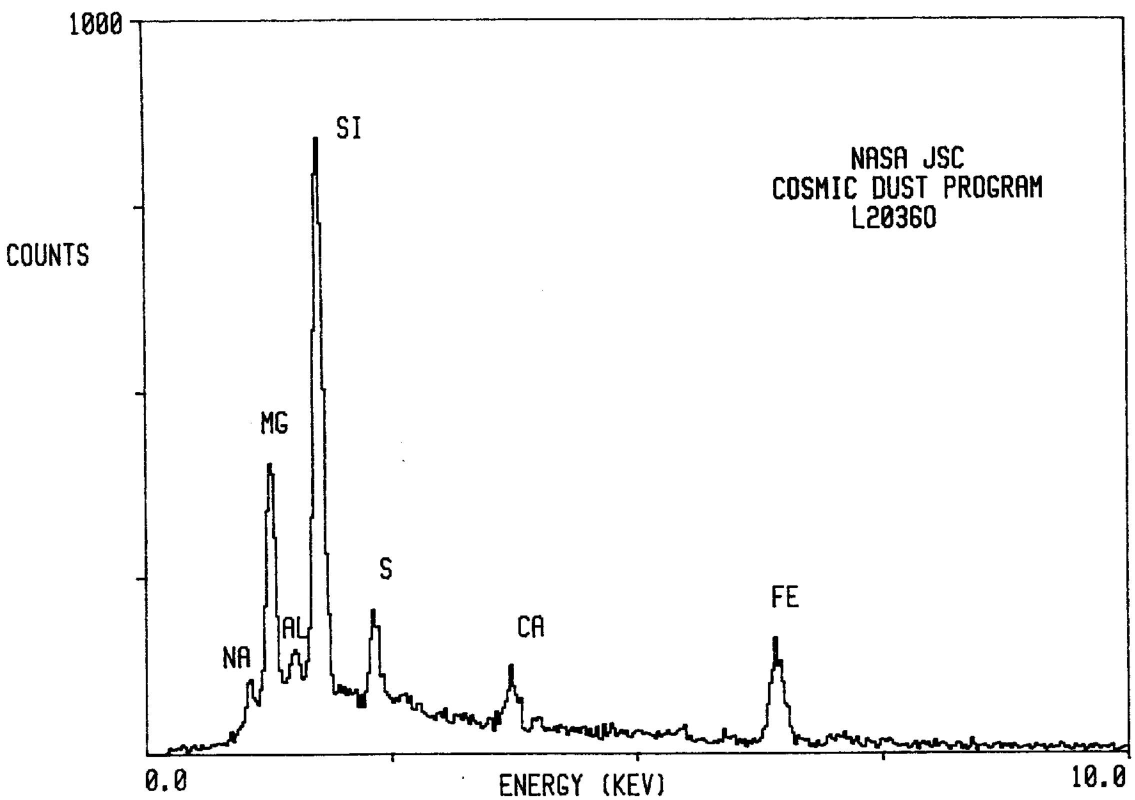
Trans: O

Color: Black

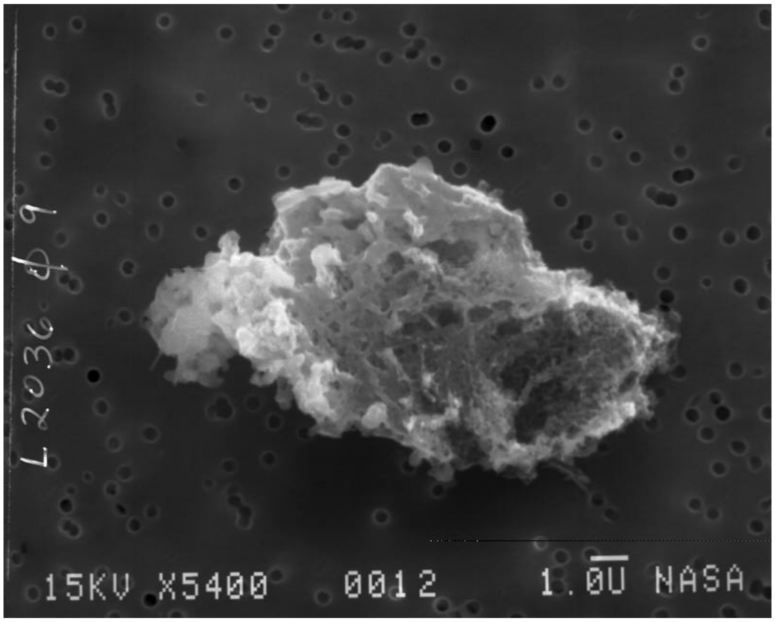
Luster: D

Type: C

Comments: Cluster 6, Related to L2036 O3-O6



L2036O9



97E00326

Size: 9x6

Shape: I

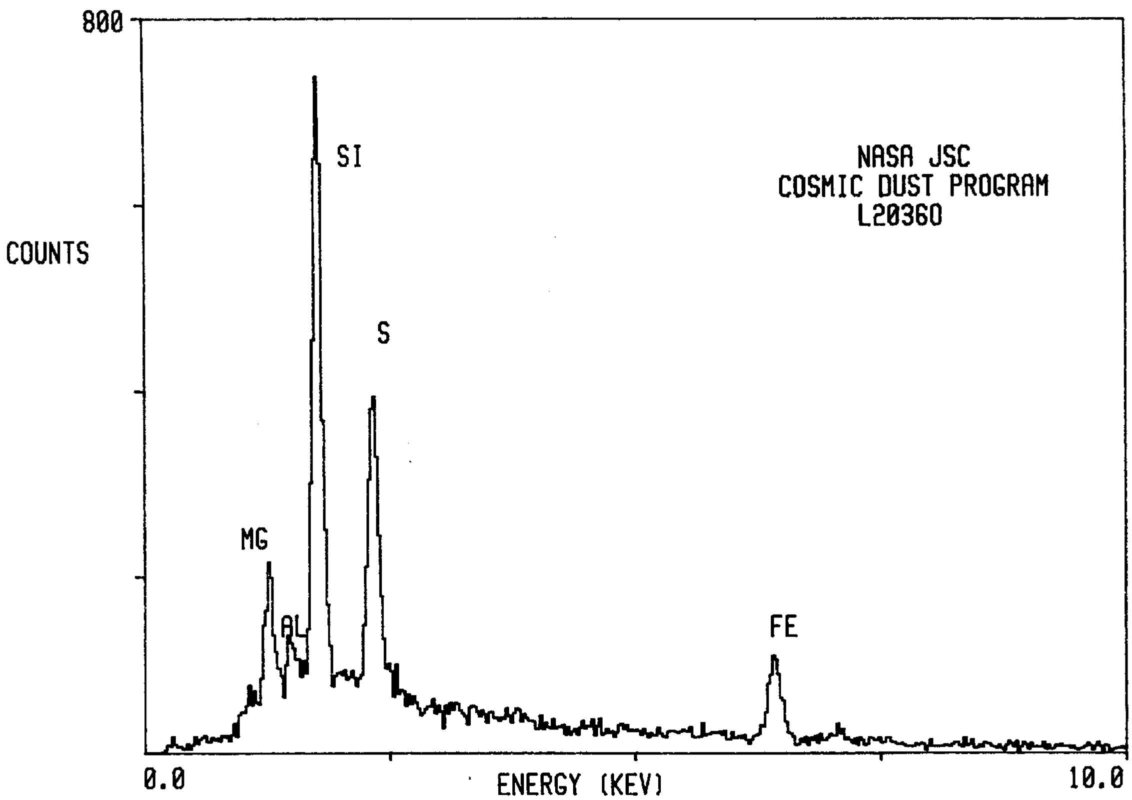
Trans: O

Color: Black

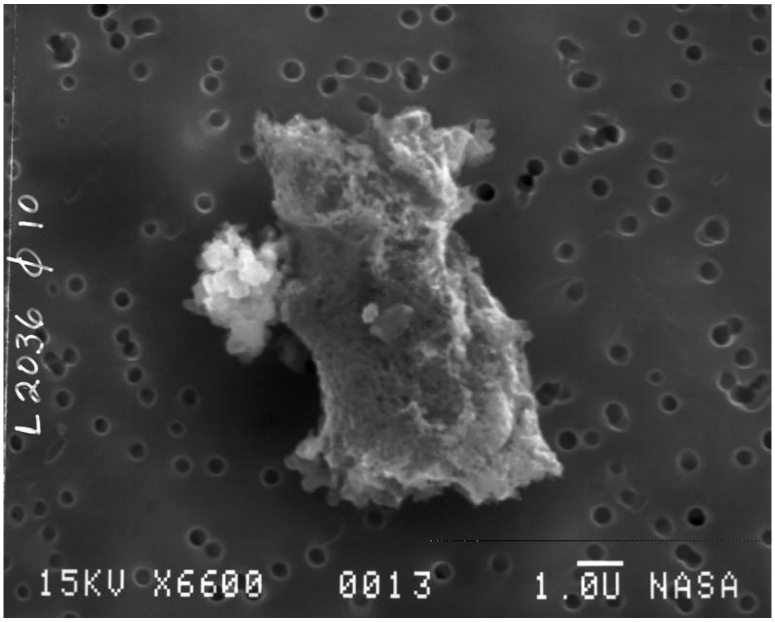
Luster: D

Type: C?

Comments: Cluster 24, Related to L2036 O10

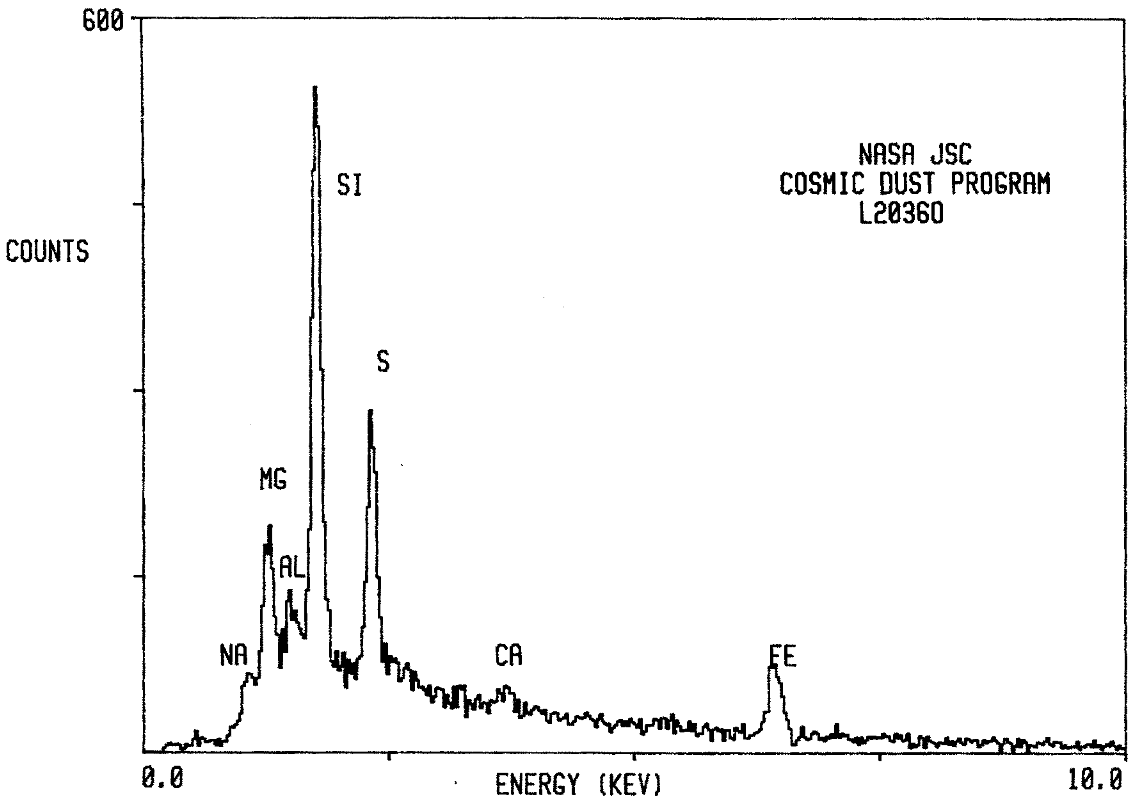


L2036O10



97E00327

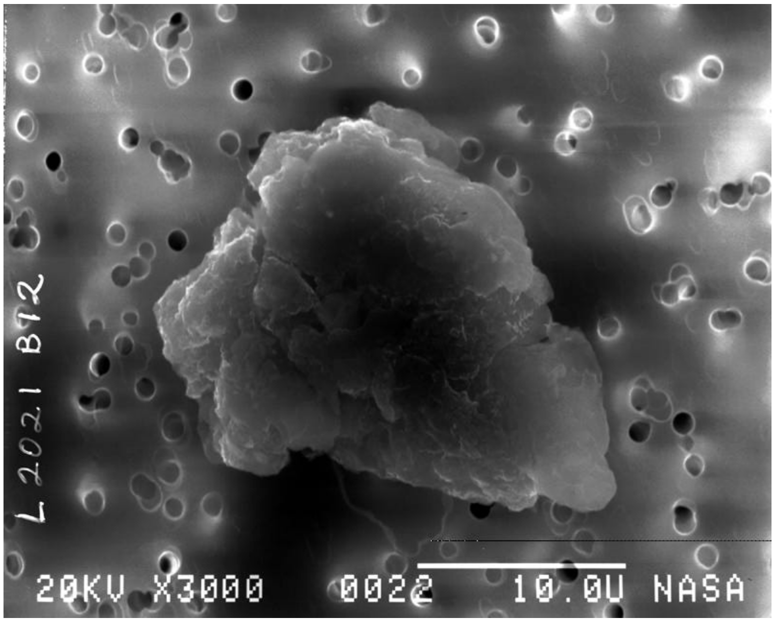
Size:	13x8
Shape:	I
Trans:	O
Color:	Black
Luster:	D
Type:	C?
Comments:	Cluster 24, Related to L2036 O9



Particle Descriptions

TCN Type

L2021B12



97E00346

Size: 24x18

Shape: I

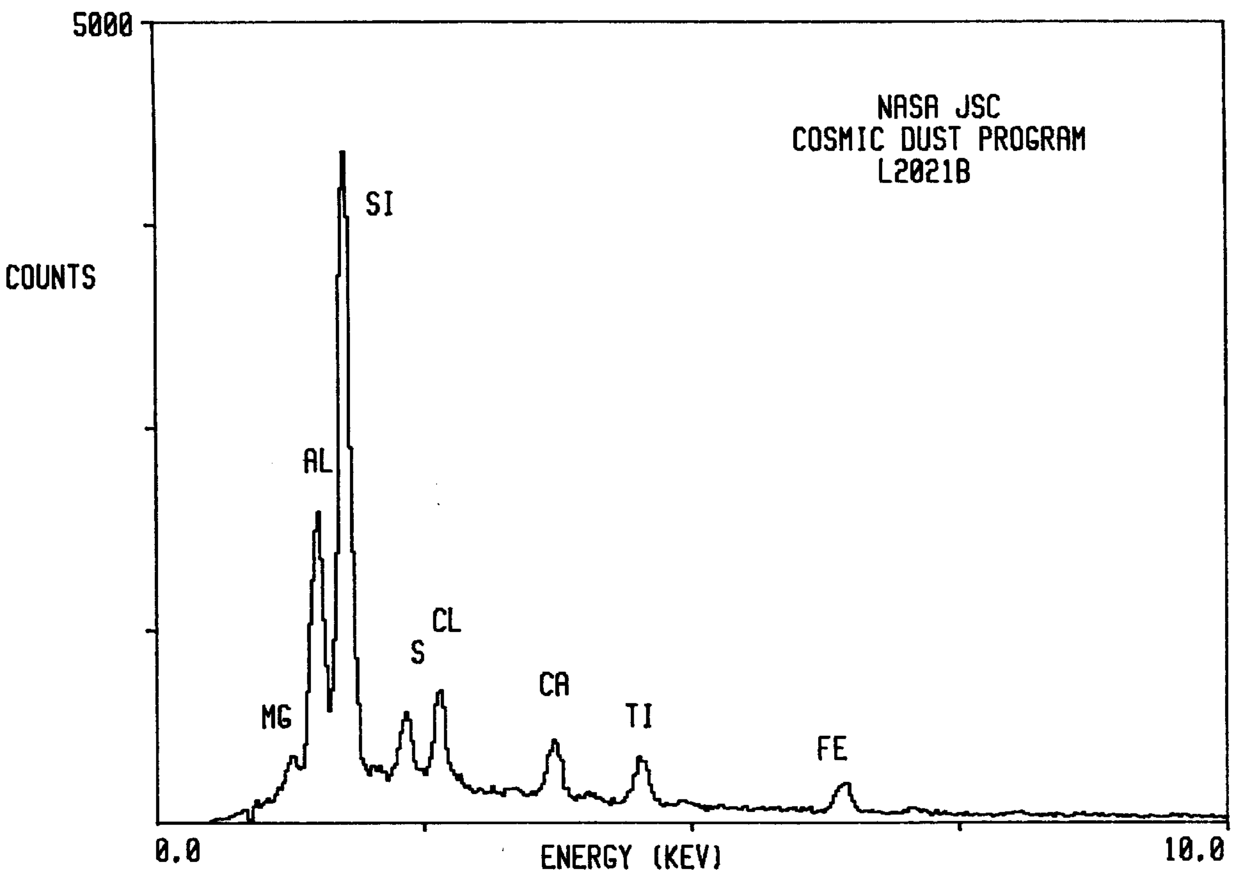
Trans: O

Color: Black

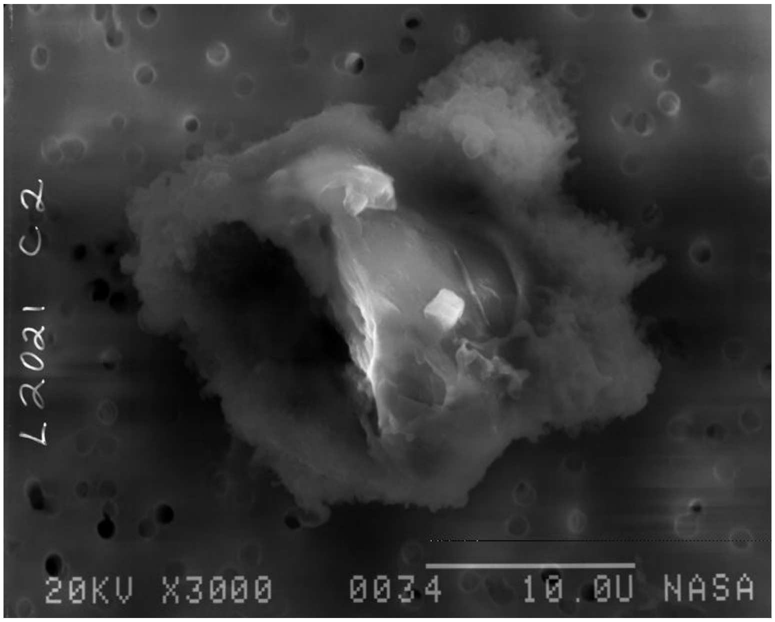
Luster: D

Type: TCN?

Comments:



L2021C2



97E00355

Size: 13x10

Shape: E

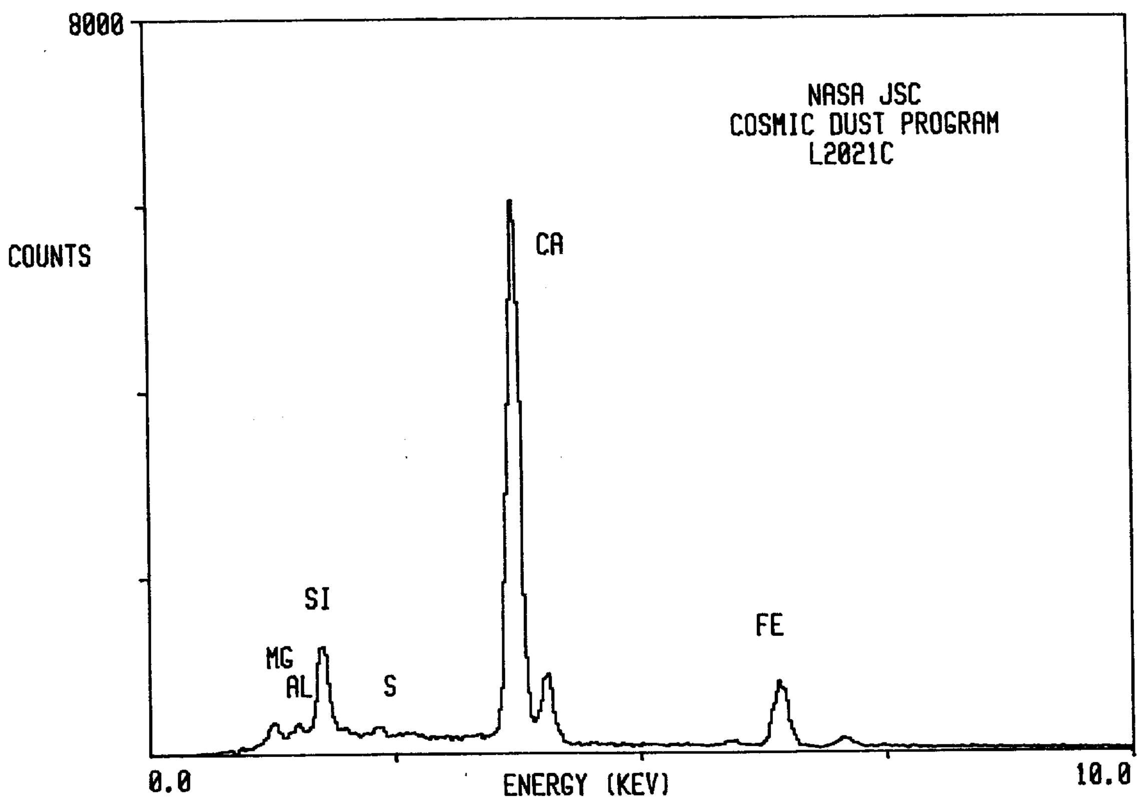
Trans: O

Color: Black-Gray

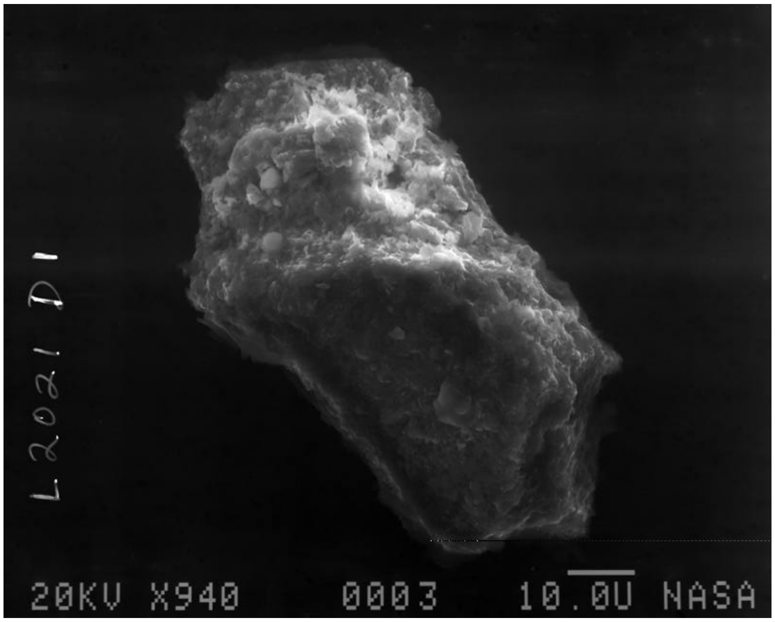
Luster: D

Type: TCN

Comments:



L2021D1



97E00375

Size: 80x45

Shape: I

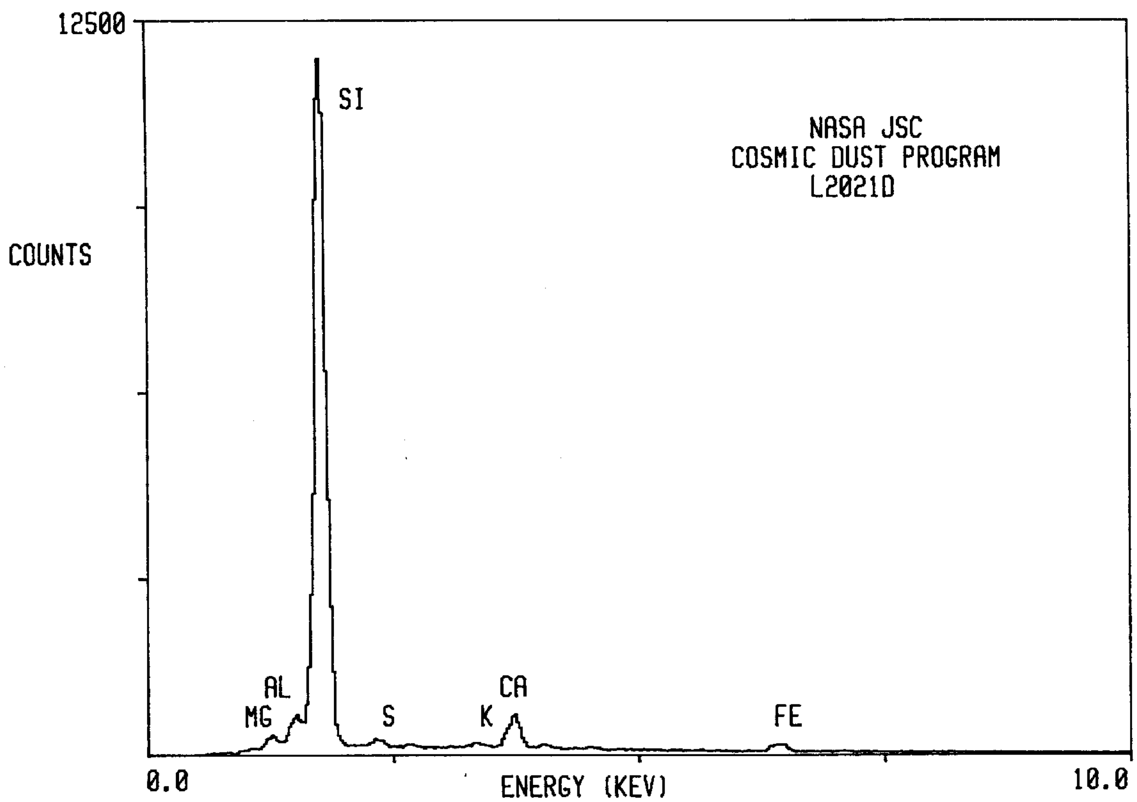
Trans: O

Color: Black-Colorless

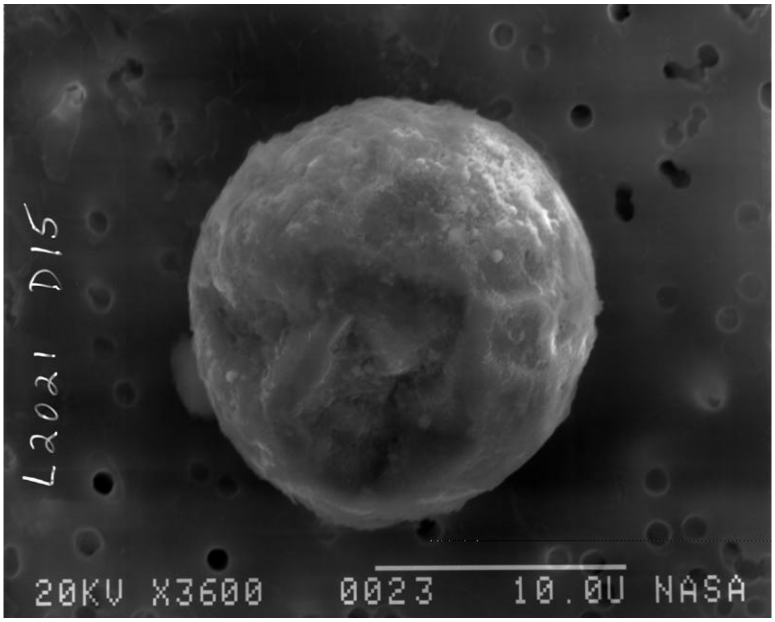
Luster: D

Type: TCN

Comments:



L2021D15



97E00389

Size: 16

Shape: S

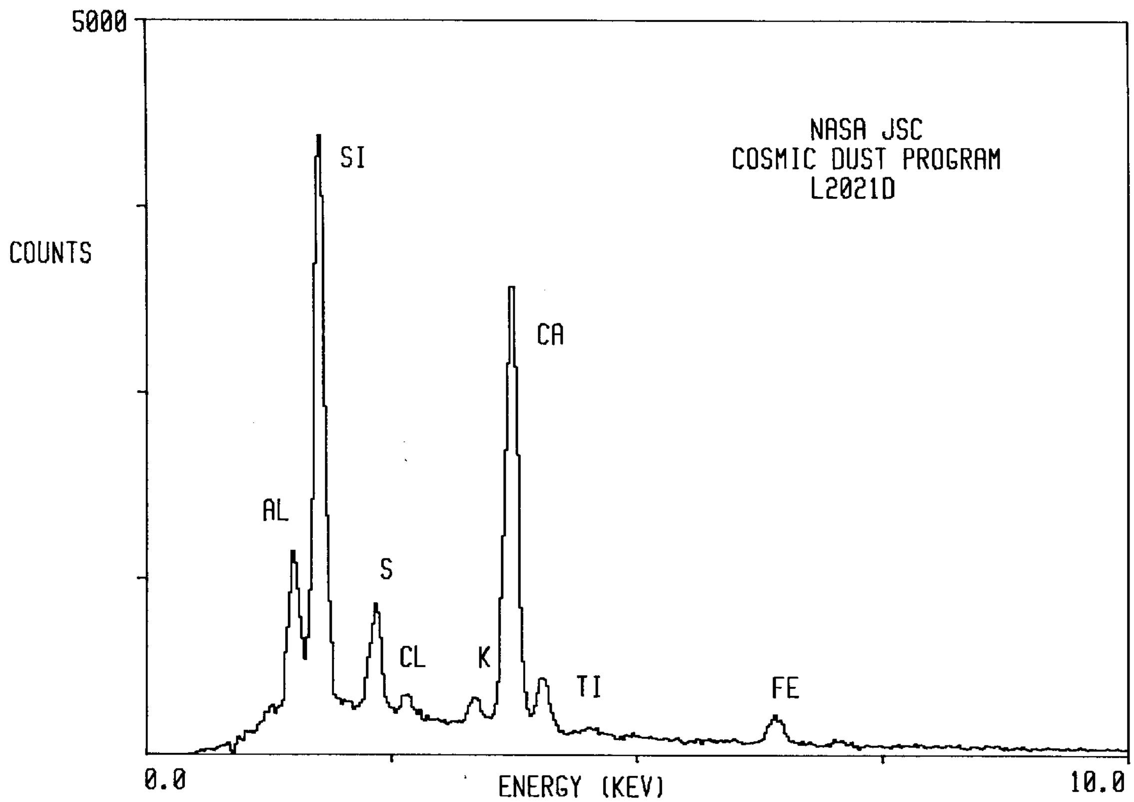
Trans: O

Color: Black

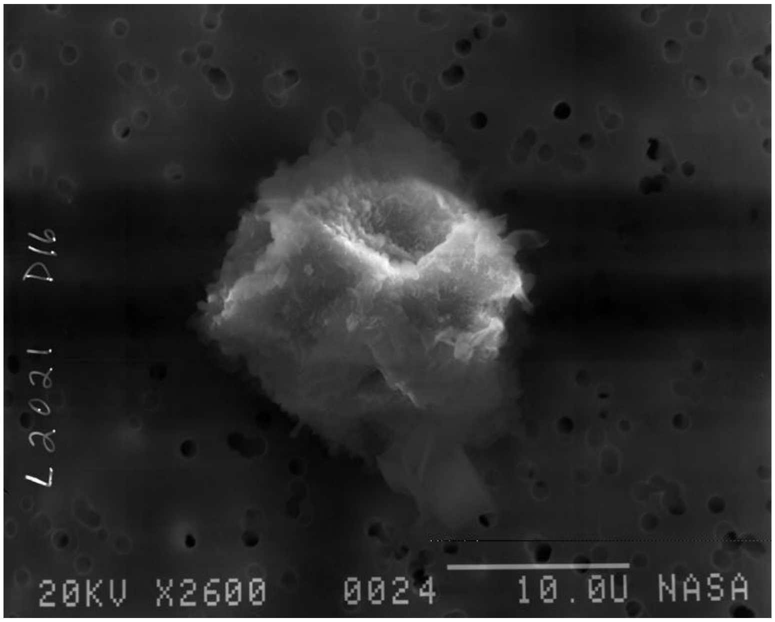
Luster: M

Type: TCN?

Comments:



L2021D16



97E00390

Size: 20x16

Shape: E

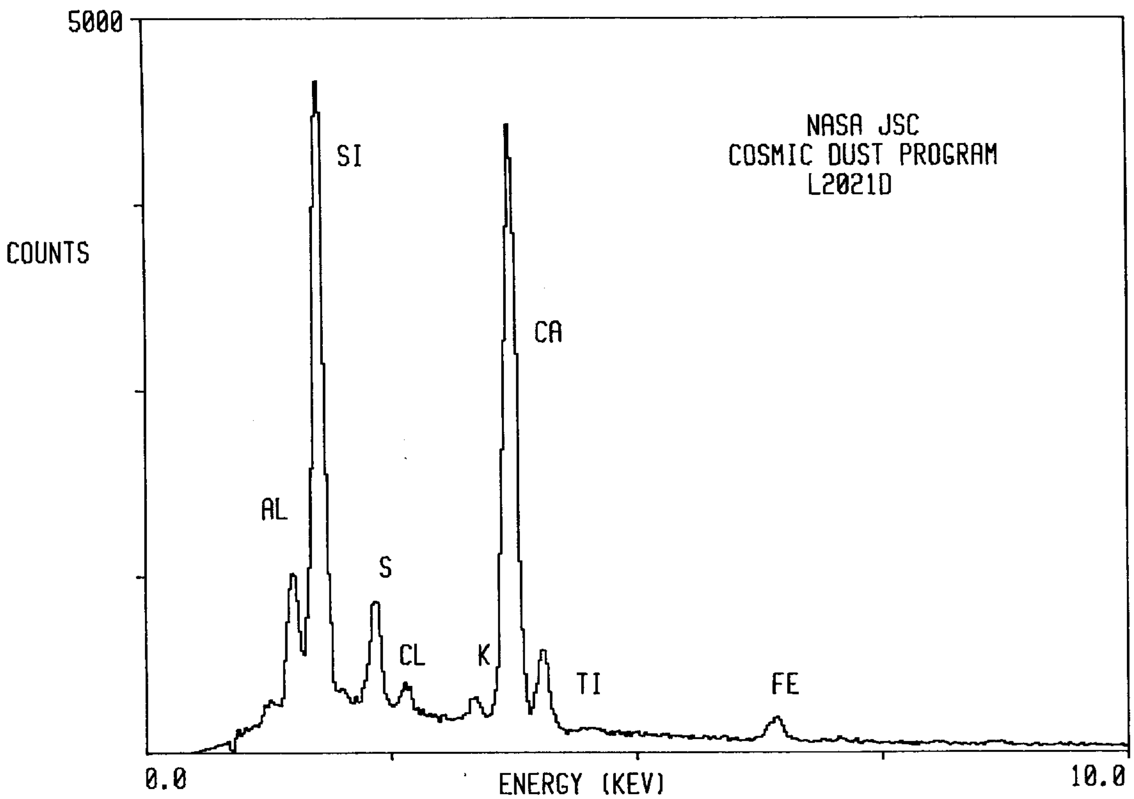
Trans: O

Color: Black

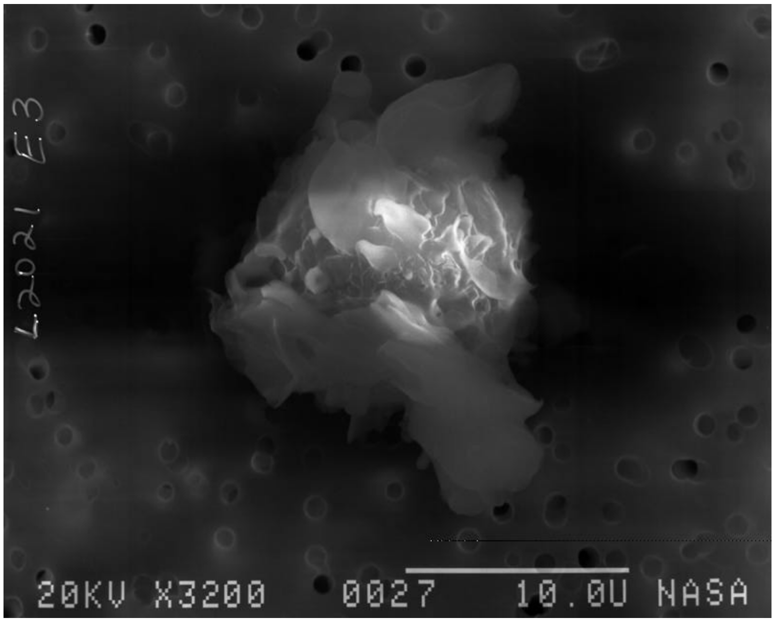
Luster: SM

Type: TCN?

Comments:

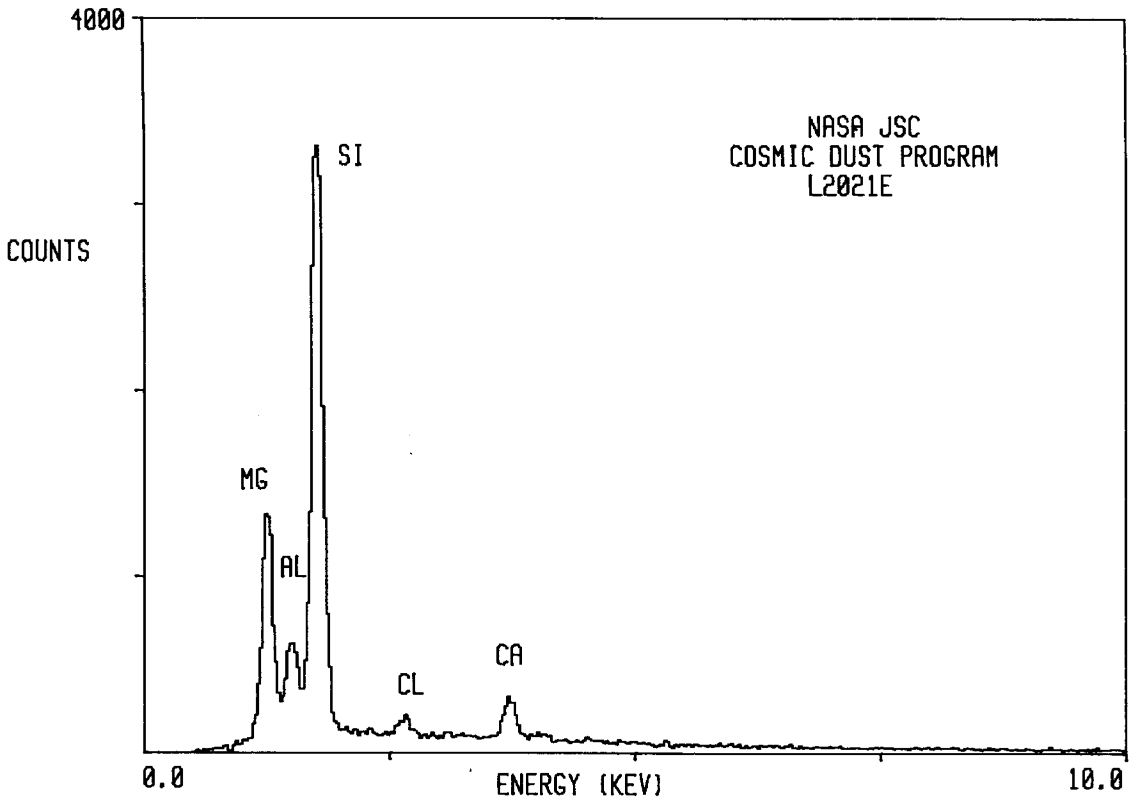


L2021E3

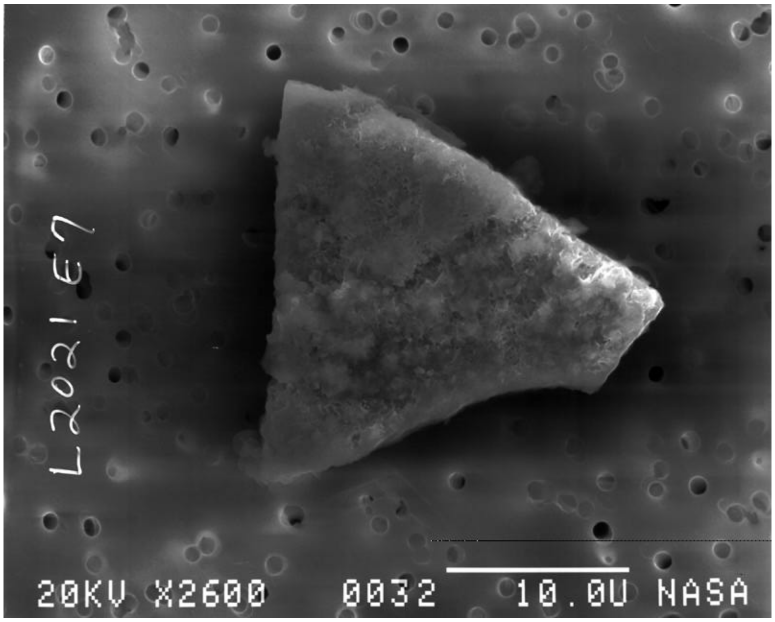


97E00393

Size: 10
Shape: E
Trans: O
Color: Gray
Luster: SV
Type: TCN
Comments:

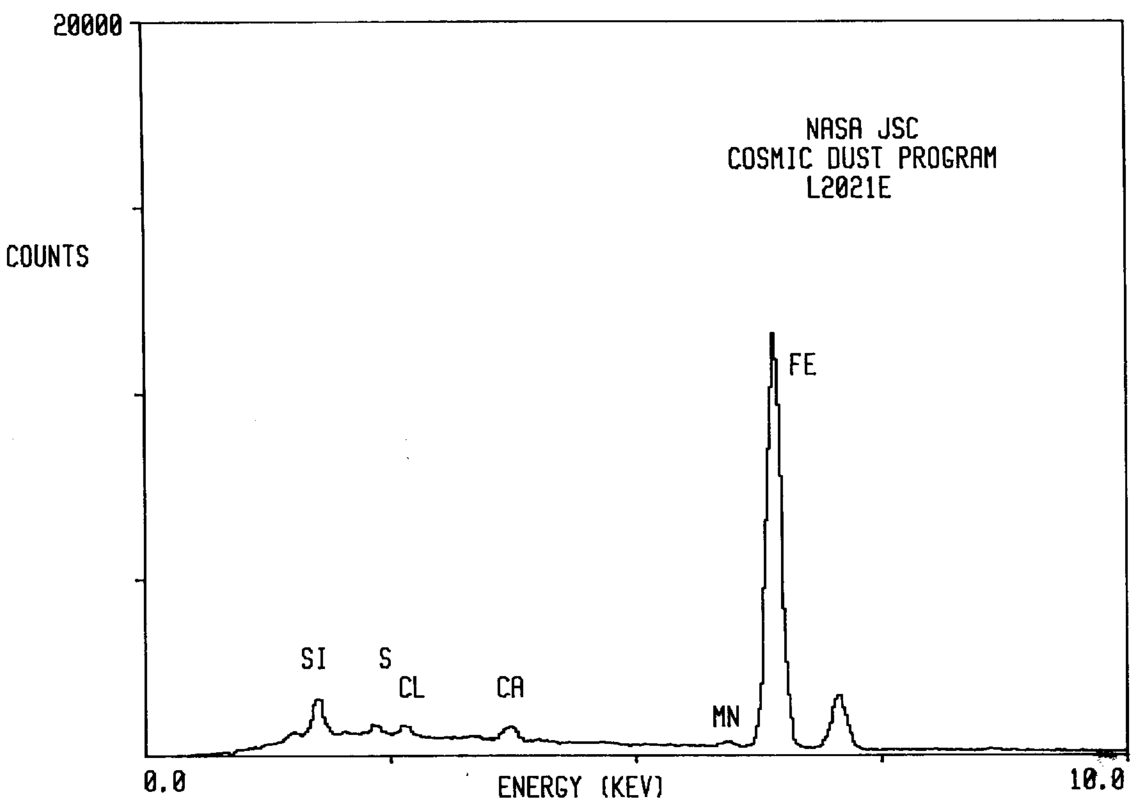


L2021E7

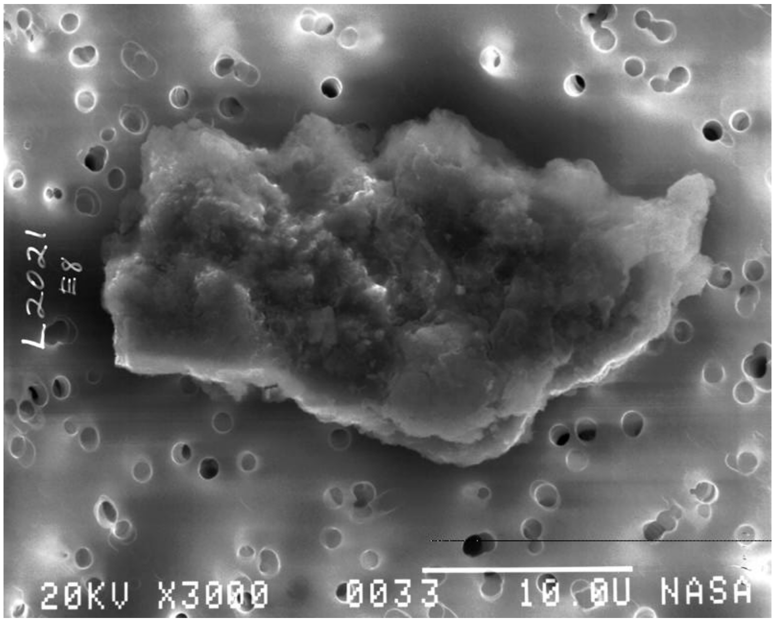


97E00397

Size: 20
Shape: I
Trans: TL
Color: Red
Luster: SV
Type: TCN
Comments:

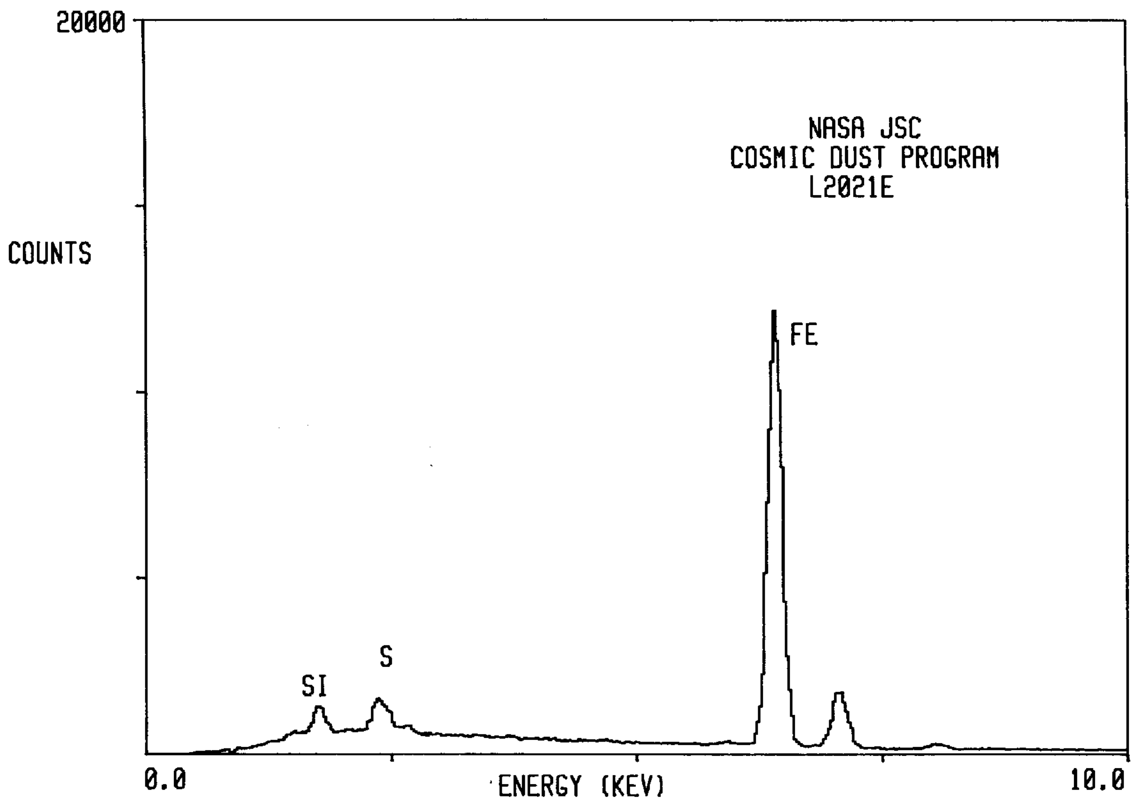


L2021E8

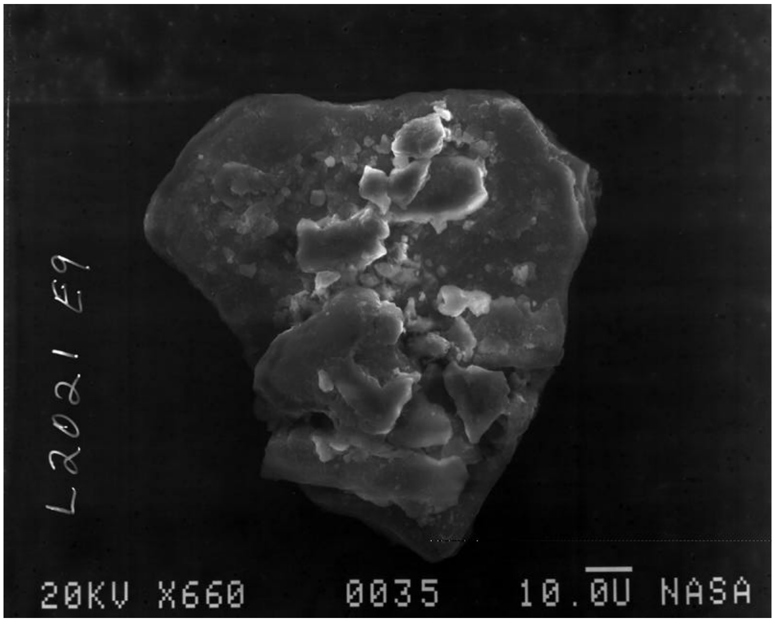


97E00398

Size: 30x16
Shape: I
Trans: O
Color: Black-Red
Luster: D/SV
Type: TCN?
Comments:

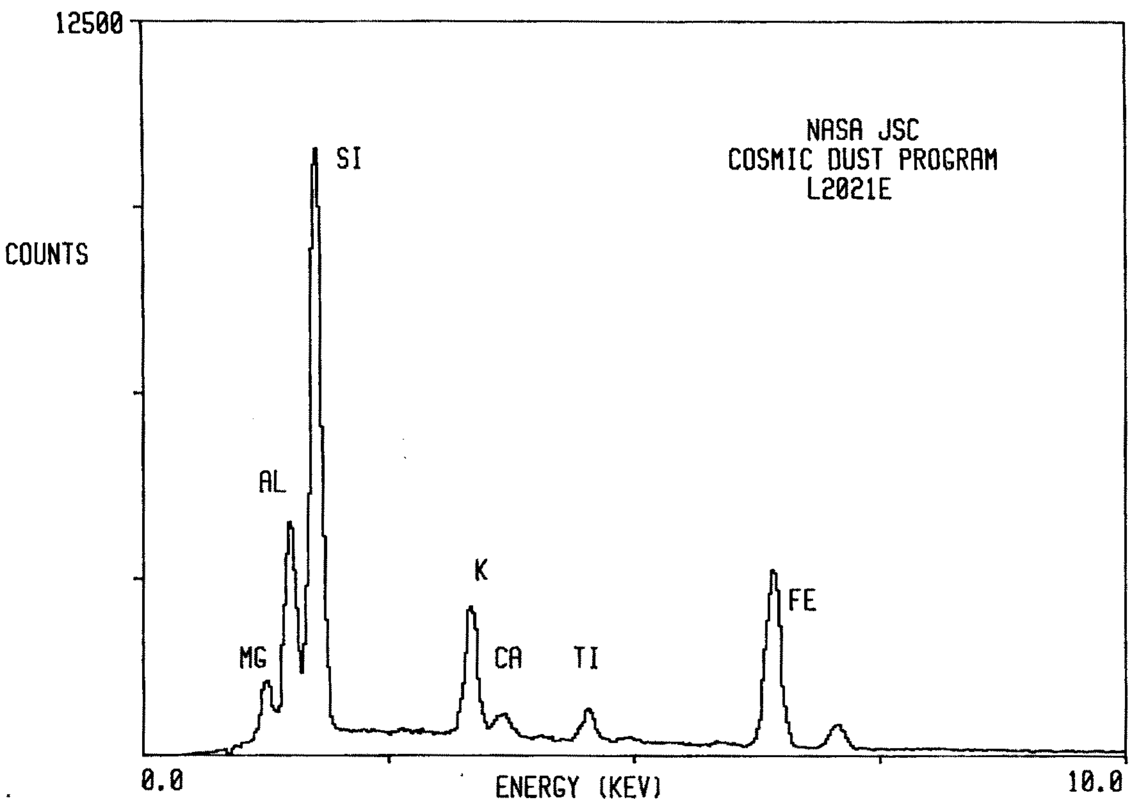


L2021E9

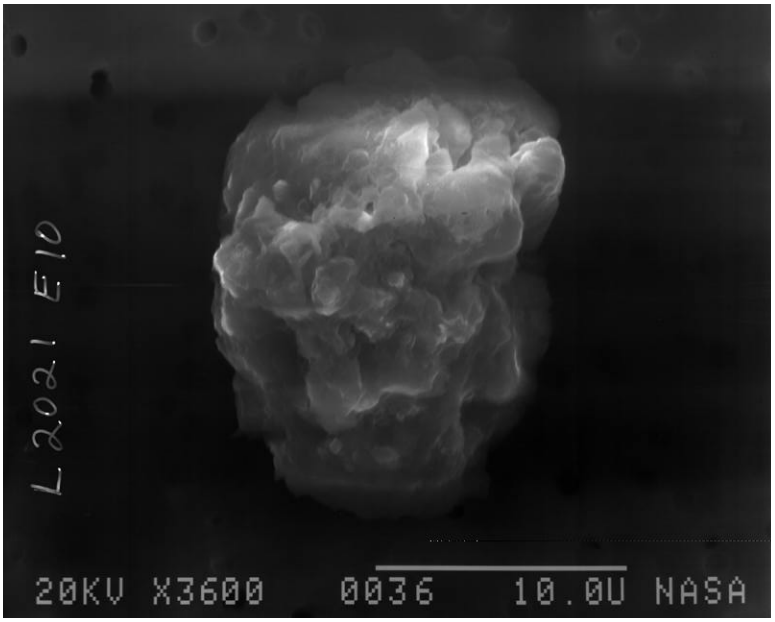


97E00399

Size:	95x90
Shape:	E
Trans:	TL
Color:	Black-Brown
Luster:	SV
Type:	TCN
Comments:	



L2021E10



97E00400

Size: 18x14

Shape: E

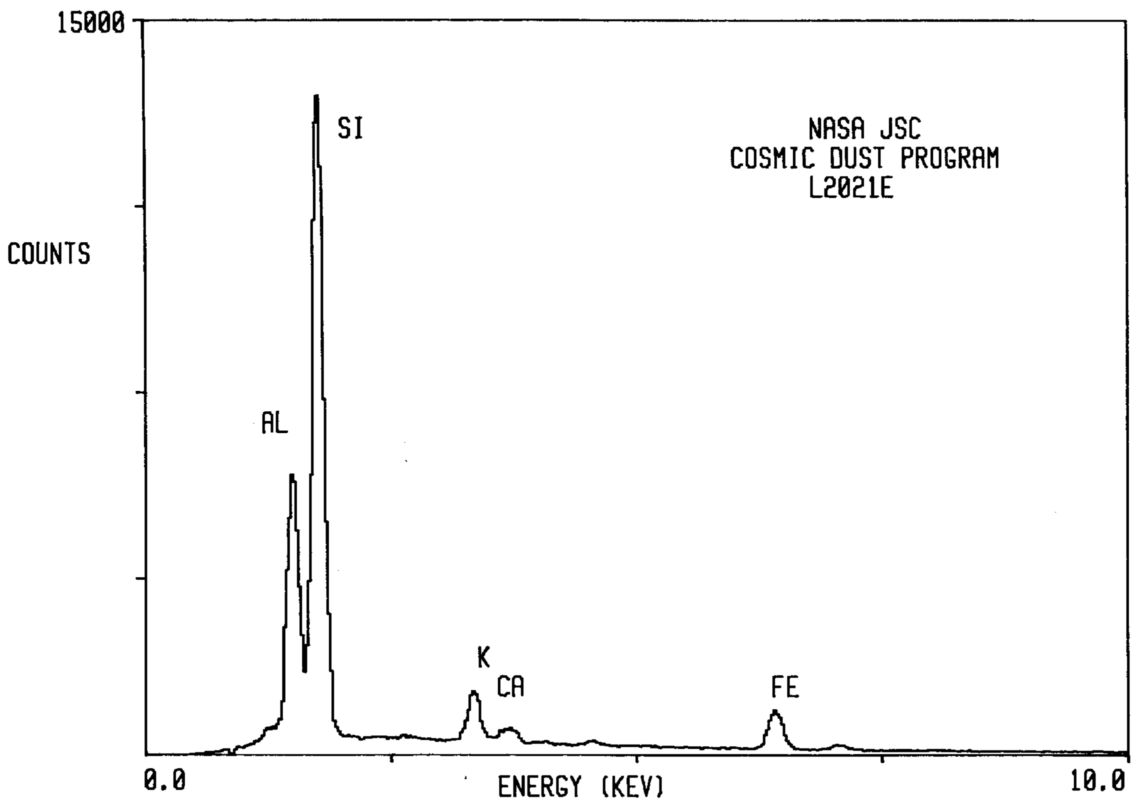
Trans: TL

Color: Red

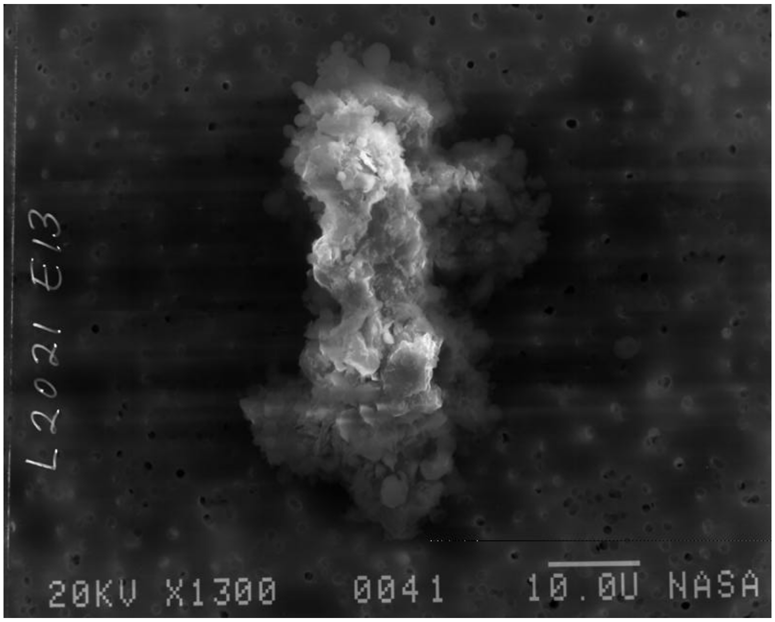
Luster: SV

Type: TCN

Comments:



L2021E13



97E00403

Size: 41x30

Shape: I

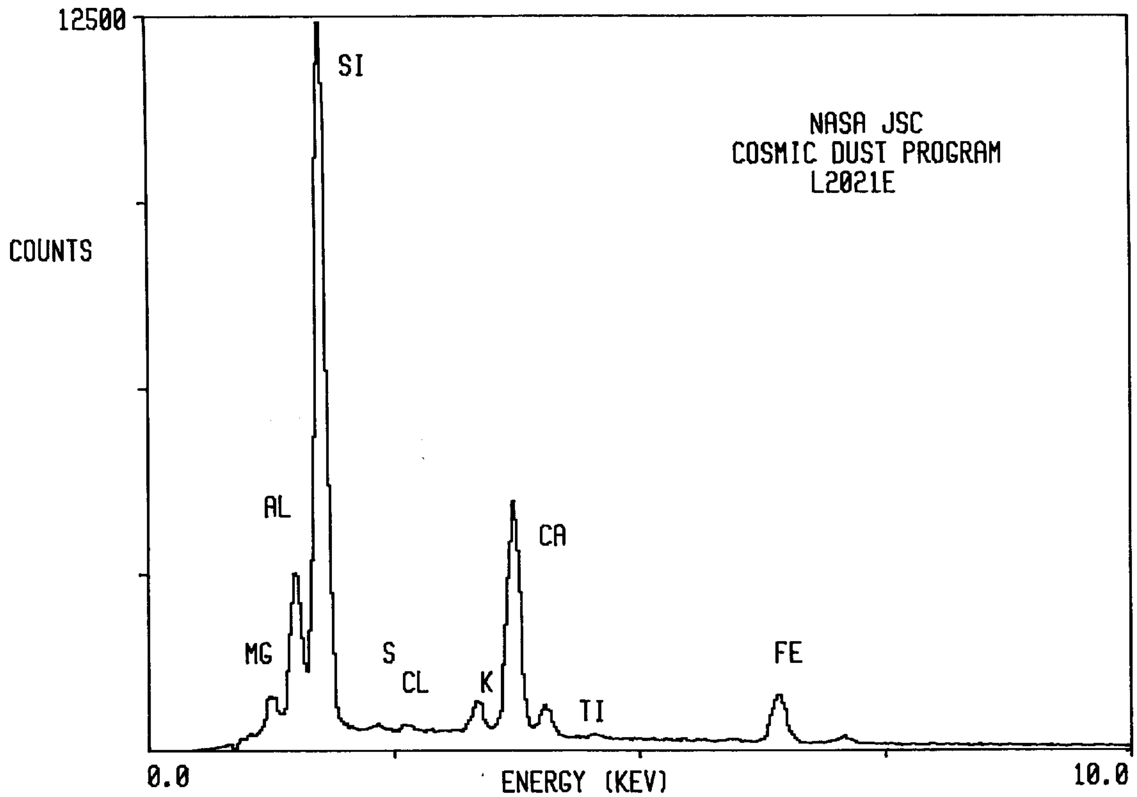
Trans: O

Color: Silver

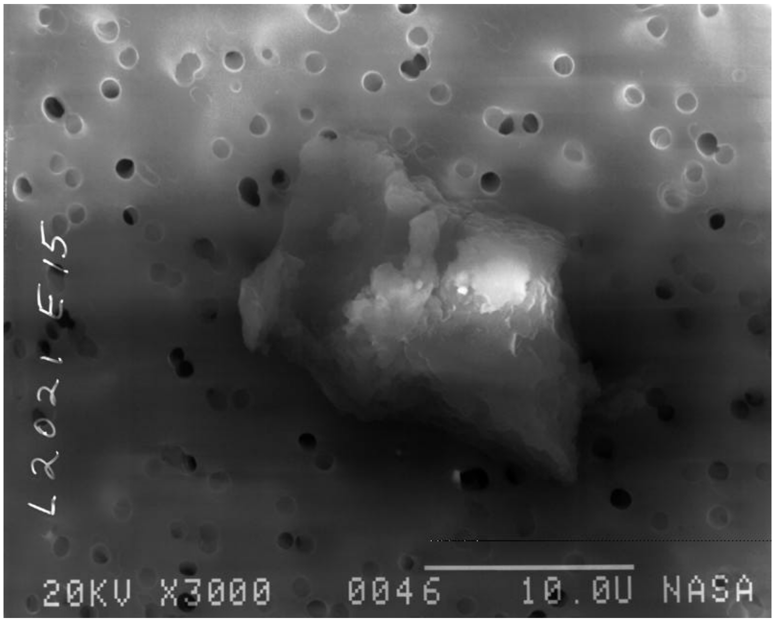
Luster: M

Type: TCN

Comments:

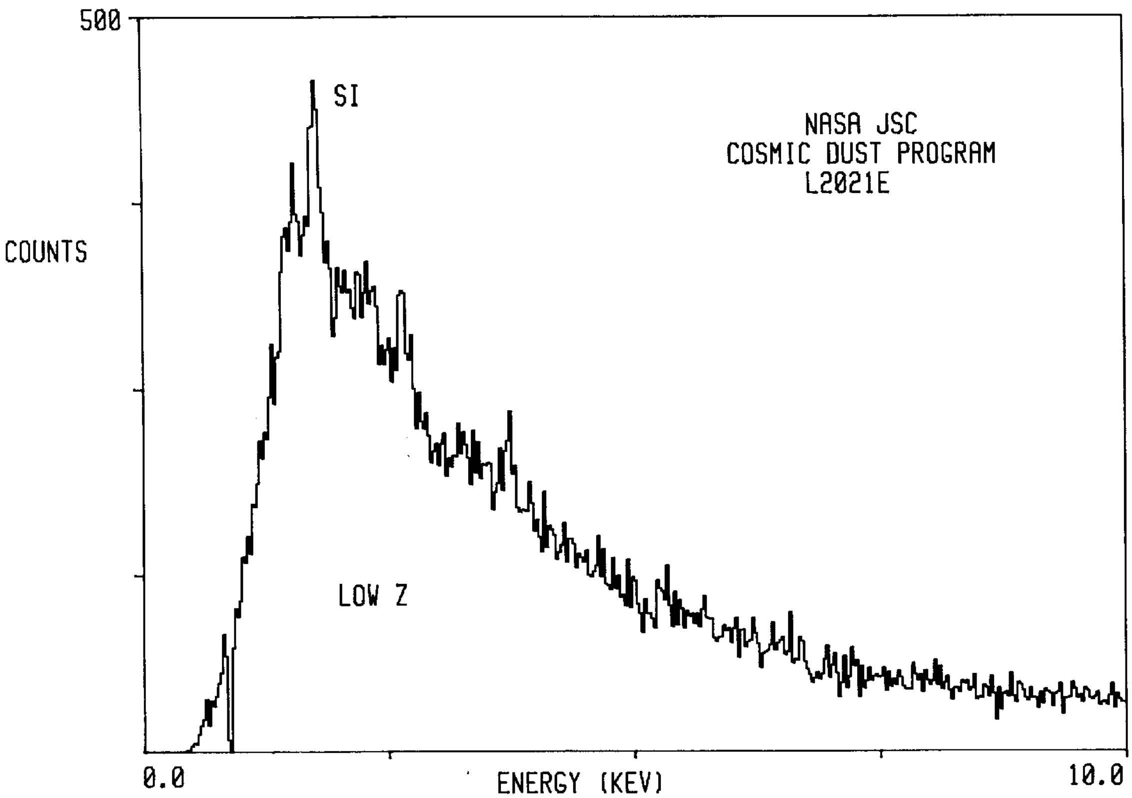


L2021E15

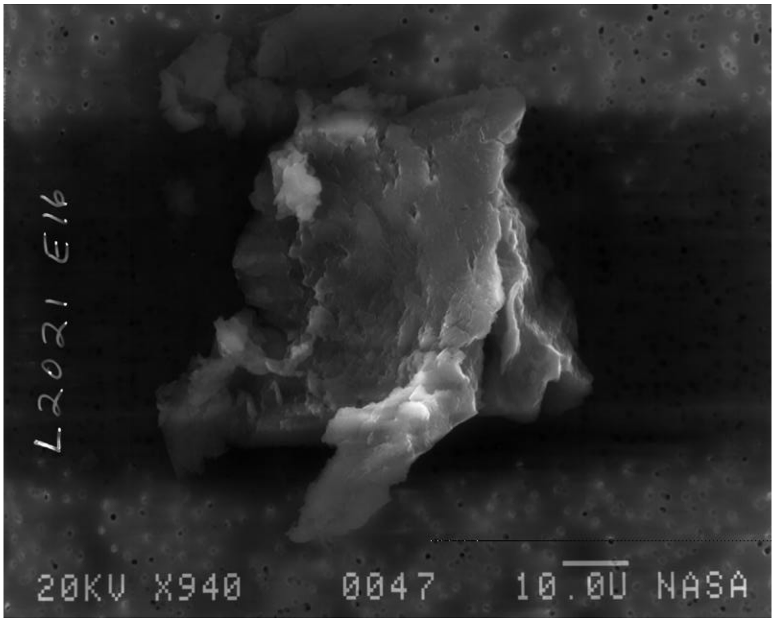


97E00405

Size: 20x12
Shape: I
Trans: TL
Color: White
Luster: SV
Type: TCN?
Comments:



L2021E16



97E00406

Size: 60x24

Shape: I

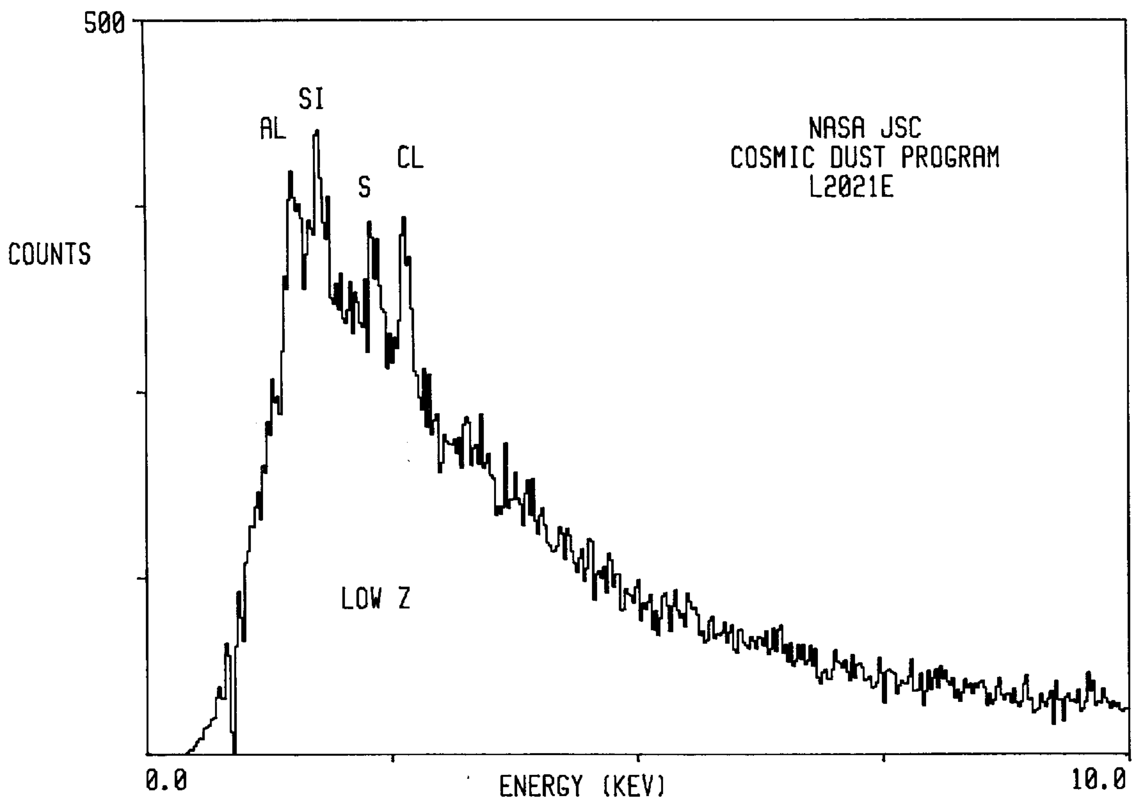
Trans: TL

Color: Colorless

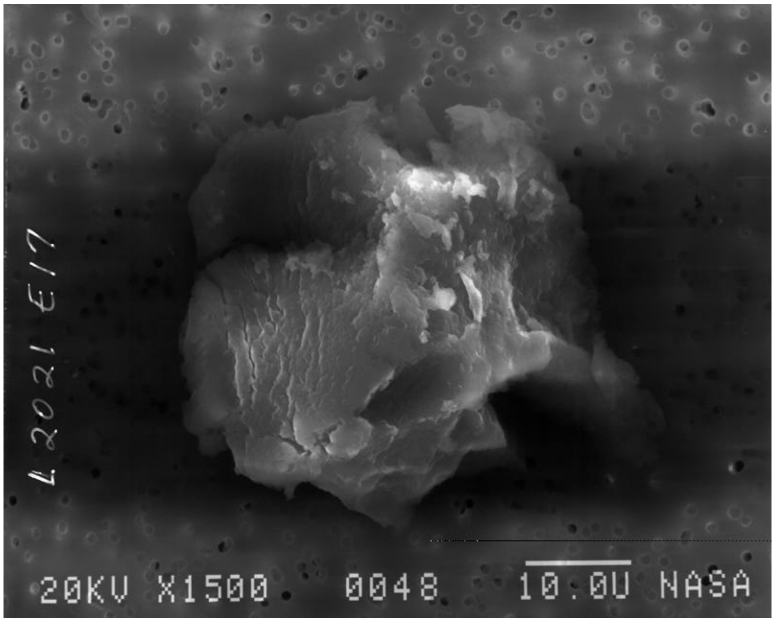
Luster: SV

Type: TCN?

Comments:



L2021E17



97E00407

Size: 46x40

Shape: I

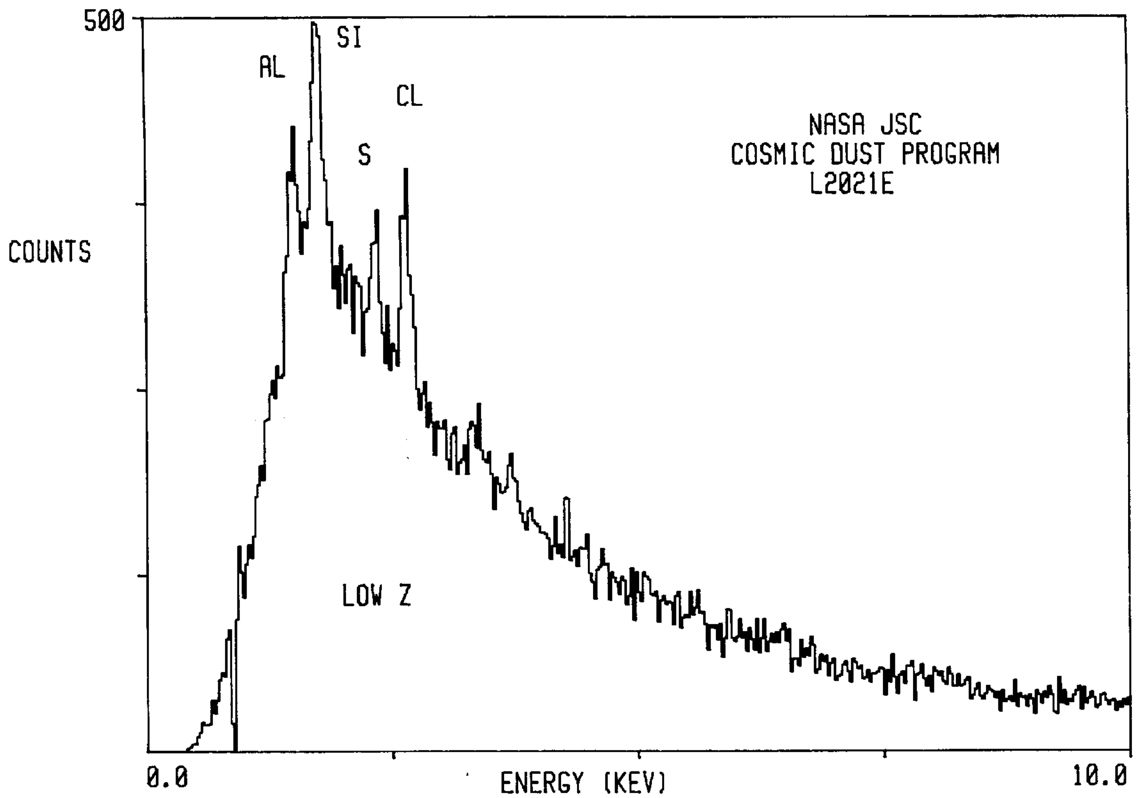
Trans: TL

Color: Colorless

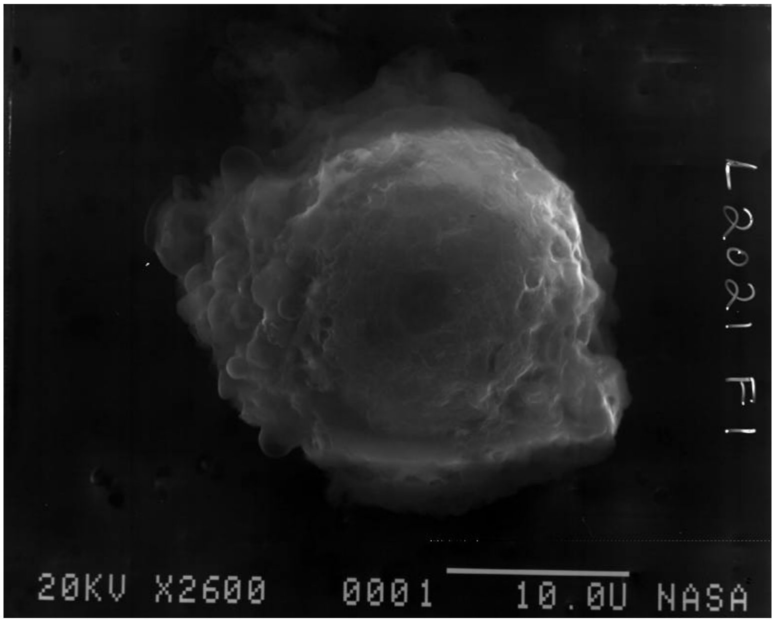
Luster: SV

Type: TCN?

Comments:



L2021F1



97E00408

Size: 24

Shape: S

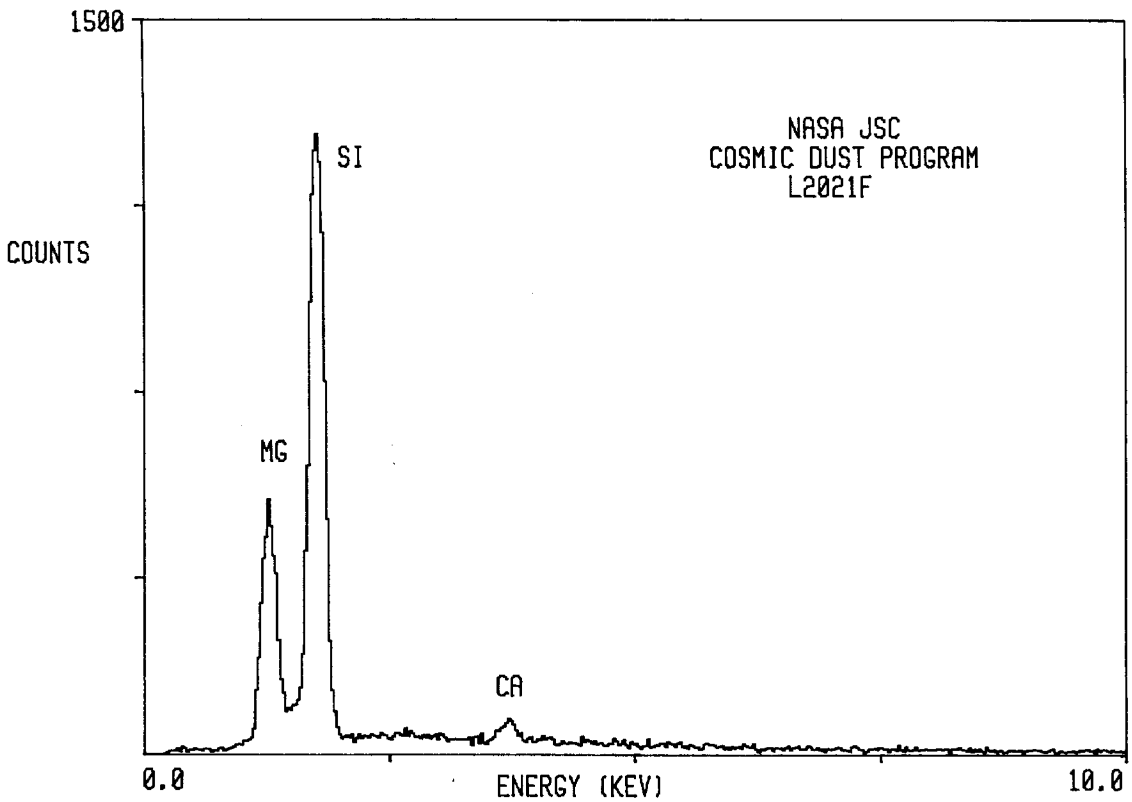
Trans: T

Color: Colorless

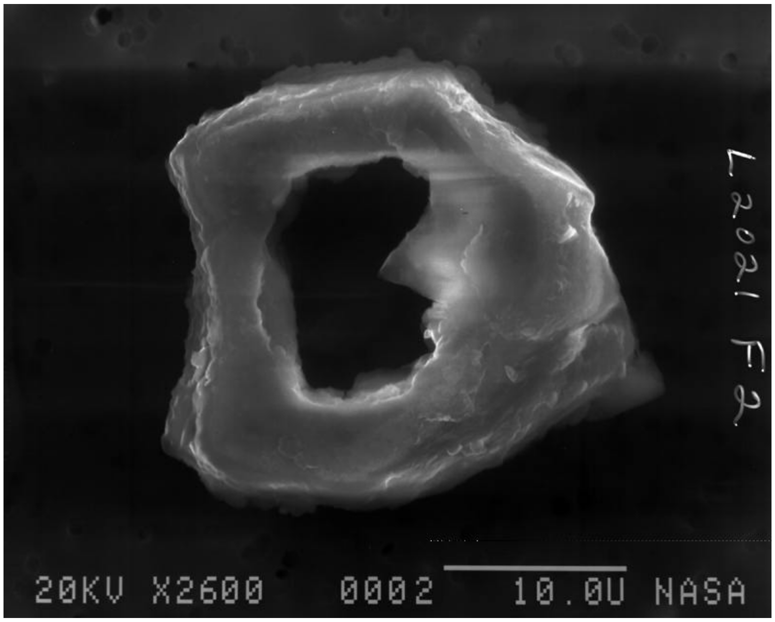
Luster: V

Type: TCN

Comments:



L2021F2



97E00409

Size: 30

Shape: S

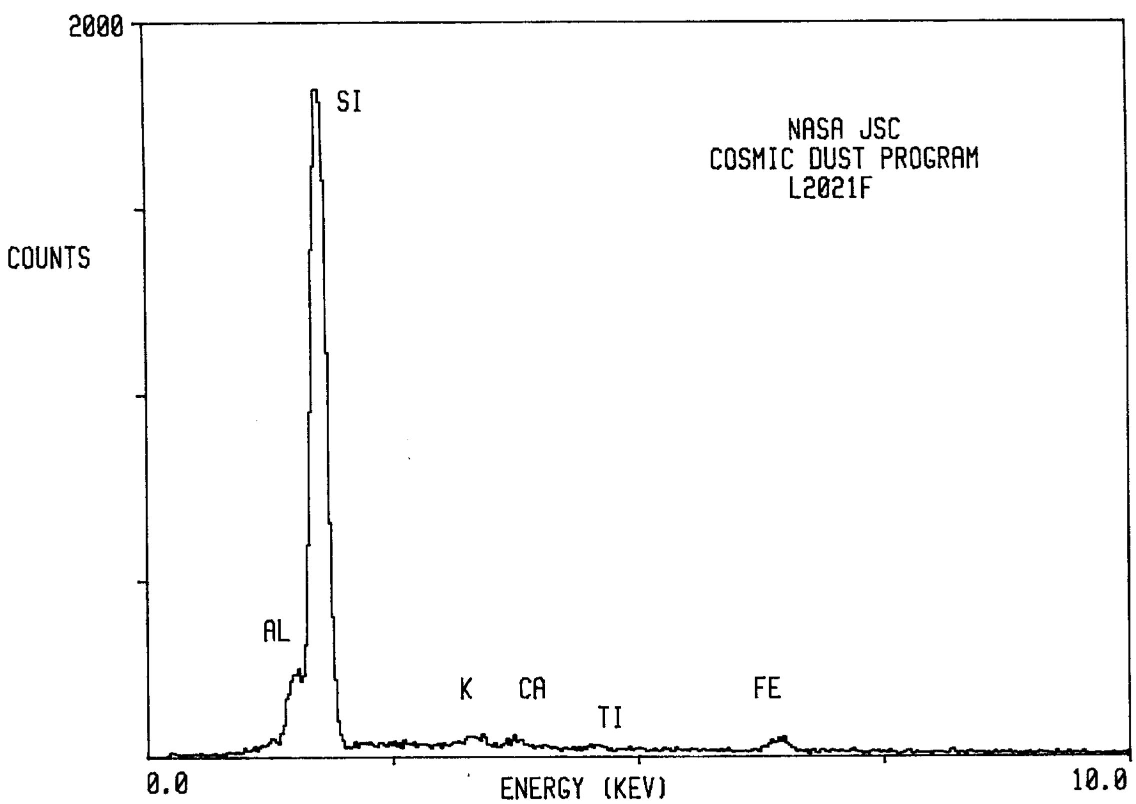
Trans: TL

Color: Brown

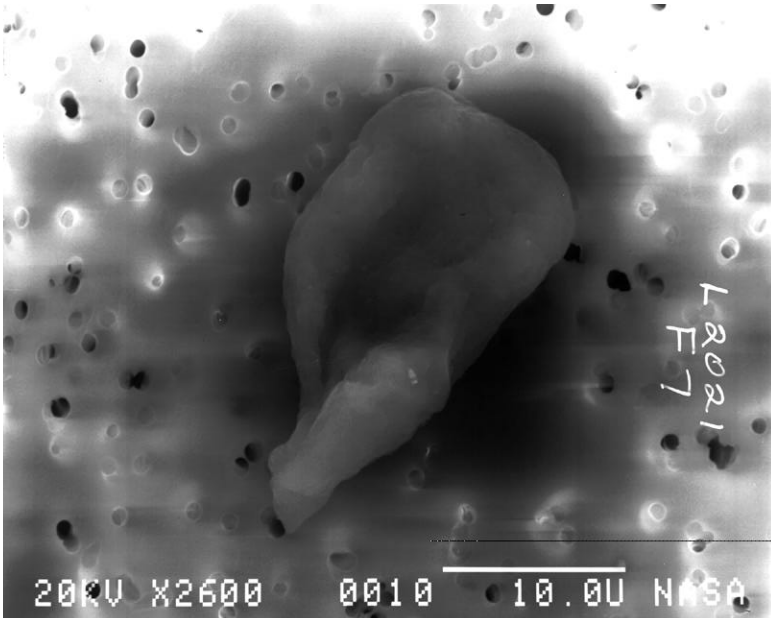
Luster: SV

Type: TCN

Comments:



L2021F7



97E00414

Size: 24x12

Shape: I

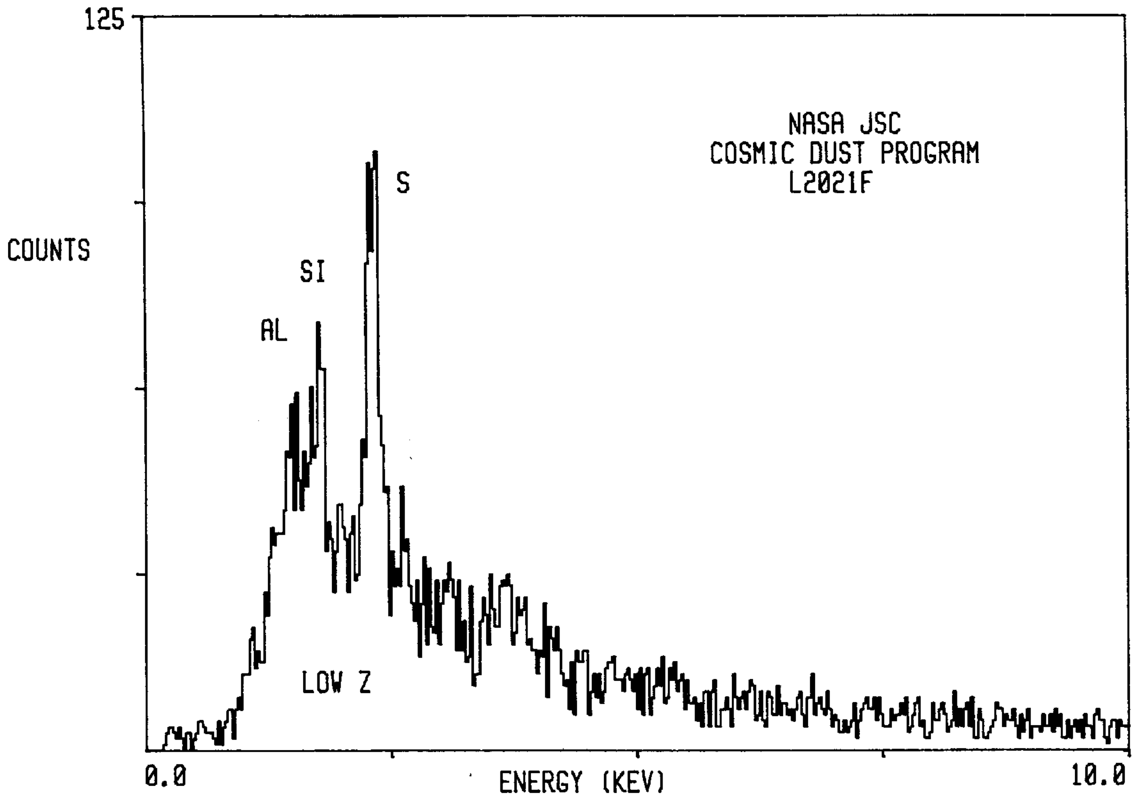
Trans: TL

Color: Colorless

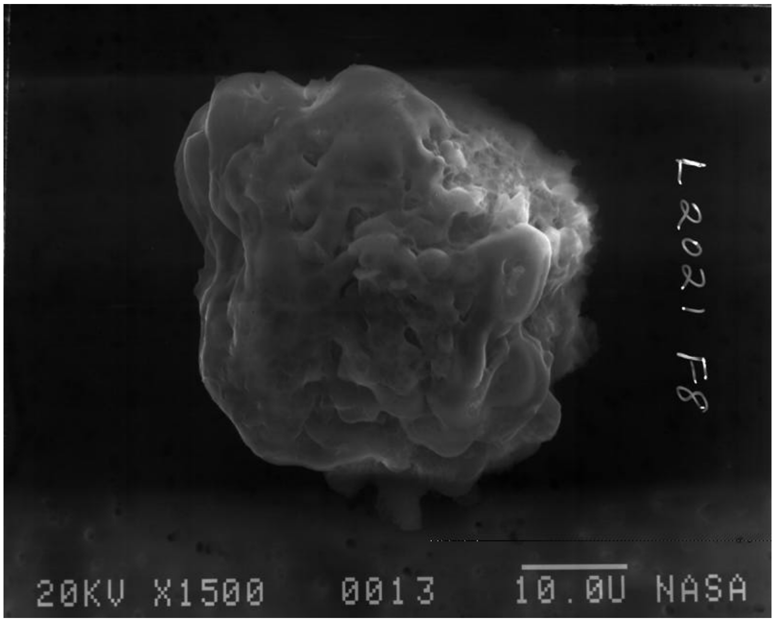
Luster: V

Type: TCN

Comments:

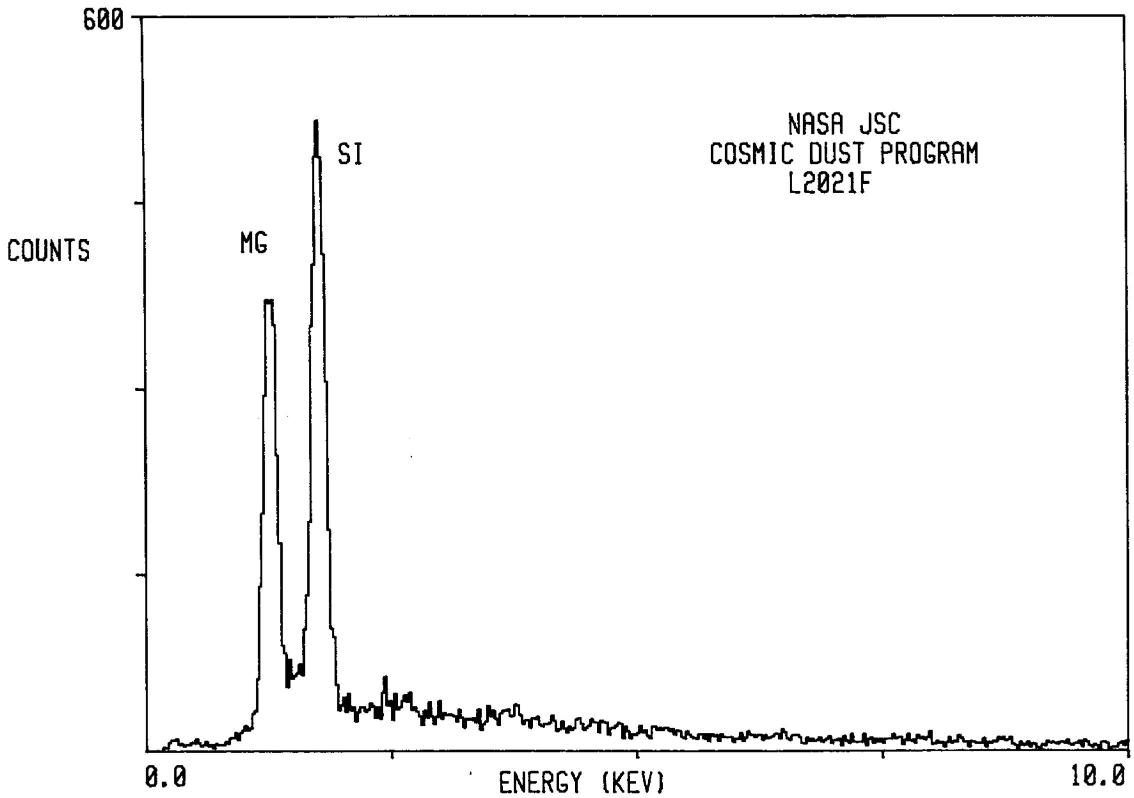


L2021F8

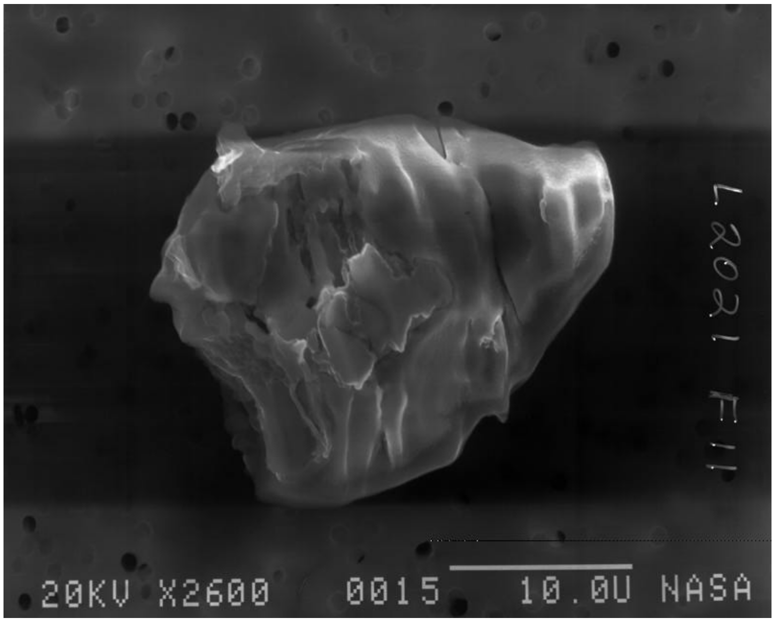


97E00415

Size: 44
Shape: S
Trans: TL
Color: White
Luster: SV
Type: TCN
Comments:

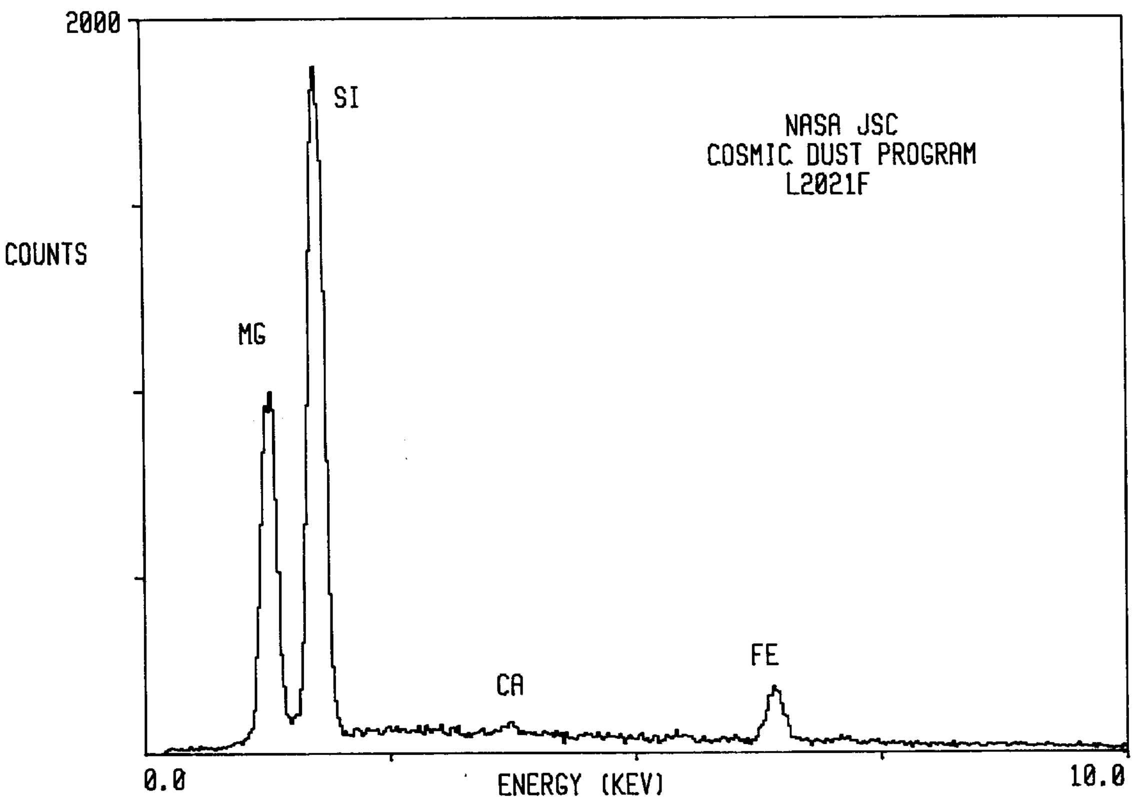


L2021F11

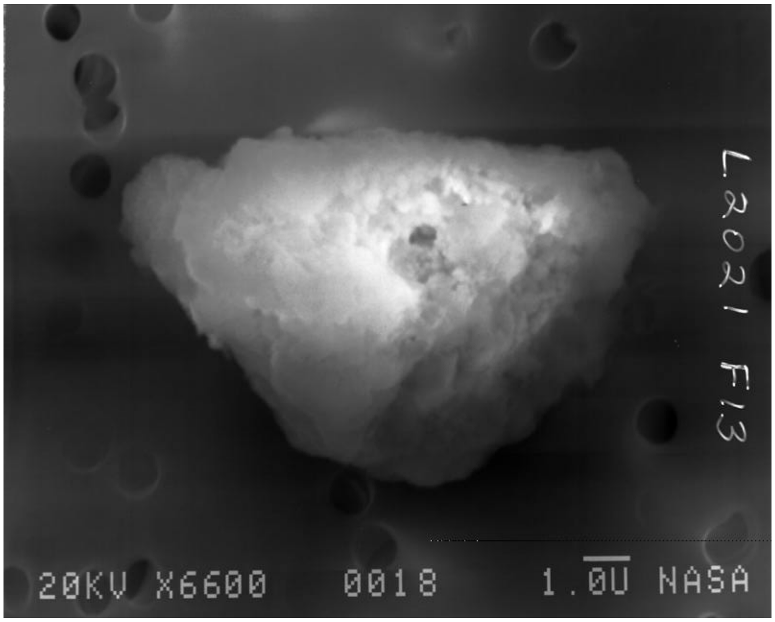


97E00418

Size:	25x20
Shape:	I
Trans:	O
Color:	Silver
Luster:	M
Type:	TCN?
Comments:	



L2021F13



97E00420

Size: 12x9

Shape: I

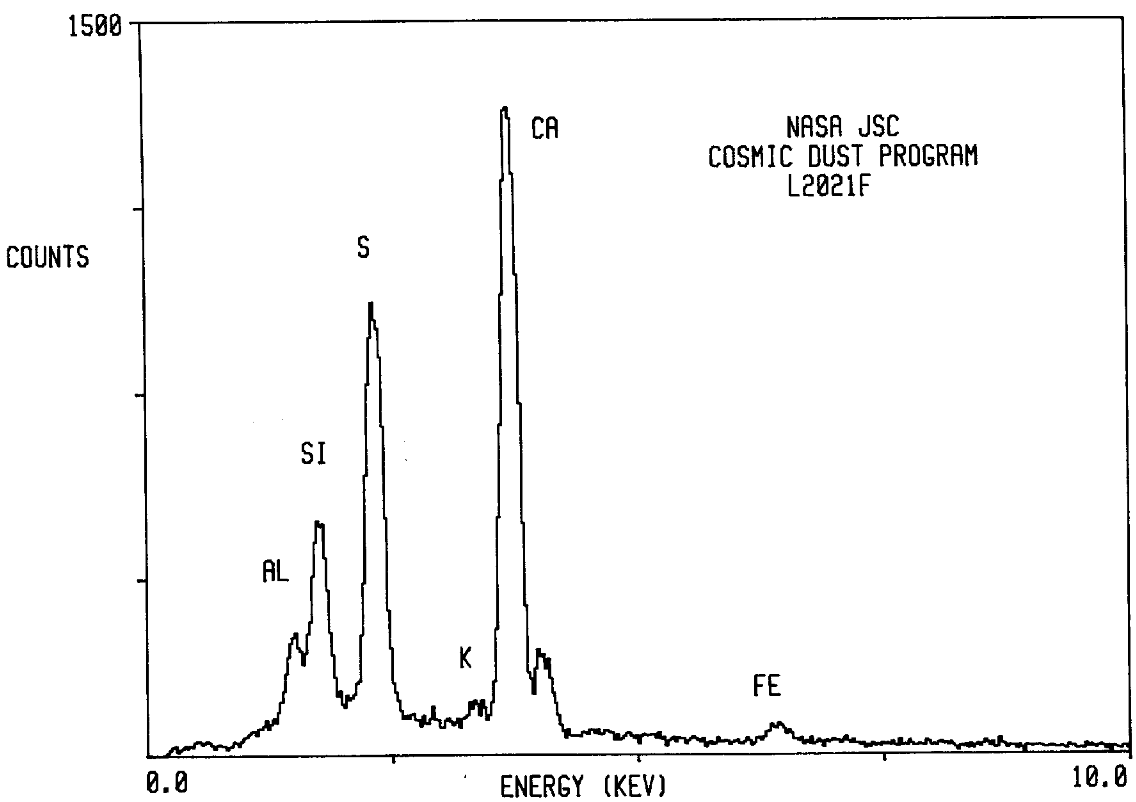
Trans: TL

Color: Colorless

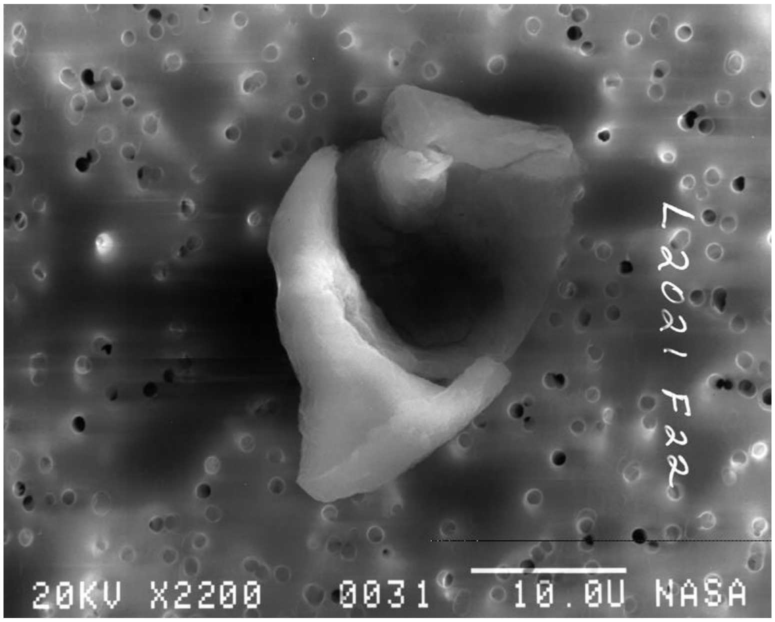
Luster: SV

Type: TCN

Comments:

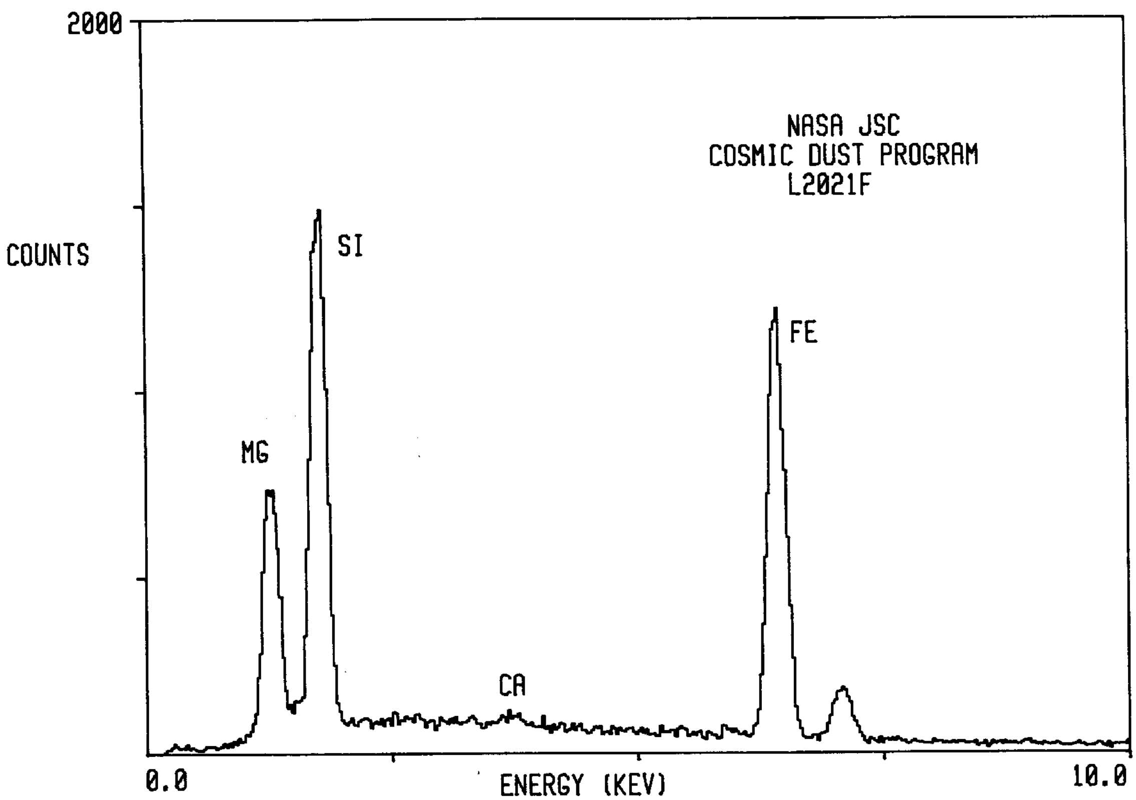


L2021F22

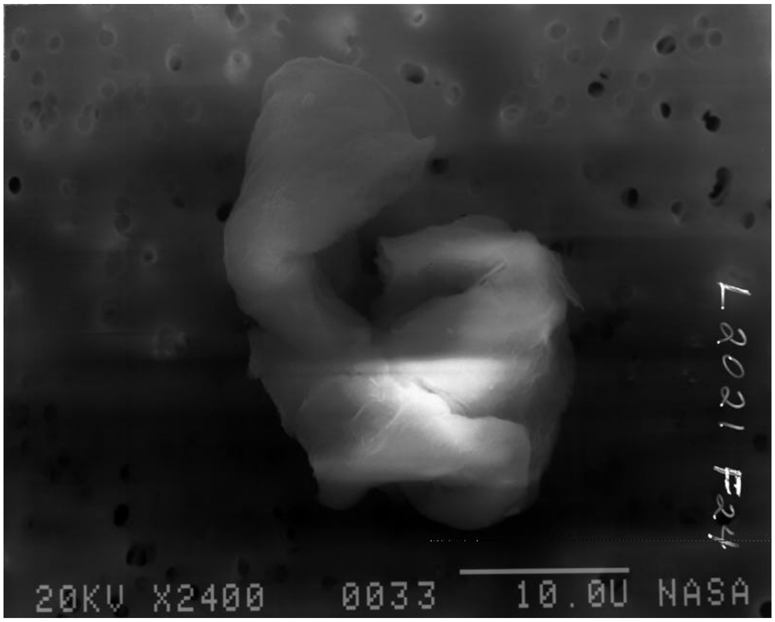


97E00429

Size: 20
Shape: E
Trans: TL
Color: White
Luster: SV
Type: TCN?
Comments:



L2021F24



97E00431

Size: 20

Shape: S

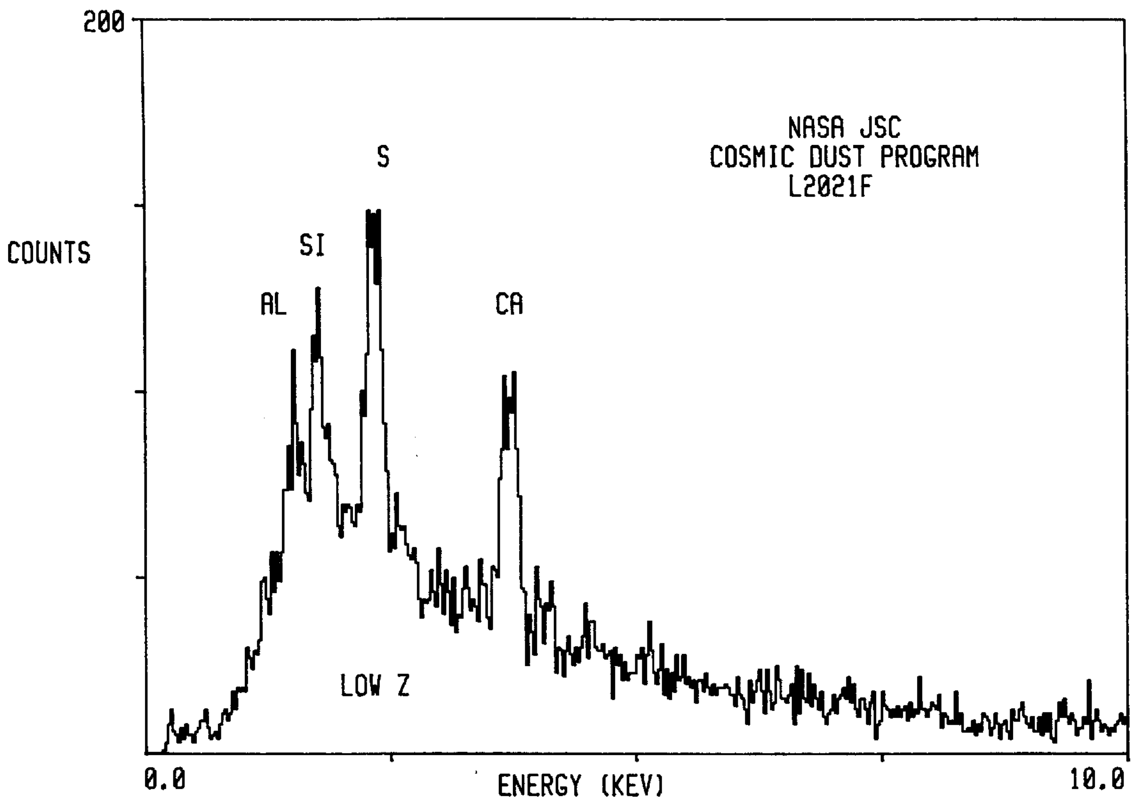
Trans: O

Color: White

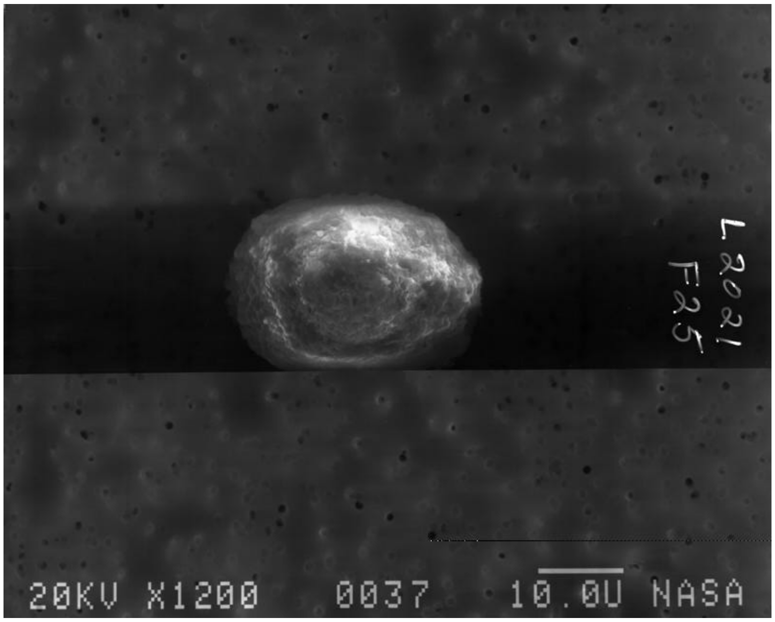
Luster: SV

Type: TCN

Comments:



L2021F25



97E00432

Size: 32

Shape: I

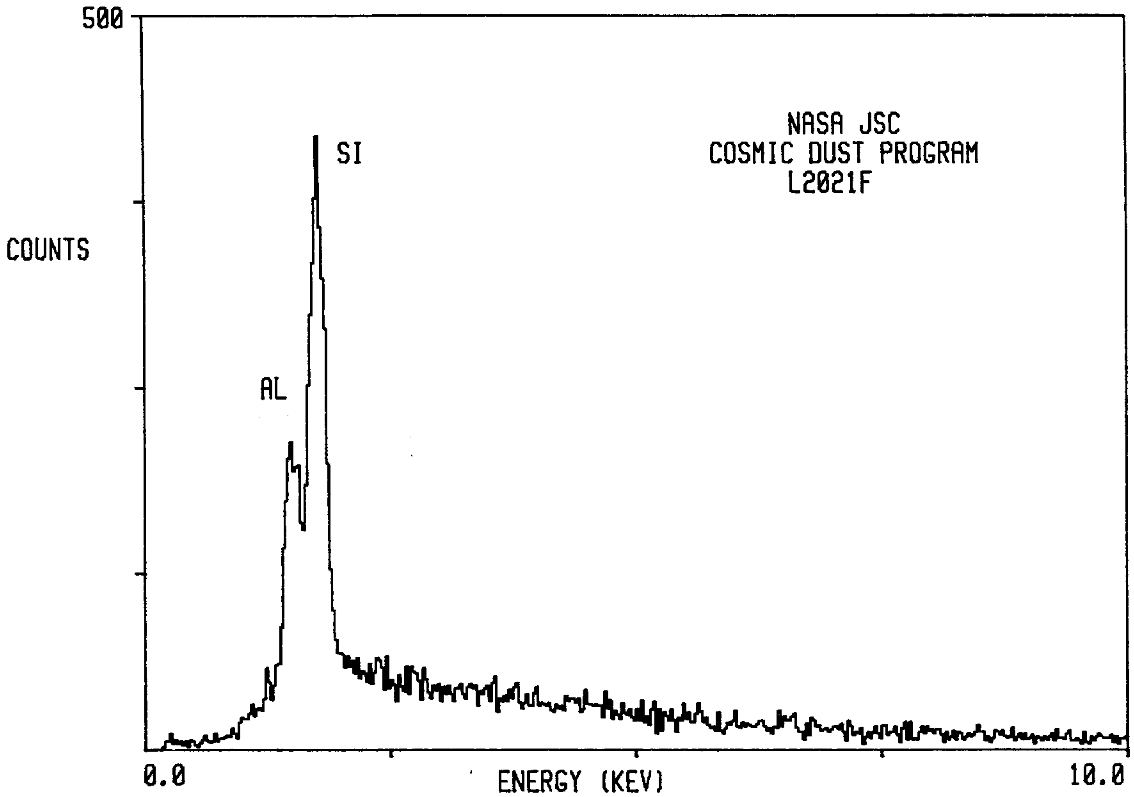
Trans: O

Color: White

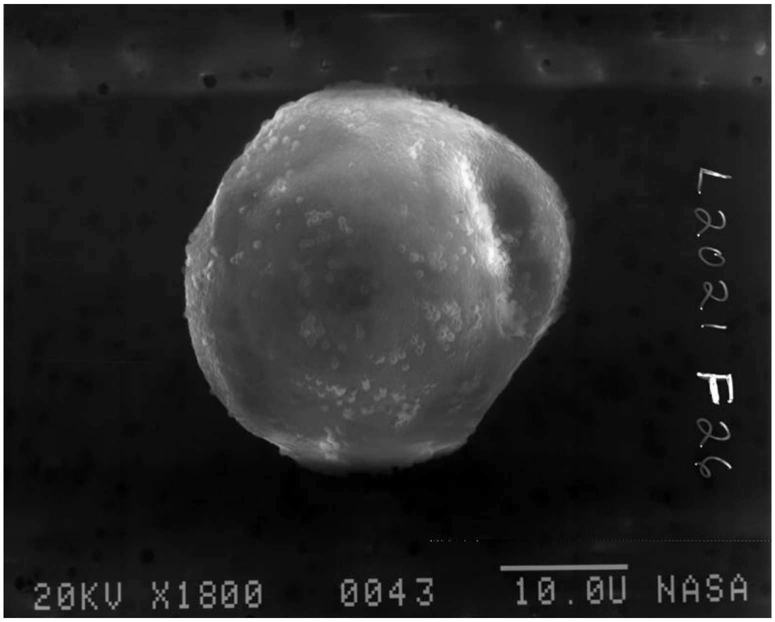
Luster: SV

Type: TCN

Comments:

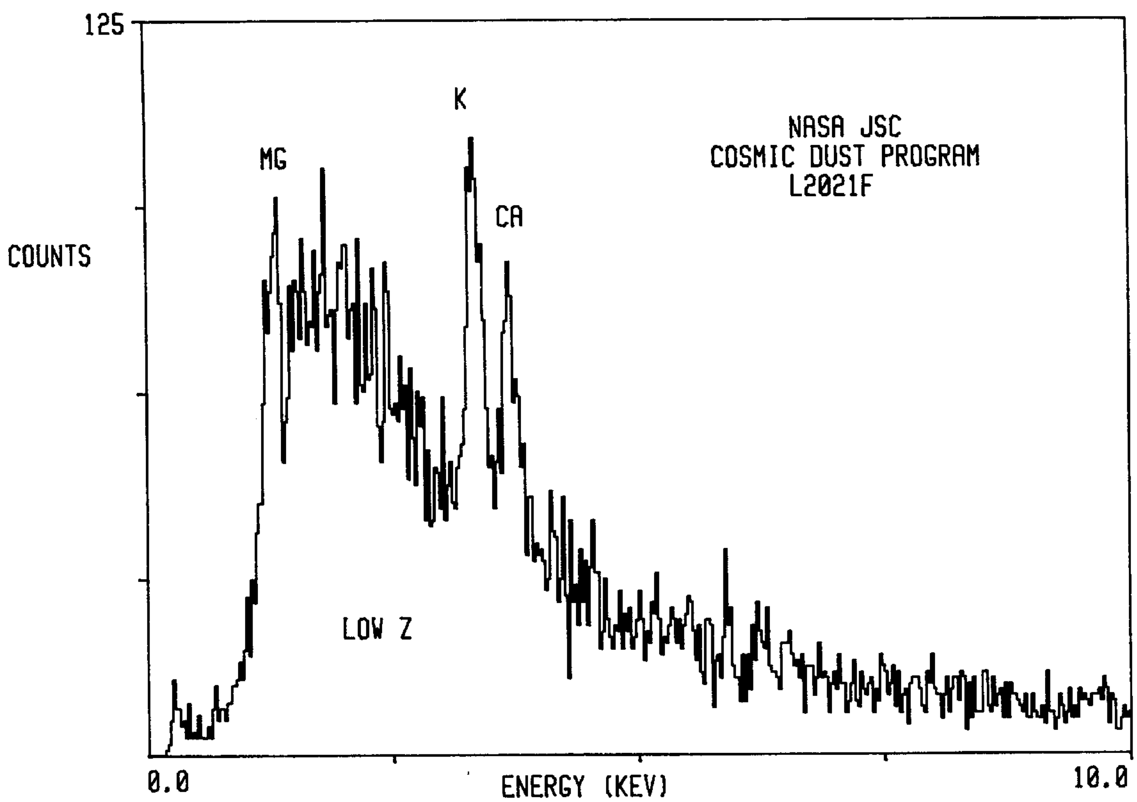


L2021F26

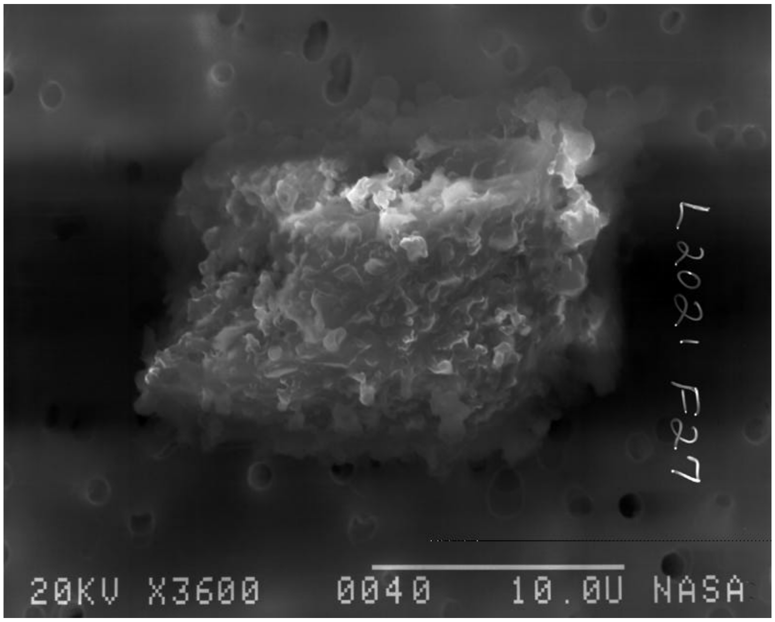


97E00433

Size: 30
Shape: S
Trans: TL
Color: Colorless
Luster: SV
Type: TCN
Comments:



L2021F27



97E00434

Size: 20x16

Shape: E

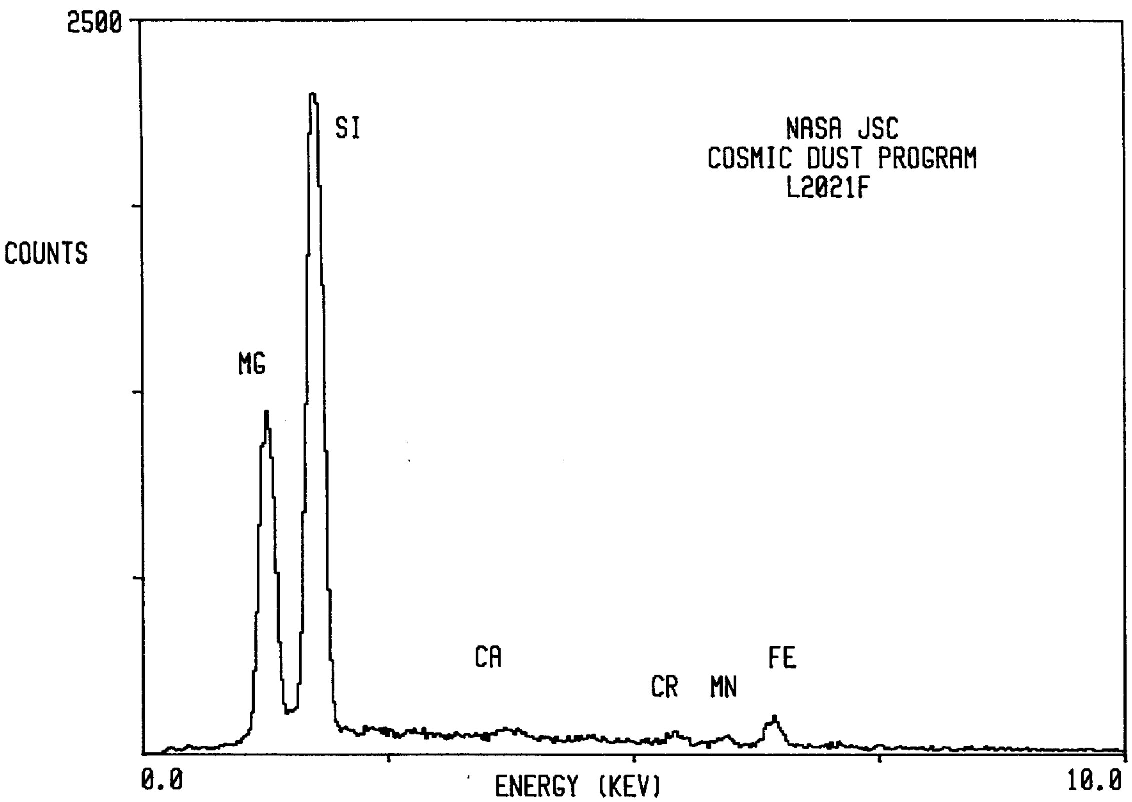
Trans: TL

Color: Colorless

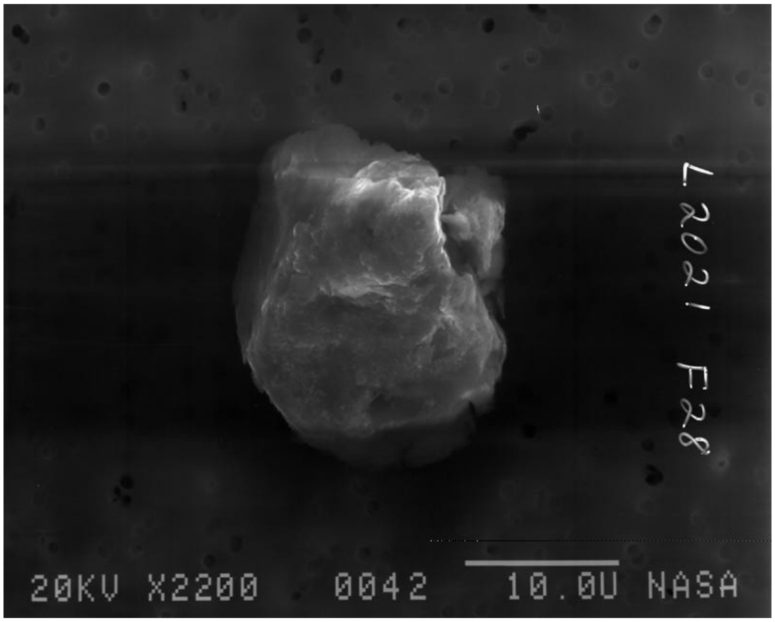
Luster: SV

Type: TCN

Comments:



L2021F28



97E00435

Size: 20x18

Shape: E

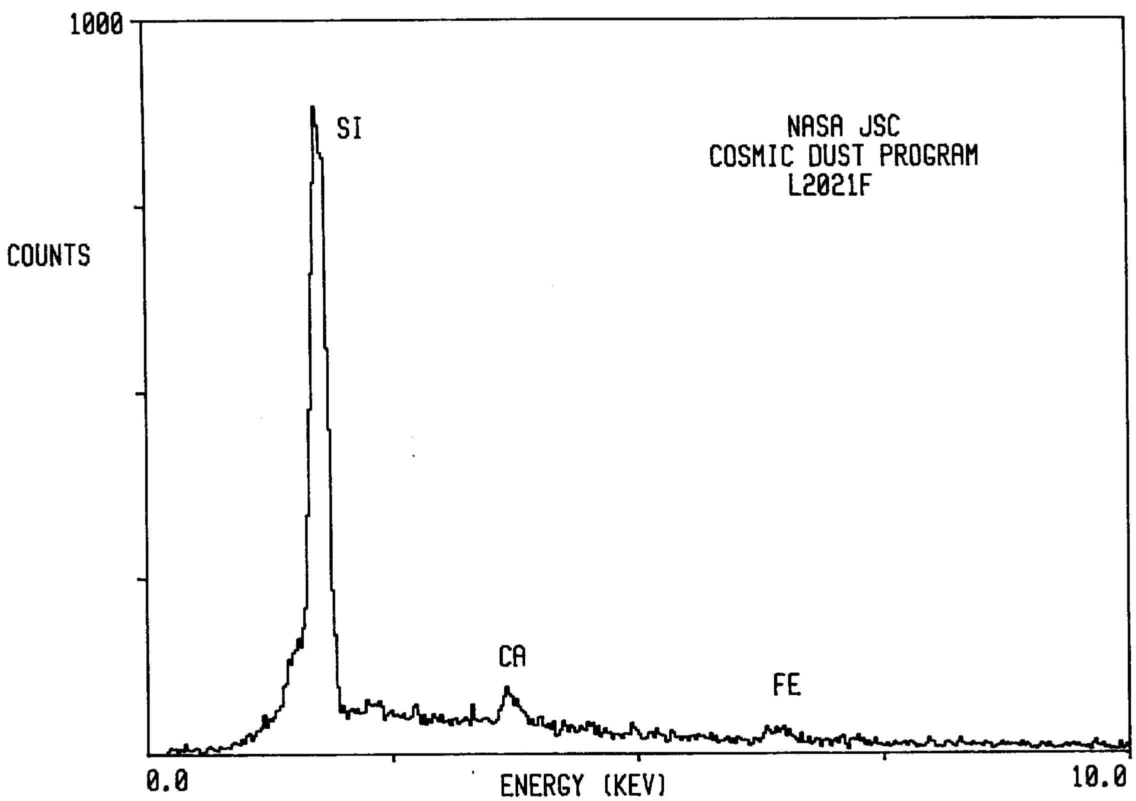
Trans: TL

Color: Colorless

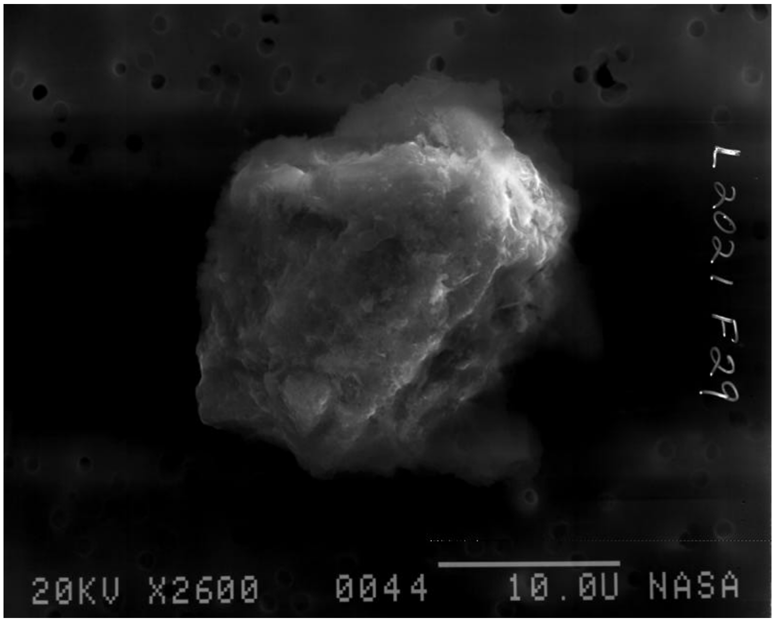
Luster: SV

Type: TCN

Comments:

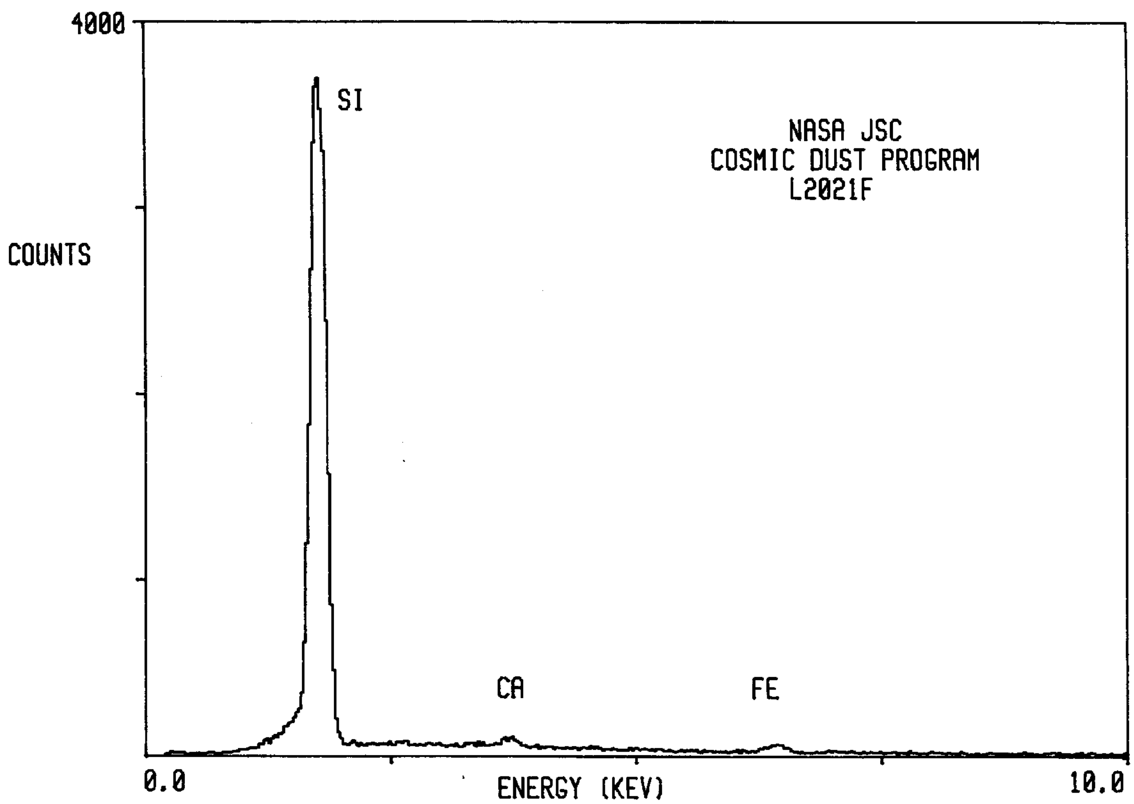


L2021F29

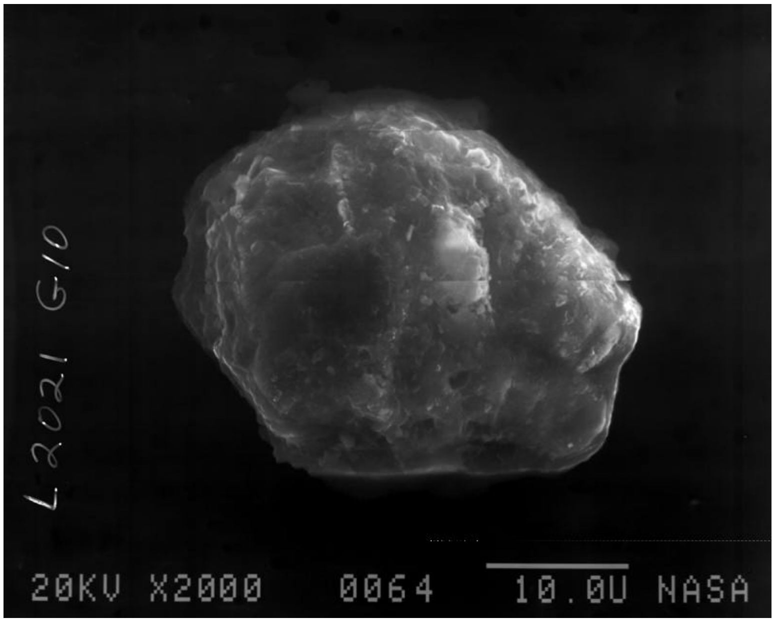


97E00436

Size: 22
Shape: S
Trans: TL
Color: Colorless
Luster: SV
Type: TCN
Comments:

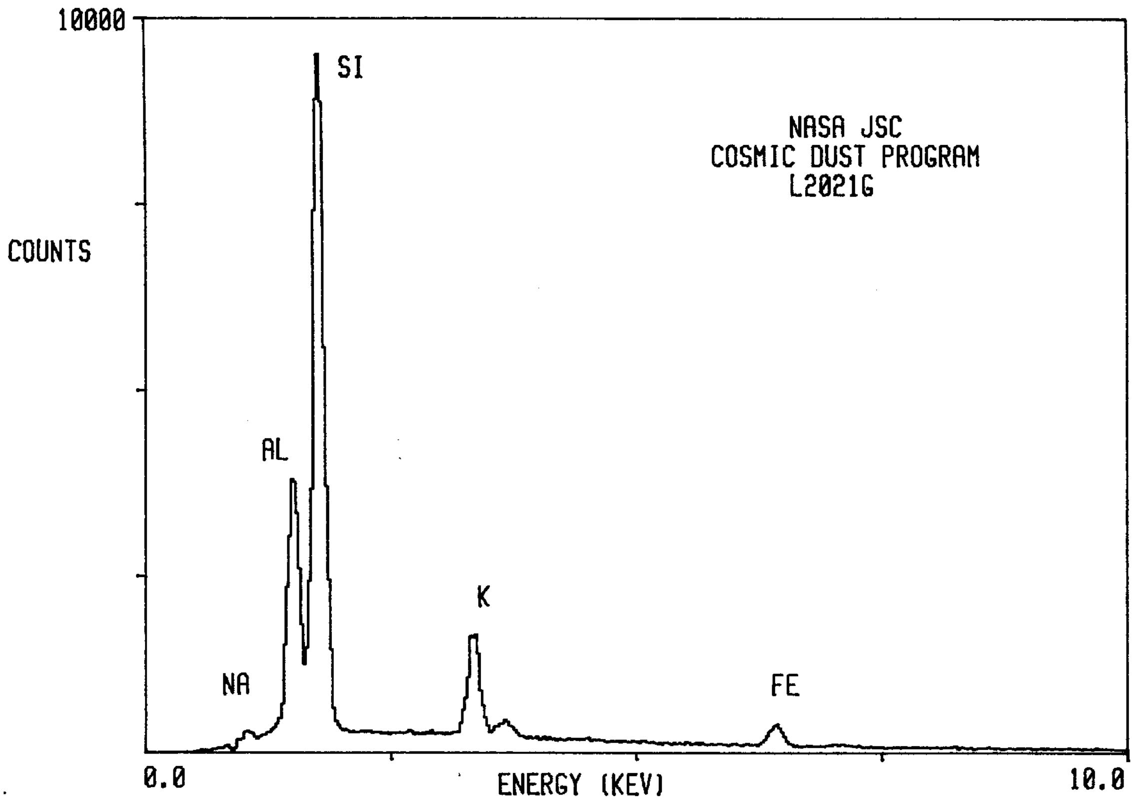


L2021G10

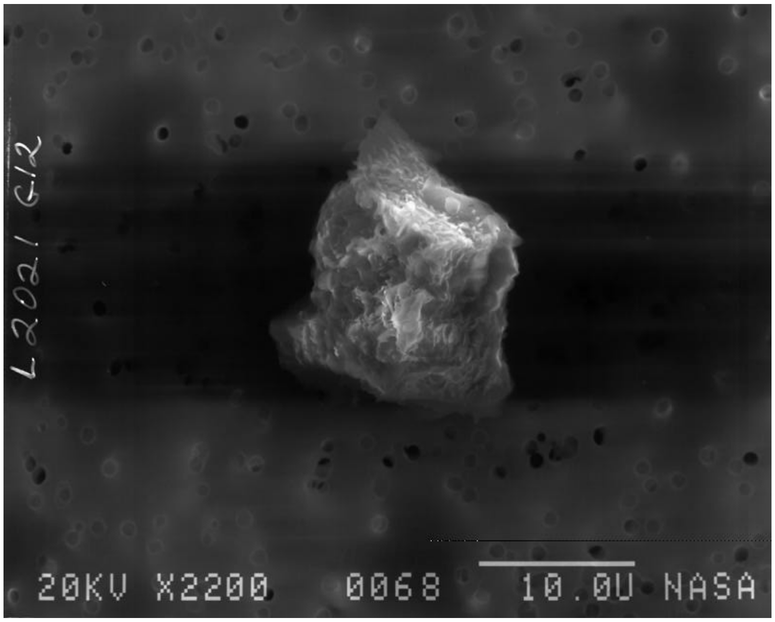


97E00446

Size: 32x24
Shape: I
Trans: TL
Color: Brown-Colorless
Luster: SV
Type: TCN
Comments:

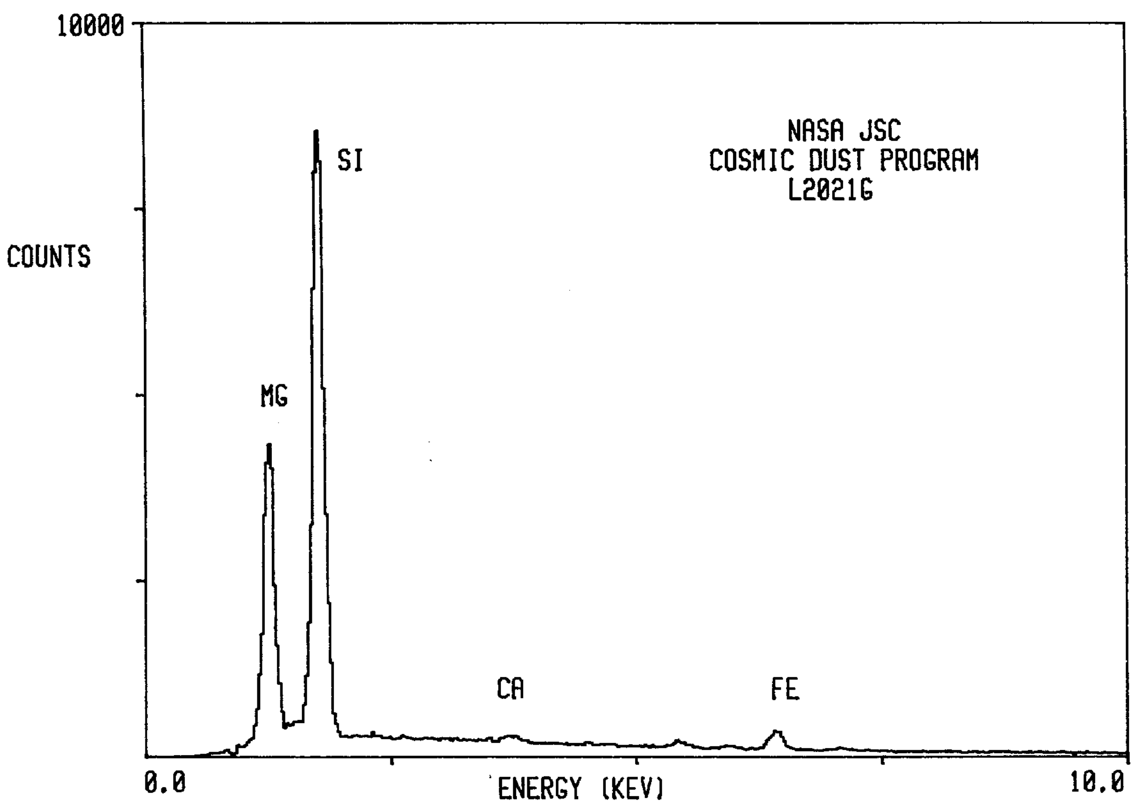


L2021G12

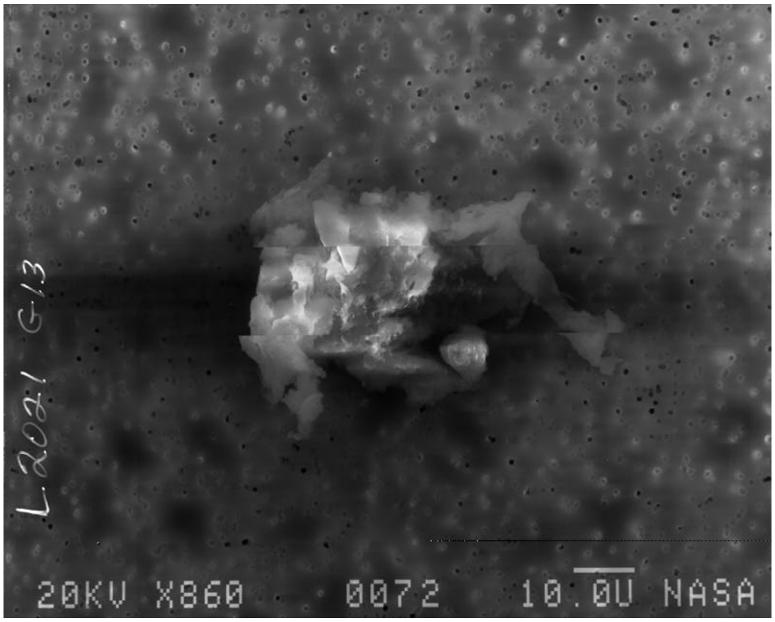


97E00448

Size: 20
Shape: S
Trans: O
Color: Silver
Luster: M
Type: TCN?
Comments:



L2021G13



97E00449

Size: 54x30

Shape: I

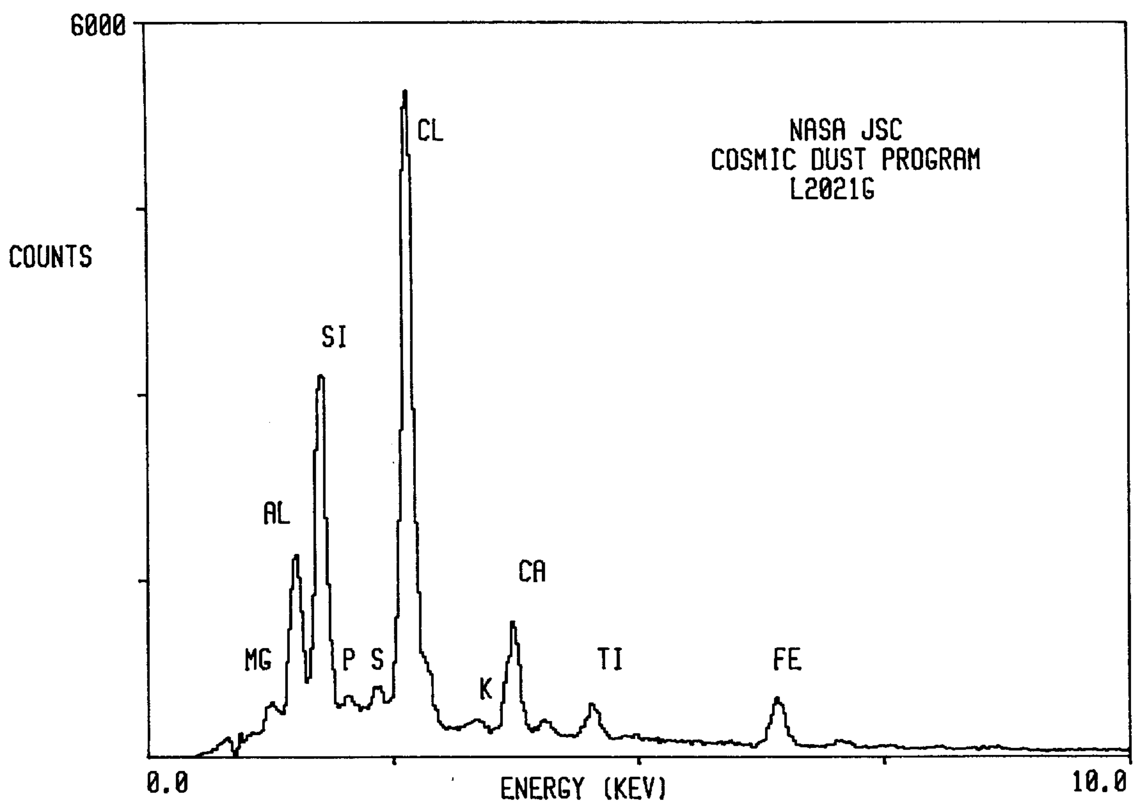
Trans: O

Color: White-Colorless

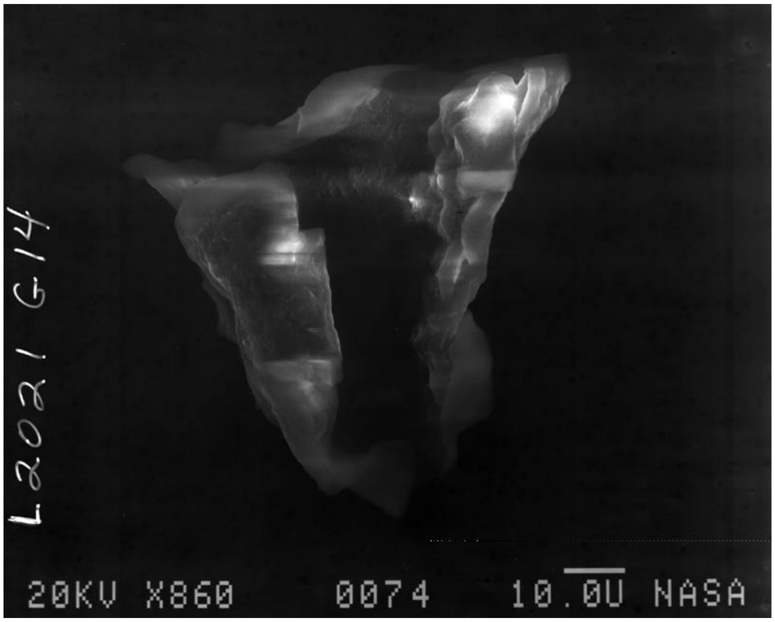
Luster: SV

Type: TCN

Comments:

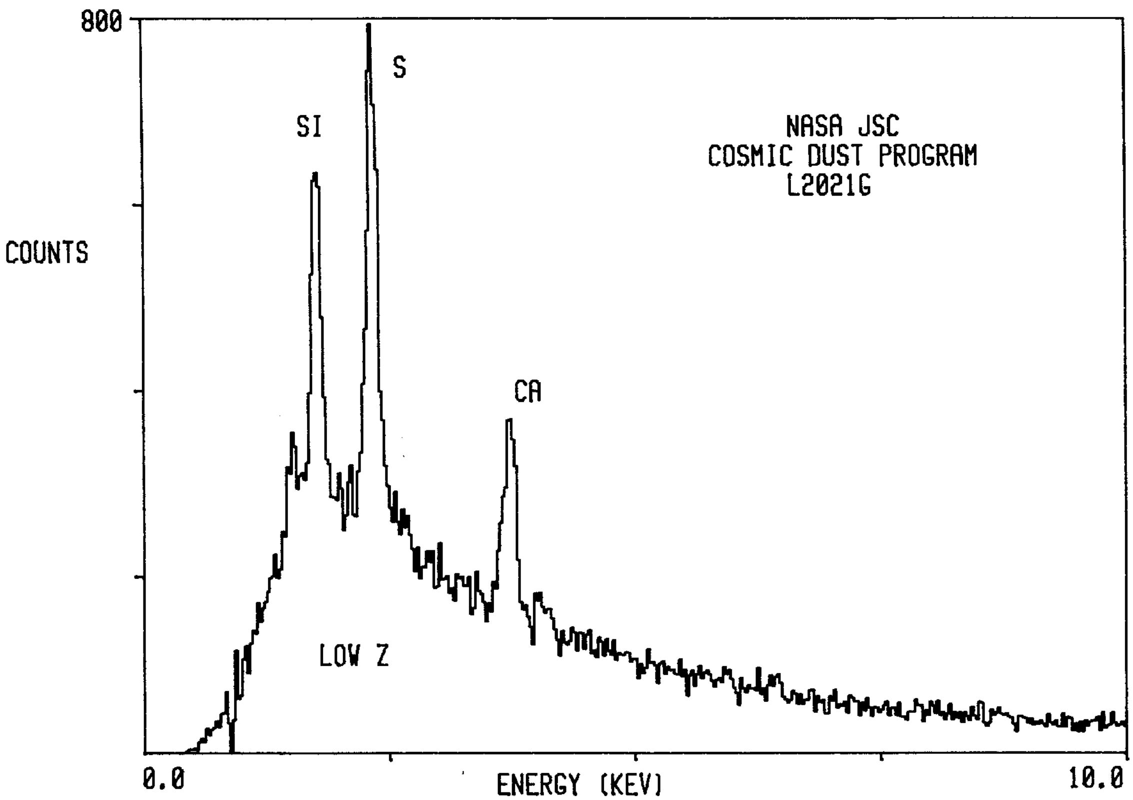


L2021G14

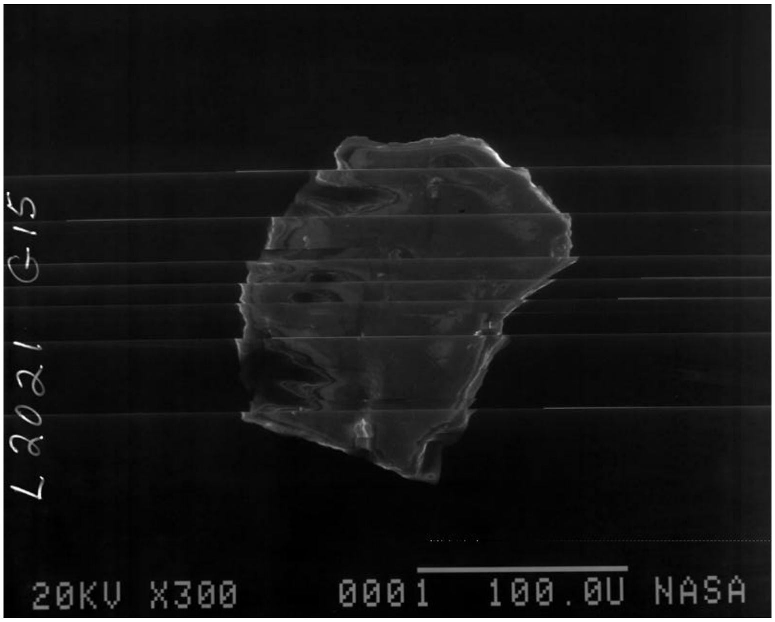


97E00450

Size: 70x50
Shape: I
Trans: TL
Color: Colorless
Luster: SV
Type: TCN
Comments:



L2021G15



97E00451

Size: 150x120

Shape: I

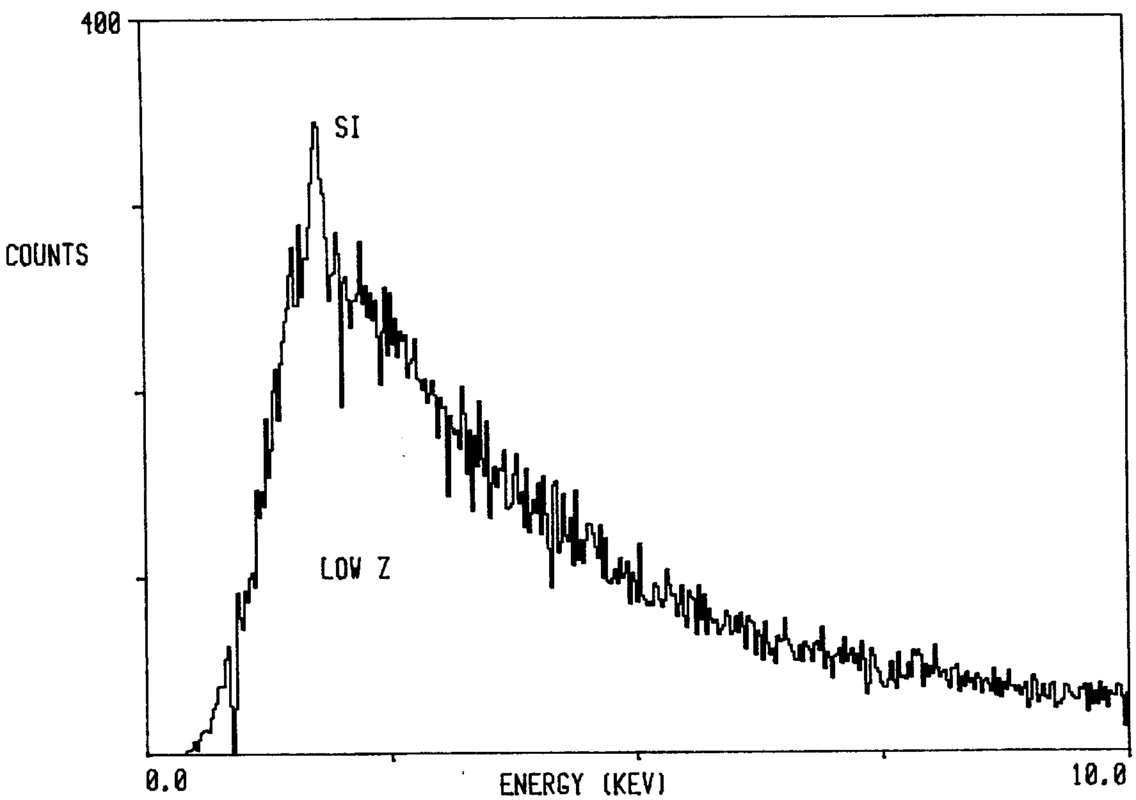
Trans: T

Color: Colorless

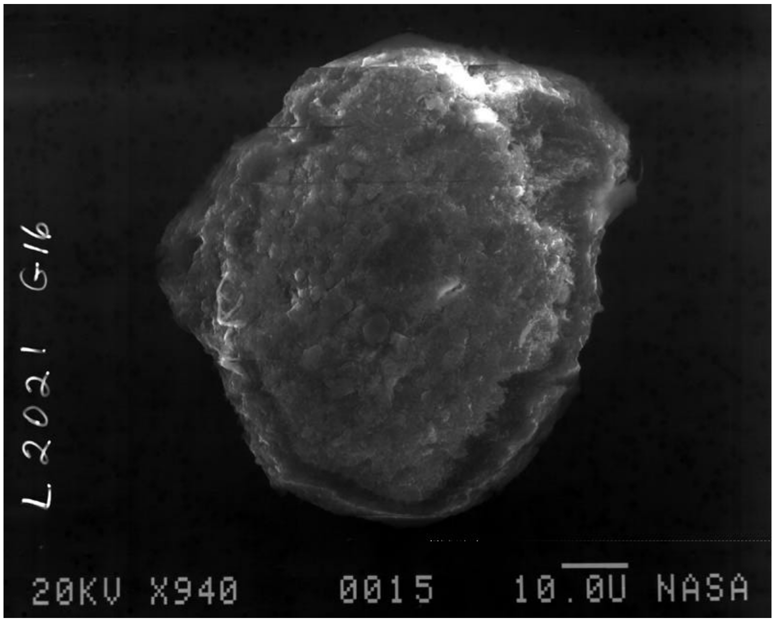
Luster: V

Type: TCN?

Comments:

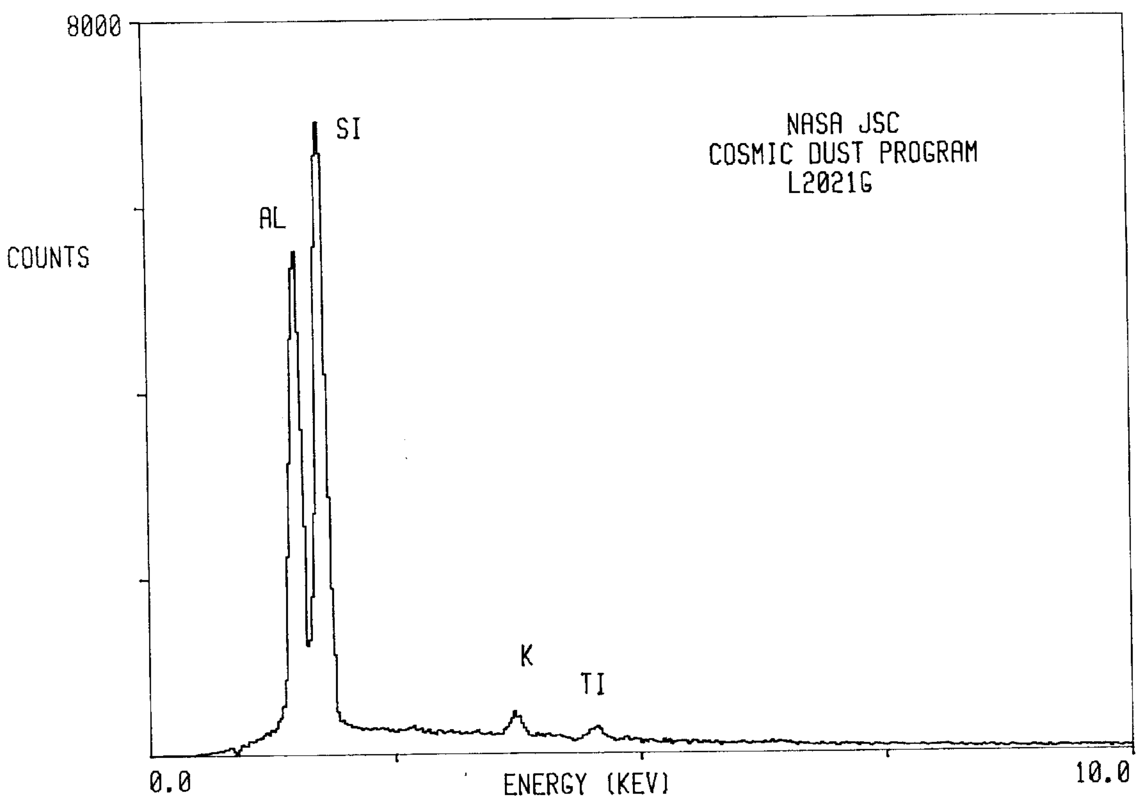


L2021G16

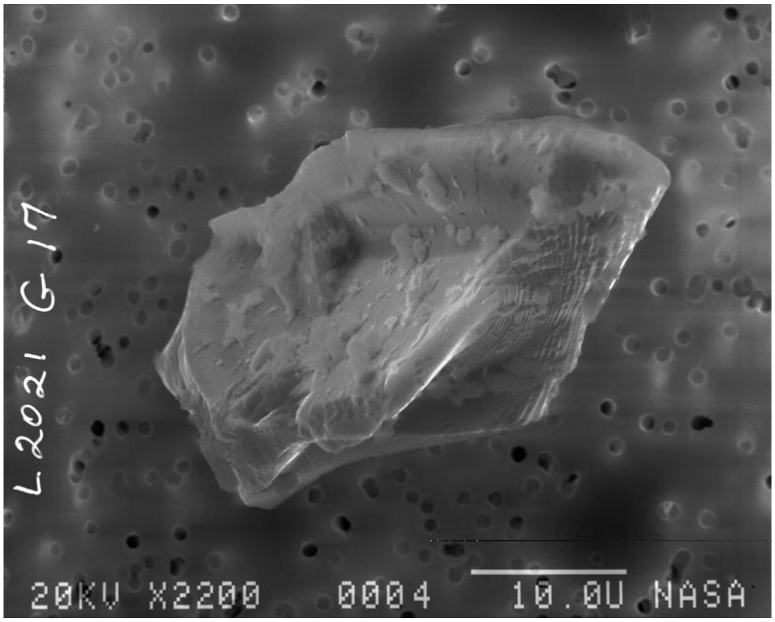


97E00452

Size:	70x64
Shape:	I
Trans:	O
Color:	White
Luster:	SV
Type:	TCN
Comments:	



L2021G17



97E00453

Size: 44x24

Shape: I

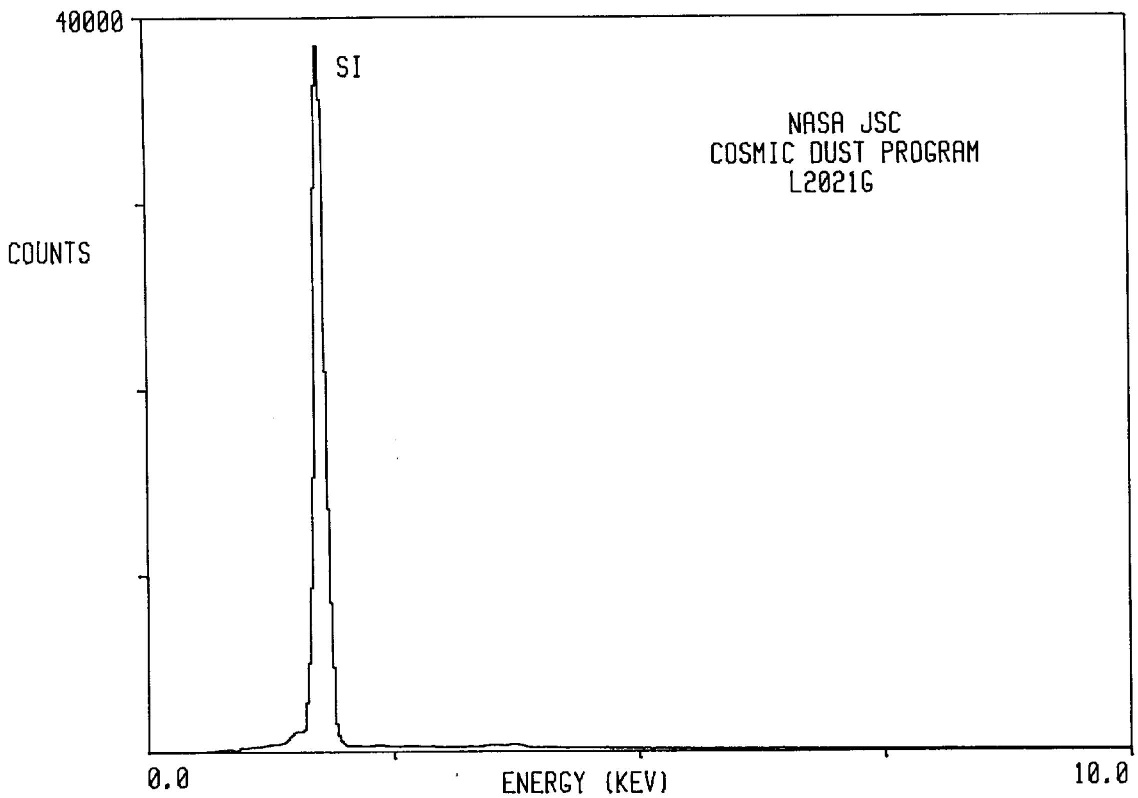
Trans: O

Color: Black

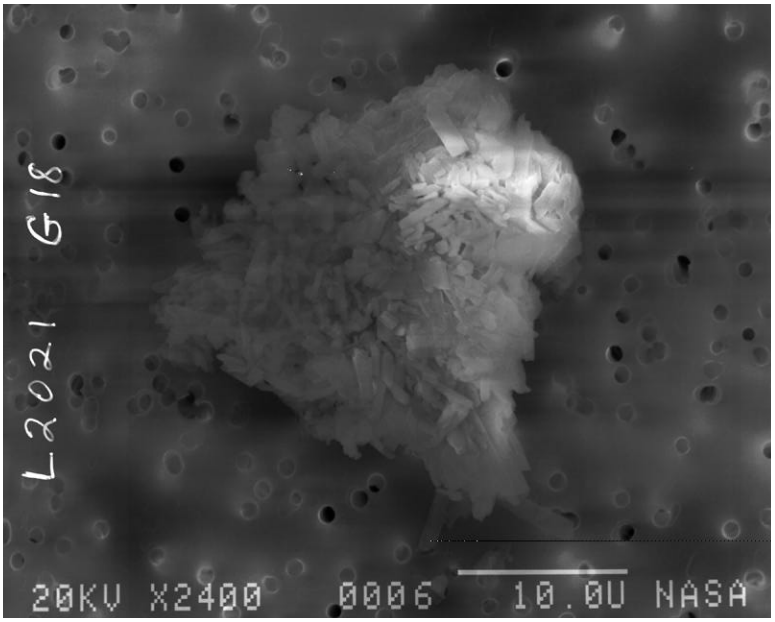
Luster: M

Type: TCN

Comments:

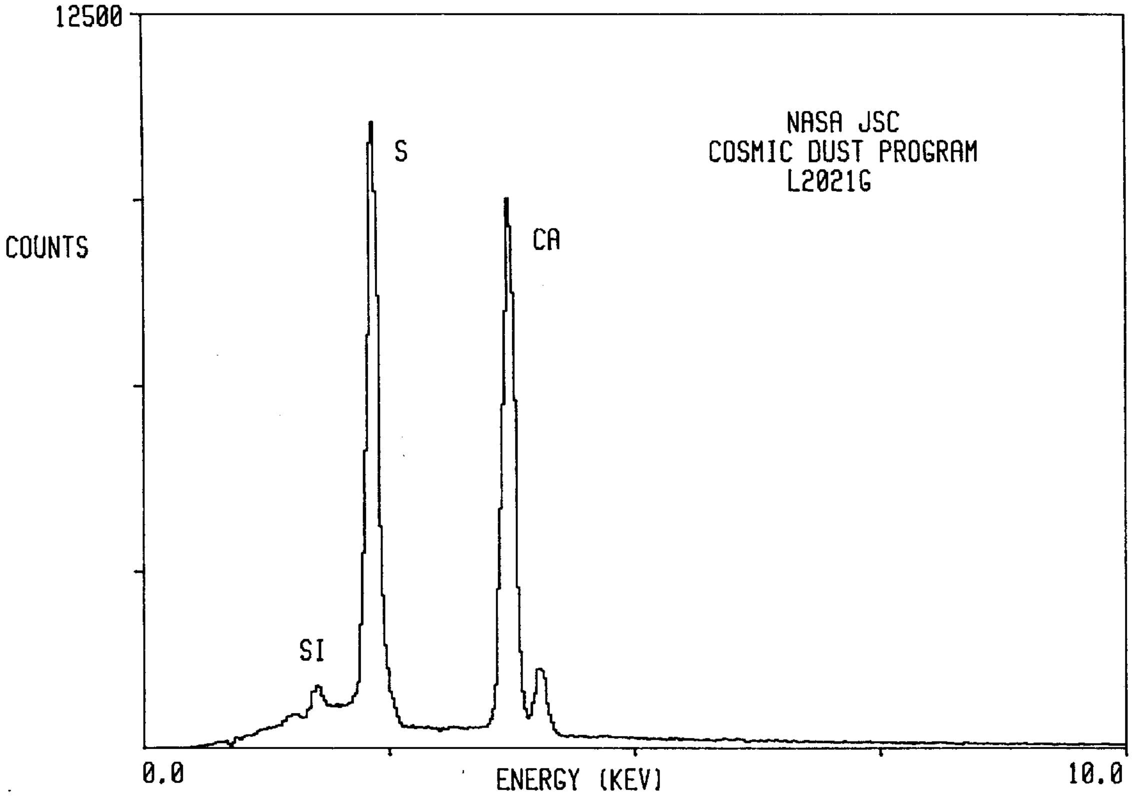


L2021G18

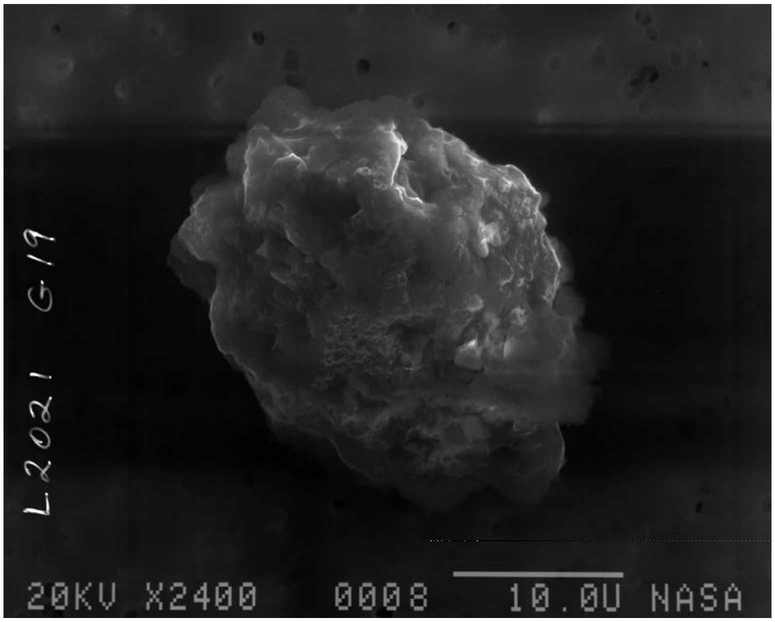


97E00454

Size: 30x23
Shape: I
Trans: O
Color: White
Luster: SV
Type: TCN
Comments:



L2021G19



97E00405

Size: 25x22

Shape: E

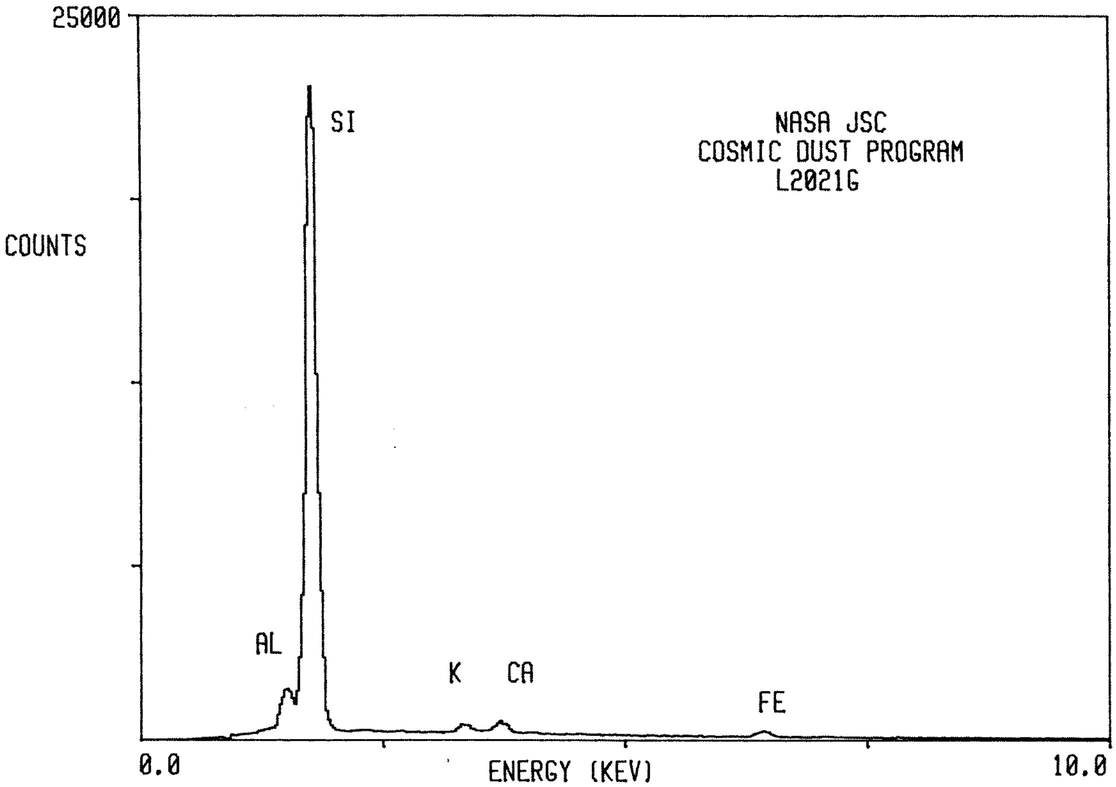
Trans: TL

Color: Colorless

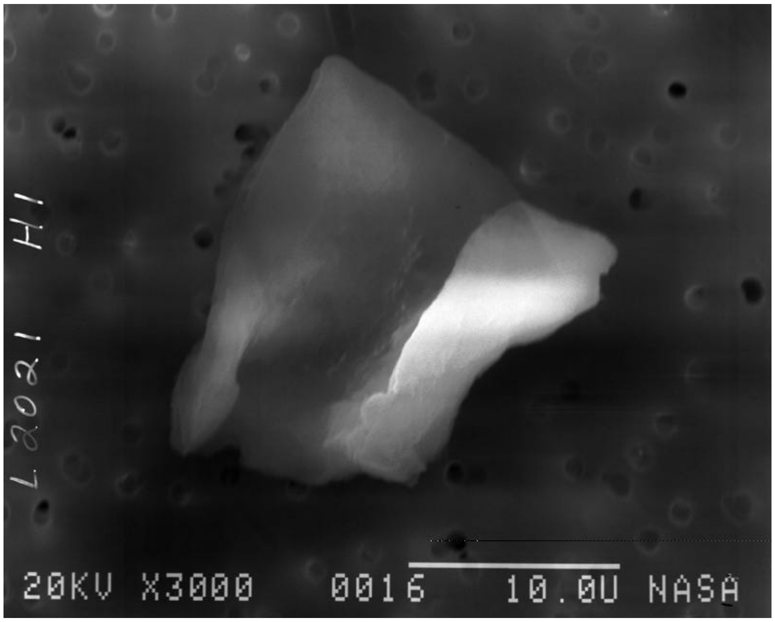
Luster: SV

Type: TCN

Comments:

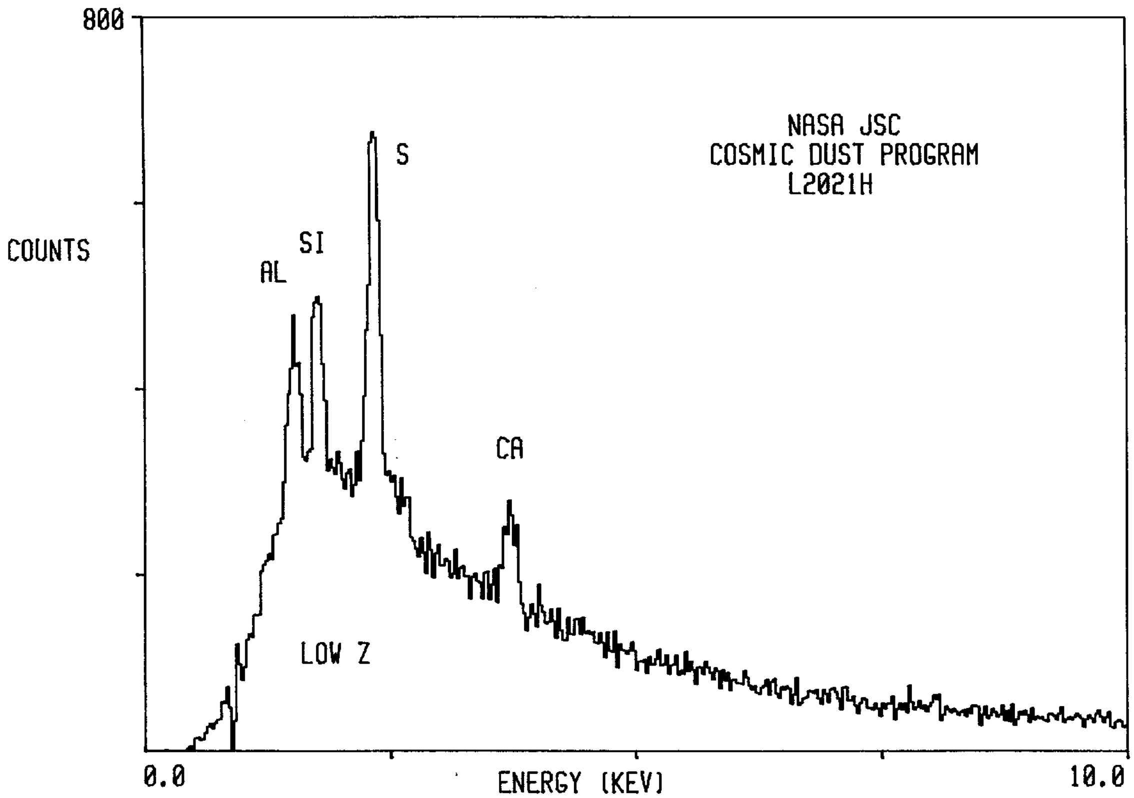


L2021H1

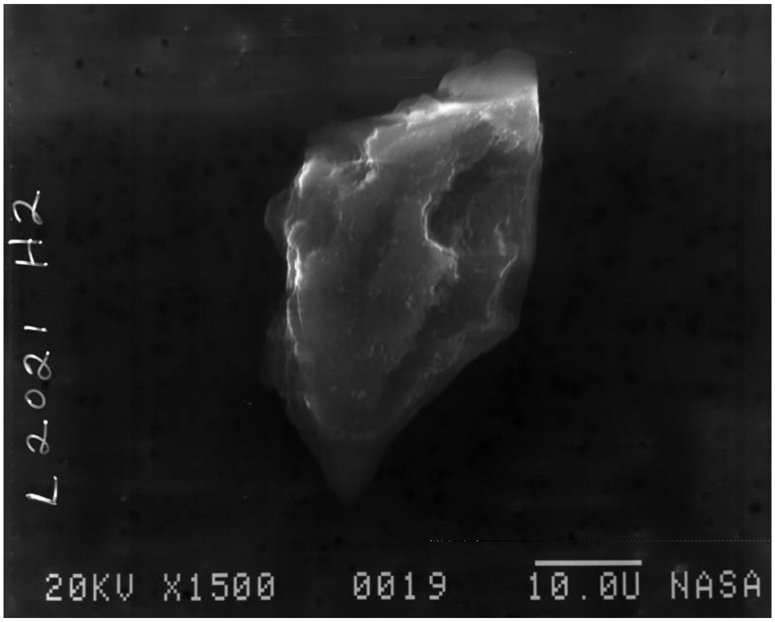


97E00458

Size: 18x16
Shape: E
Trans: O
Color: Silver
Luster: M
Type: TCN
Comments:

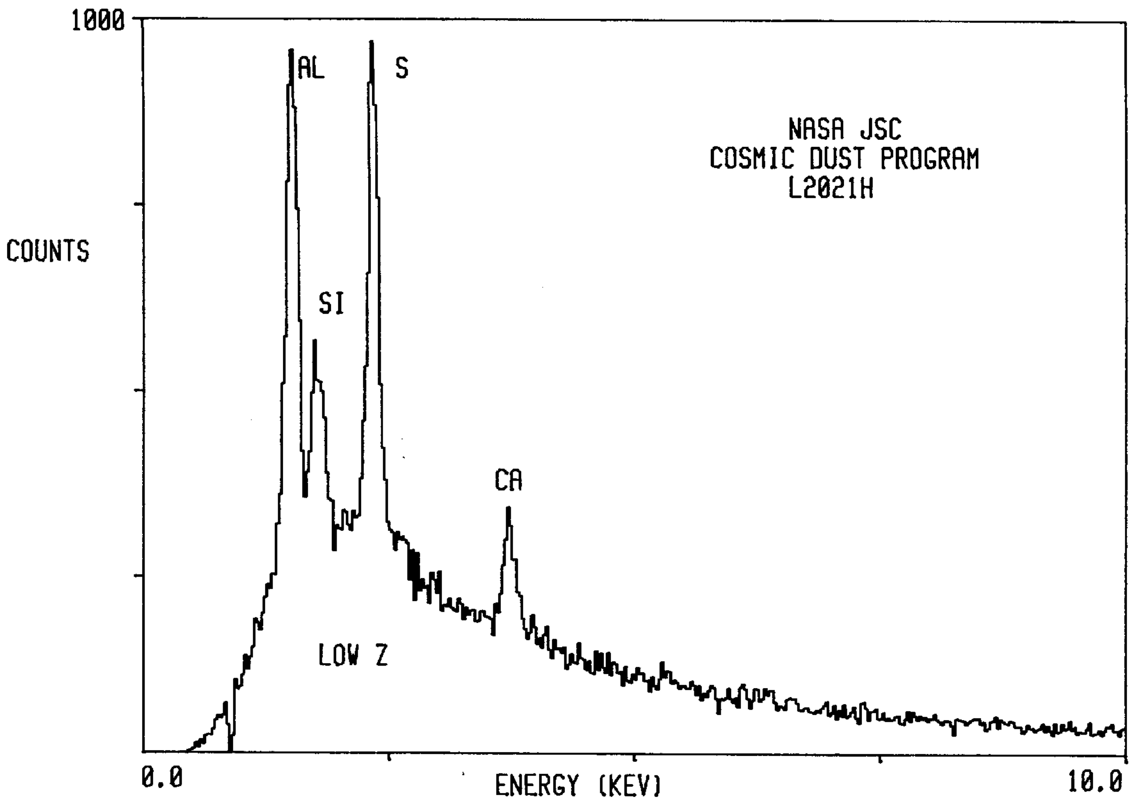


L2021H2

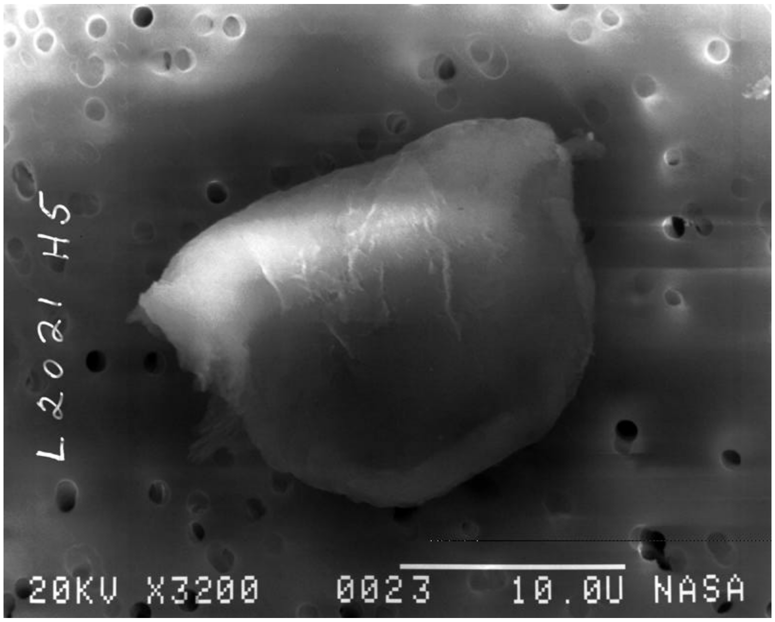


97E00459

Size: 24
Shape: E
Trans: TL
Color: Colorless
Luster: SV
Type: TCN
Comments:



L2021H5



97E00462

Size: 22x18

Shape: E

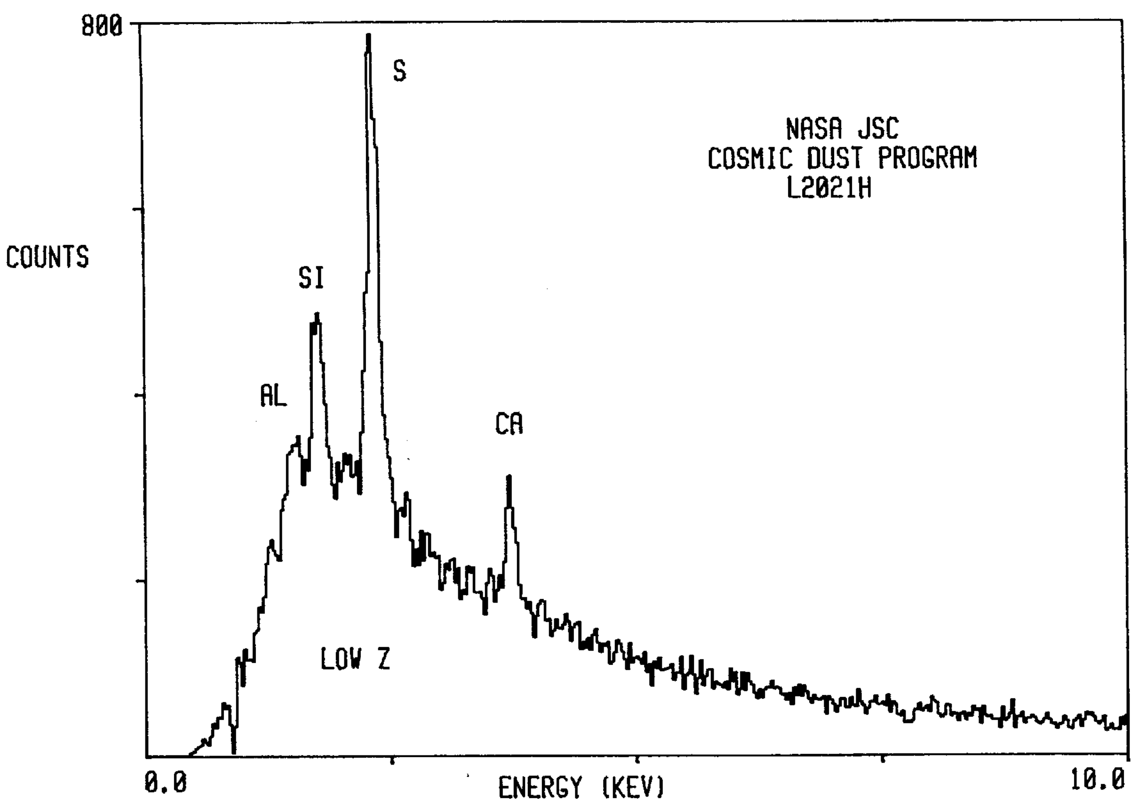
Trans: TL

Color: Colorless

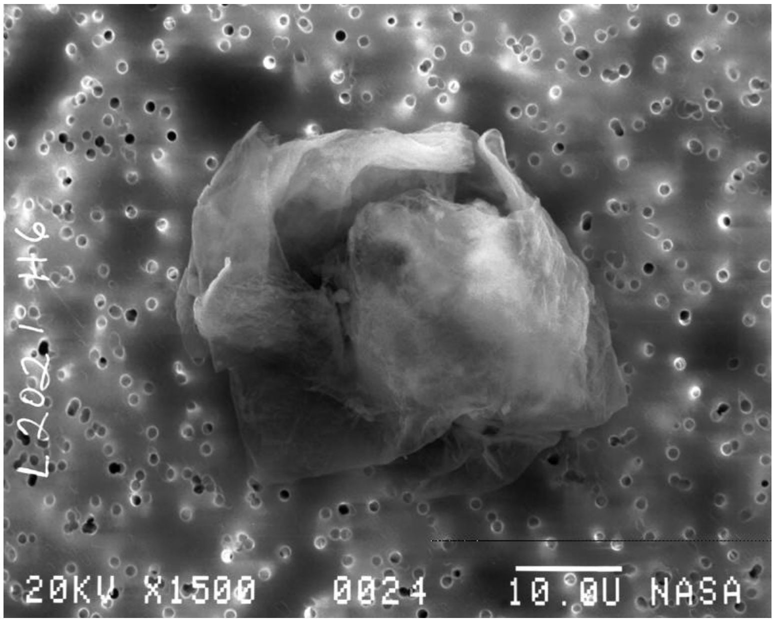
Luster: SV

Type: TCN

Comments:

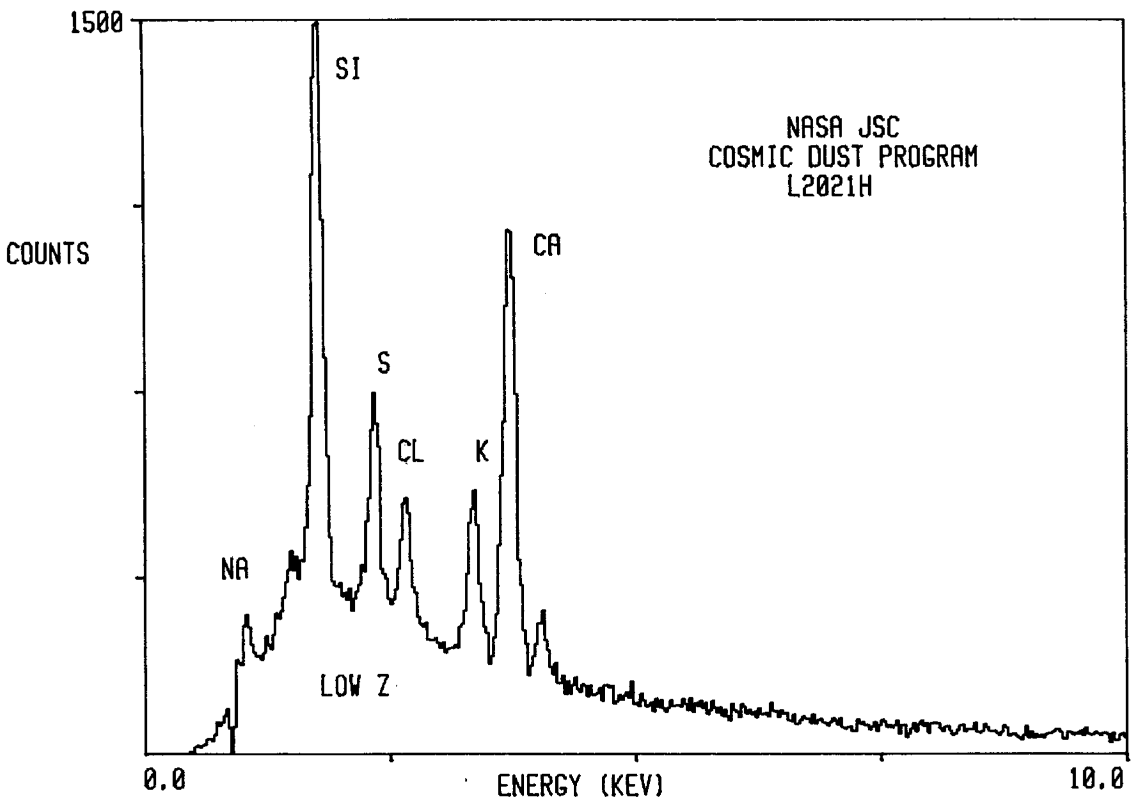


L2021H6

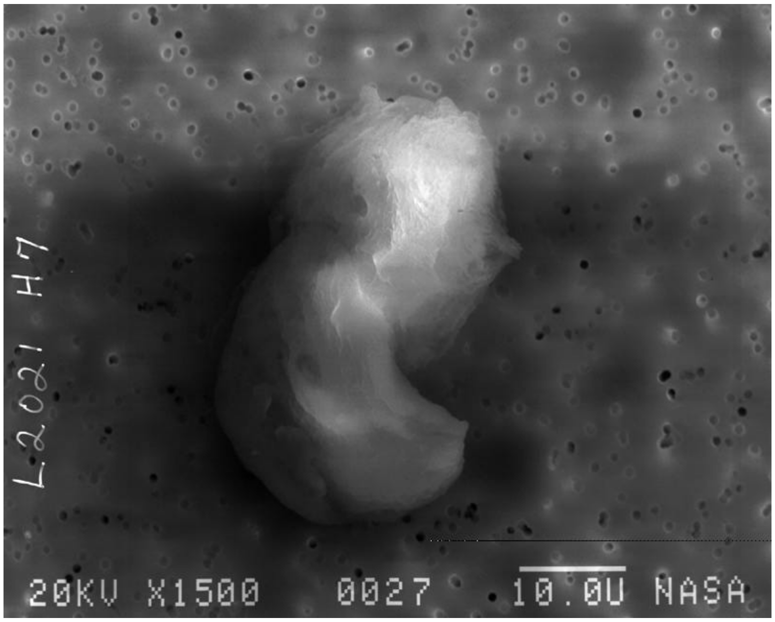


97E00463

Size: 40x34
Shape: I
Trans: TL
Color: White-Colorless
Luster: SV
Type: TCN
Comments:



L2021H7



97E00464

Size: 40x24

Shape: I

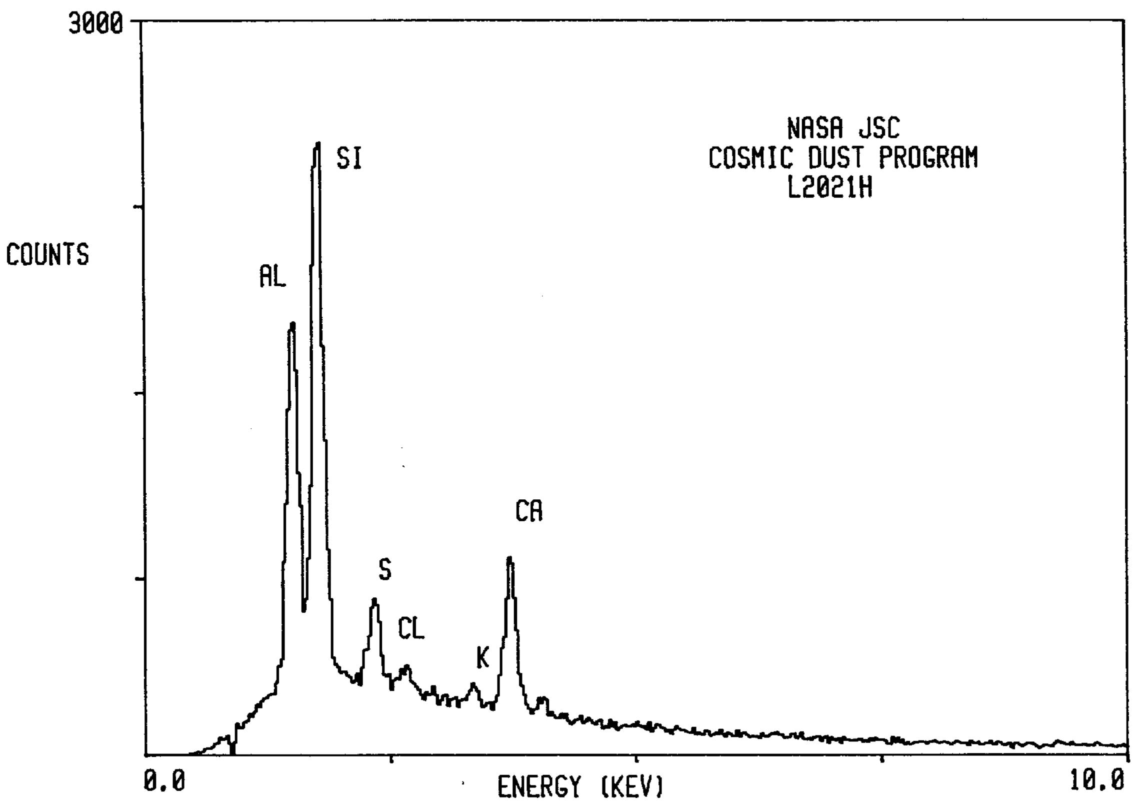
Trans: TL

Color: Colorless

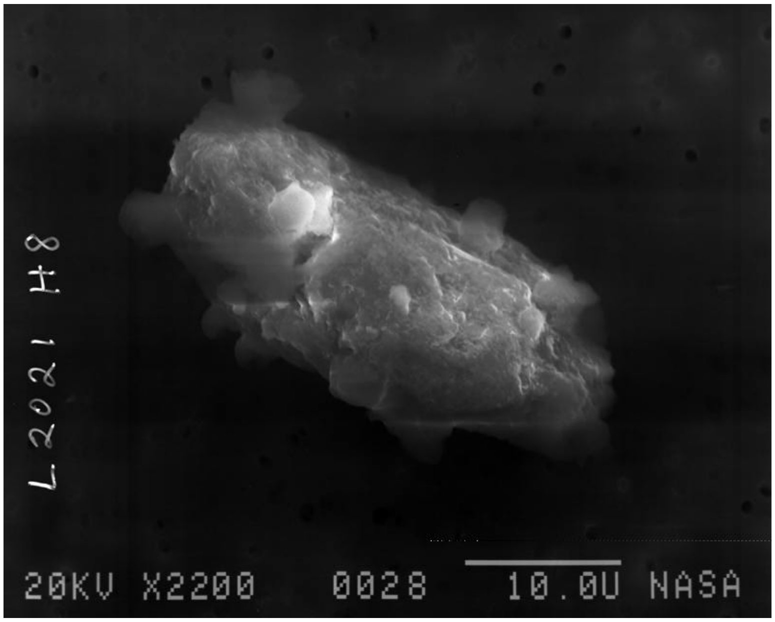
Luster: SV

Type: TCN

Comments:



L2021H8



97E00465

Size: 34x20

Shape: I

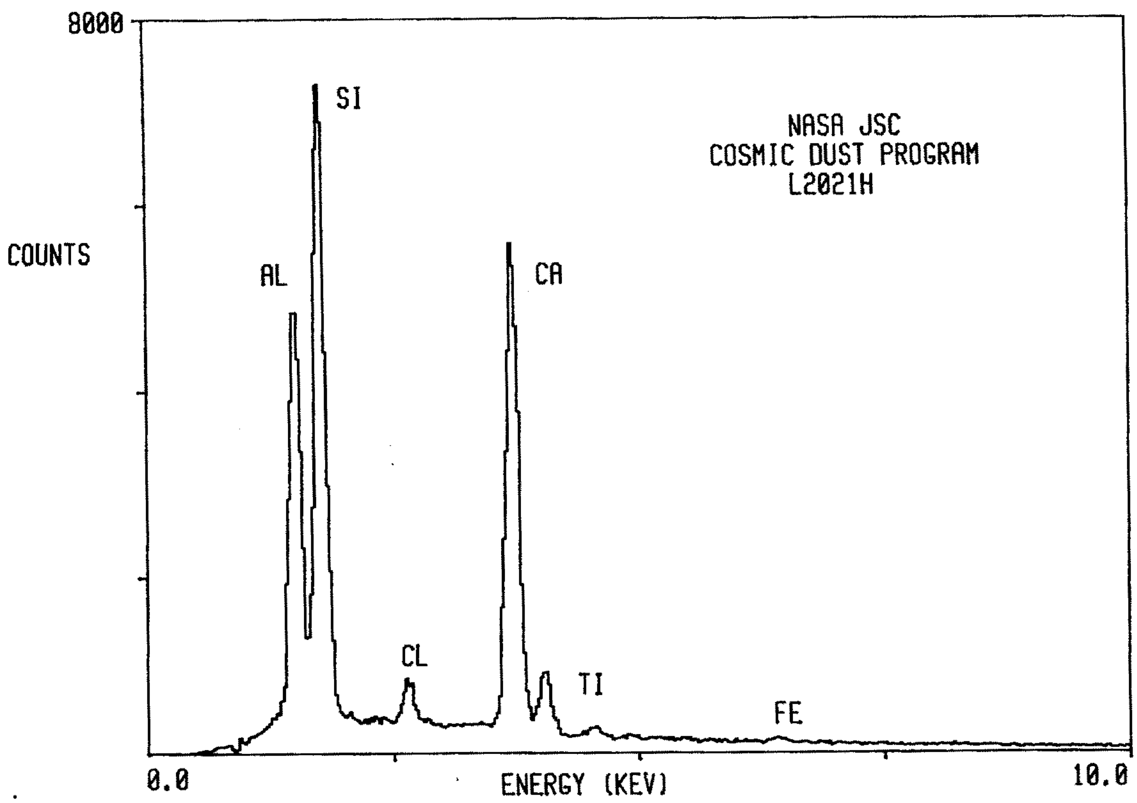
Trans: TL

Color: White-Colorless

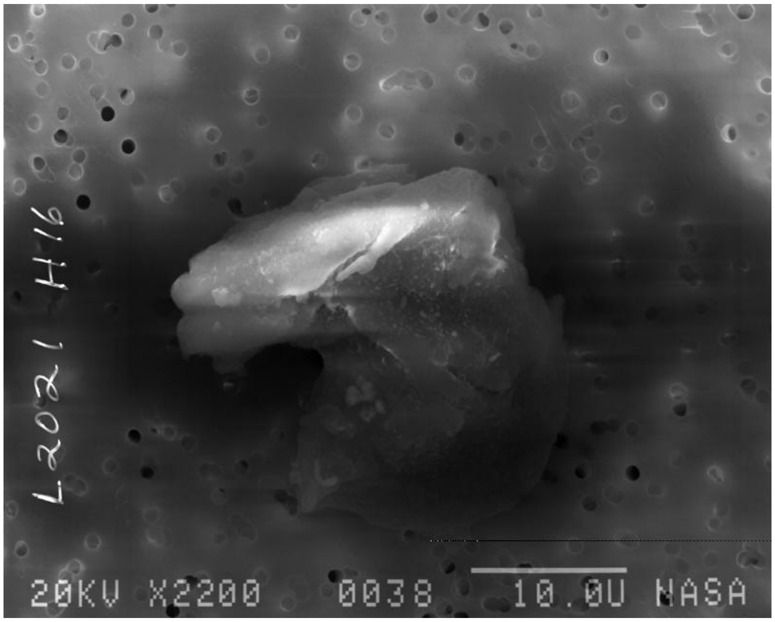
Luster: SV

Type: TCN

Comments:



L2021H16



97E00473

Size: 26x25

Shape: I

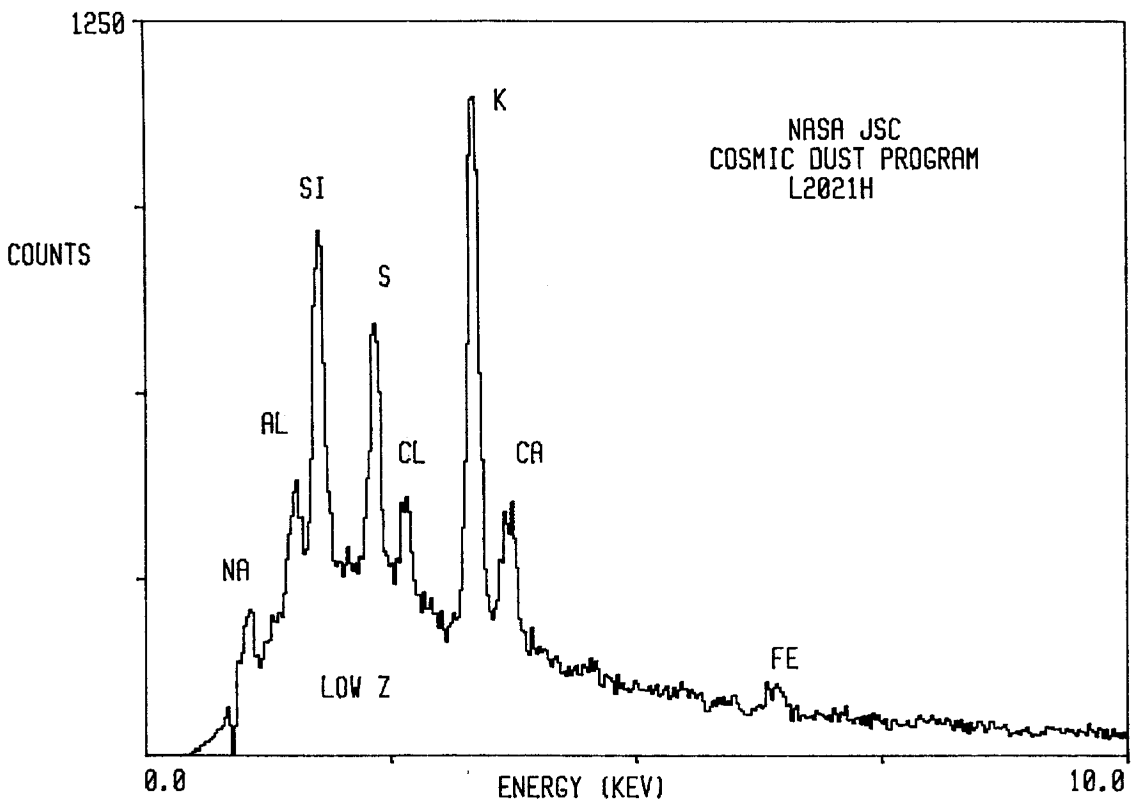
Trans: TL

Color: Colorless

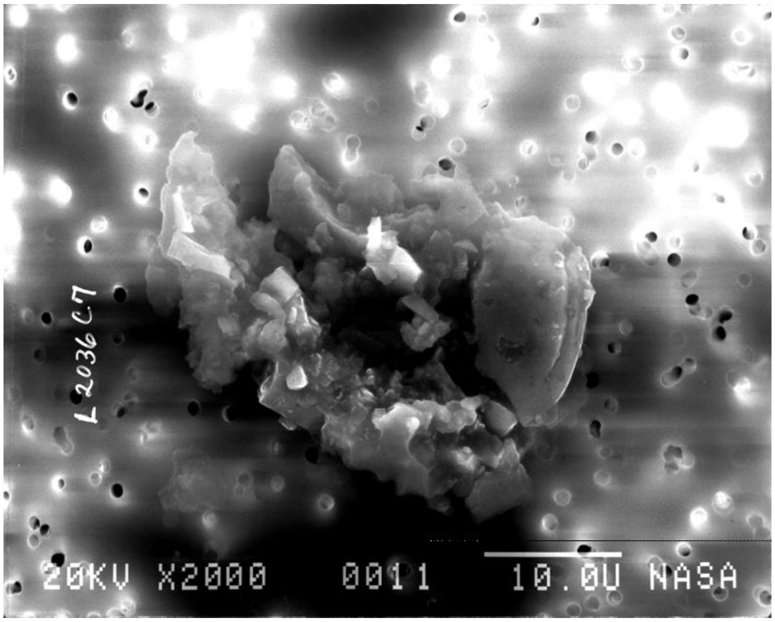
Luster: SV

Type: TCN

Comments:



L2036C7



97E00027

Size: 22x15

Shape: I

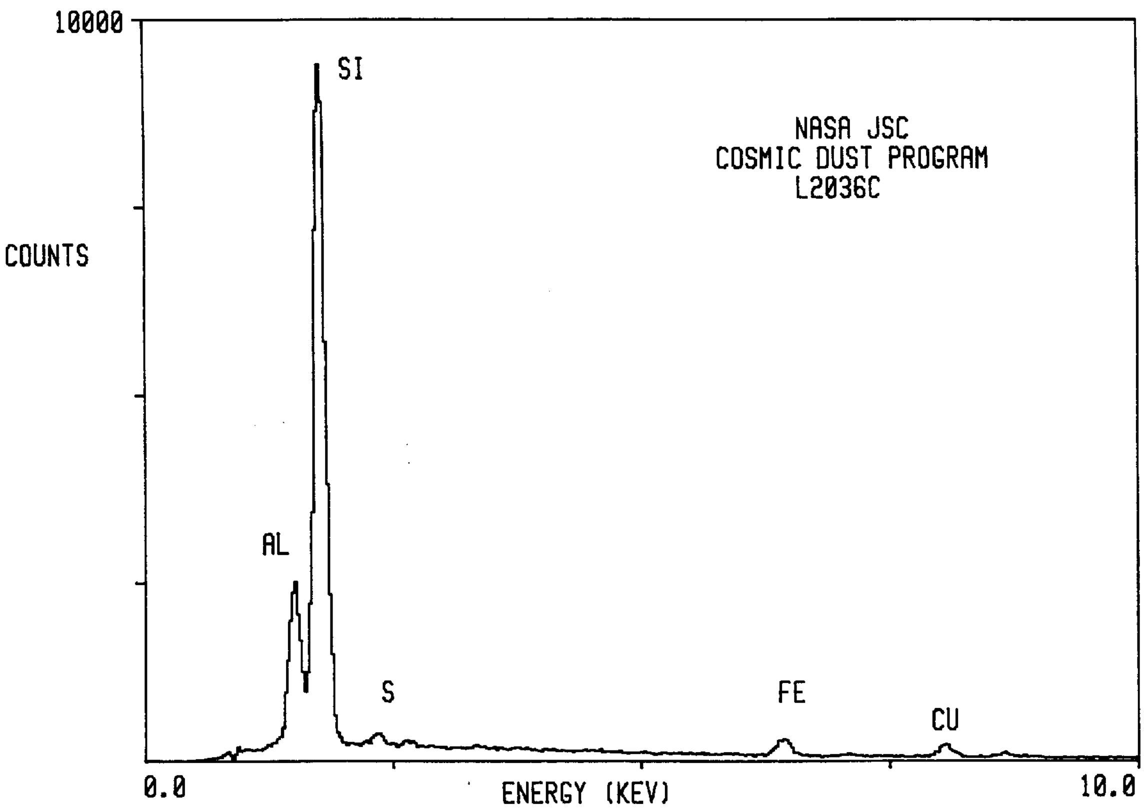
Trans: O/TL

Color: Black-White

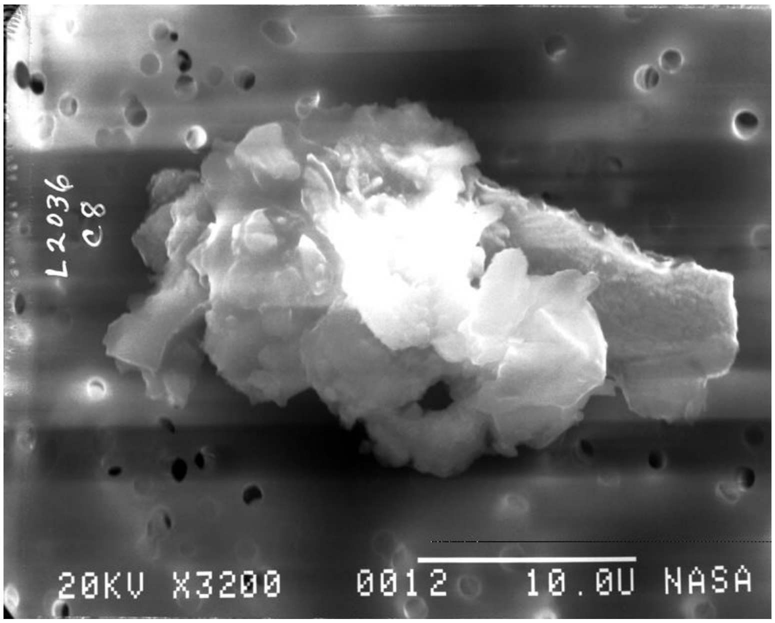
Luster: D/SV

Type: TCN

Comments:



L2036C8



97E00028

Size: 22x11

Shape: I

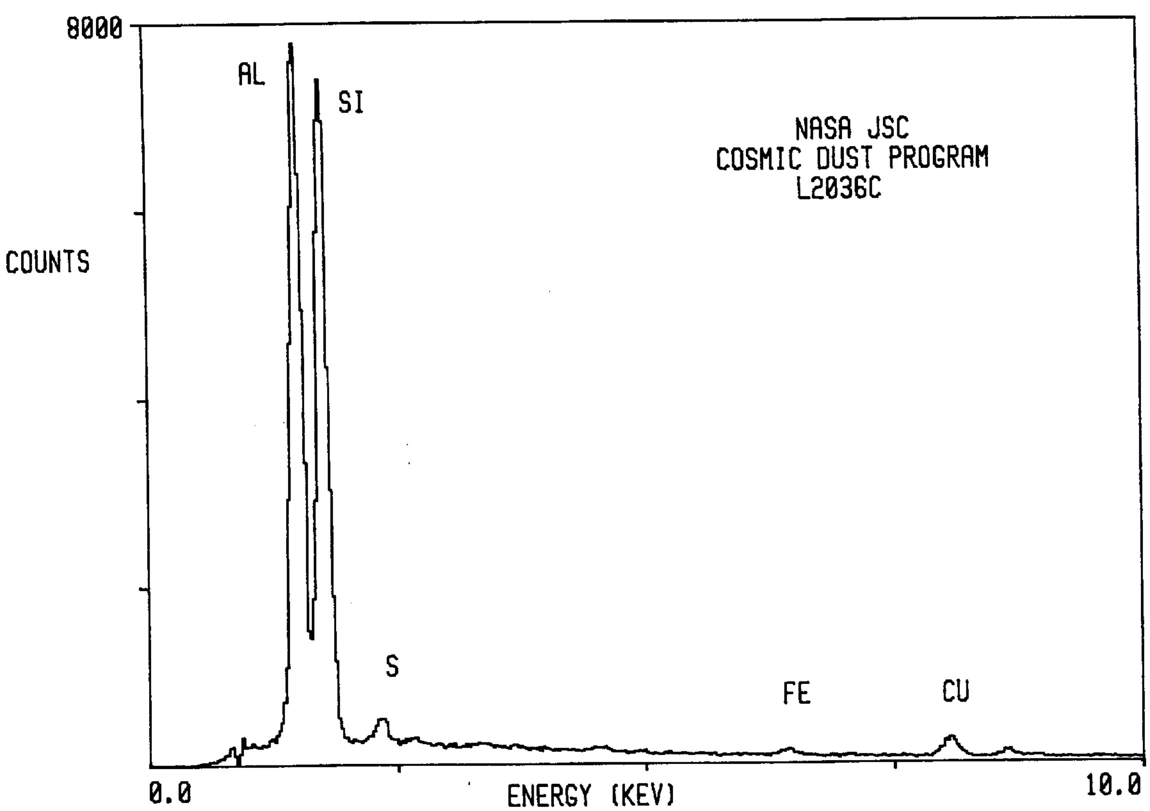
Trans: O

Color: Black

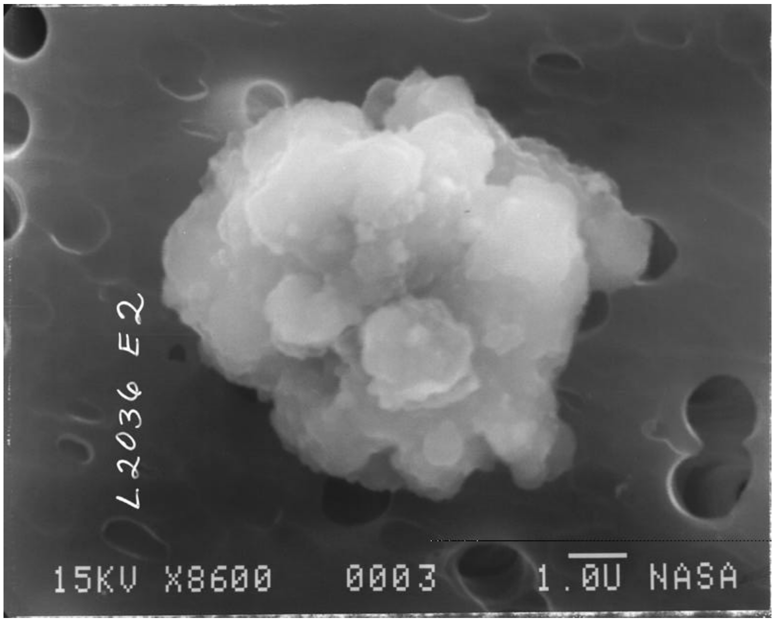
Luster: D

Type: TCN

Comments:



L2036E2



97E00045

Size: 7

Shape: S

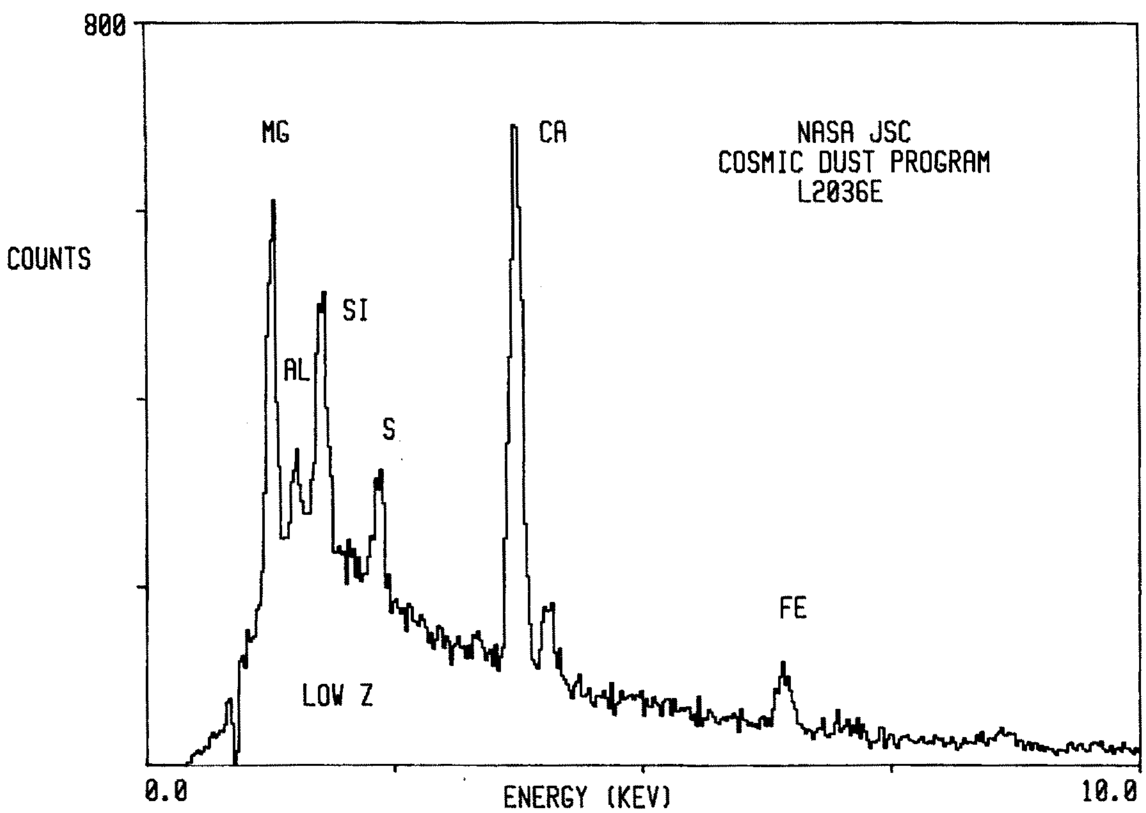
Trans: O

Color: Black

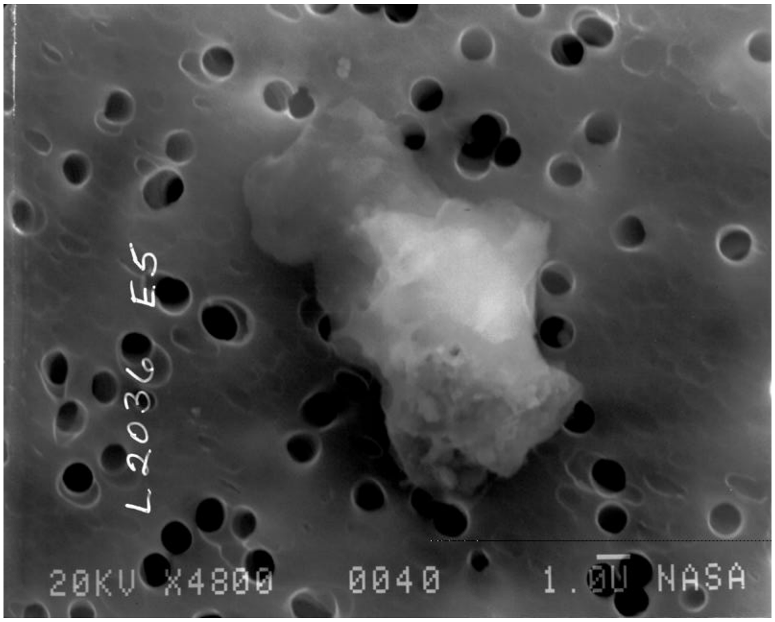
Luster: D

Type: TCN?

Comments:

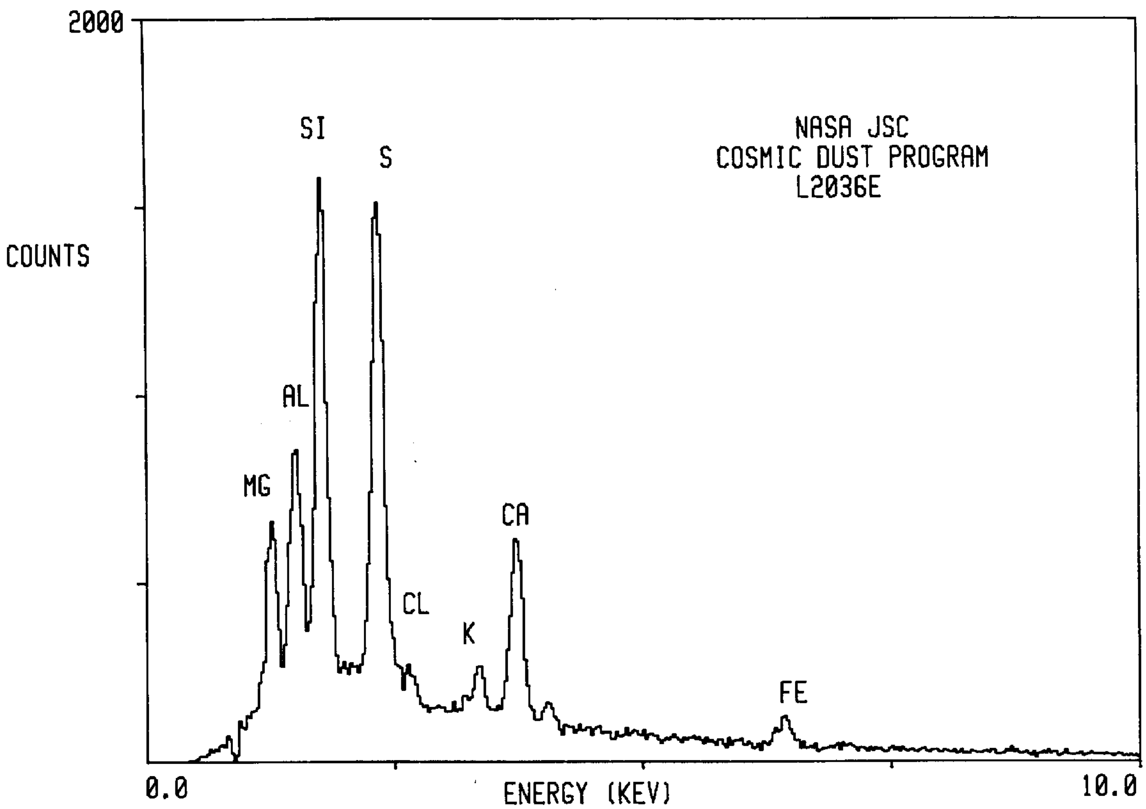


L2036E5

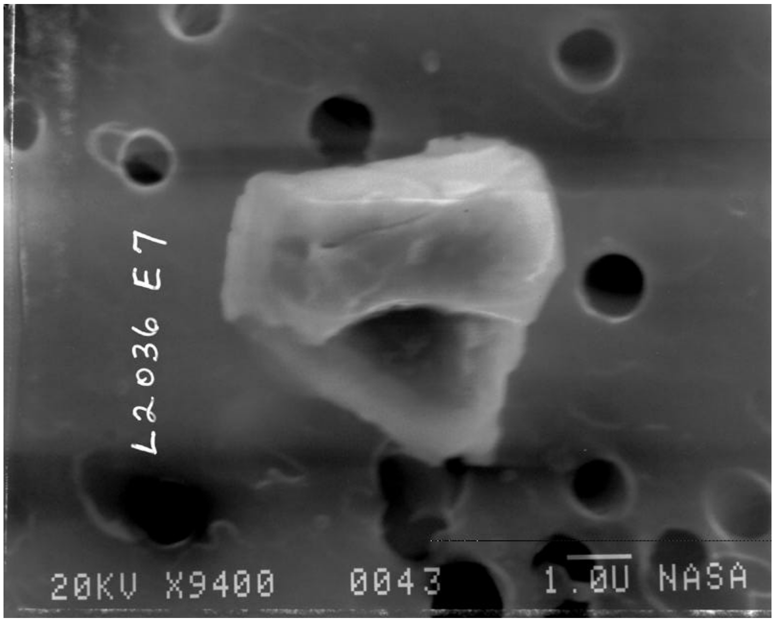


97E00048

Size: 12x8
Shape: I
Trans: O
Color: Black
Luster: D
Type: TCN
Comments:



L2036E7



97E00050

Size: 5

Shape: E

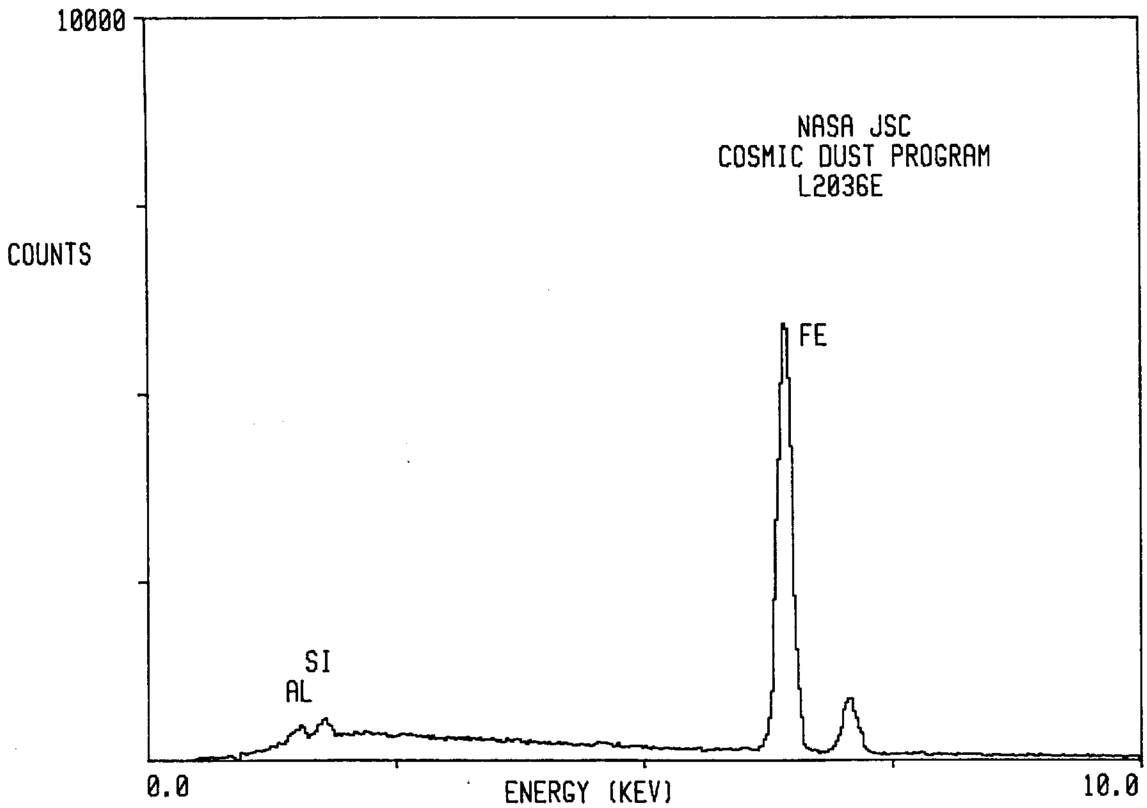
Trans: O

Color: Black

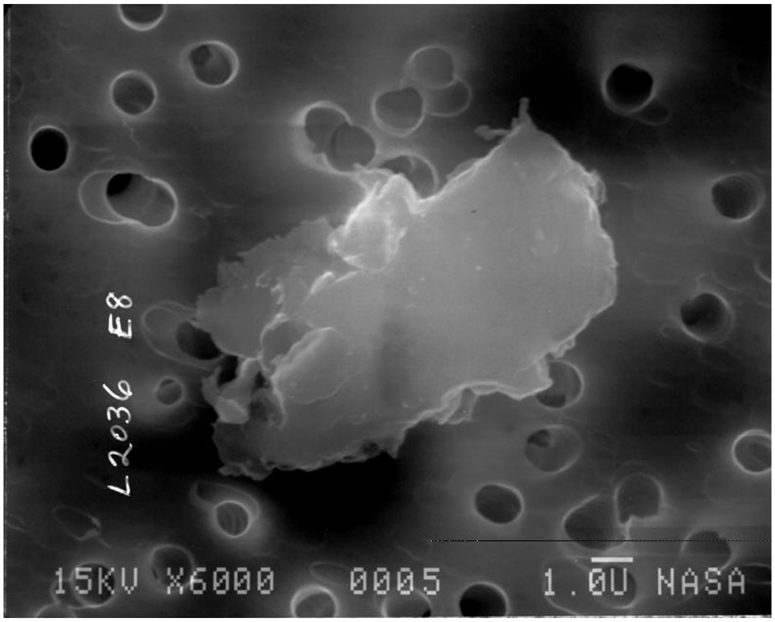
Luster: D

Type: TCN

Comments:



L2036E8



97E00051

Size: 13x8

Shape: I

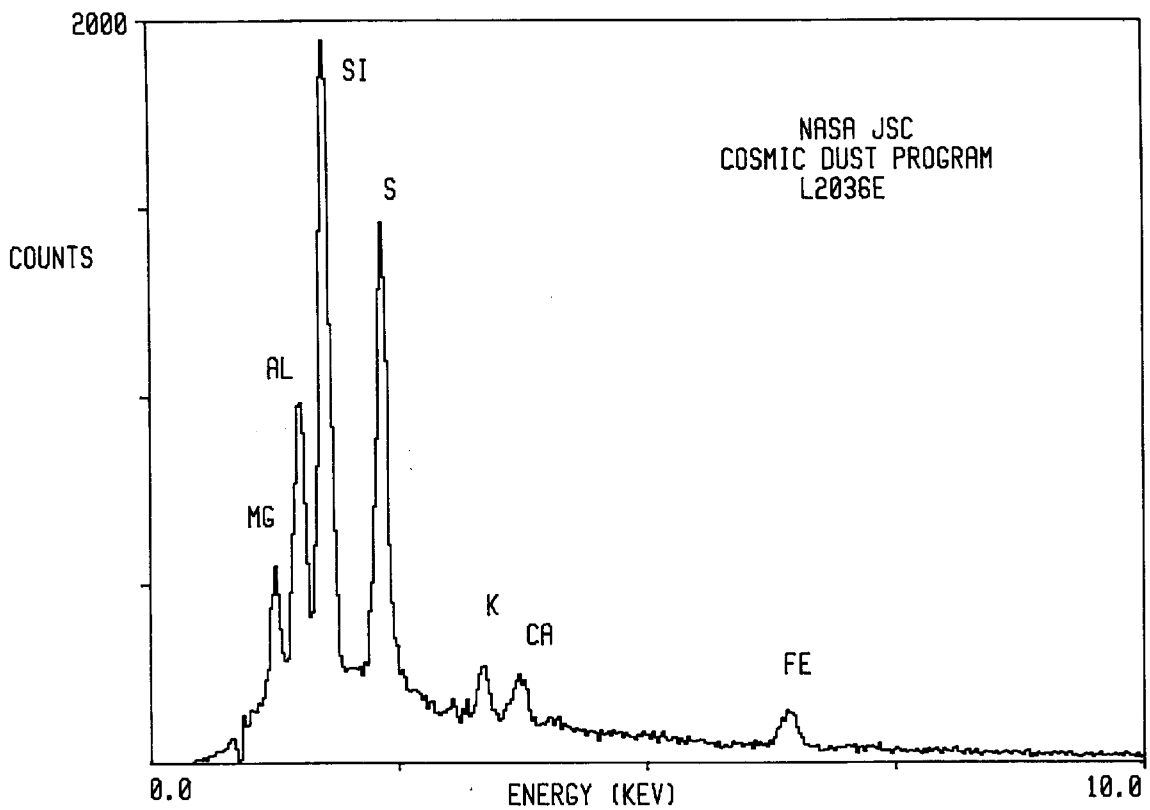
Trans: TL

Color: Brown

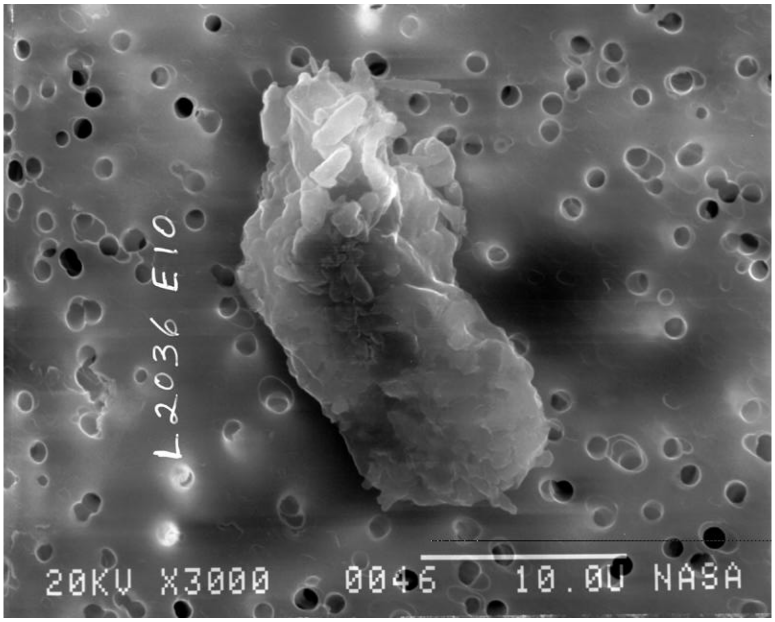
Luster: SV

Type: TCN

Comments:

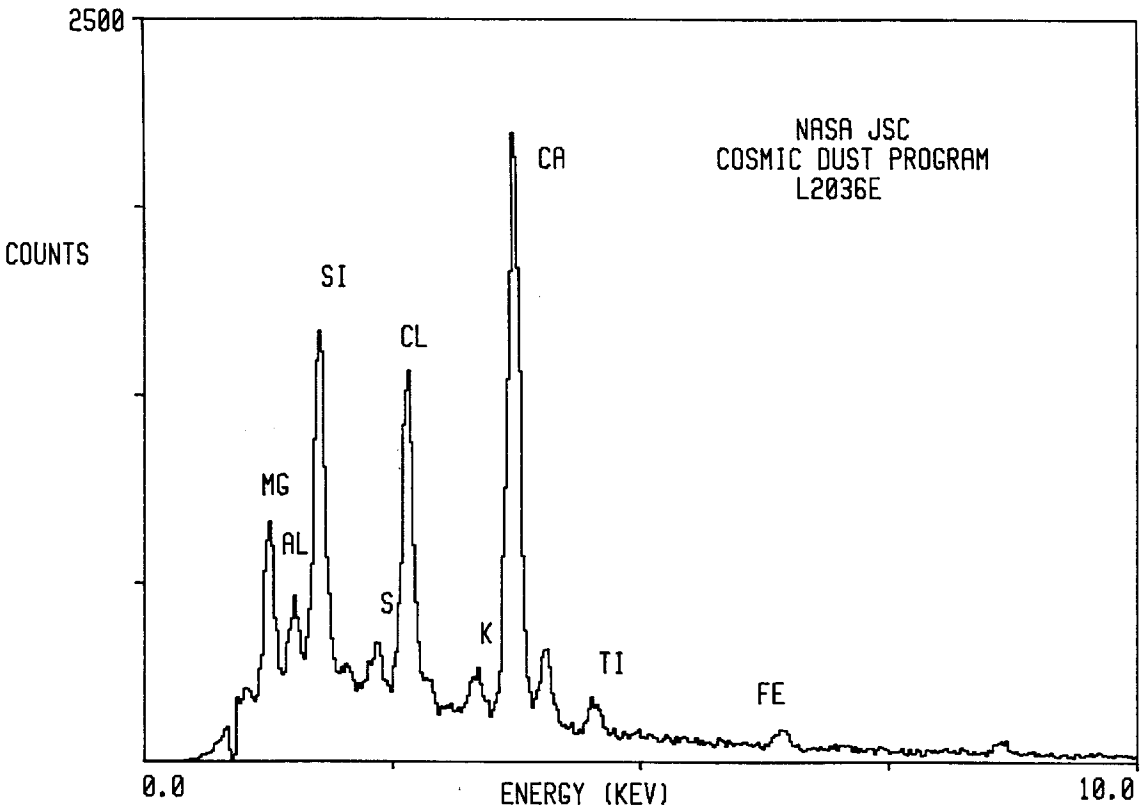


L2036E10

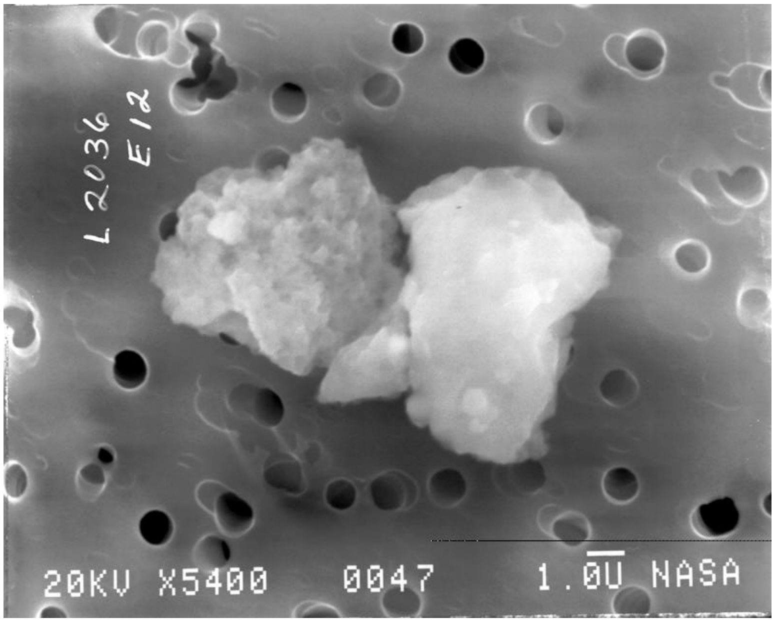


97E00053

Size: 24x12
Shape: I
Trans: TL
Color: White
Luster: SV
Type: TCN
Comments:

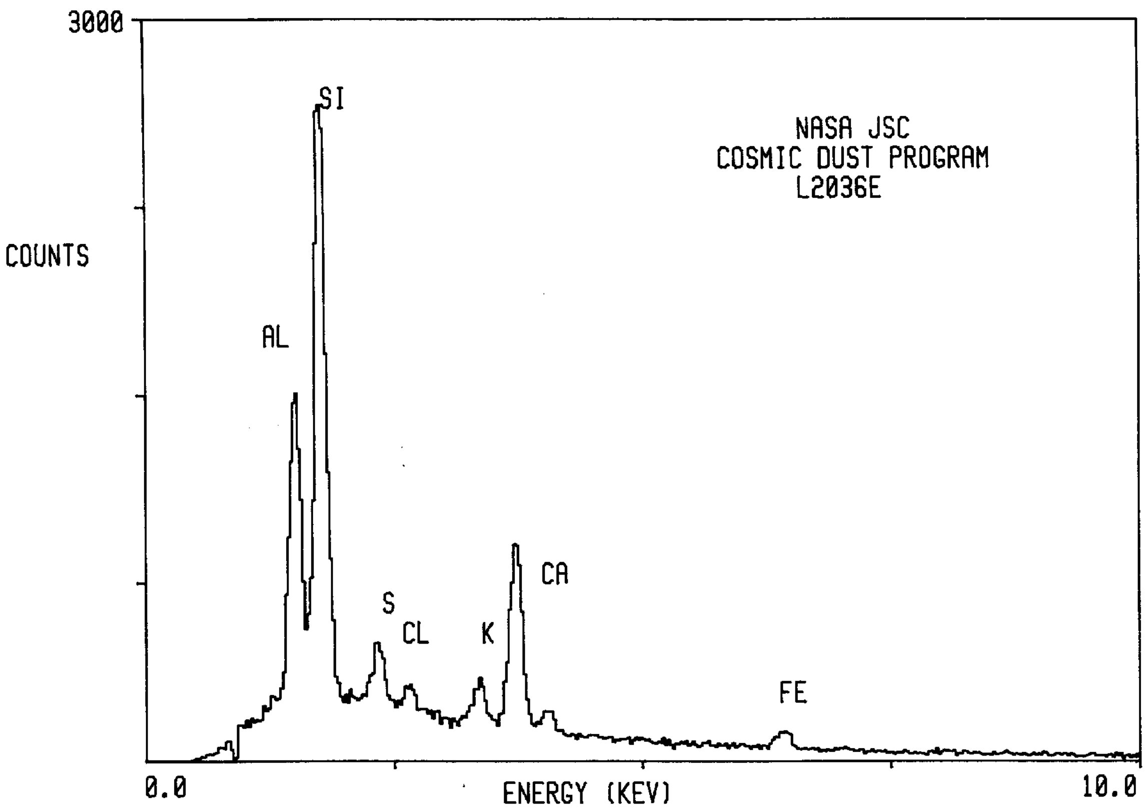


L2036E12

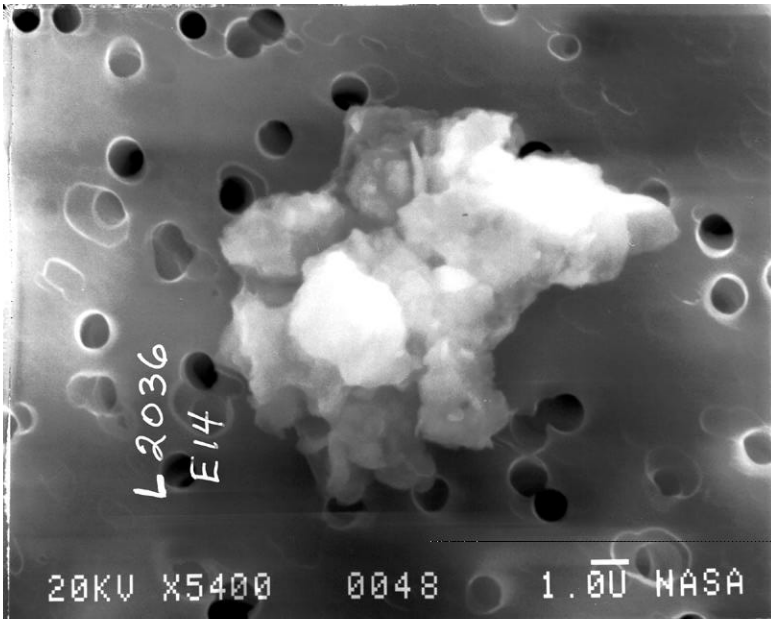


97E00055

Size:	12x9
Shape:	I
Trans:	O/TL
Color:	Black-Red
Luster:	P/SV
Type:	TCN
Comments:	

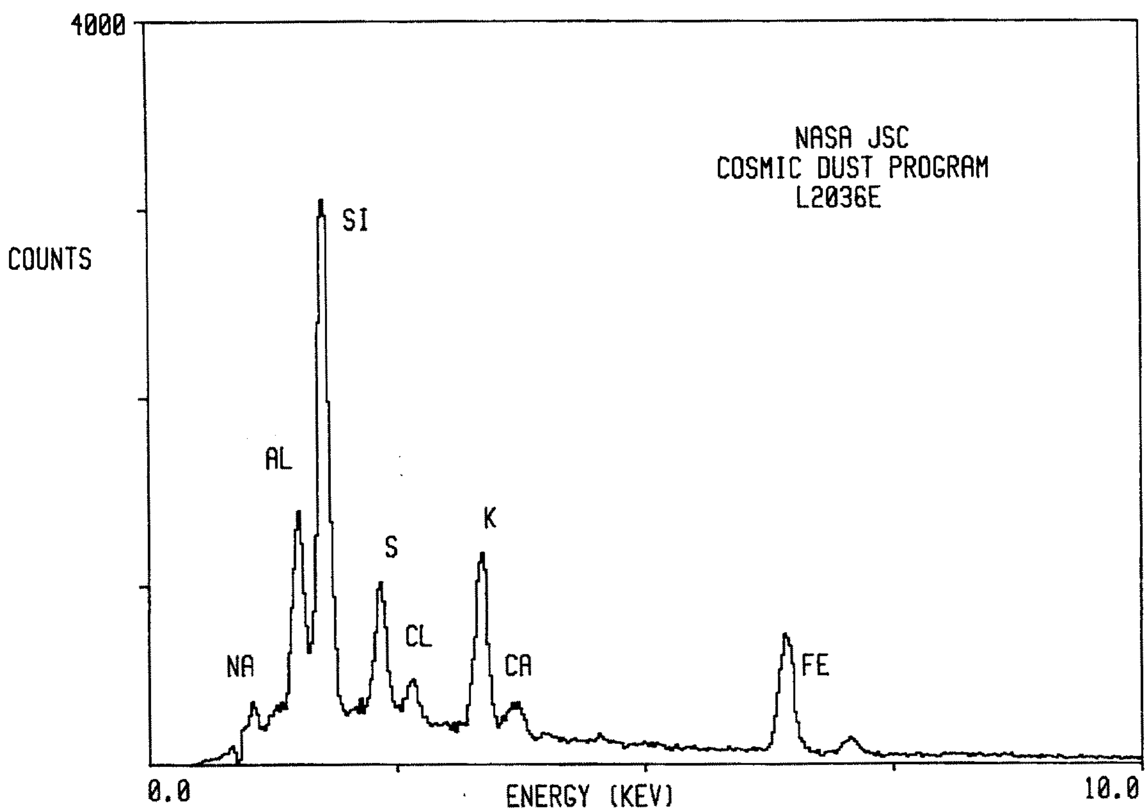


L2036E14

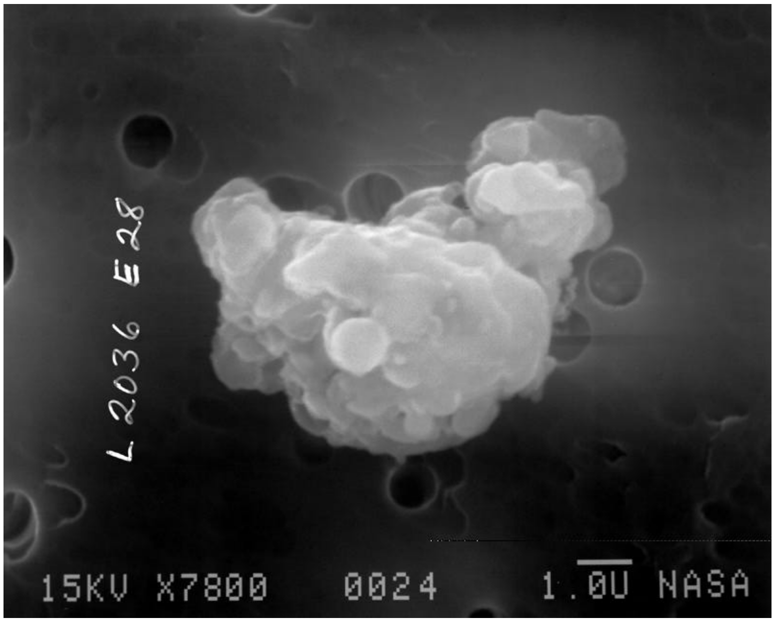


97E00057

Size: 12
Shape: E
Trans: TL
Color: Brown
Luster: SV
Type: TCN
Comments:



L2036E28



97E00071

Size: 5

Shape: I

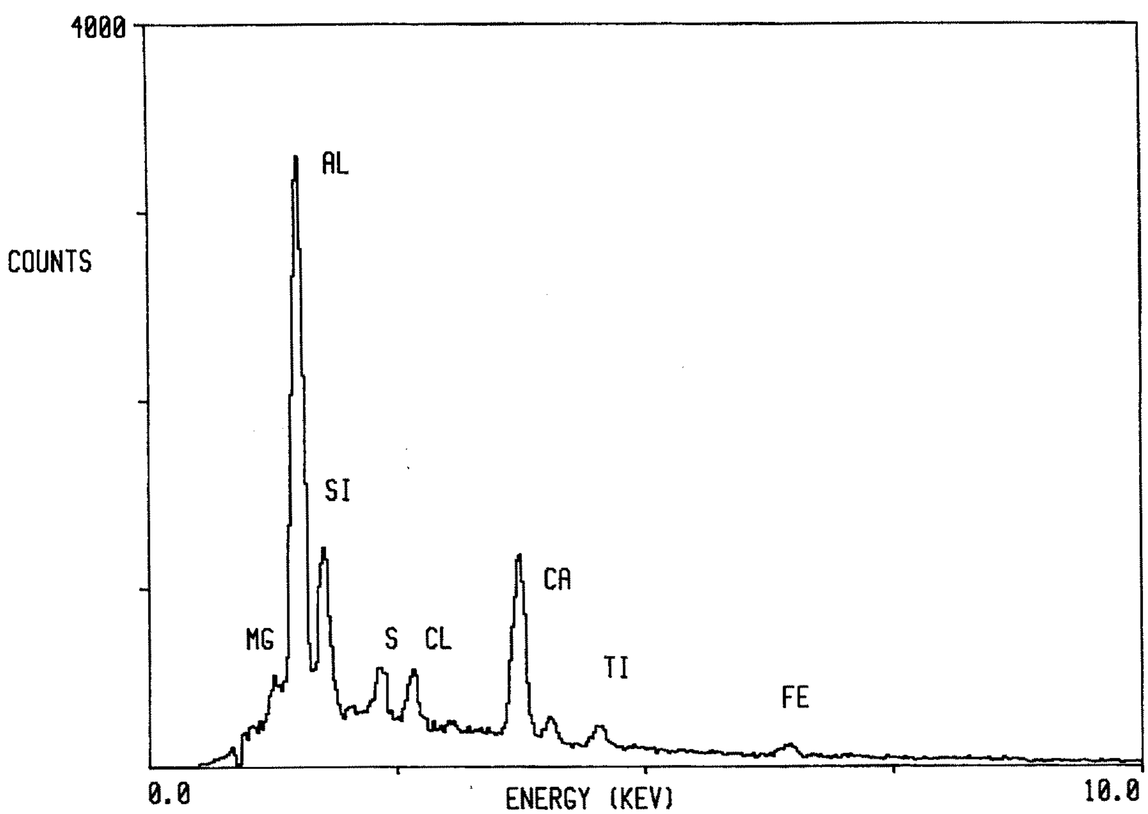
Trans: O

Color: Black

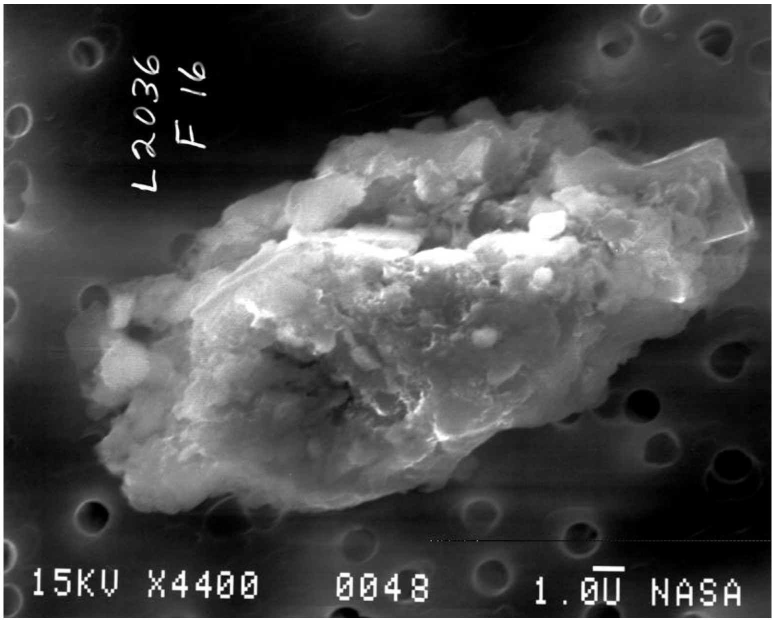
Luster: D

Type: TCN

Comments:



L2036F16



97E00088

Size: 20x10

Shape: I

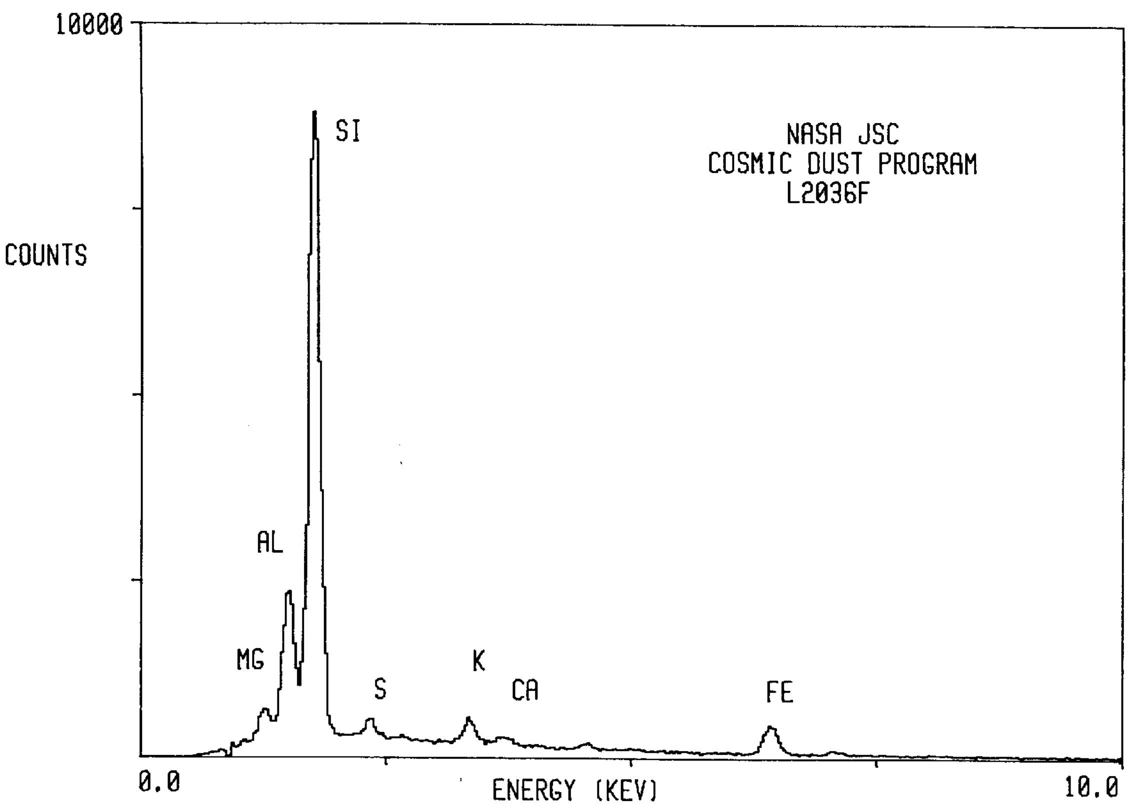
Trans: O

Color: Black

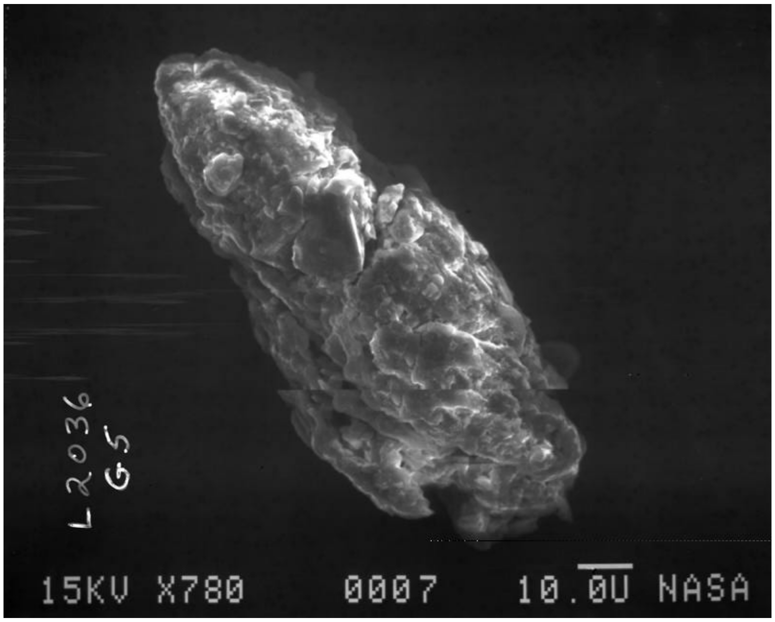
Luster: D

Type: TCN

Comments:



L2036G5



97E00103

Size: 105x46

Shape: I

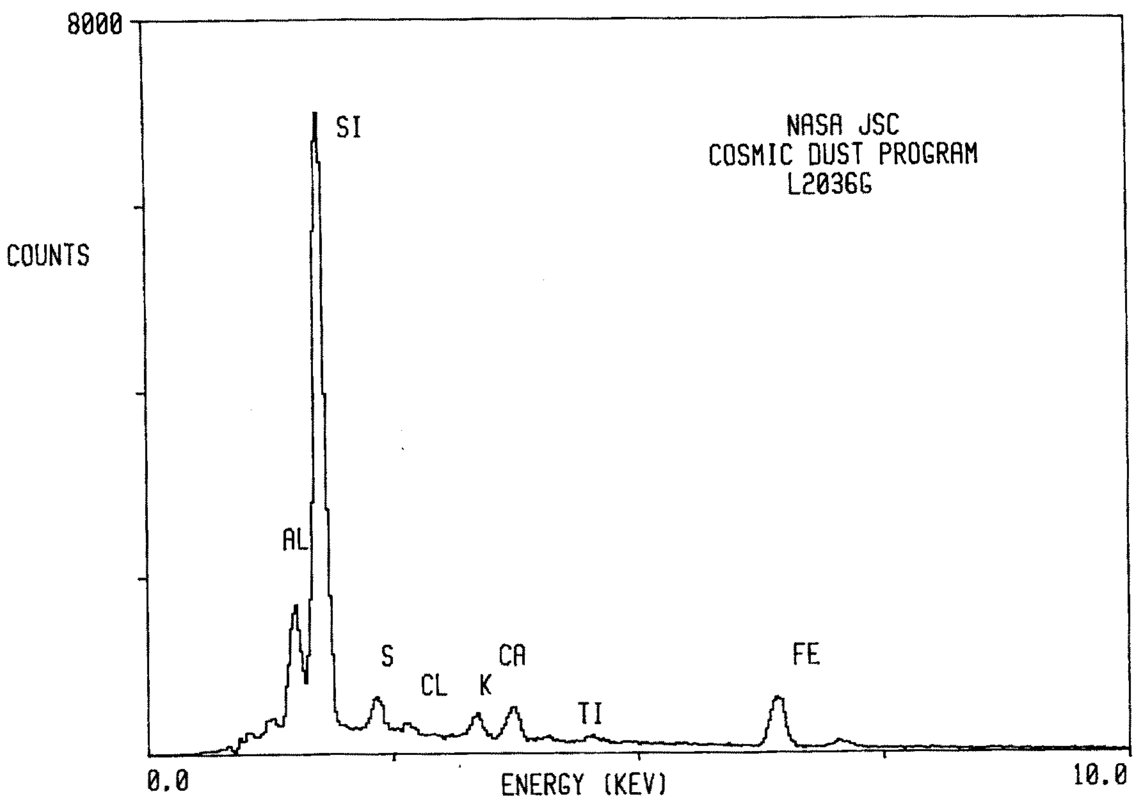
Trans: O/TL

Color: Black/White

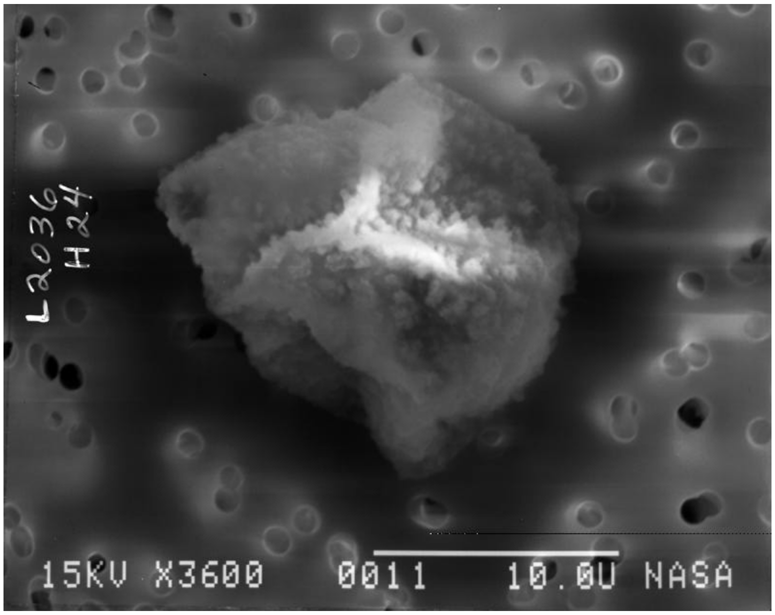
Luster: SM/SV

Type: TCN

Comments:



L2036H24



97E00142

Size: 18x16

Shape: I

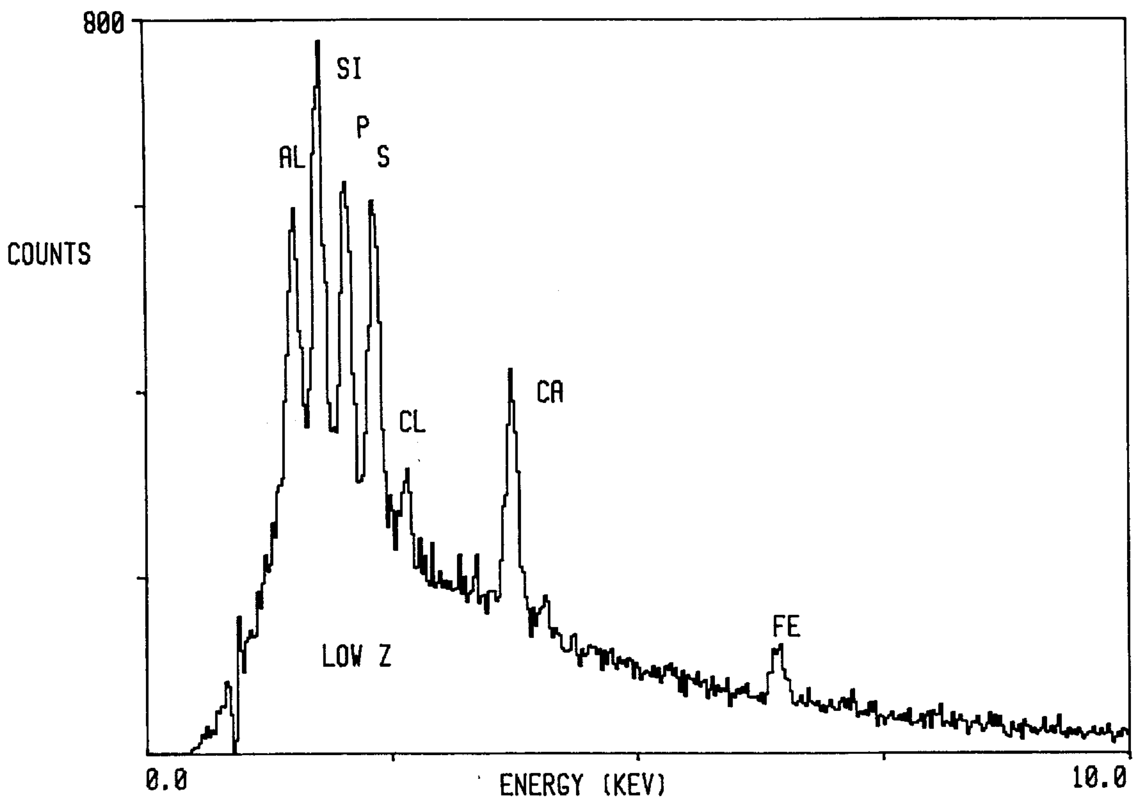
Trans: O

Color: Black

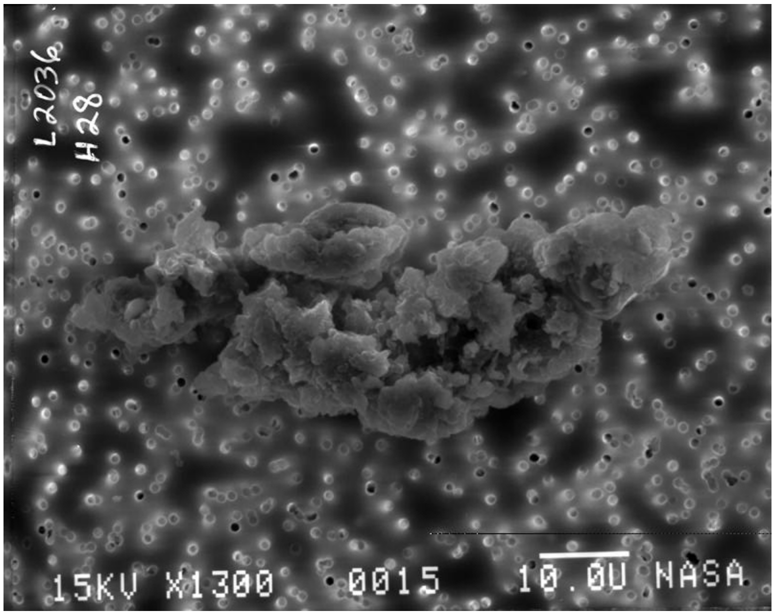
Luster: SM

Type: TCN

Comments:

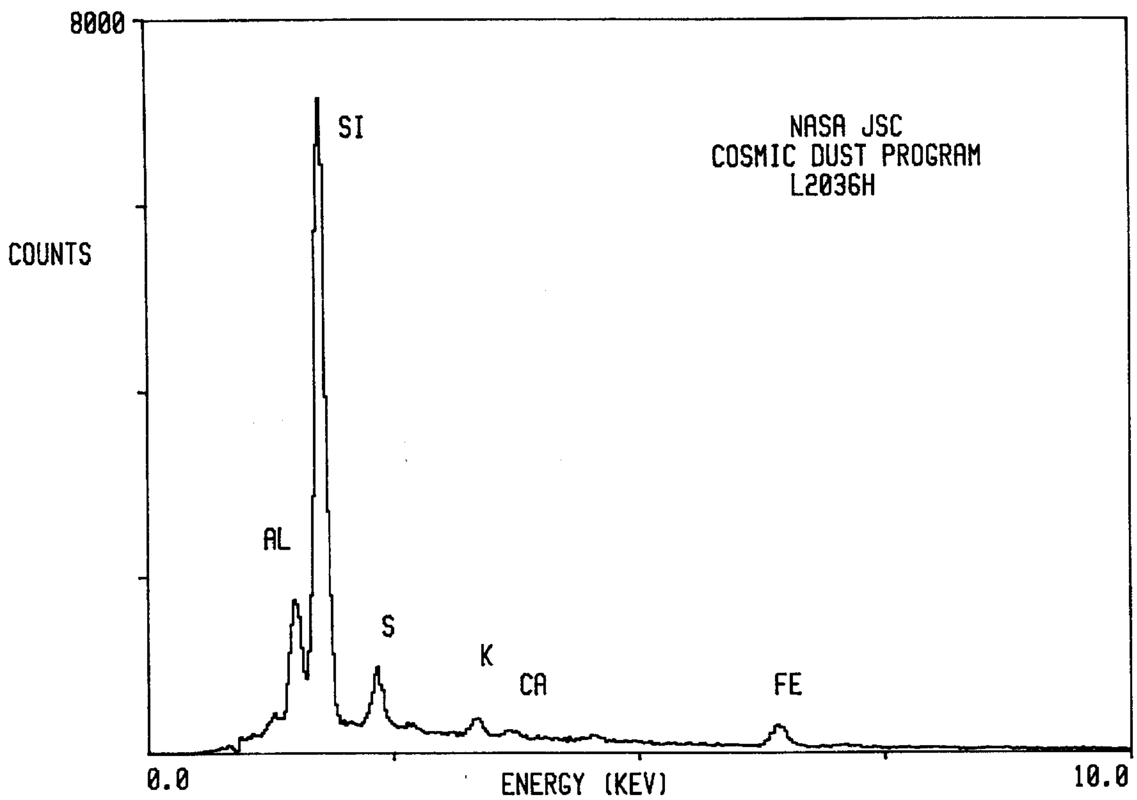


L2036H28

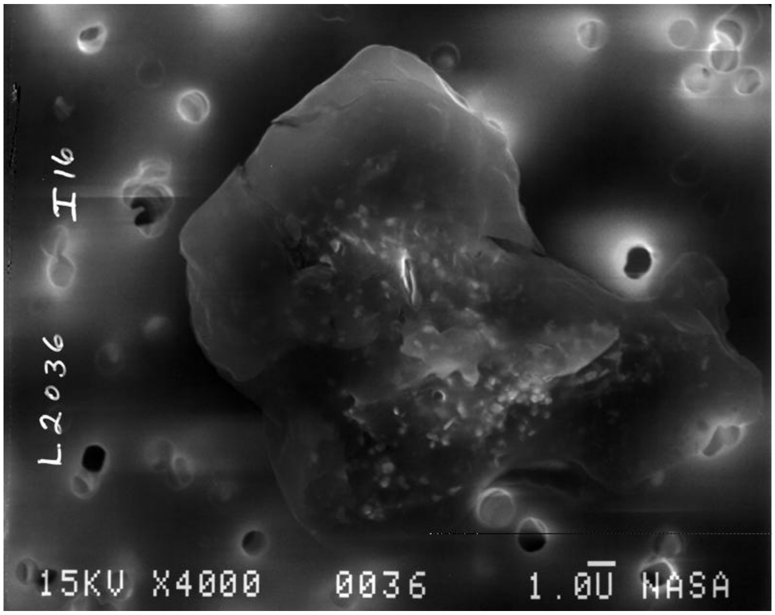


97E00146

Size: 68x26
Shape: I
Trans: O
Color: Black
Luster: D
Type: TCN
Comments:



L2036I16



97E00162

Size: 20x16

Shape: I

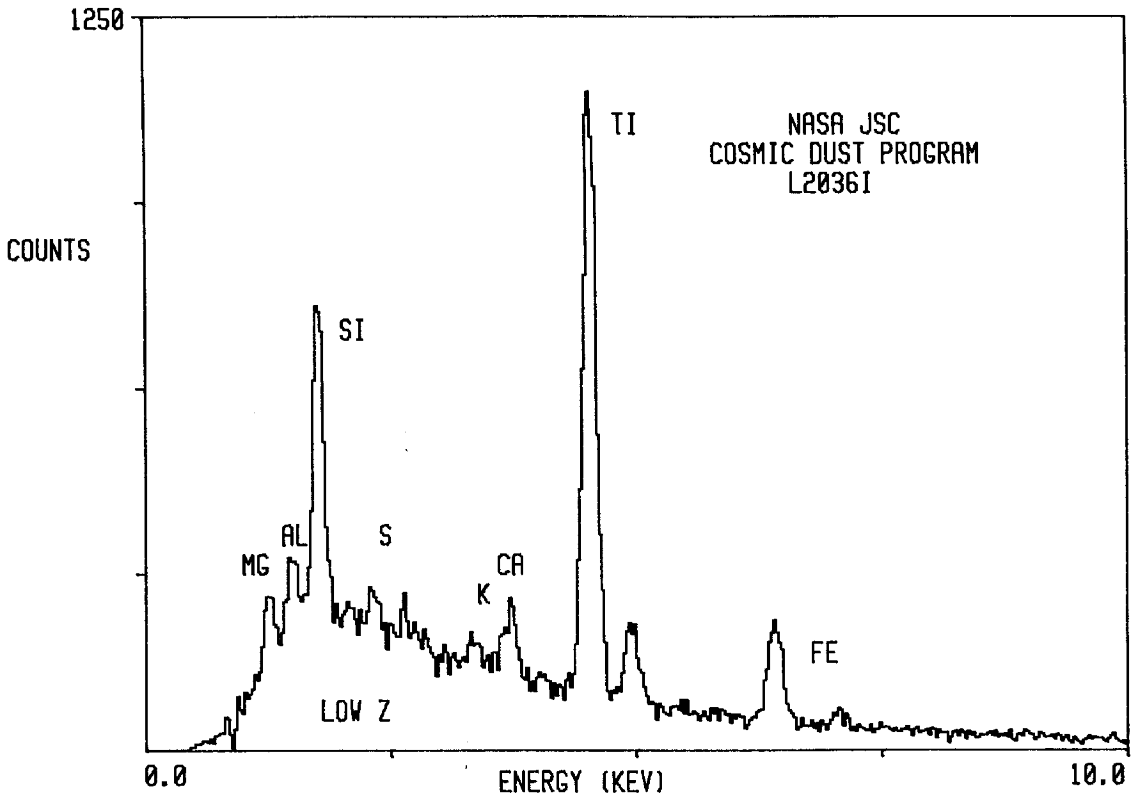
Trans: TL

Color: White-Brown

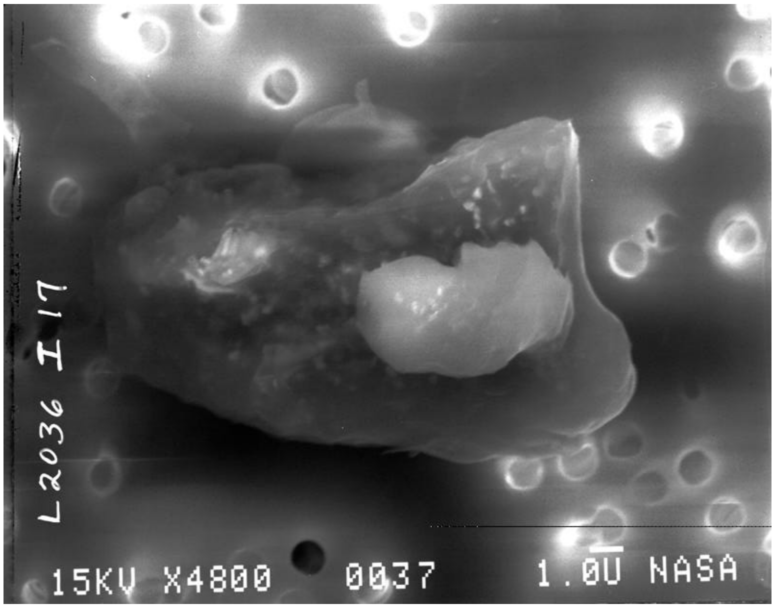
Luster: SV

Type: TCN

Comments:

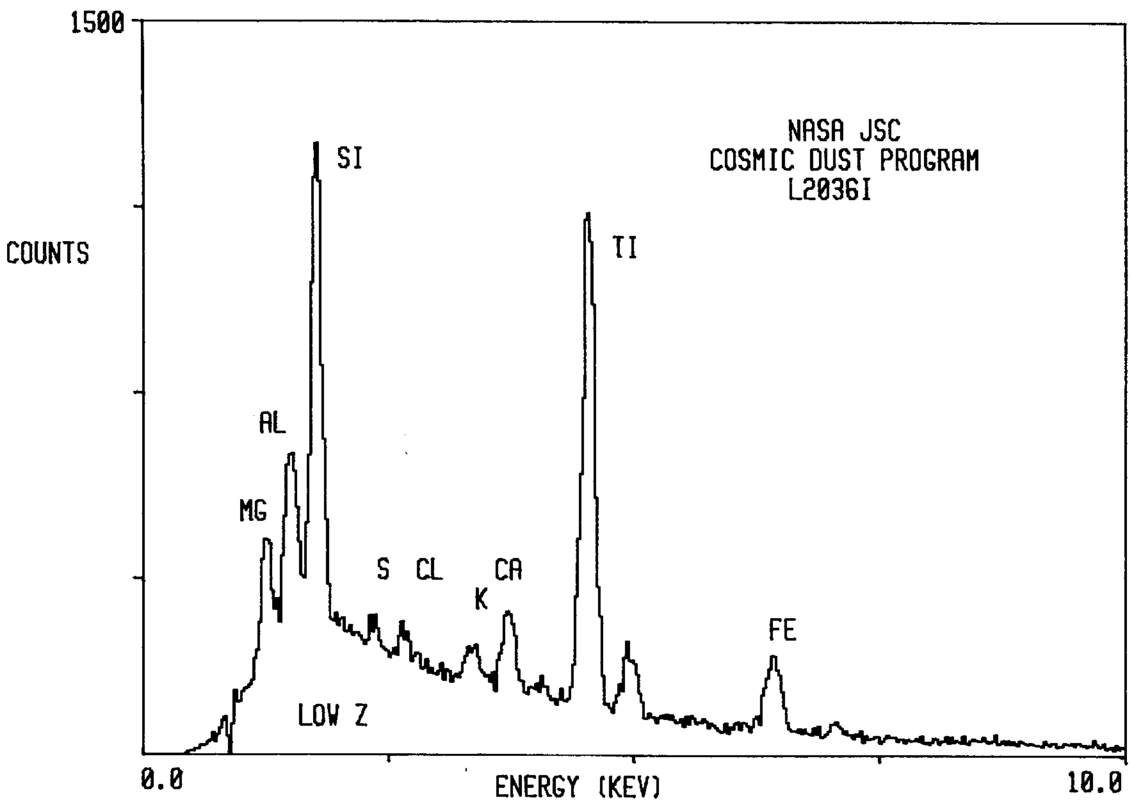


L2036I17

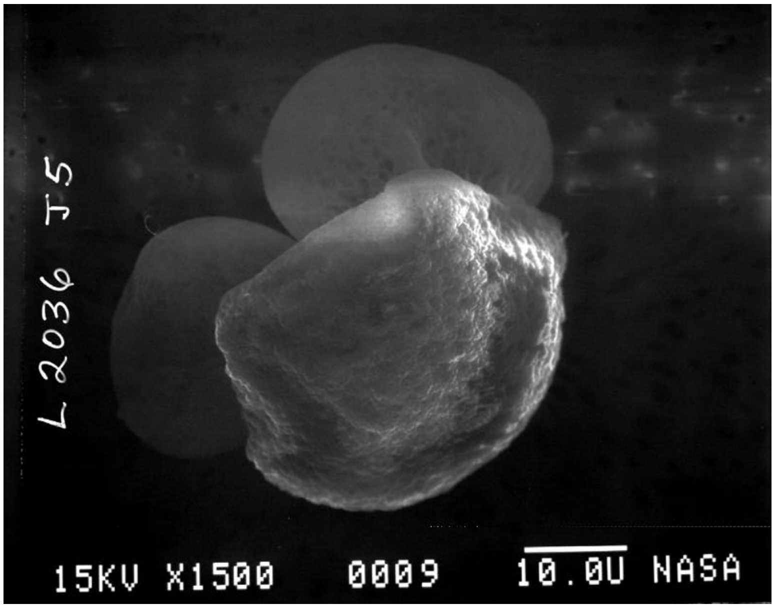


97E00163

Size: 13x9
Shape: I
Trans: TL
Color: White
Luster: SV
Type: TCN
Comments:



L2036J5



Size: 23x17

Shape: S

Trans: O/TL

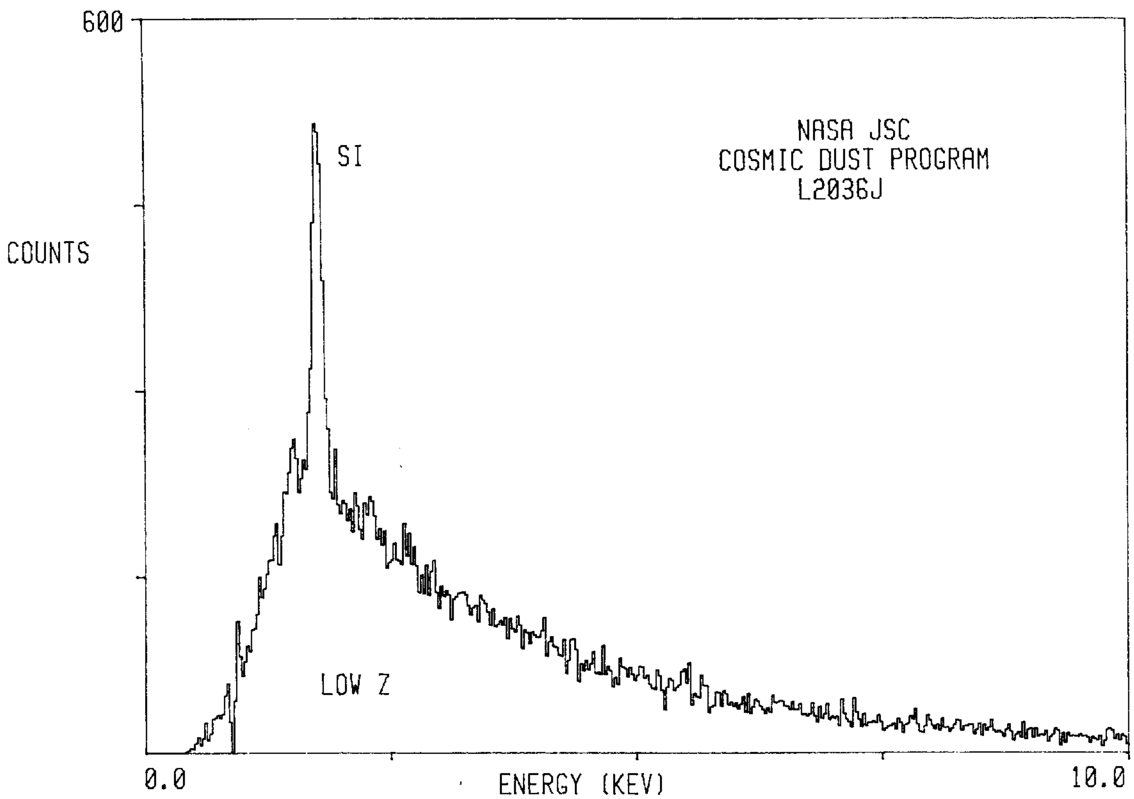
Color: Black-Colorless

Luster: SM/SV

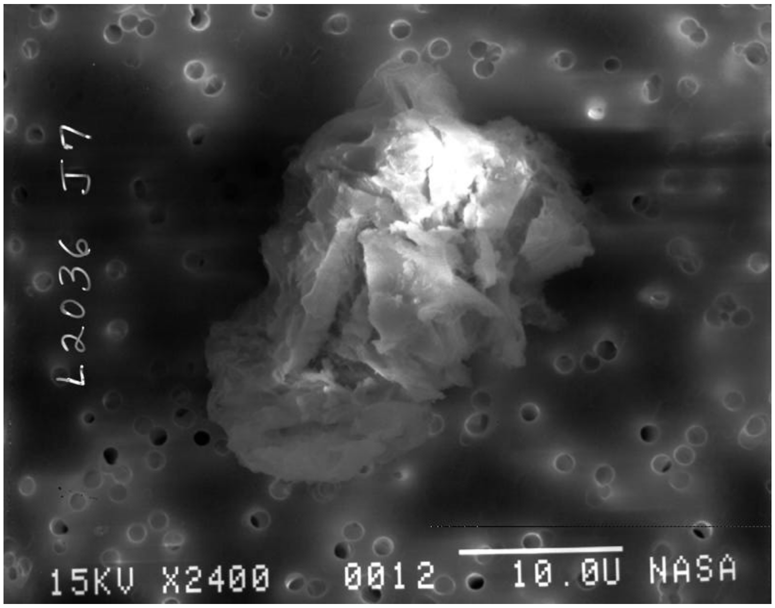
Type: TCN

Comments:

97E00181



L2036J7



97E00183

Size: 13x9

Shape: I

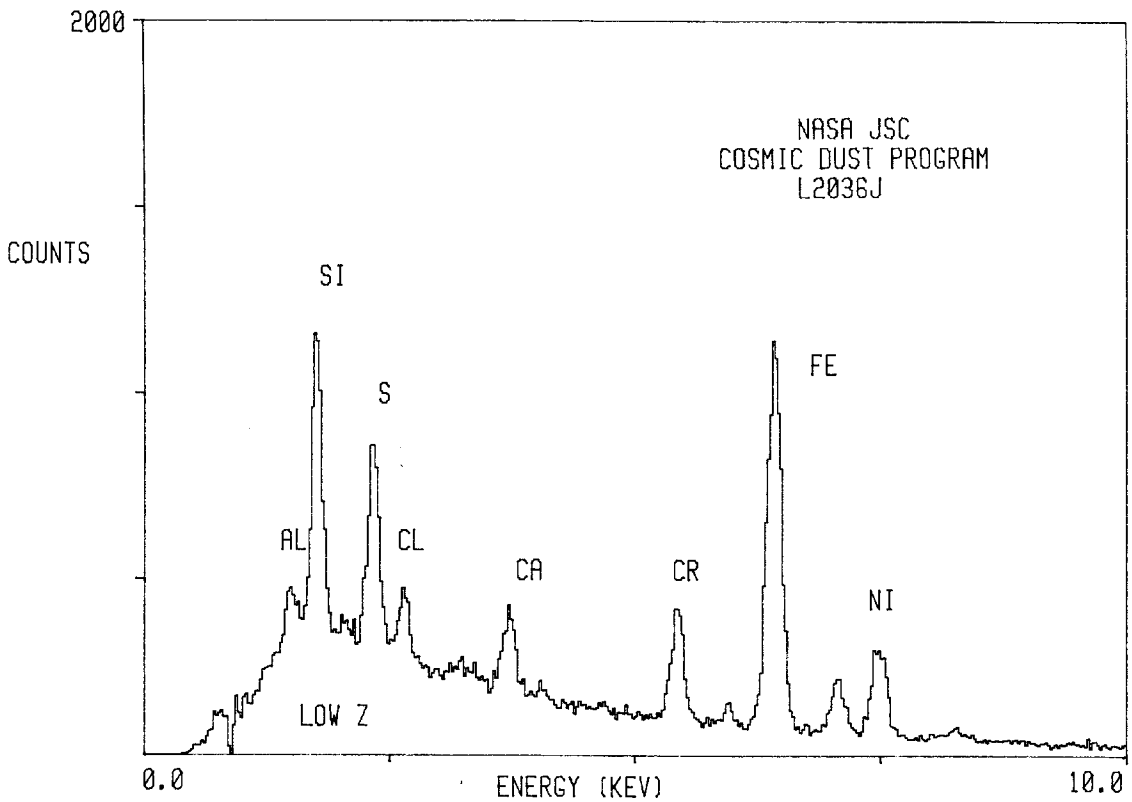
Trans: O

Color: Black

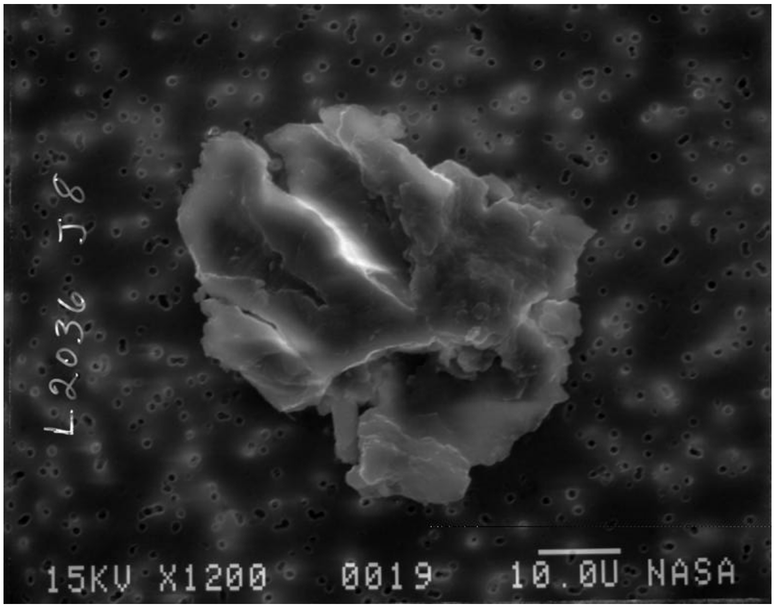
Luster: M

Type: TCN

Comments:



L2036J8



97E00184

Size: 50x42

Shape: I

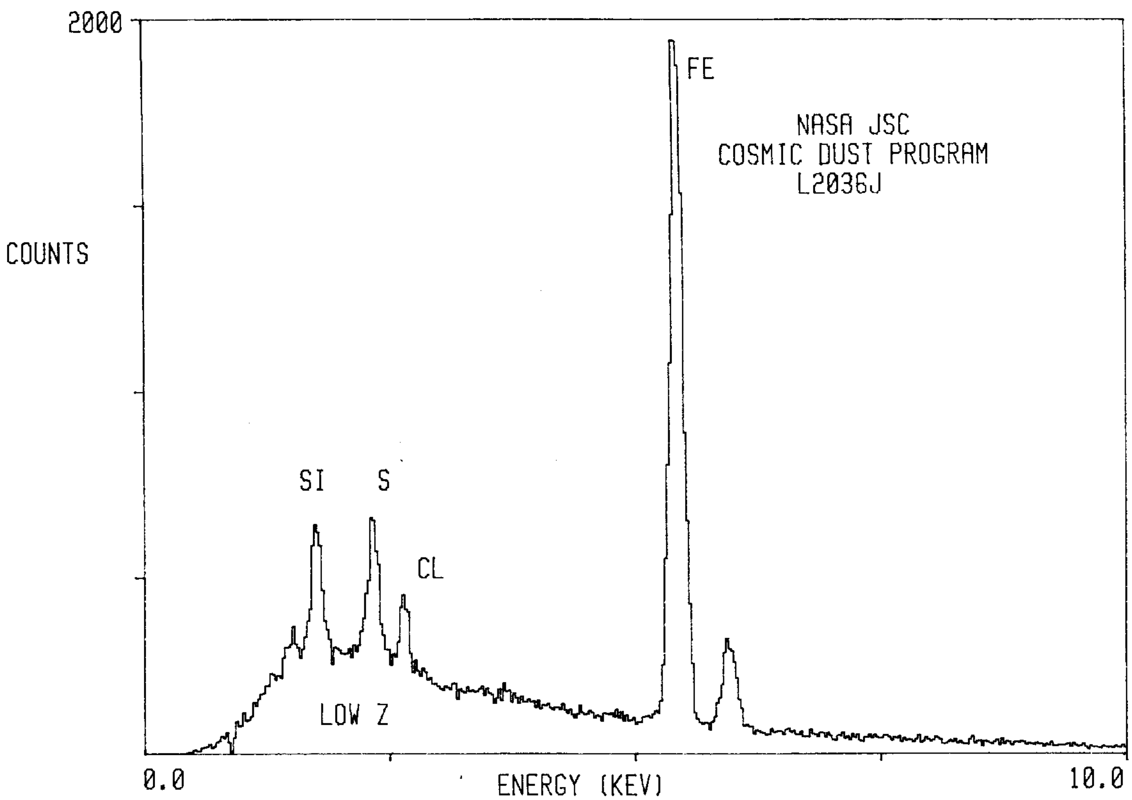
Trans: TL

Color: Colorless-White

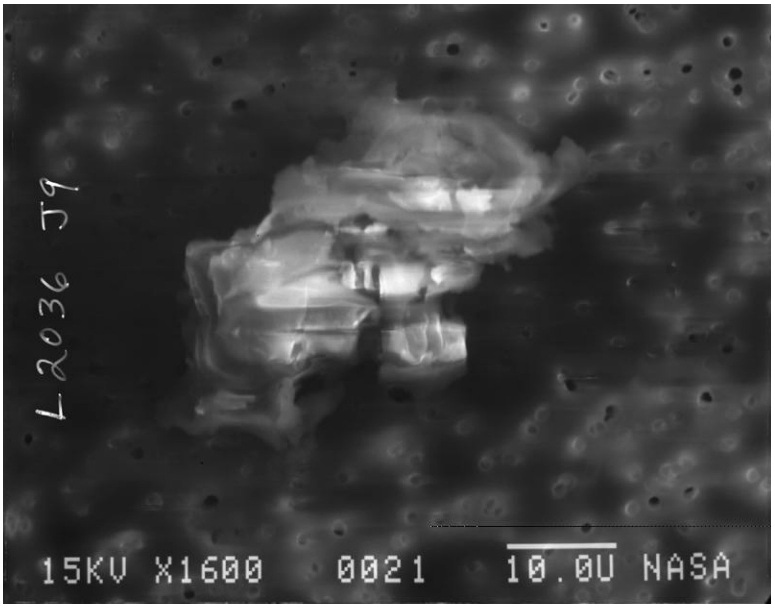
Luster: SV

Type: TCN

Comments:



L2036J9



Size: 44x28

Shape: I

Trans: TL

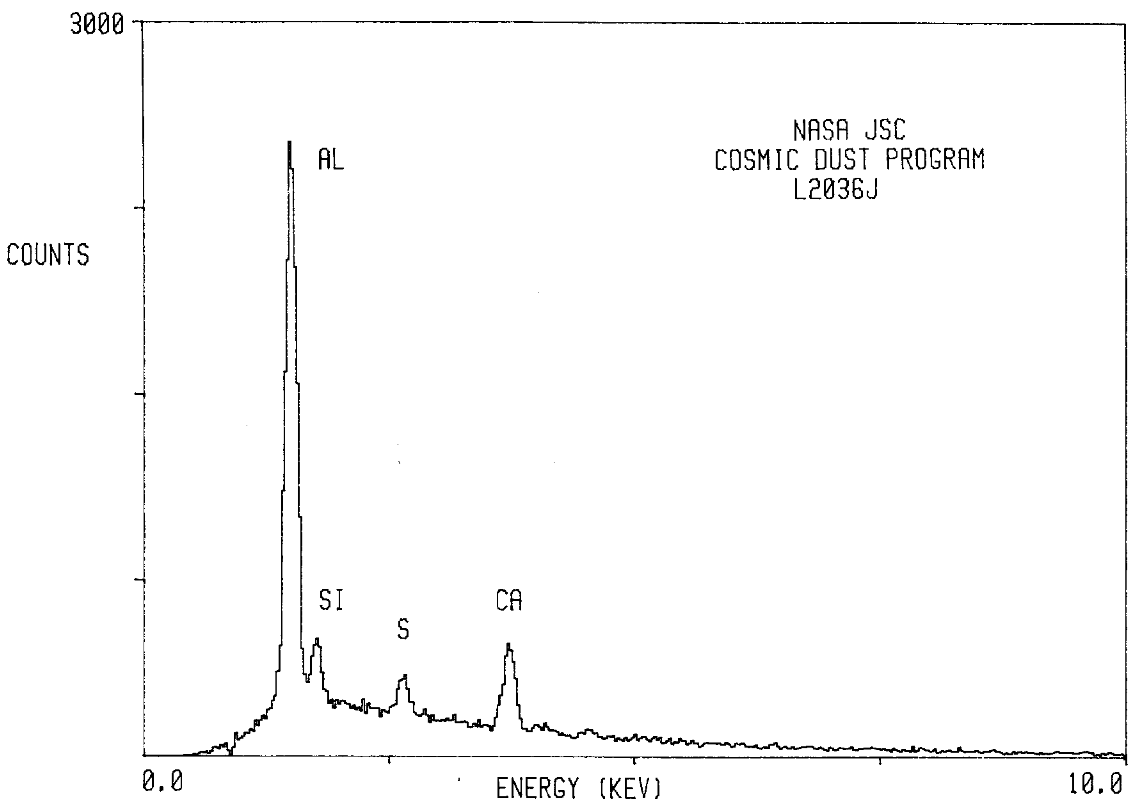
Color: Colorless-White

Luster: SV/D

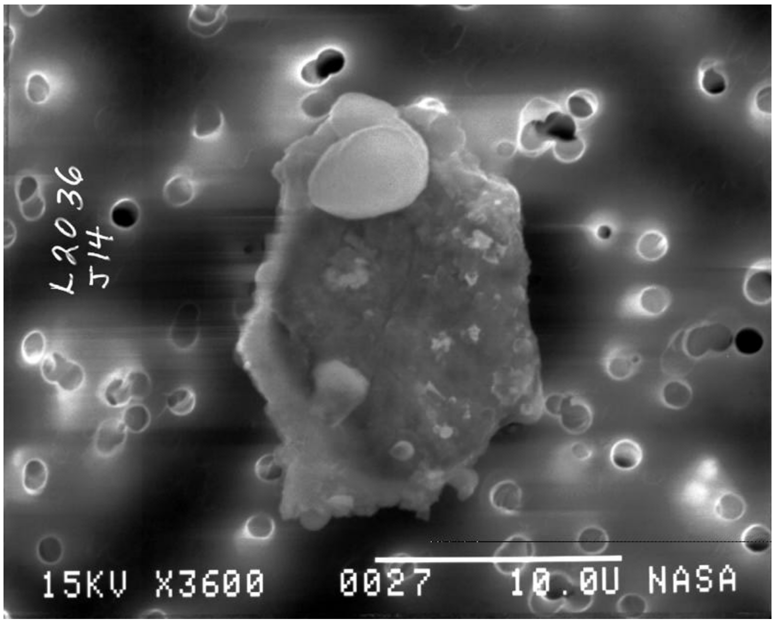
Type: TCN

Comments:

97E00185



L2036J14



97E00190

Size: 10x6

Shape: I

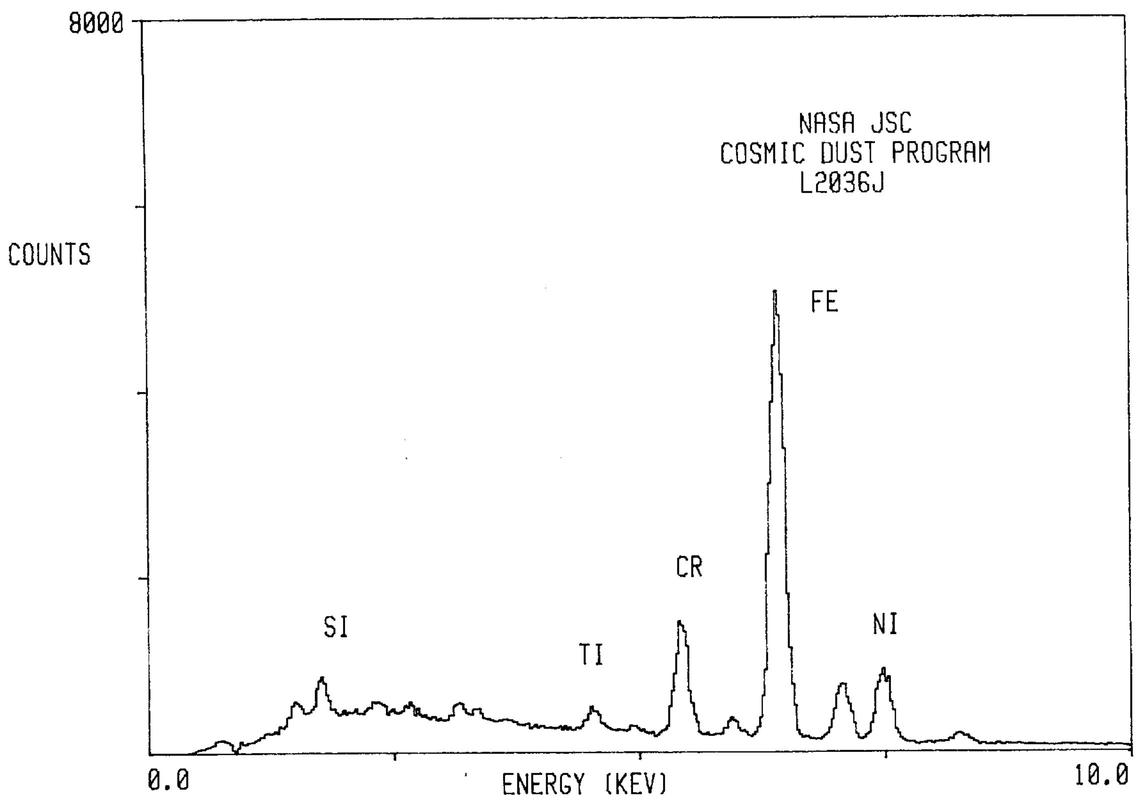
Trans: O

Color: Black

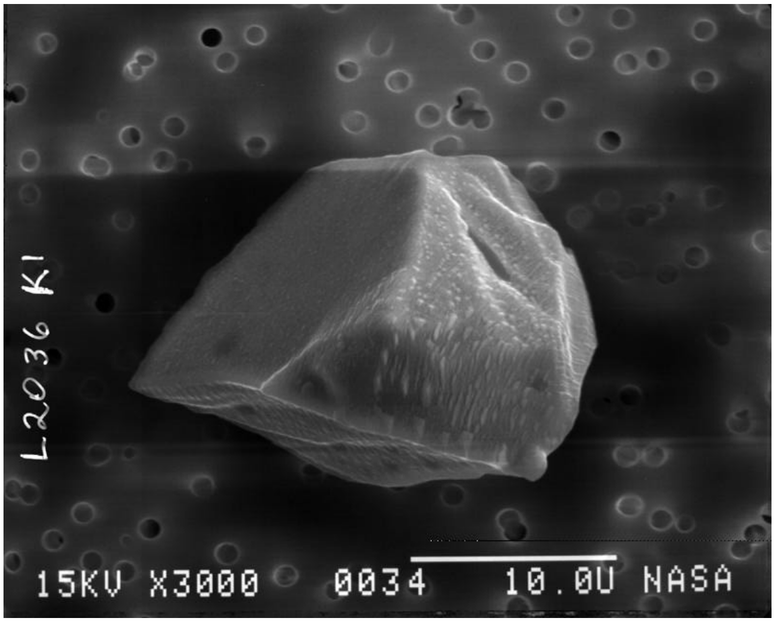
Luster: D

Type: TCN

Comments:

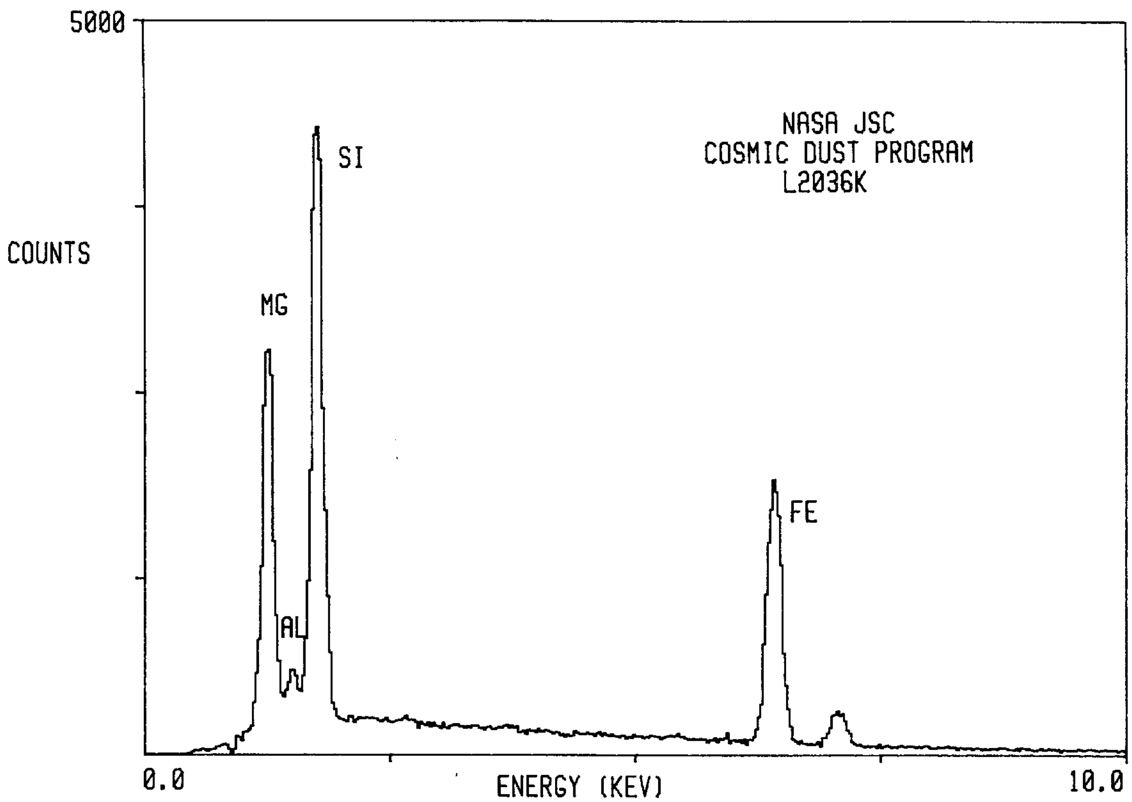


L2036K1

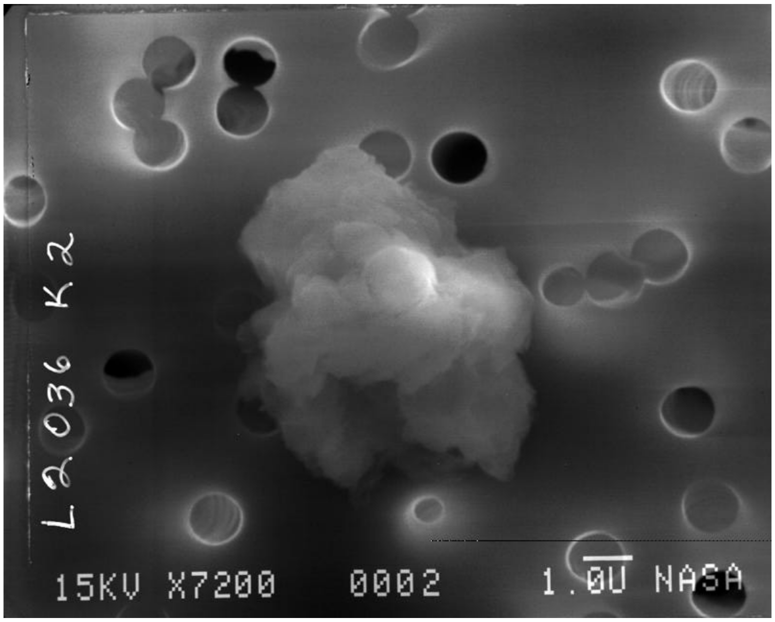


97E00192

Size: 18x14
Shape: I
Trans: O
Color: Black
Luster: P
Type: TCN?
Comments:

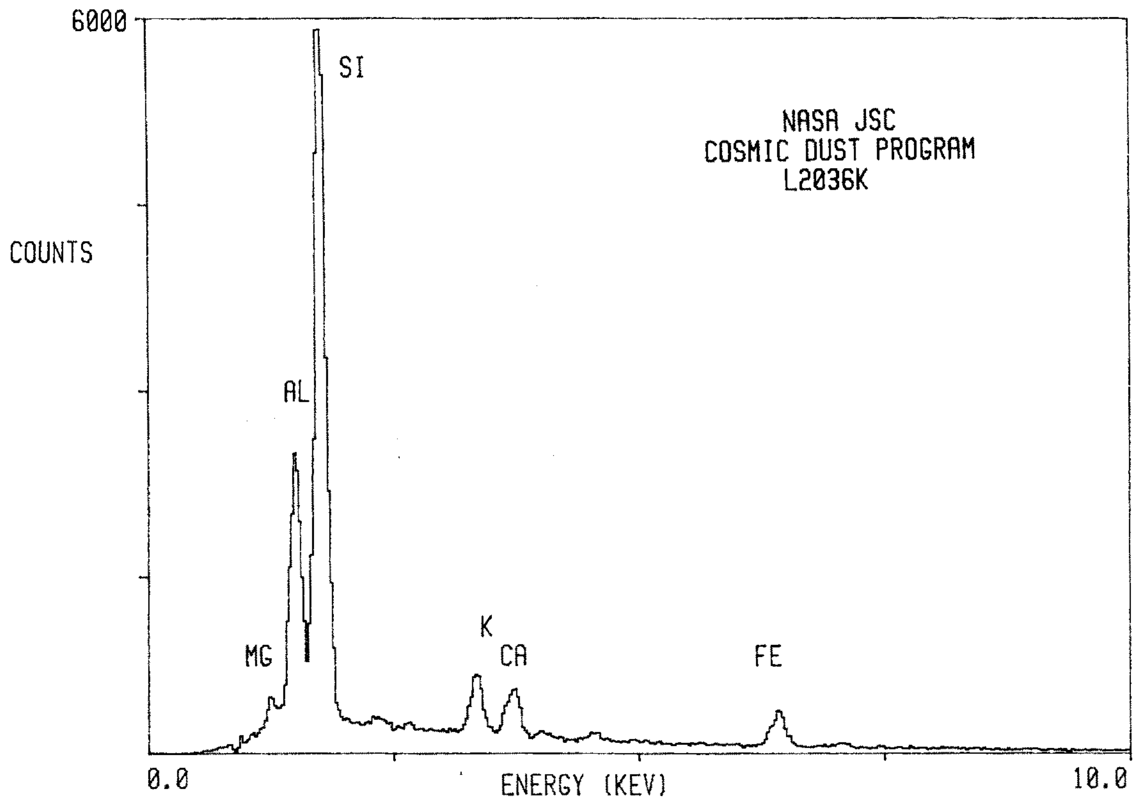


L2036K2

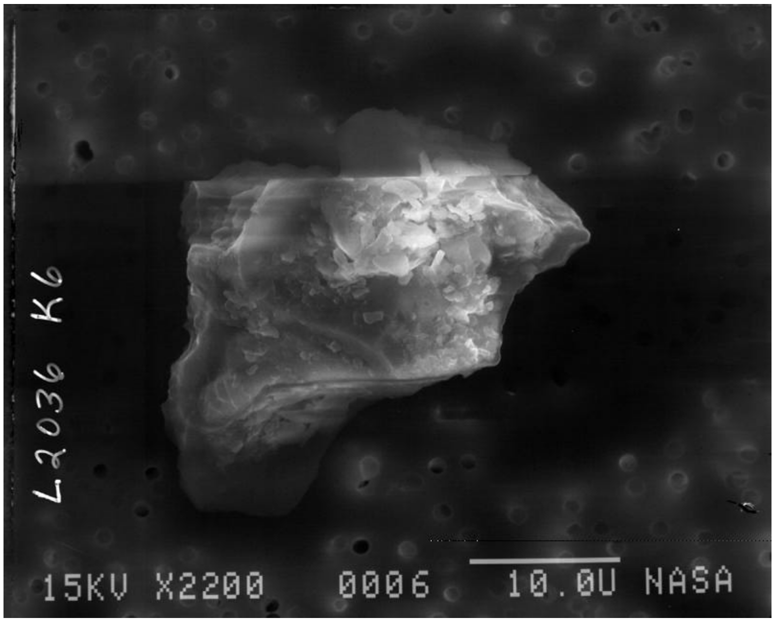


97E00193

Size:	6
Shape:	S
Trans:	TL
Color:	Brown
Luster:	SV
Type:	TCN
Comments:	

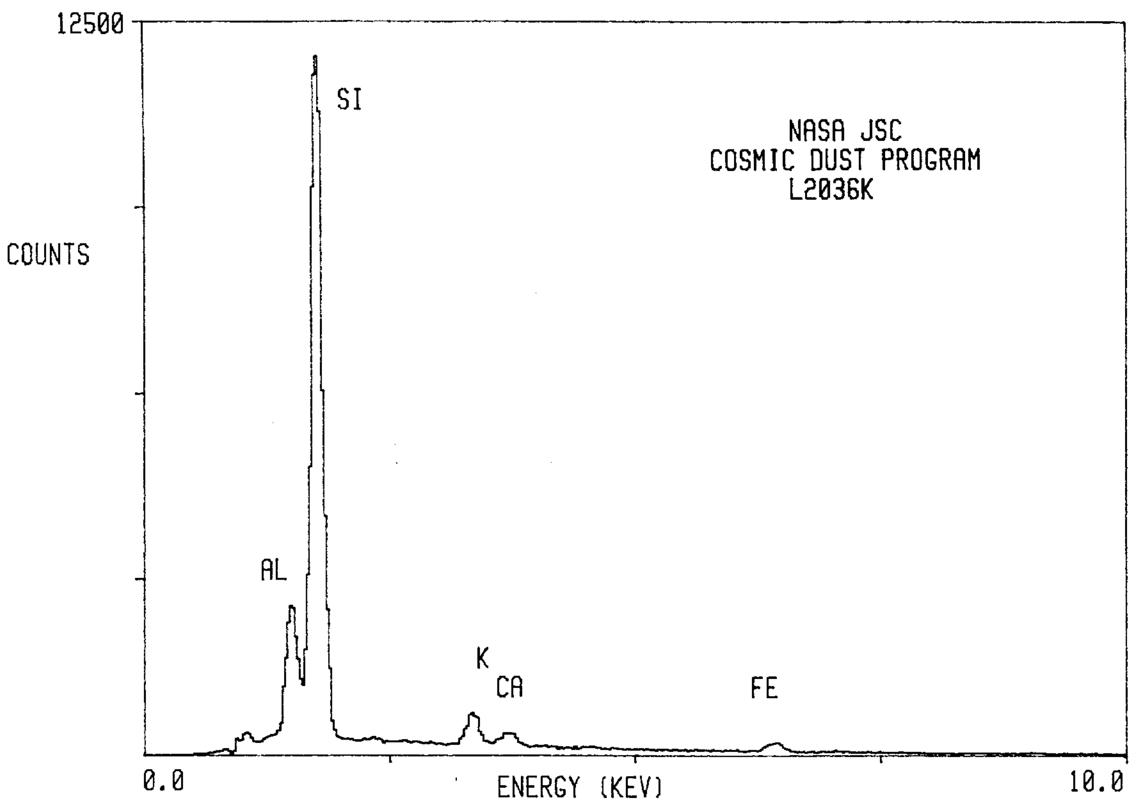


L2036K6

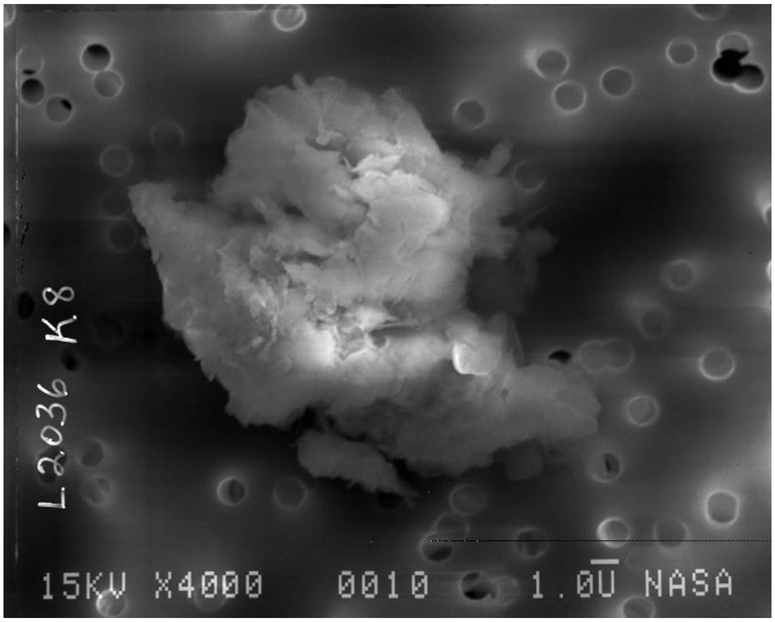


97E00197

Size: 28x16
Shape: I
Trans: O/T
Color: Black-Colorless
Luster: D/V
Type: TCN
Comments:



L2036K8



97E00199

Size: 14

Shape: I

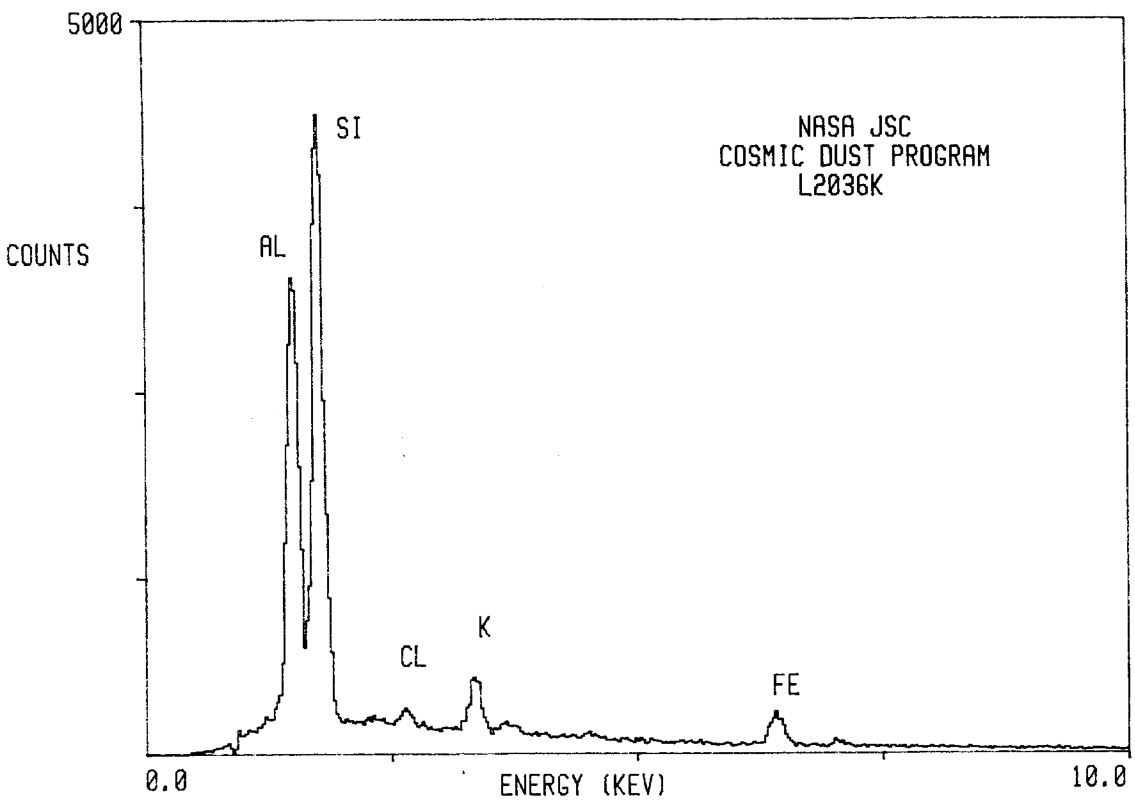
Trans: TL

Color: White

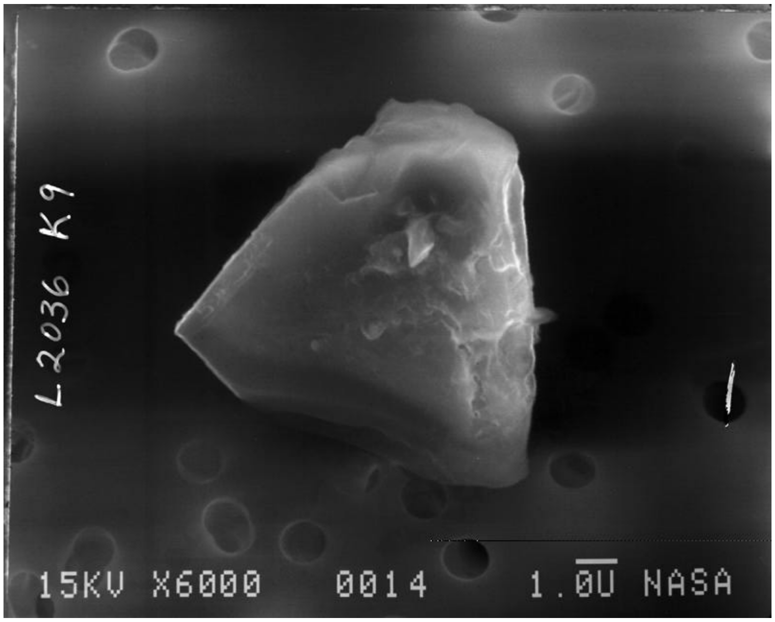
Luster: SV

Type: TCN

Comments:

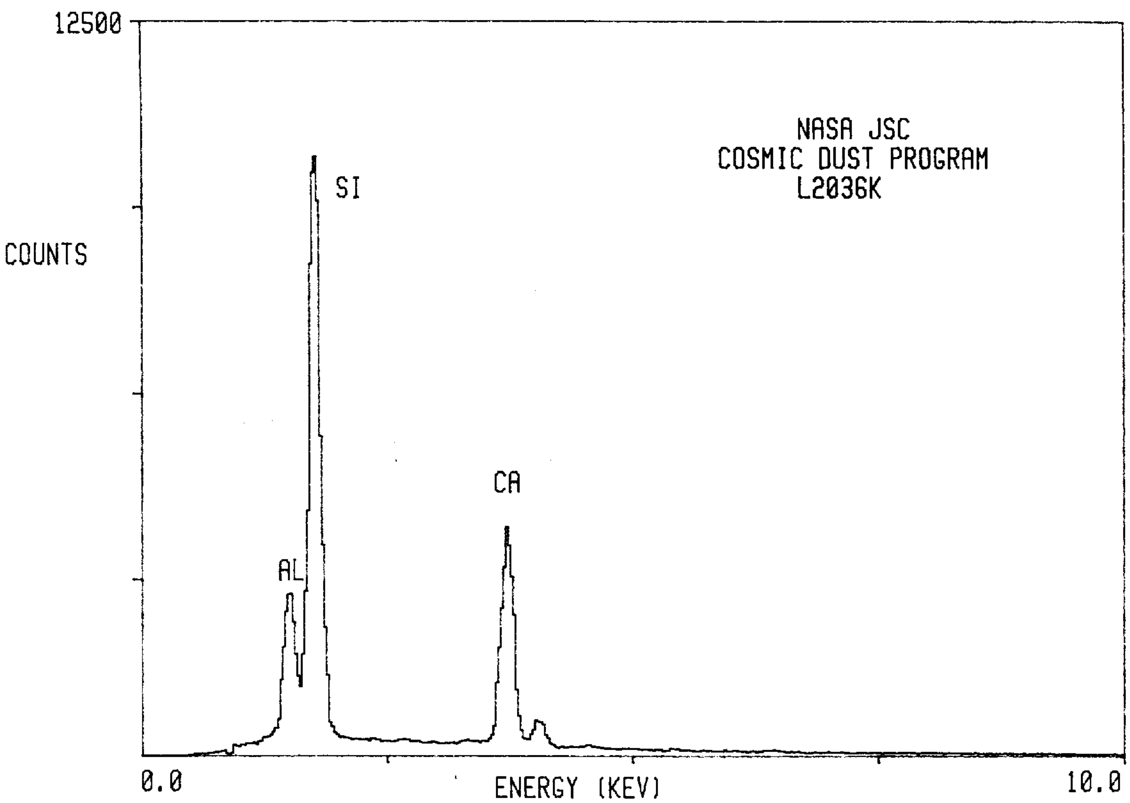


L2036K9

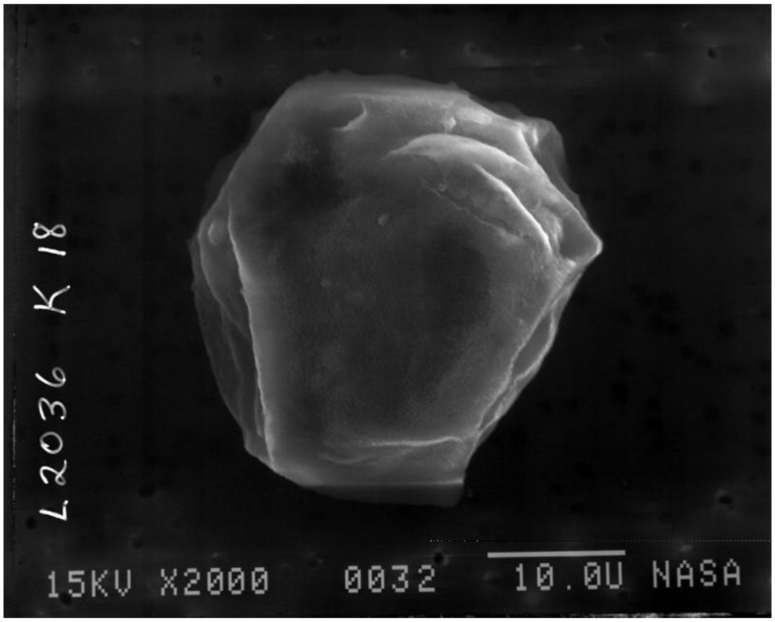


97E00200

Size: 8
Shape: I
Trans: T
Color: Colorless
Luster: V
Type: TCN
Comments:



L2036K18



97E00209

Size: 33

Shape: S

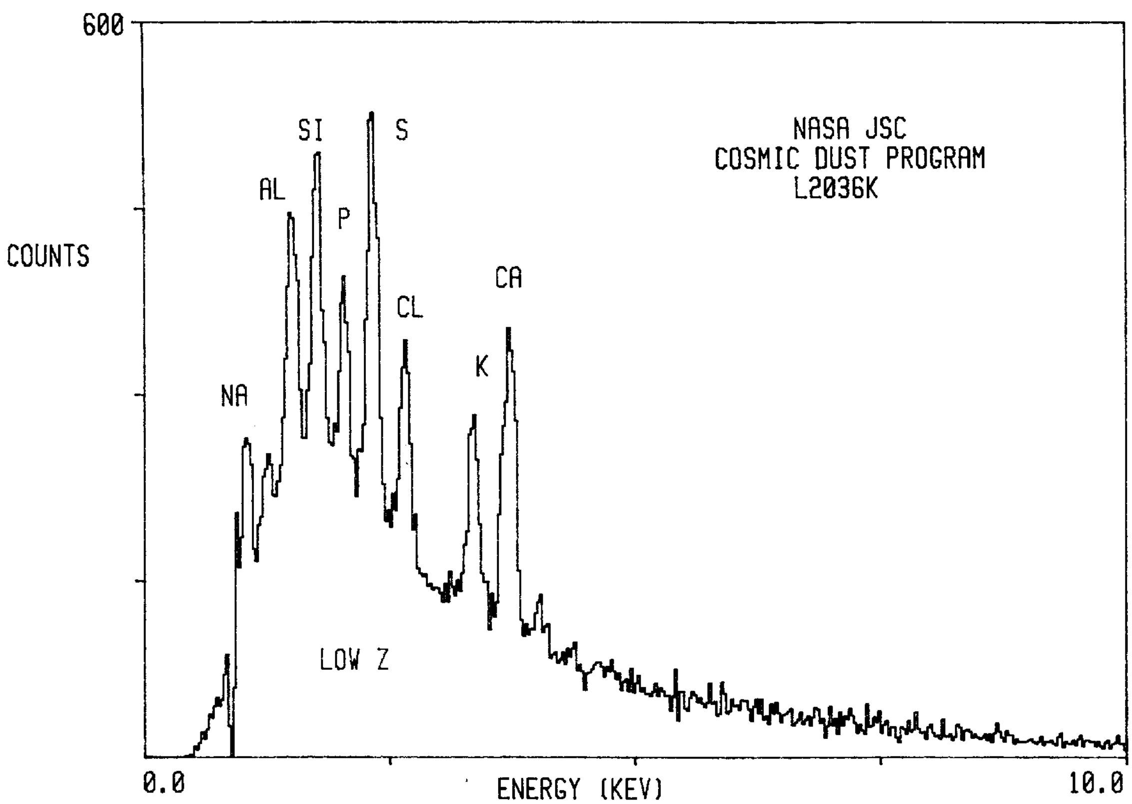
Trans: TL

Color: White

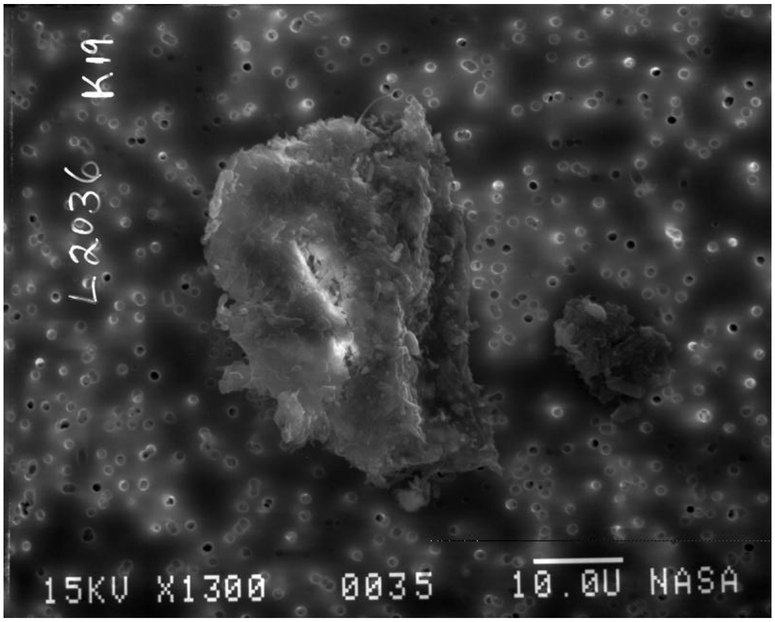
Luster: SV

Type: TCN

Comments:



L2036K19



97E00210

Size: 44x26

Shape: I

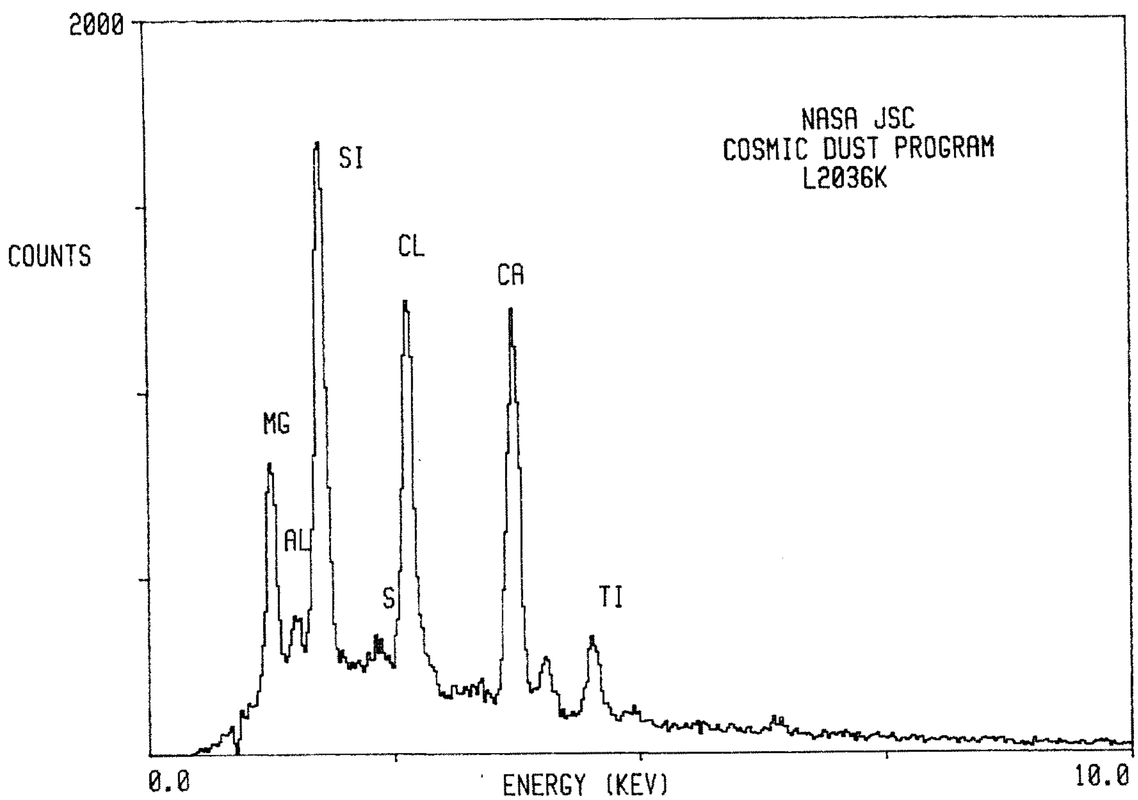
Trans: TL

Color: White-Silver

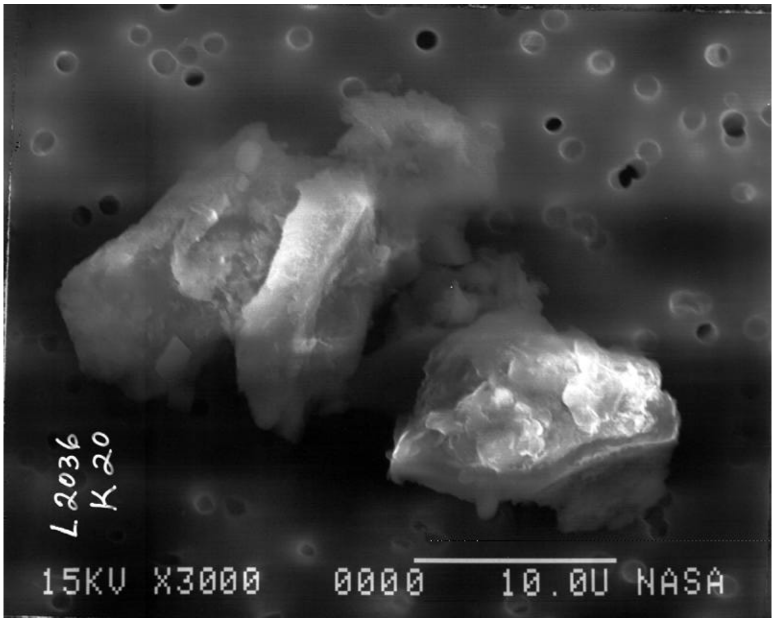
Luster: SV

Type: TCN?

Comments:



L2036K20



97E00211

Size: 26x18

Shape: I

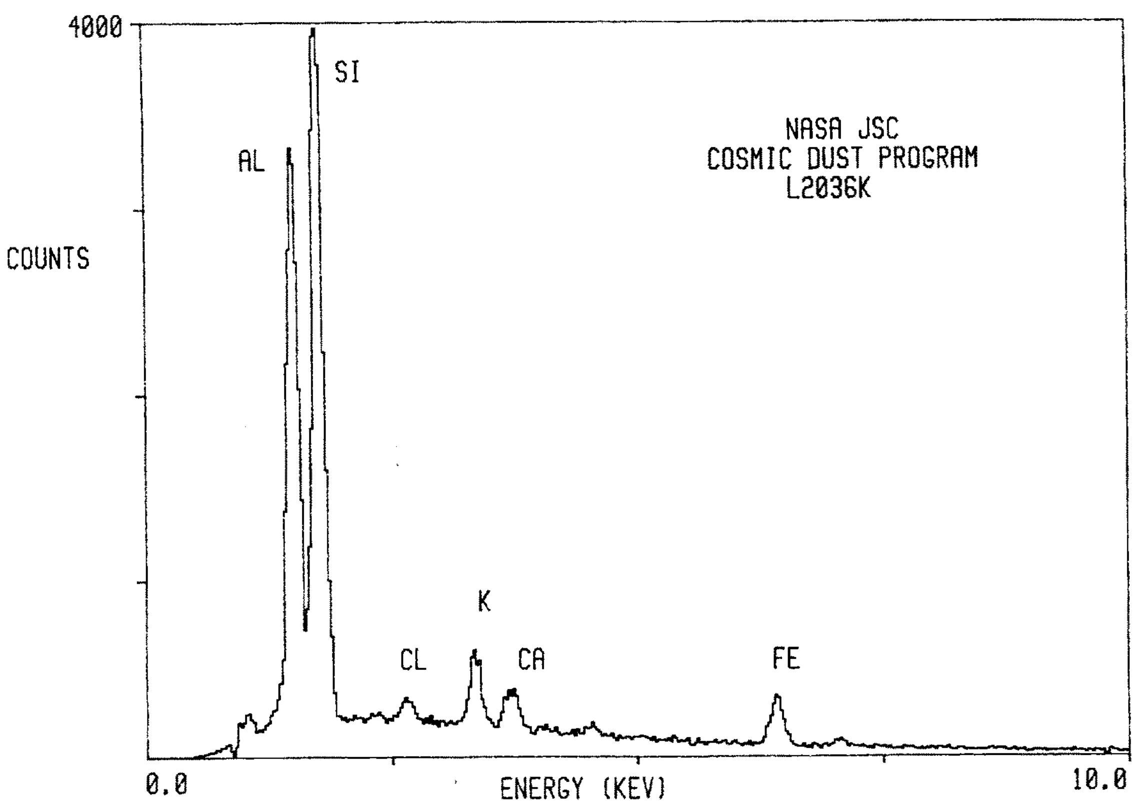
Trans: TL

Color: Colorless

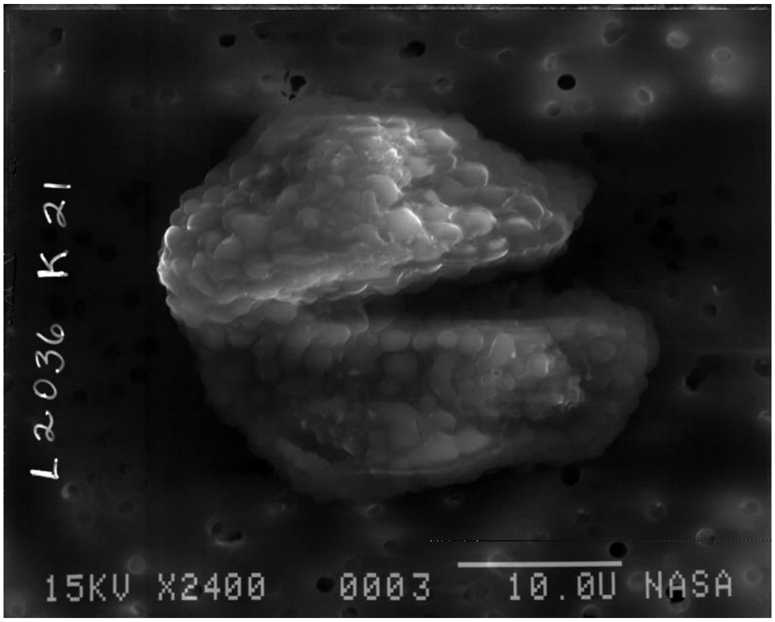
Luster: P

Type: TCN?

Comments:

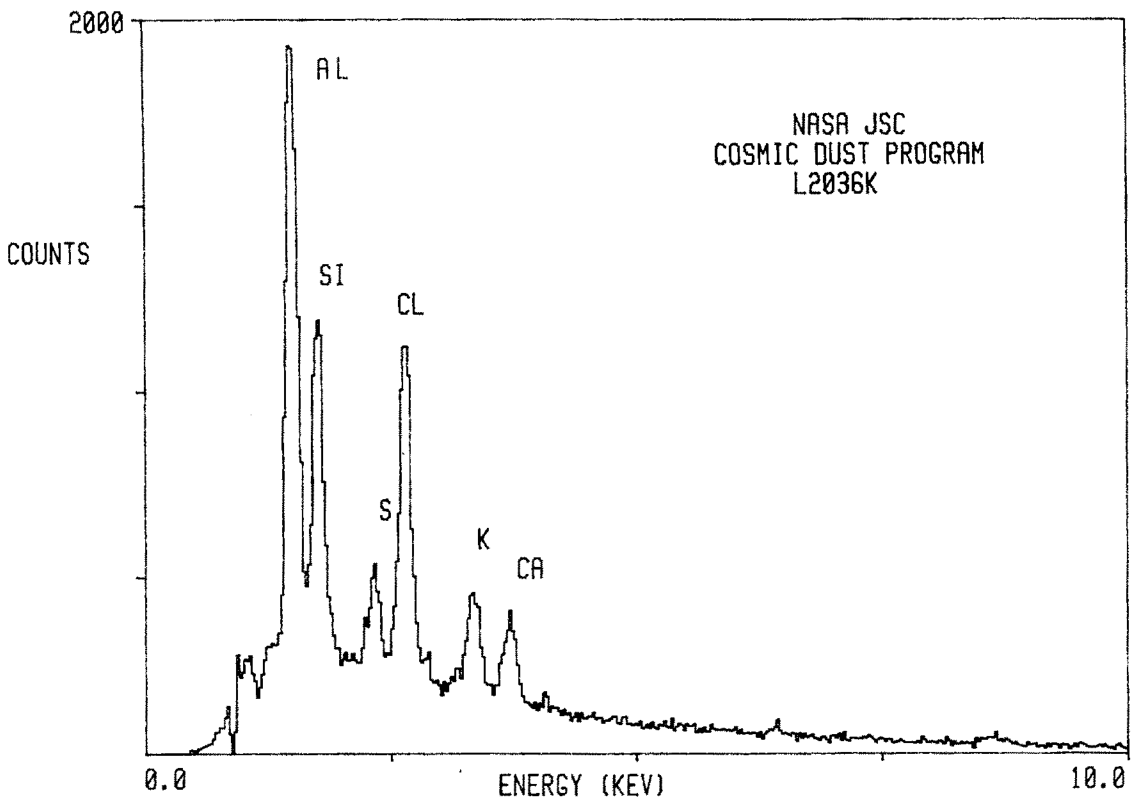


L2036K21

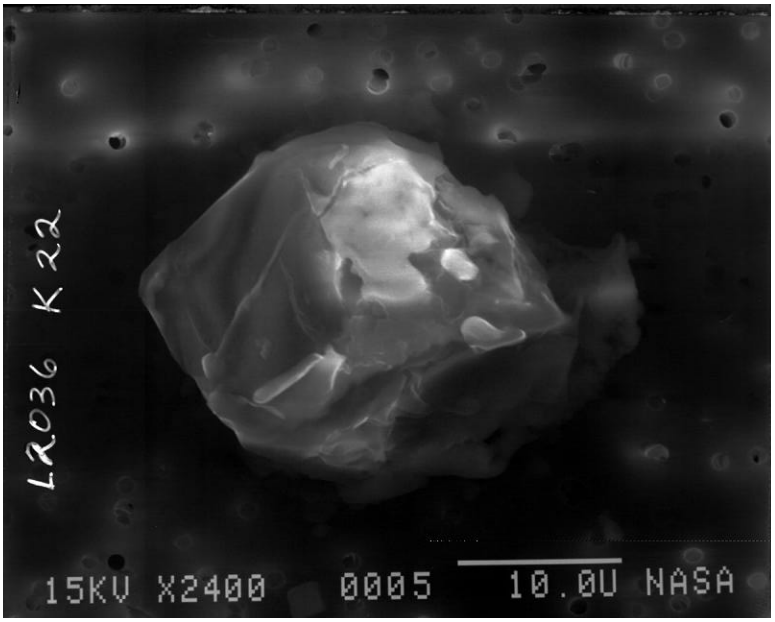


97E00212

Size: 28x22
Shape: I
Trans: TL
Color: Colorless
Luster: P
Type: TCN?
Comments:



L2036K22



97E00213

Size: 25

Shape: S

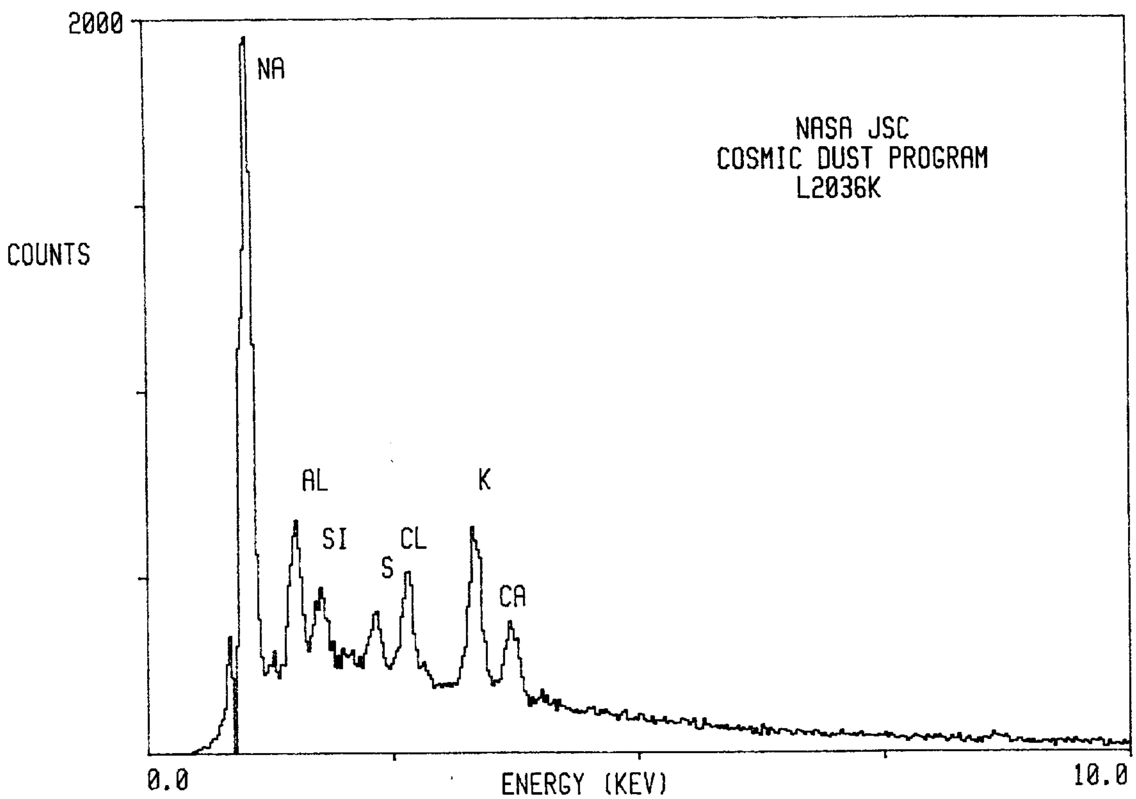
Trans: TL

Color: Colorless

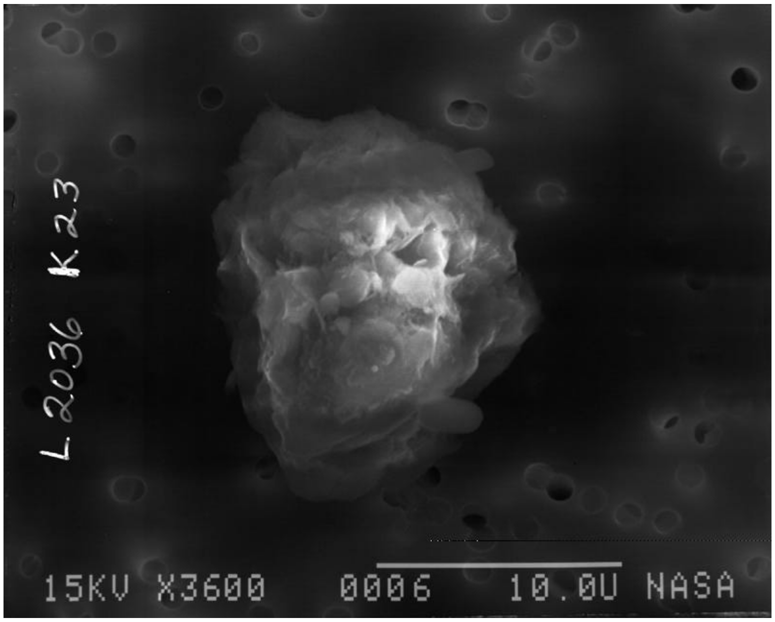
Luster: P

Type: TCN

Comments:



L2036K23



97E00214

Size: 15x11

Shape: I

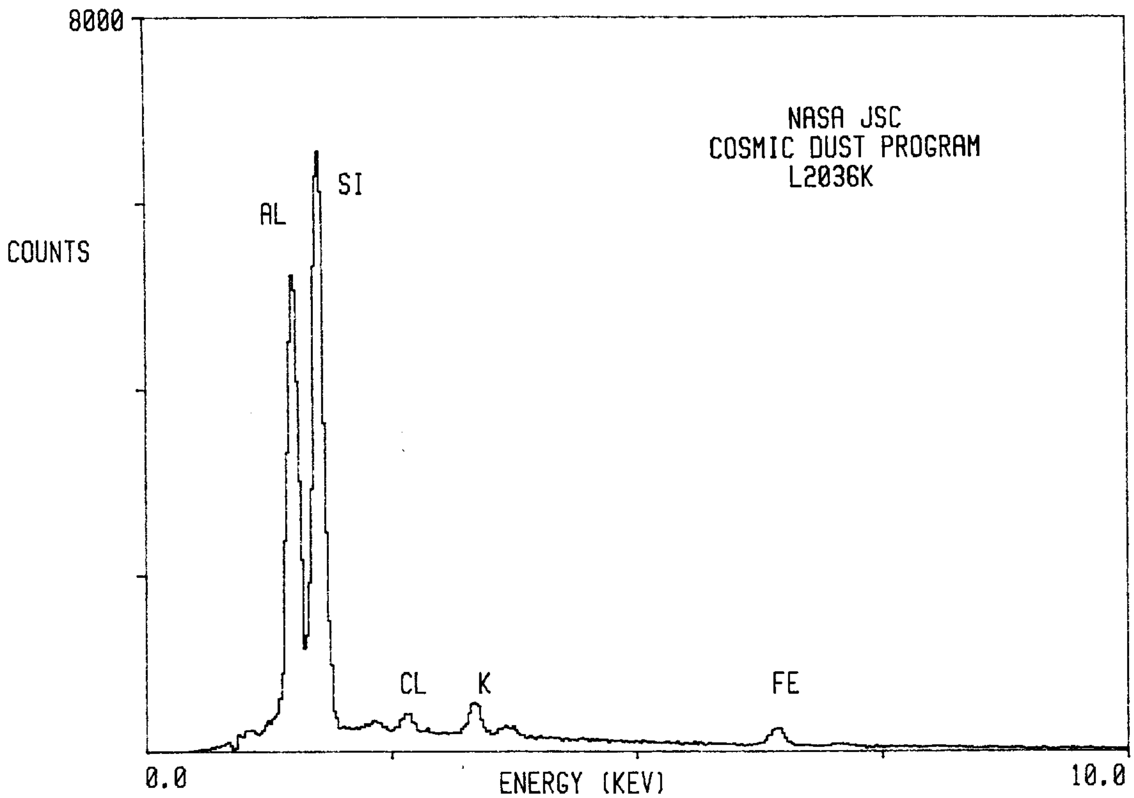
Trans: TL

Color: White

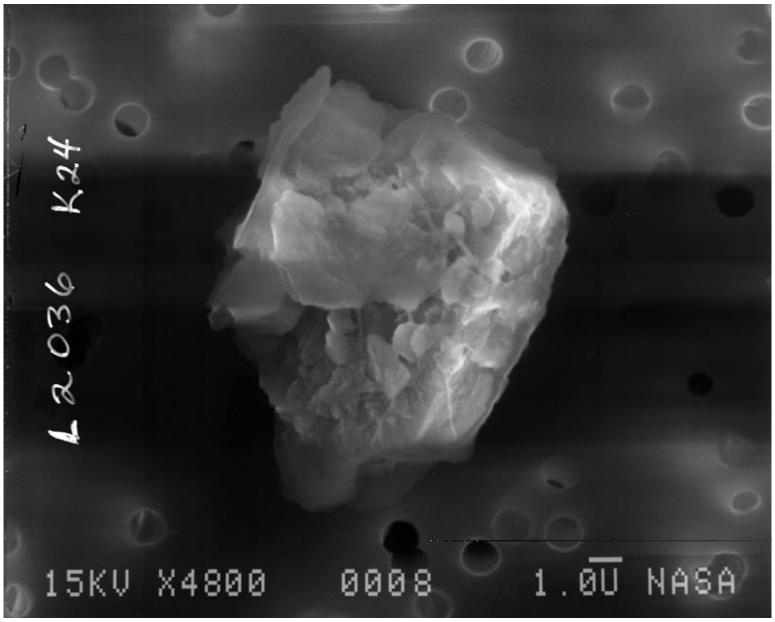
Luster: P

Type: TCN

Comments:

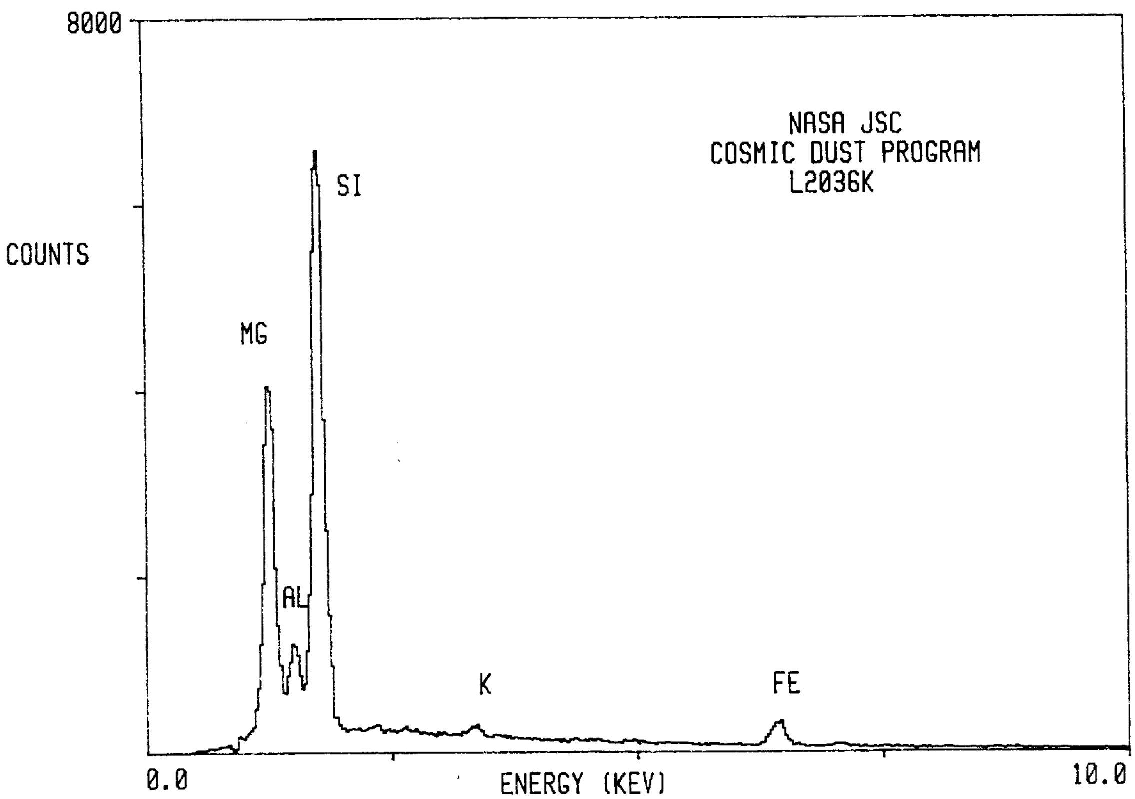


L2036K24

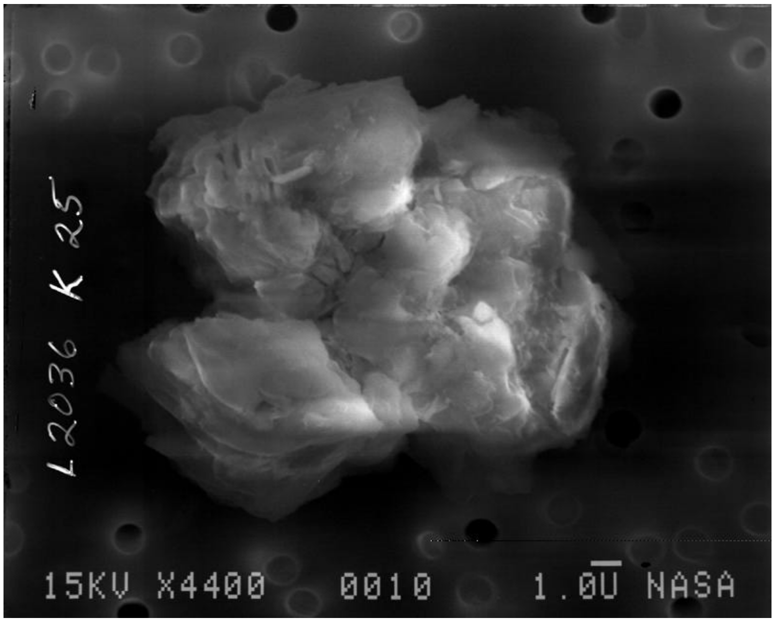


97E00215

Size: 12x10
Shape: I
Trans: TL
Color: White
Luster: P
Type: TCN?
Comments:

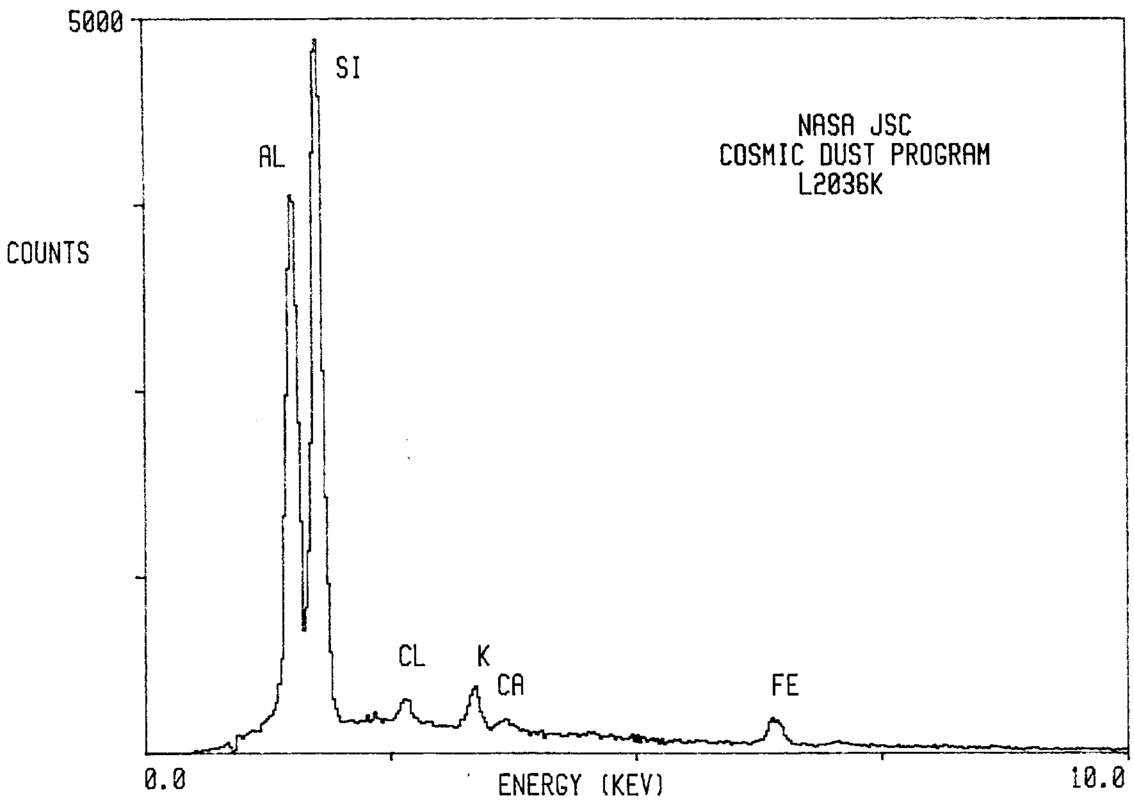


L2036K25

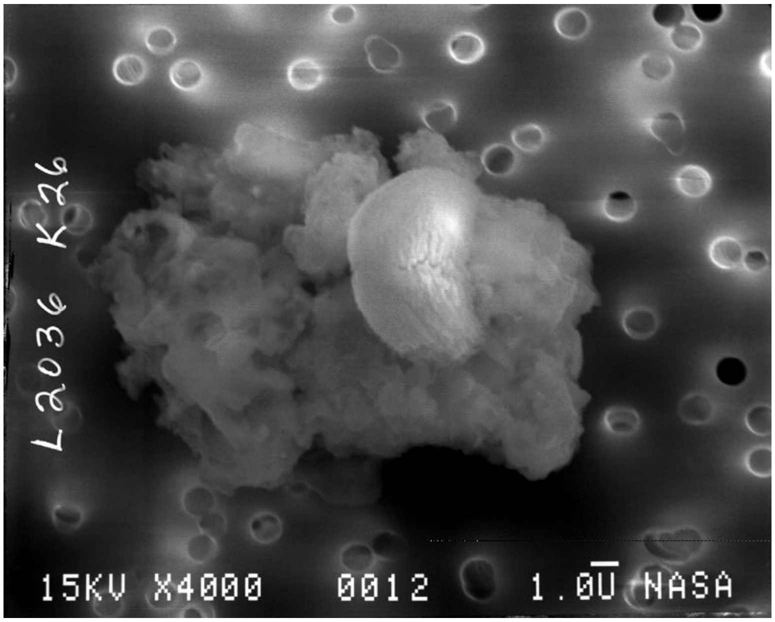


97E00216

Size:	14
Shape:	E
Trans:	TL
Color:	White
Luster:	P
Type:	TCN?
Comments:	

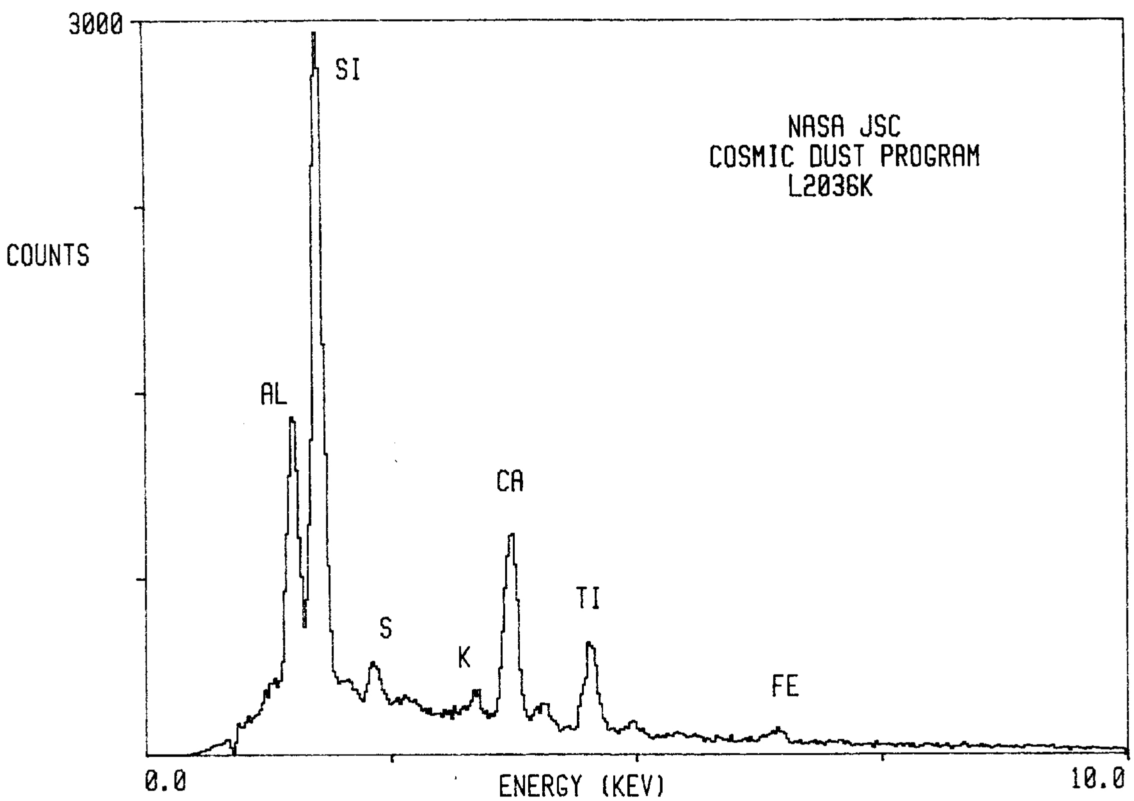


L2036K26

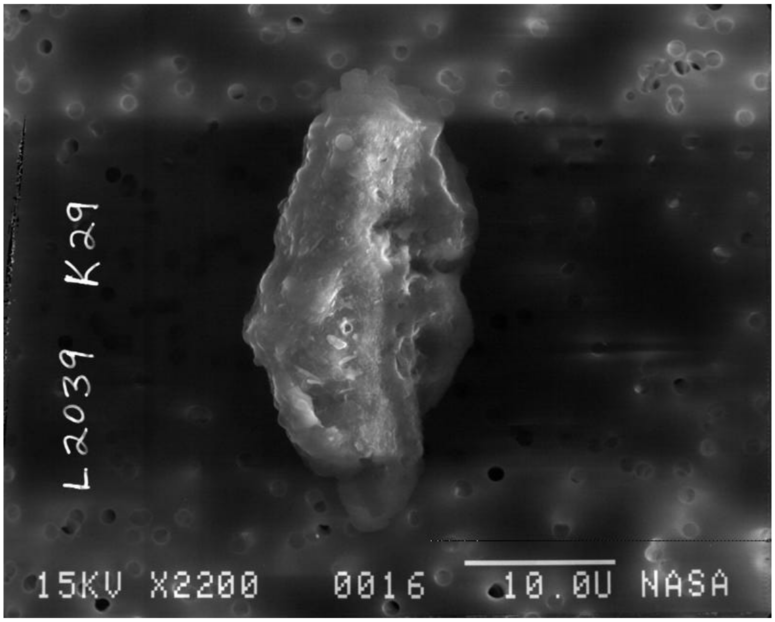


97E00217

Size:	19x13
Shape:	I
Trans:	TL
Color:	White
Luster:	P
Type:	TCN
Comments:	

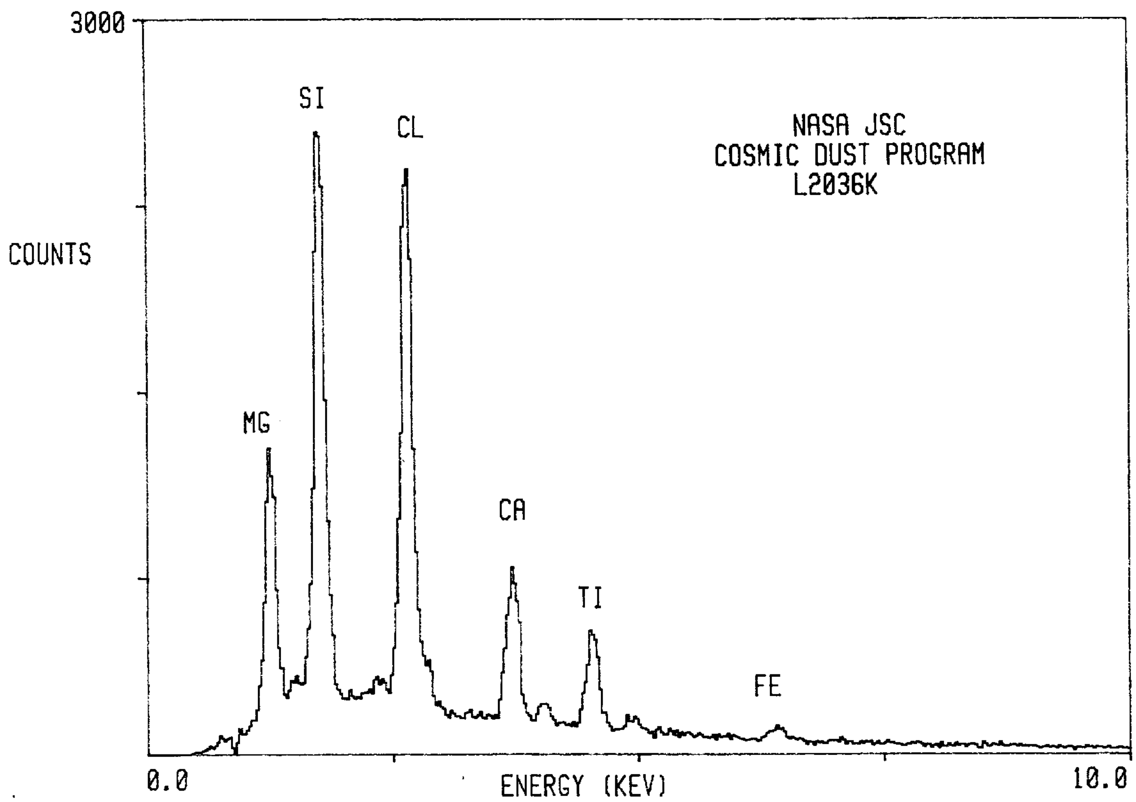


L2036K29

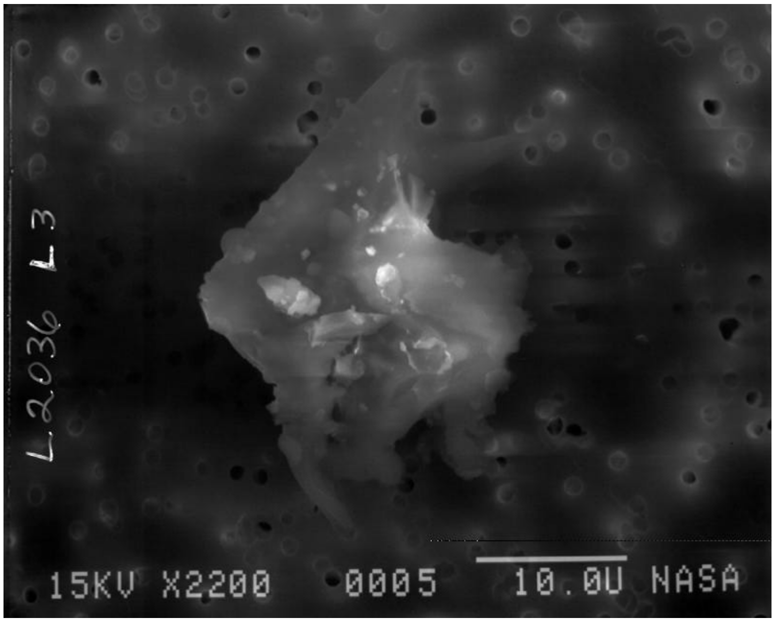


97E00220

Size:	28x14
Shape:	I
Trans:	TL
Color:	Colorless
Luster:	SV
Type:	TCN
Comments:	



L2036L3



97E00226

Size: 22x19

Shape: I

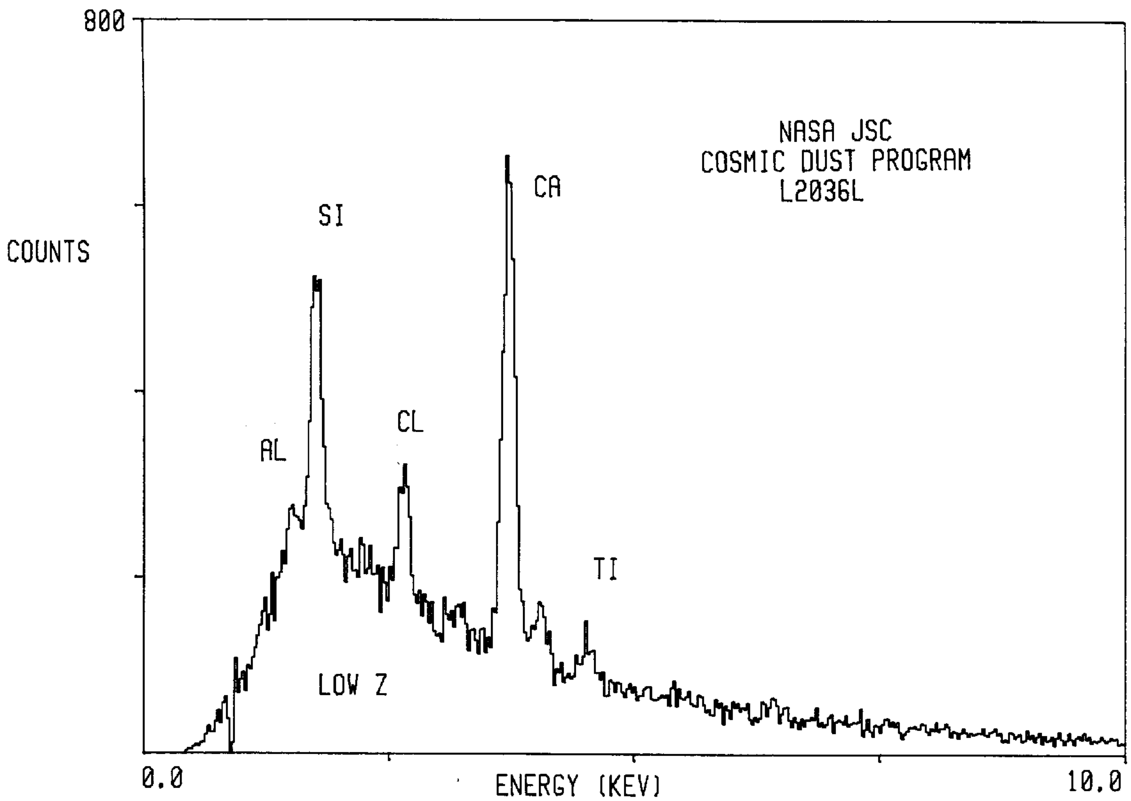
Trans: TL

Color: Colorless

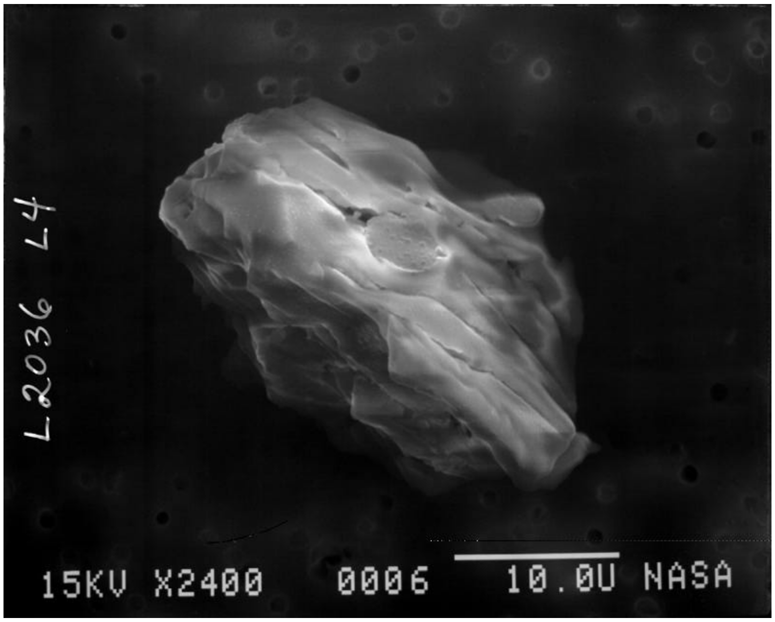
Luster: SV

Type: TCN

Comments:



L2036L4



97E00227

Size: 28x16

Shape: I

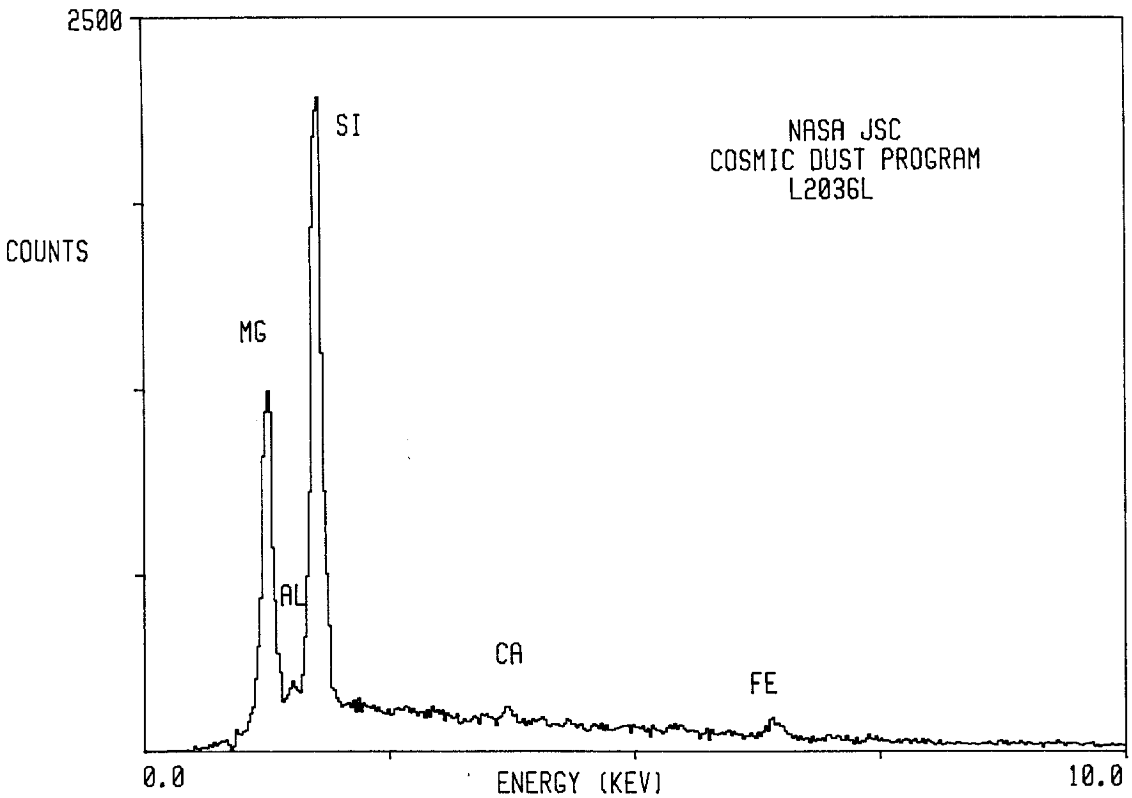
Trans: TL

Color: Colorless

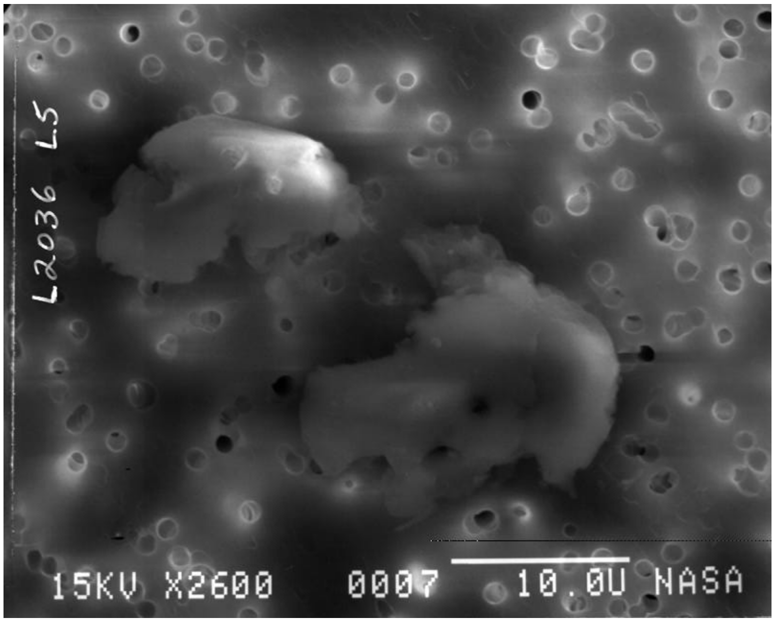
Luster: SV

Type: TCN

Comments:

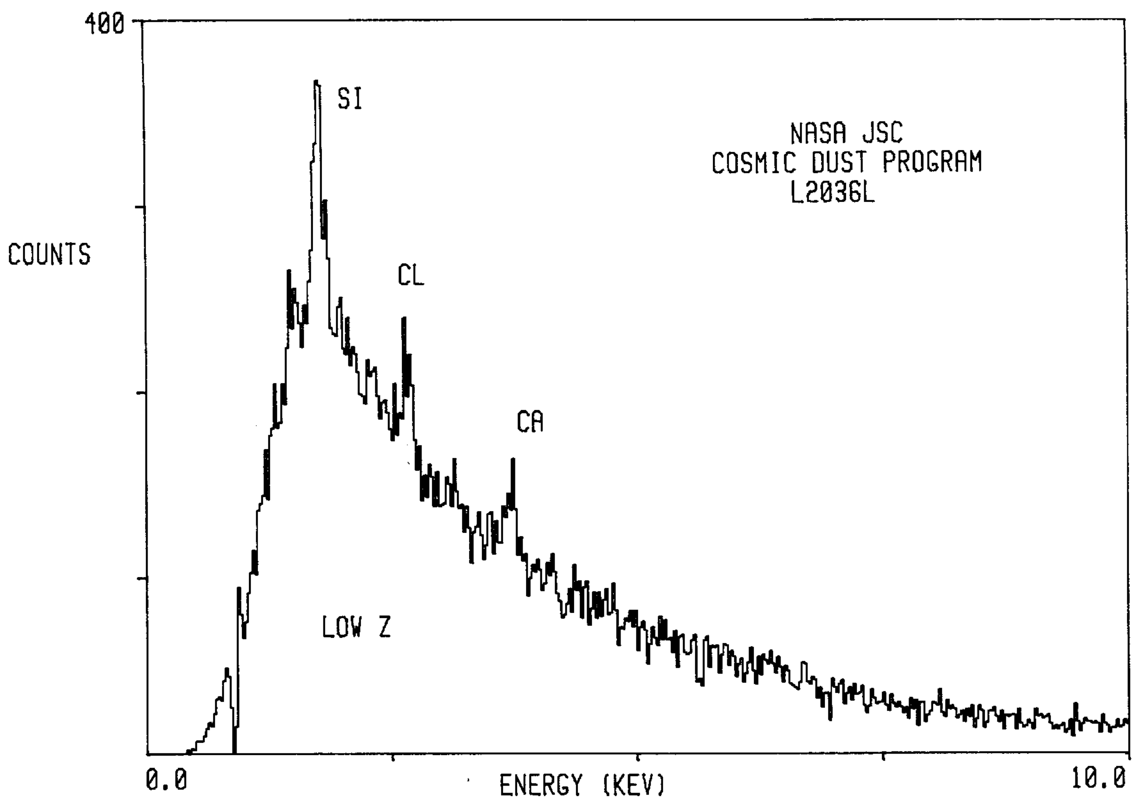


L2036L5

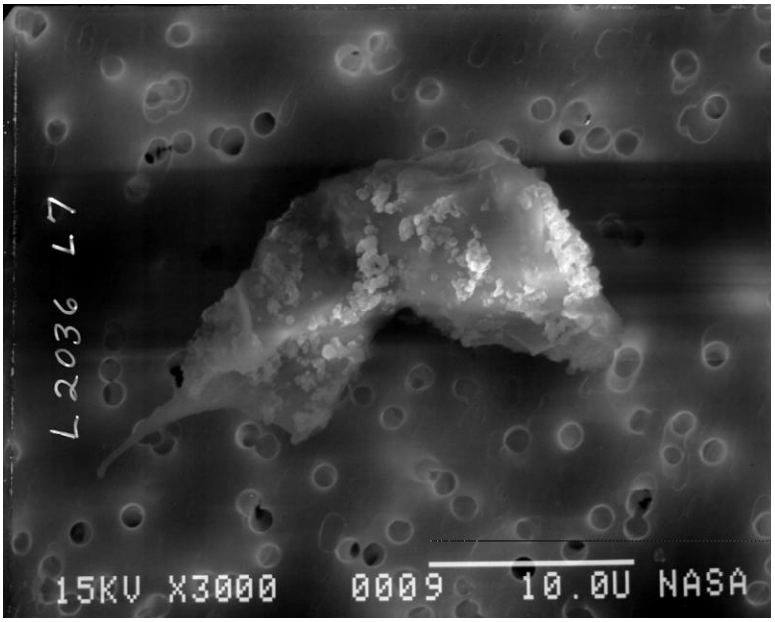


97E00228

Size:	12x9
Shape:	I
Trans:	T
Color:	Colorless
Luster:	V
Type:	TCN
Comments:	Two related grains

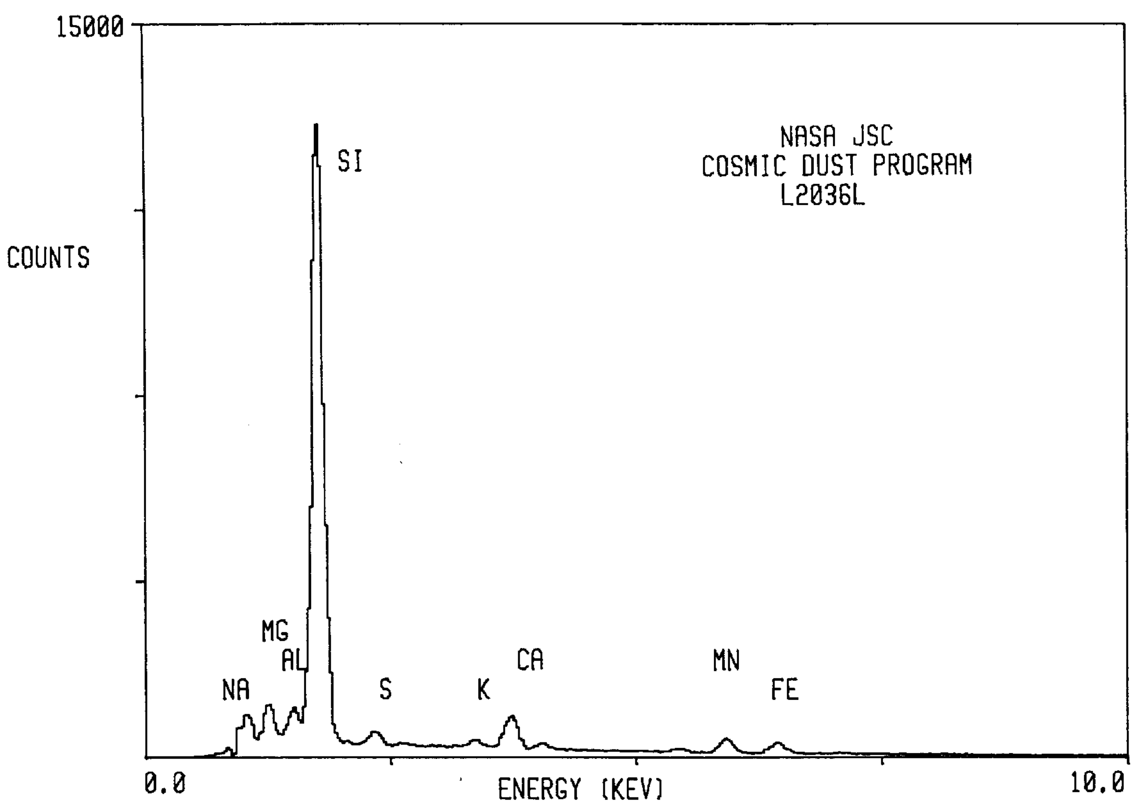


L2036L7

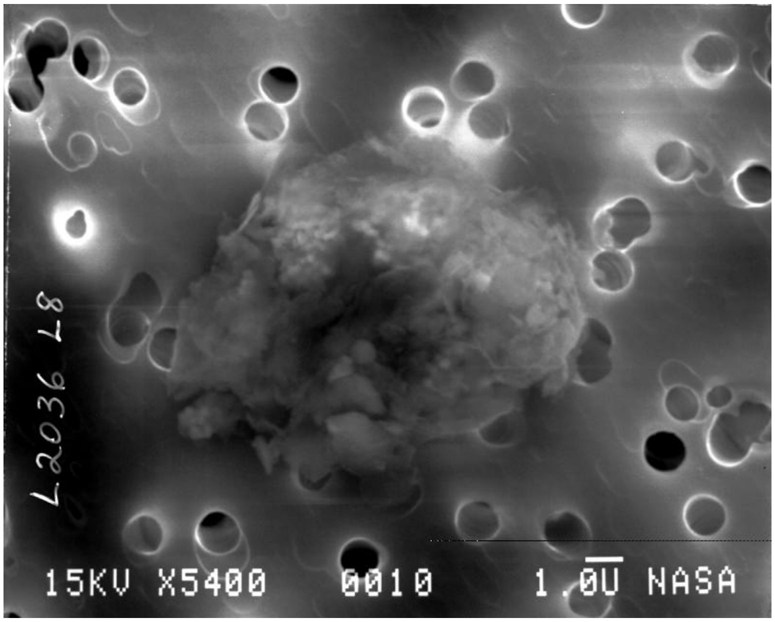


97E00230

Size:	17x10
Shape:	I
Trans:	T
Color:	Colorless
Luster:	V
Type:	TCN
Comments:	



L2036L8



97E00231

Size: 12x10

Shape: I

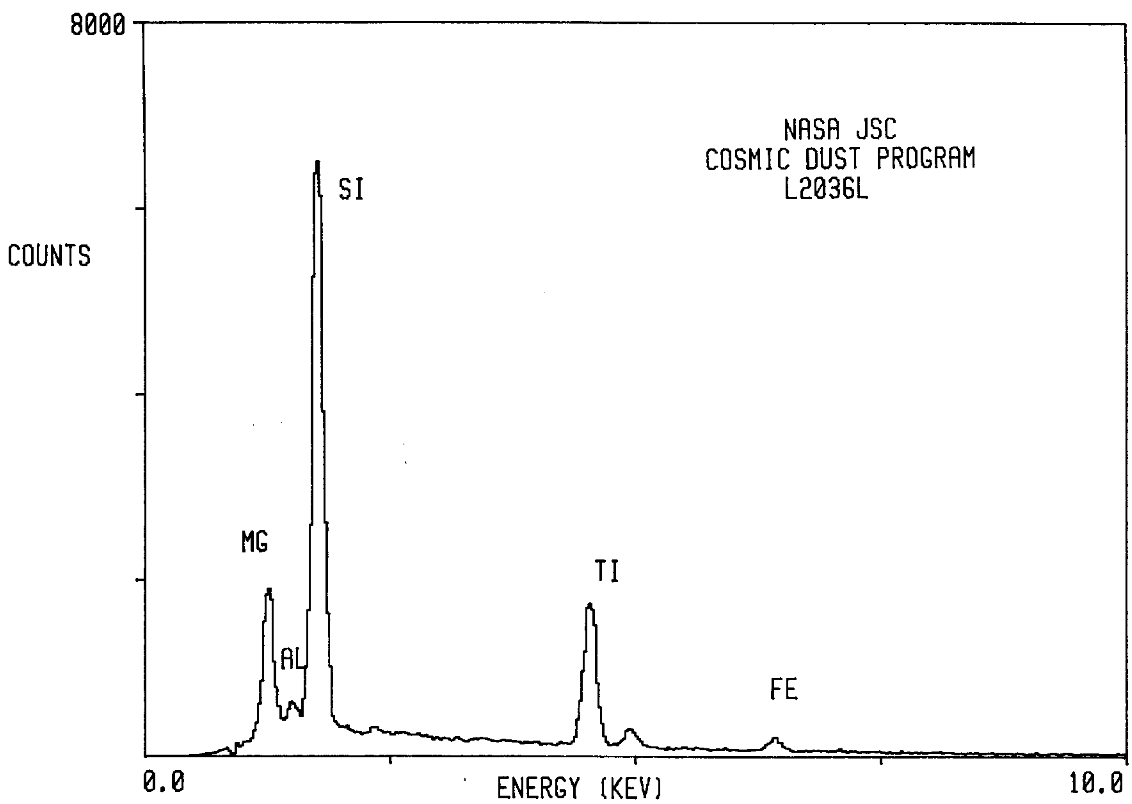
Trans: TL

Color: White

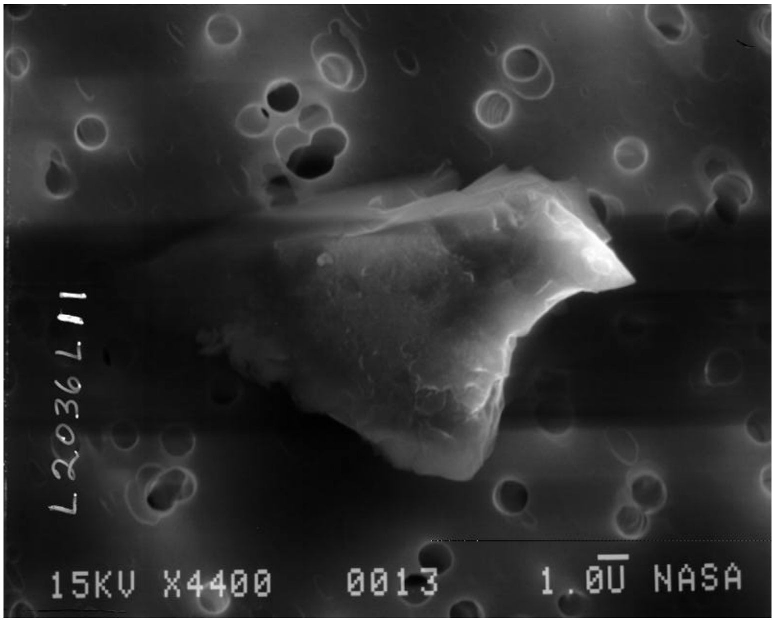
Luster: SV

Type: TCN

Comments:

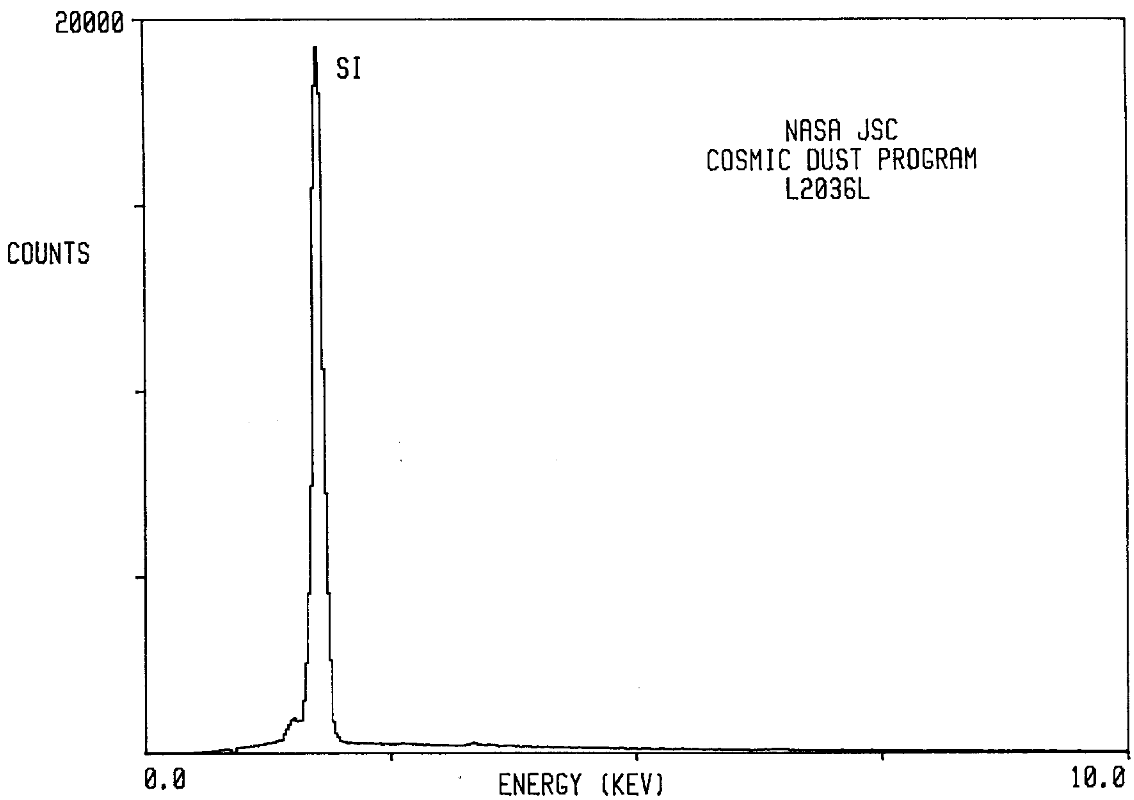


L2036L11

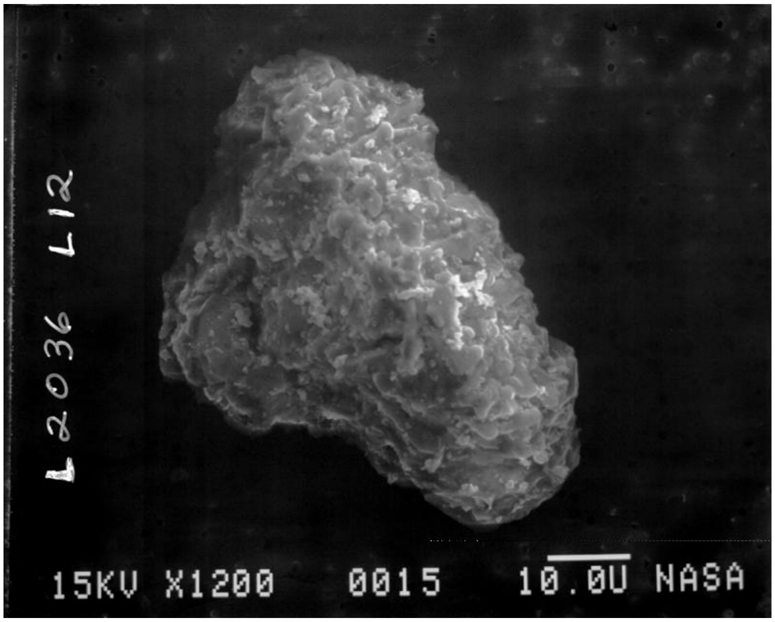


97E00234

Size:	8
Shape:	I
Trans:	TL
Color:	Colorless
Luster:	SV
Type:	TCN
Comments:	

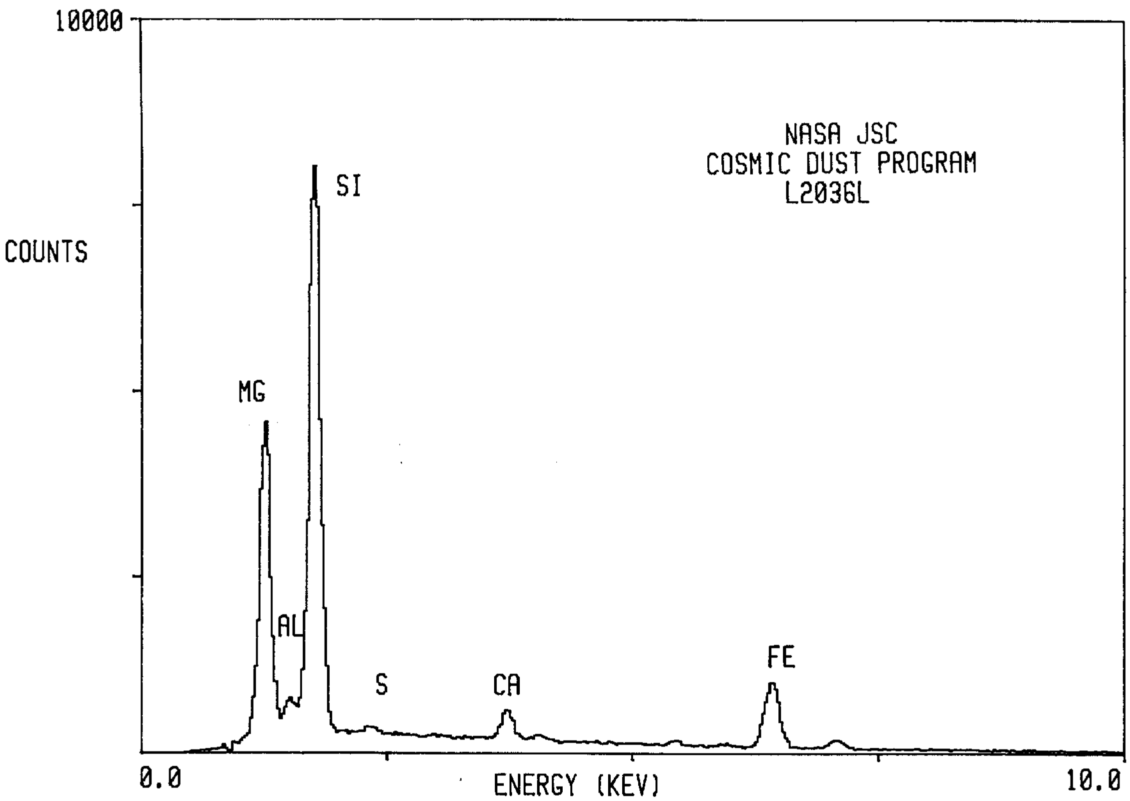


L2036L12

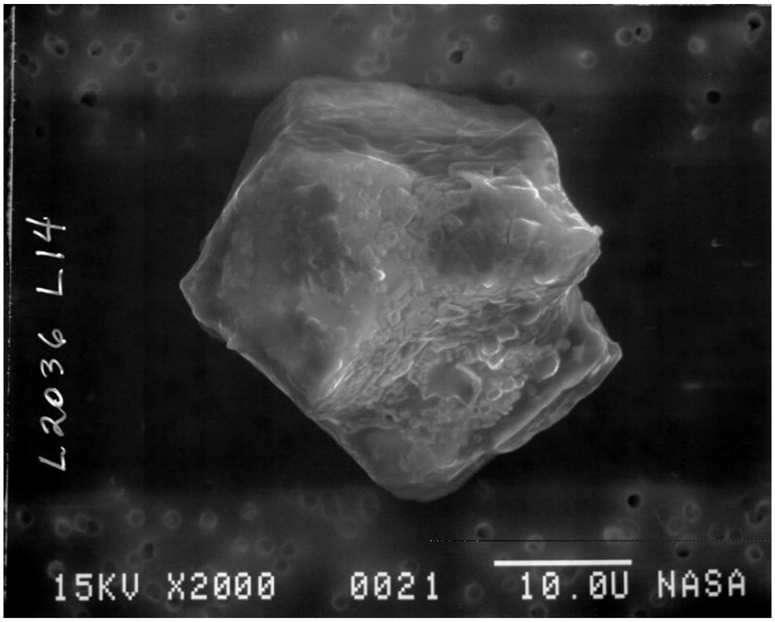


97E00235

Size: 50x44
Shape: I
Trans: O
Color: White
Luster: P
Type: TCN
Comments:



L2036L14



97E00237

Size: 26x24

Shape: I

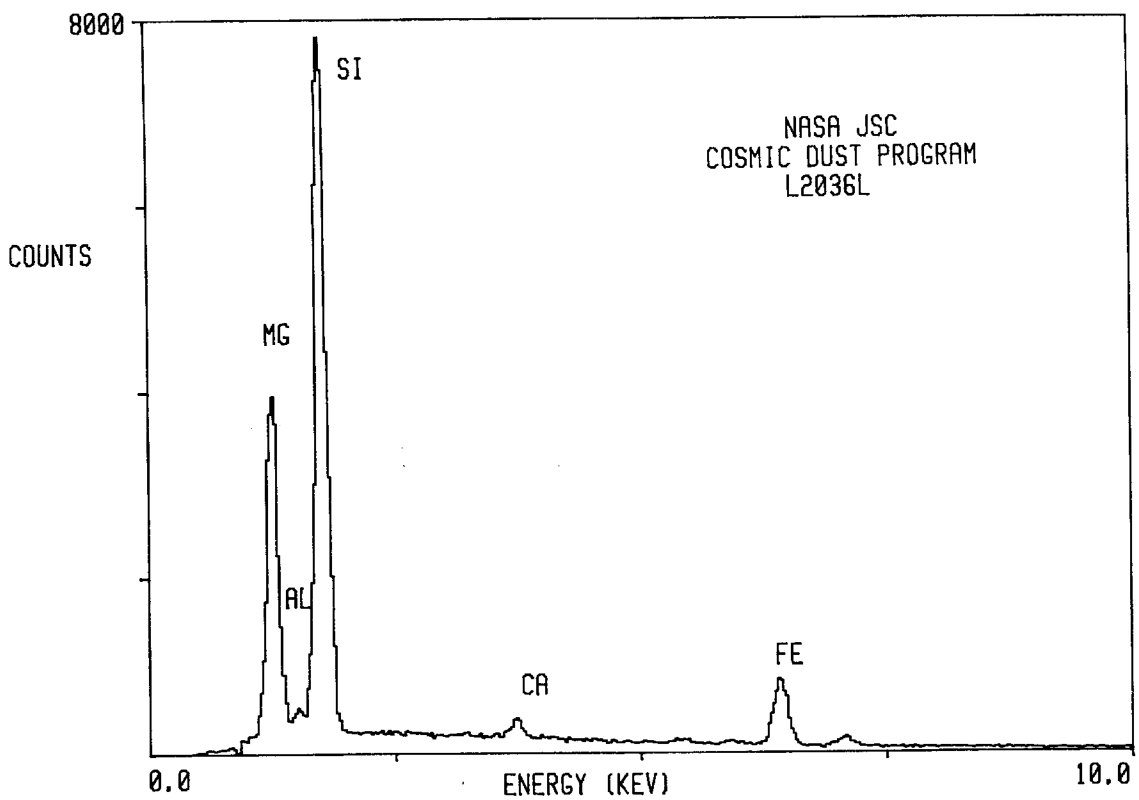
Trans: TL

Color: Colorless

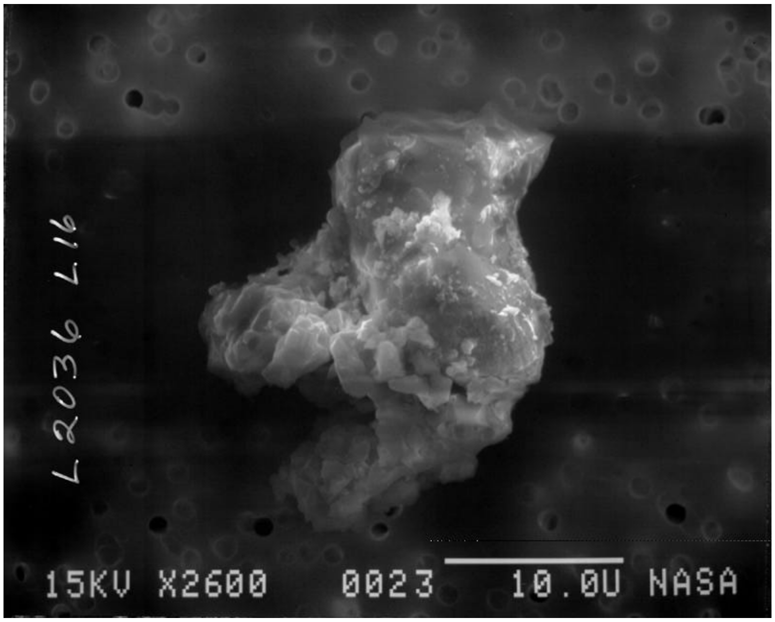
Luster: V

Type: TCN

Comments:



L2036L16



97E00239

Size: 22x16

Shape: I

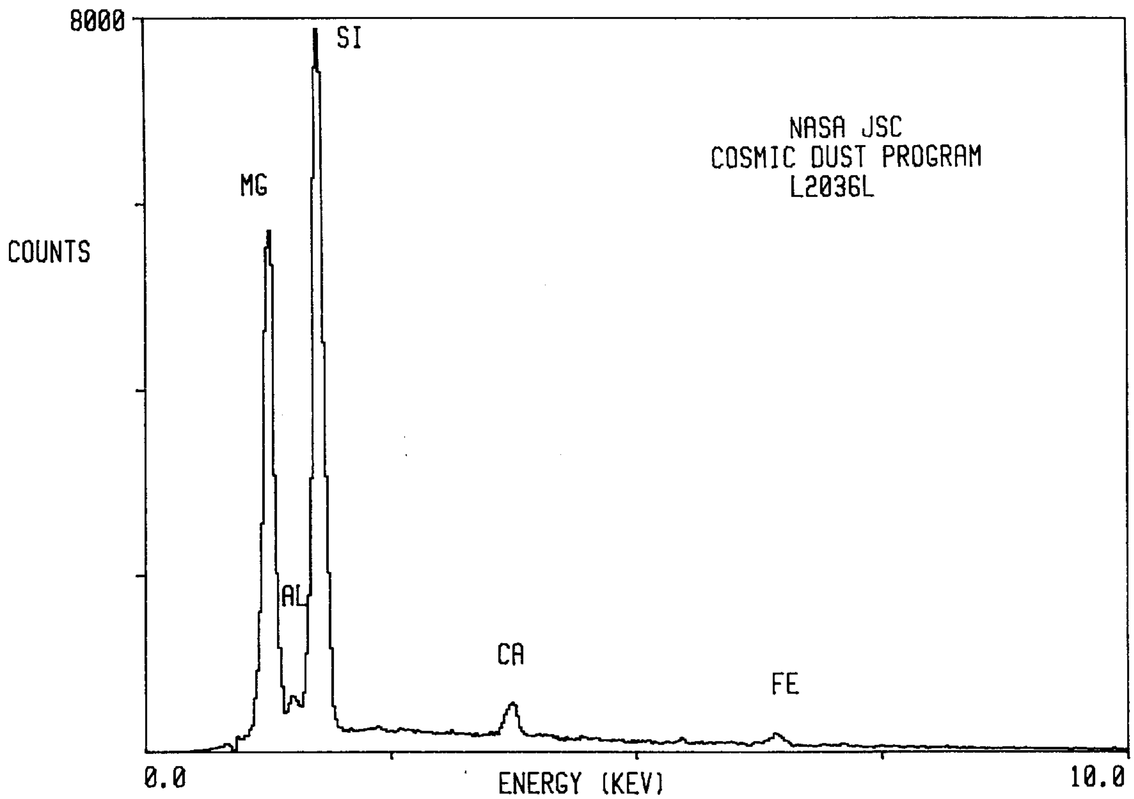
Trans: TL

Color: White

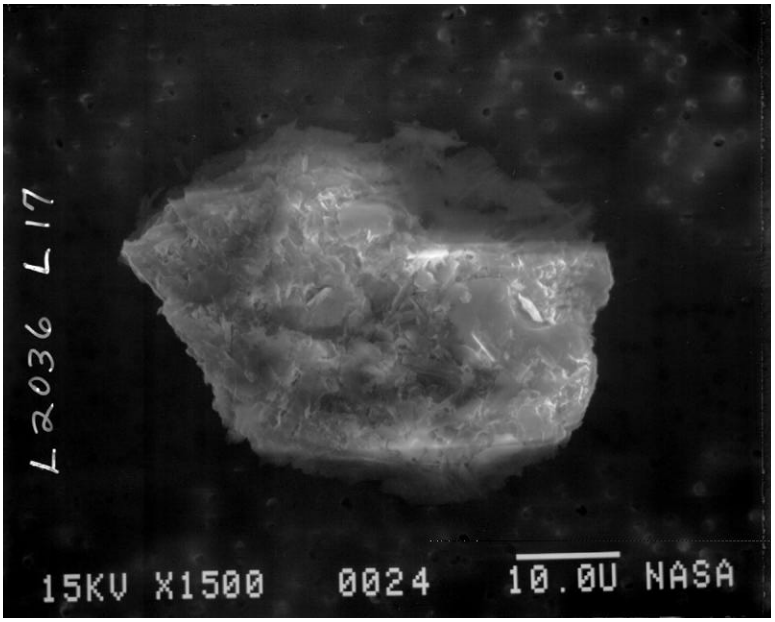
Luster: SV

Type: TCN

Comments:



L2036L17



97E00240

Size: 48x34

Shape: I

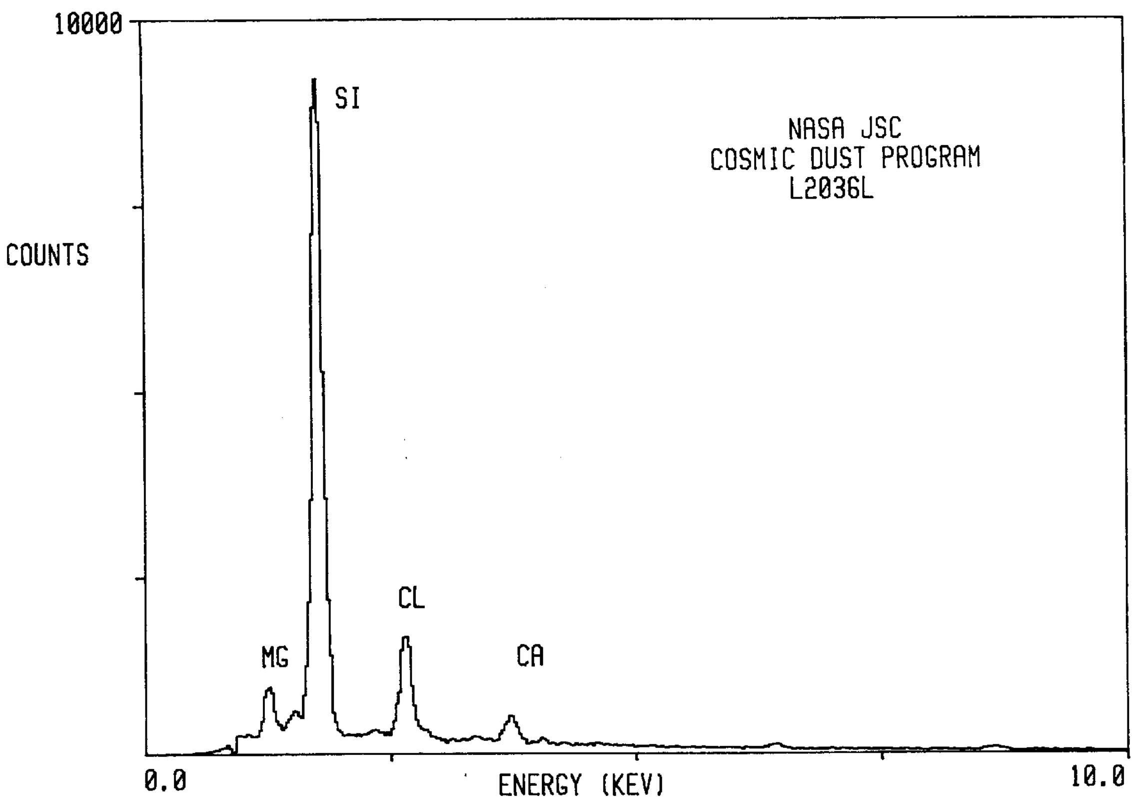
Trans: O

Color: White

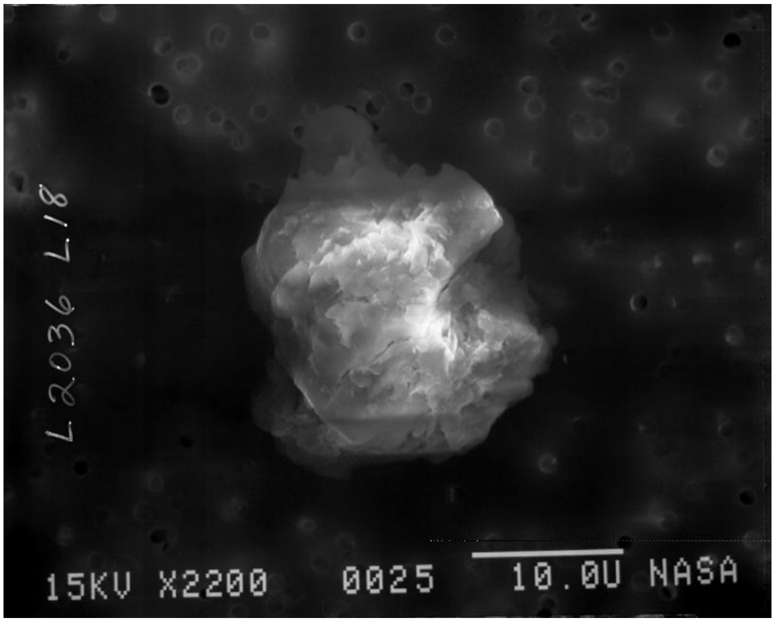
Luster: SV

Type: TCN

Comments:

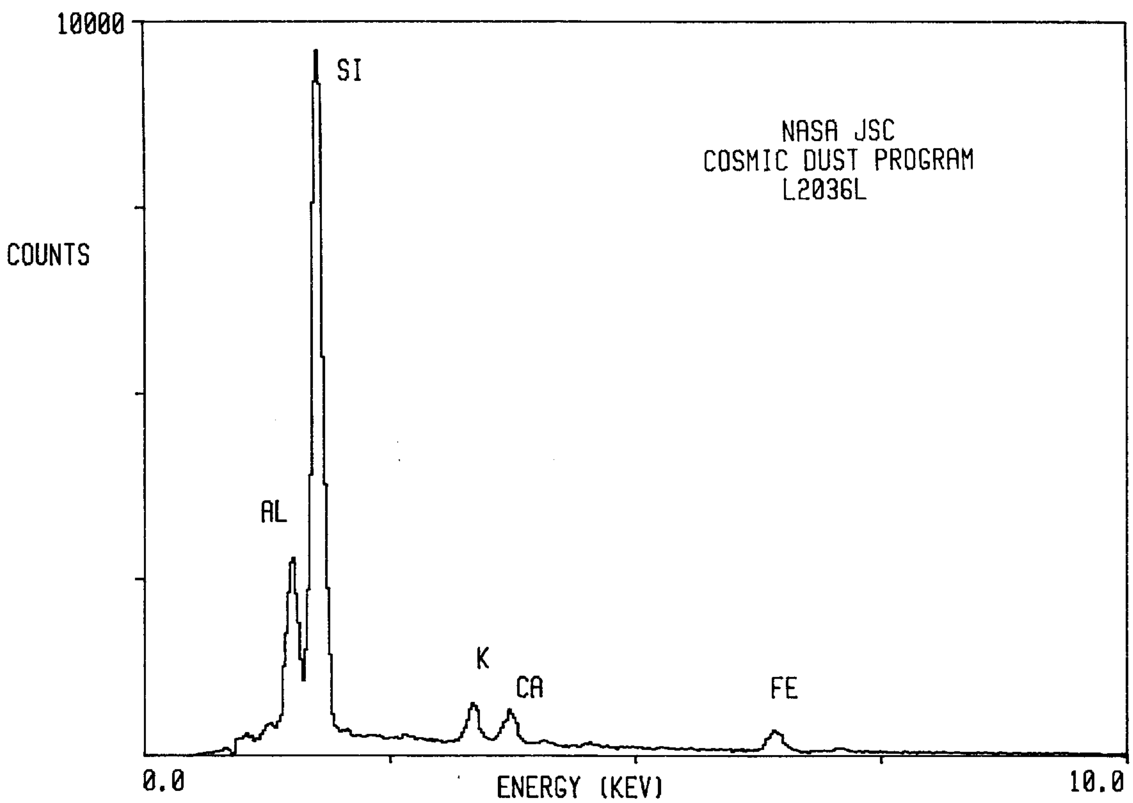


L2036L18

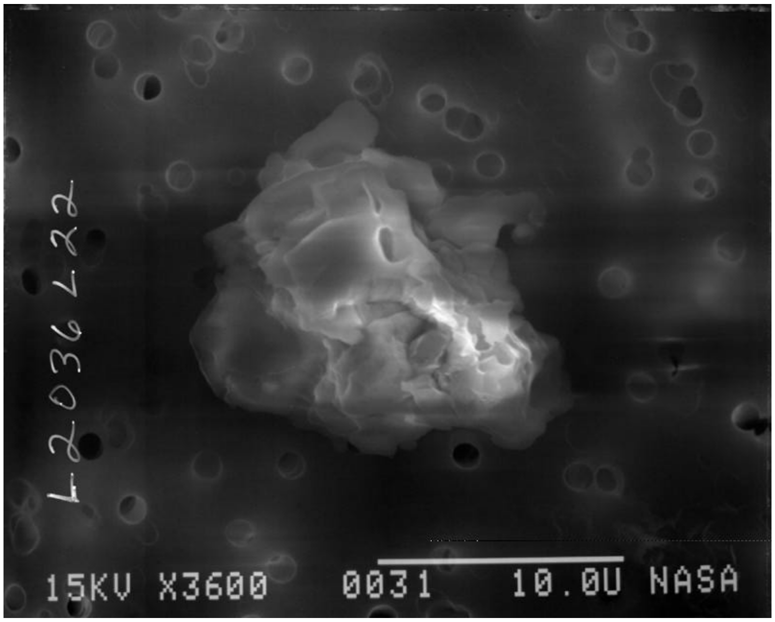


97E00241

Size:	22x19
Shape:	I
Trans:	O
Color:	Brown-Colorless
Luster:	SV
Type:	TCN
Comments:	



L2036L22



97E00245

Size: 14x12

Shape: I

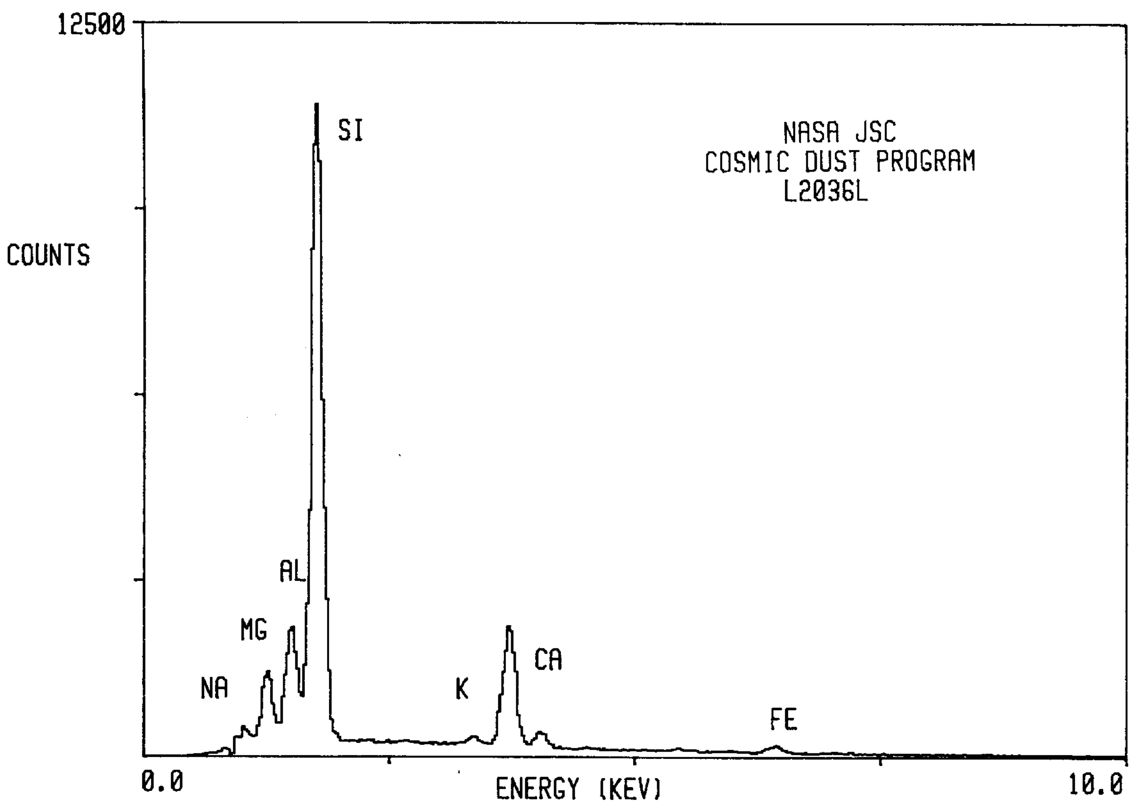
Trans: TL

Color: White

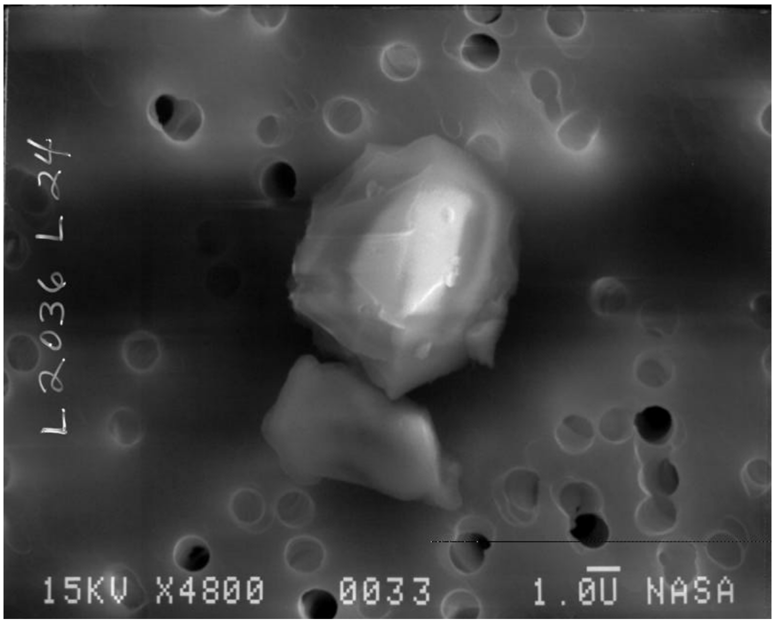
Luster: SV

Type: TCN

Comments:



L2036L24



97E00247

Size: 10x6

Shape: I

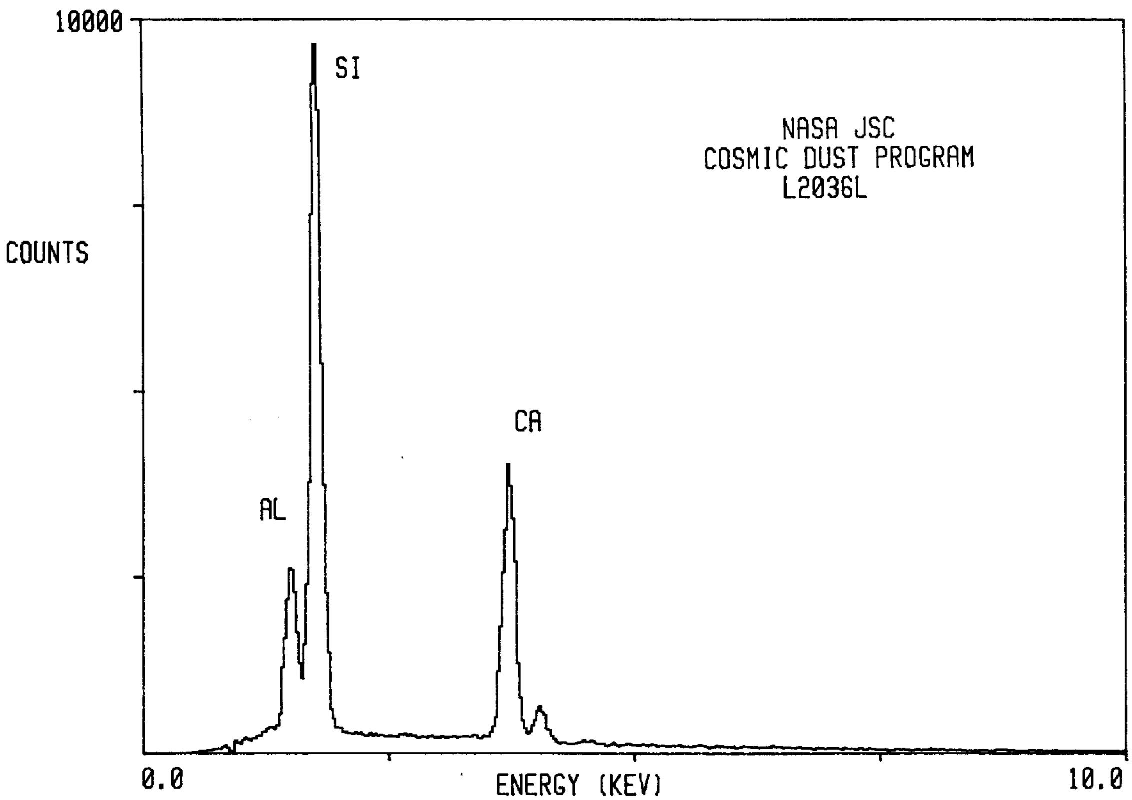
Trans: TL

Color: White

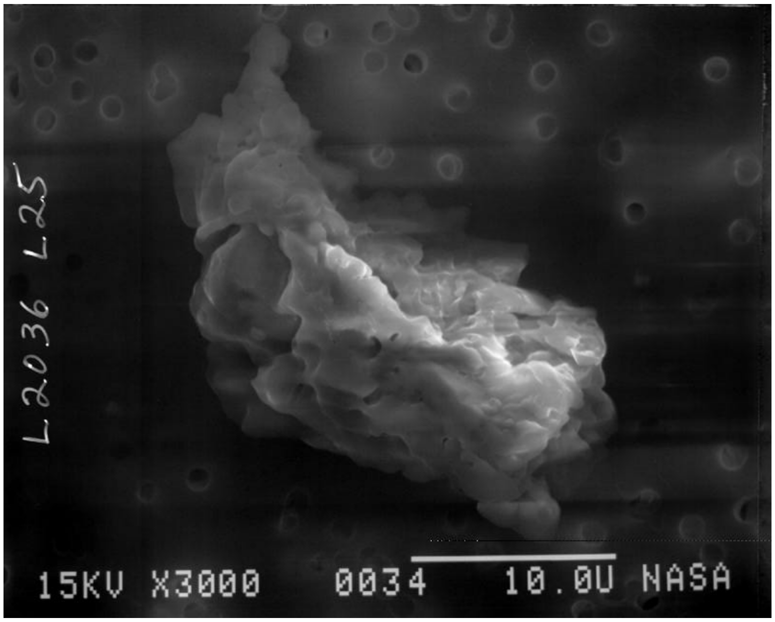
Luster: SV

Type: TCN

Comments:



L2036L25



97E00248

Size: 24x13

Shape: I

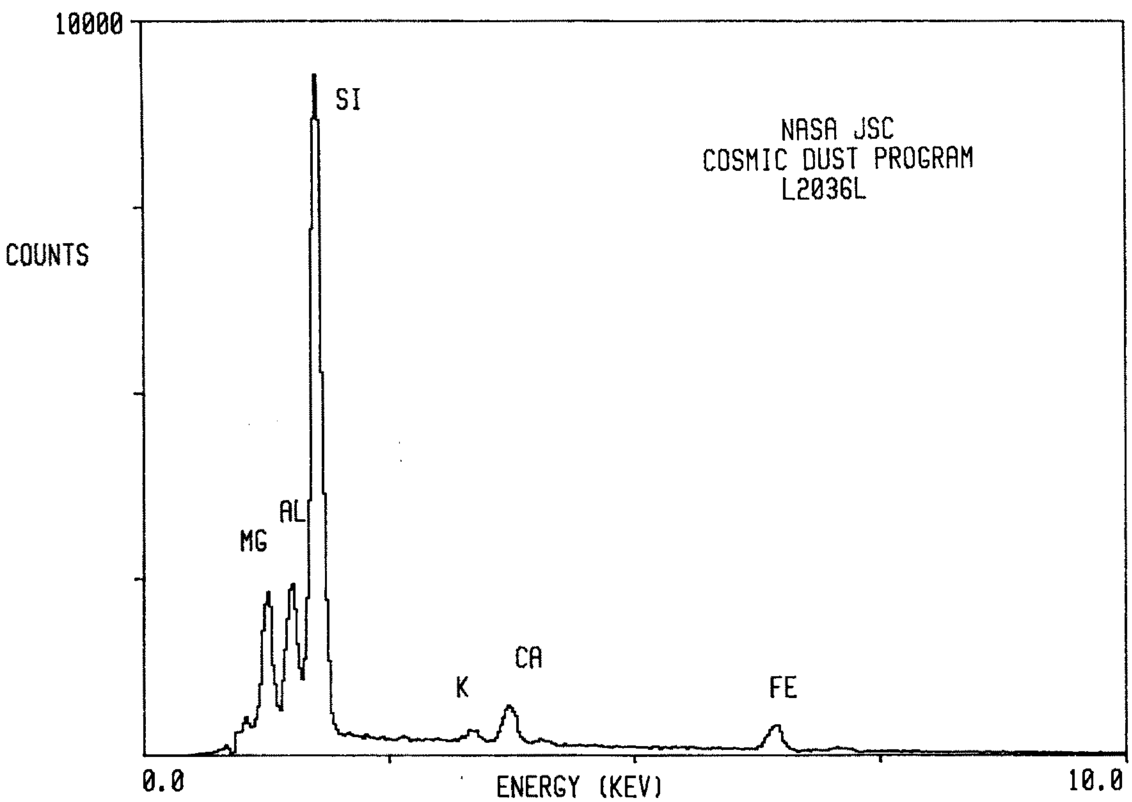
Trans: TL

Color: White

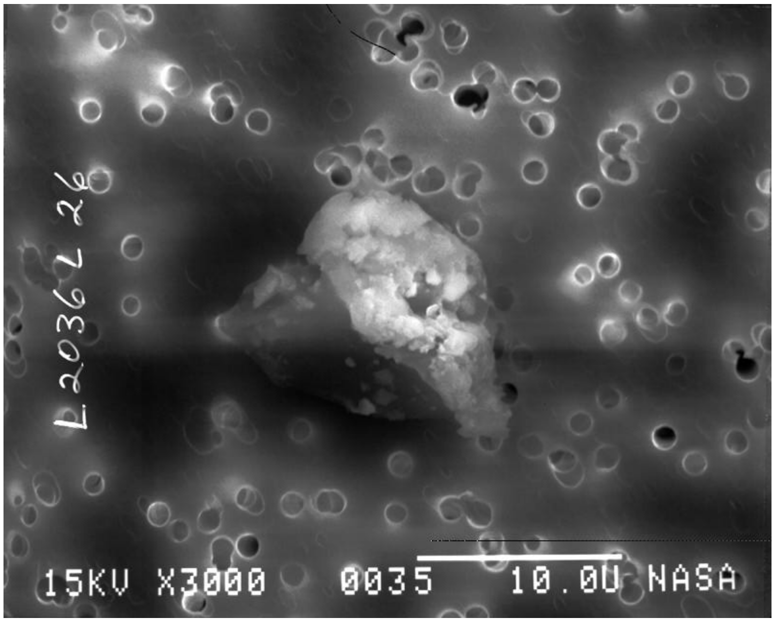
Luster: SV

Type: TCN

Comments:

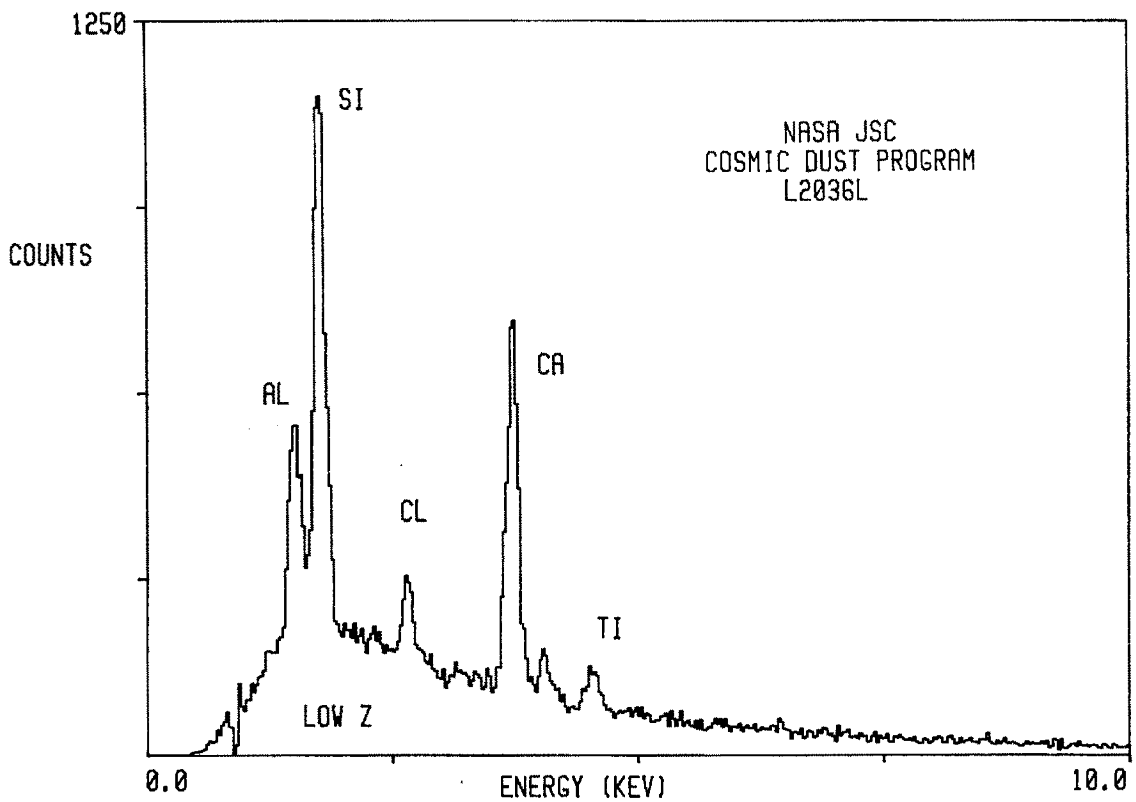


L2036L26

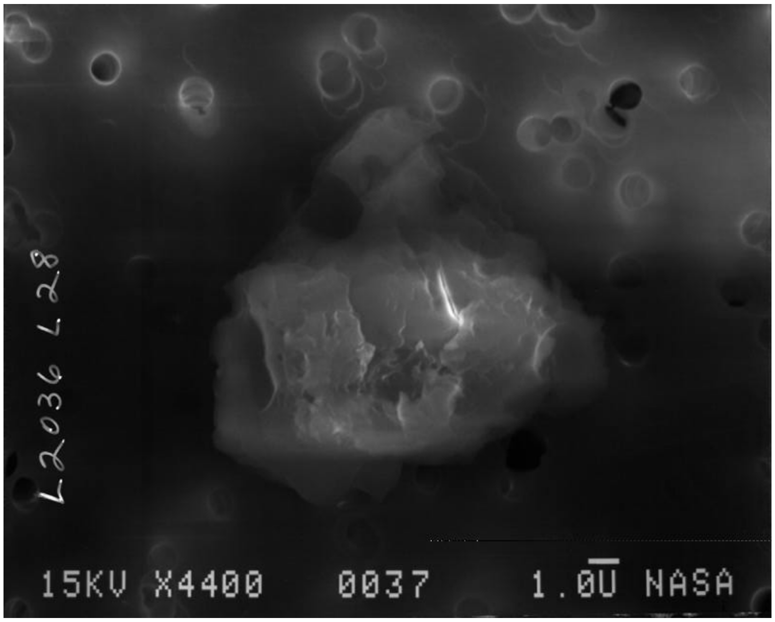


97E00249

Size:	12x8
Shape:	I
Trans:	TL
Color:	White
Luster:	SV
Type:	TCN
Comments:	



L2036L28



97E00251

Size: 12x10

Shape: I

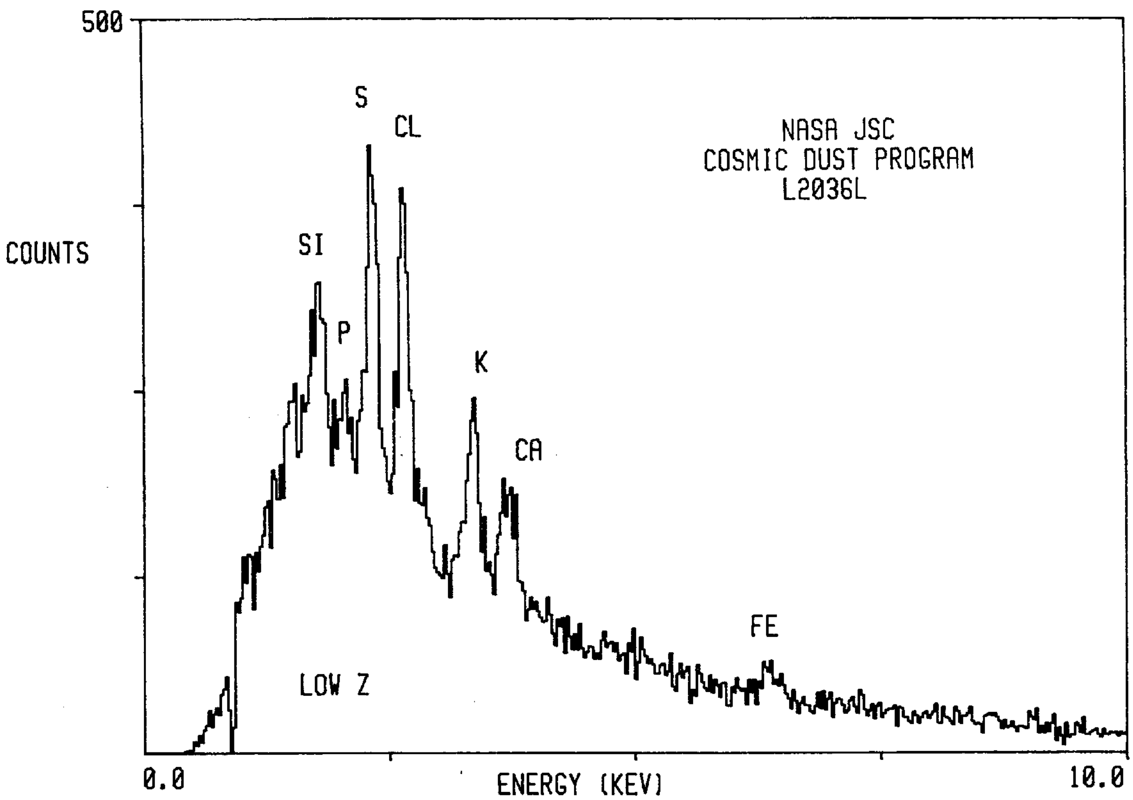
Trans: T

Color: Colorless-Brown

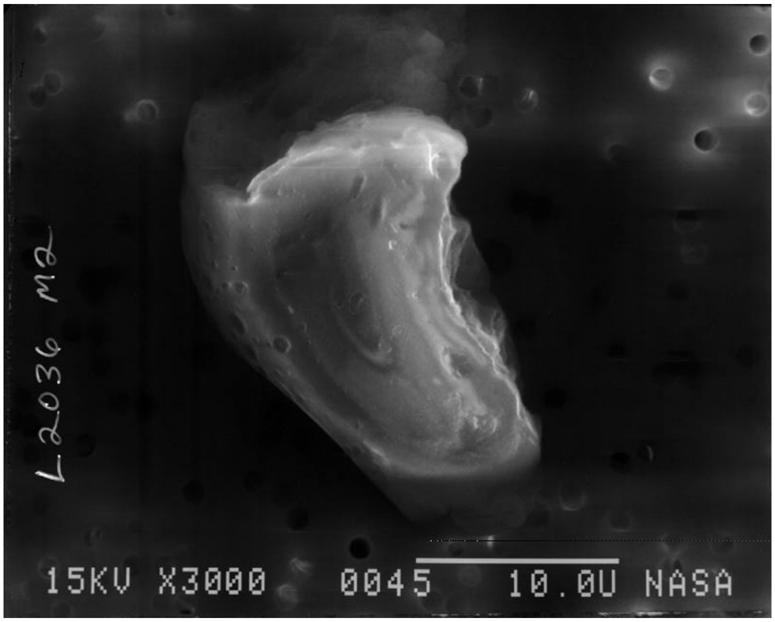
Luster: V

Type: TCN

Comments:

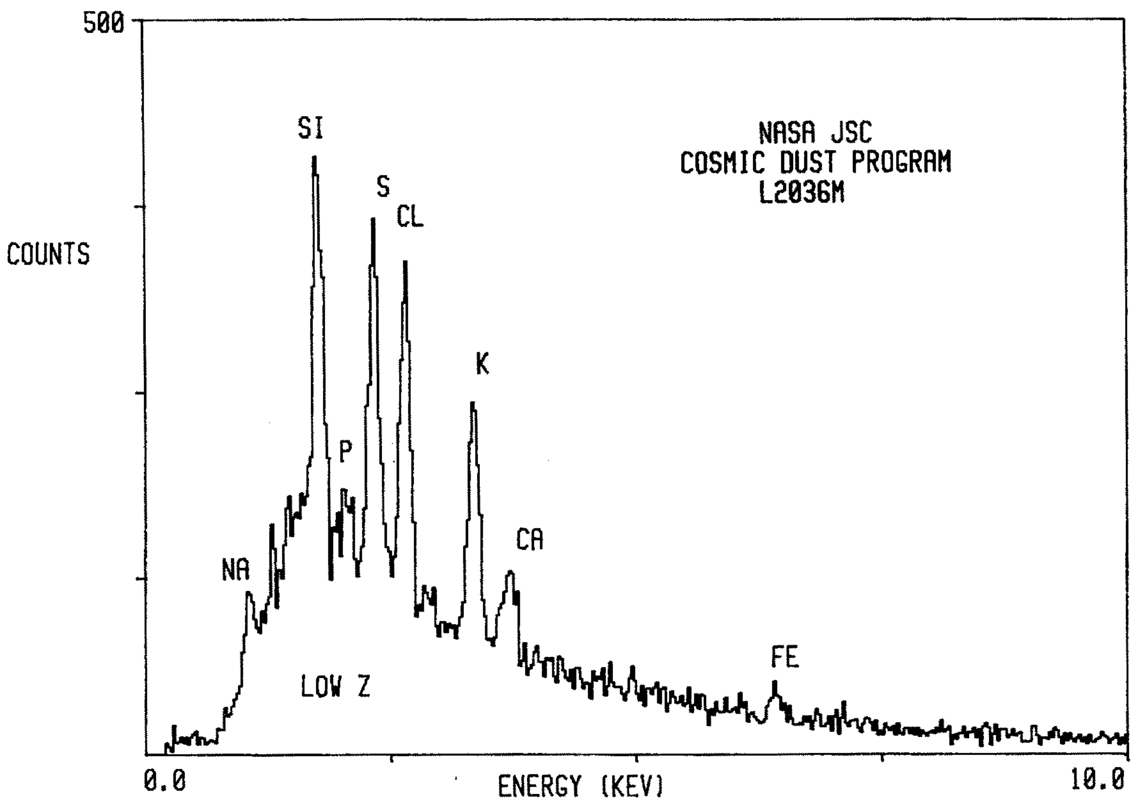


L2036M2

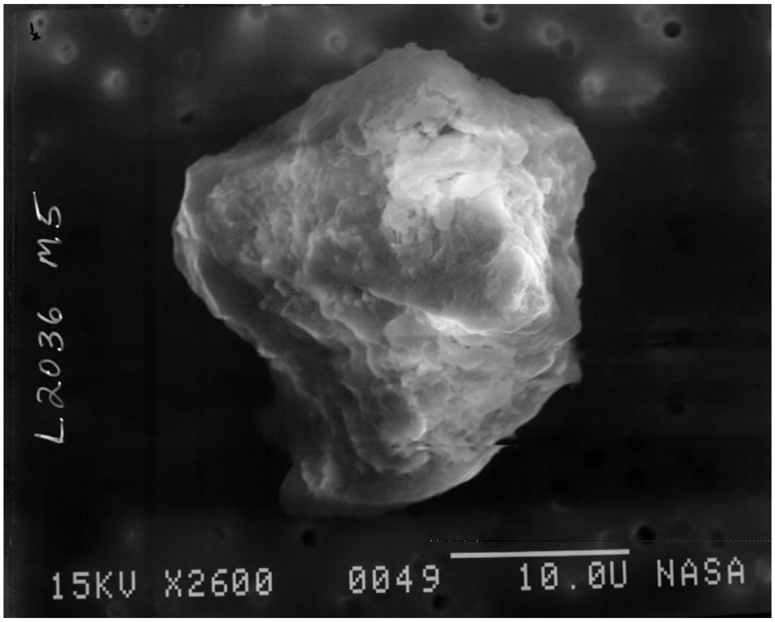


97E00253

Size: 16x14
Shape: I
Trans: T
Color: Colorless
Luster: V
Type: TCN
Comments:

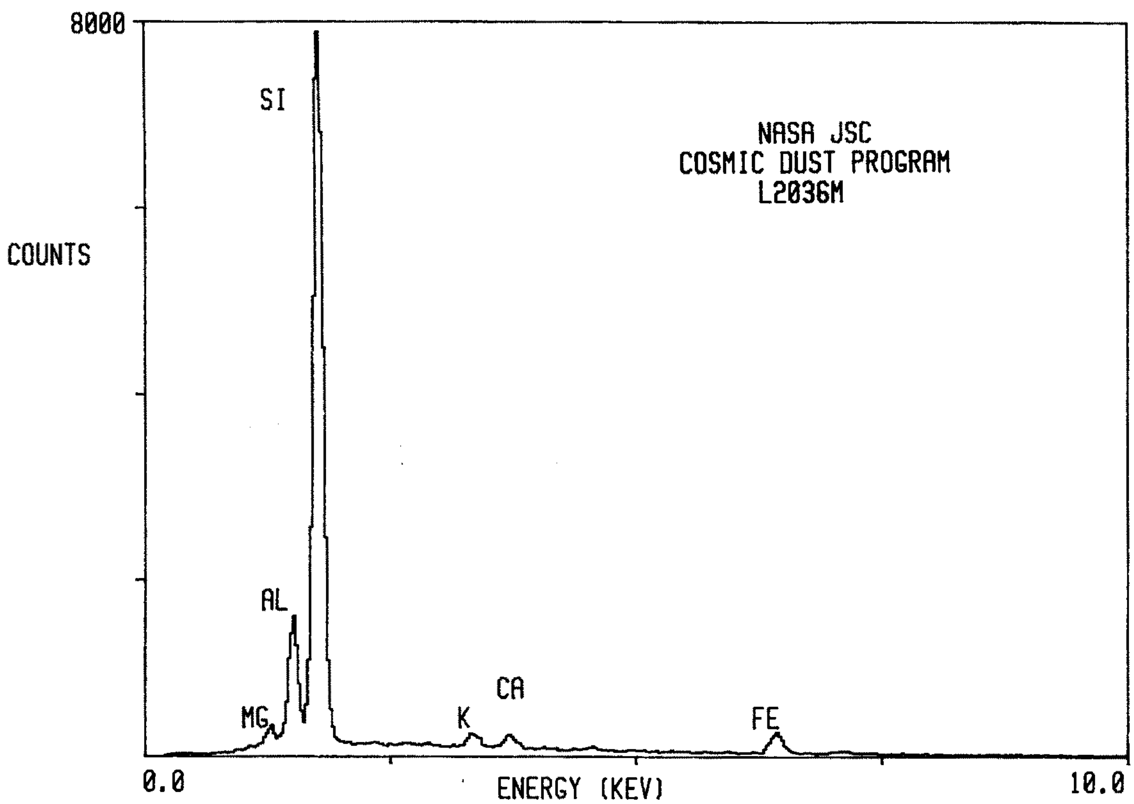


L2036M5

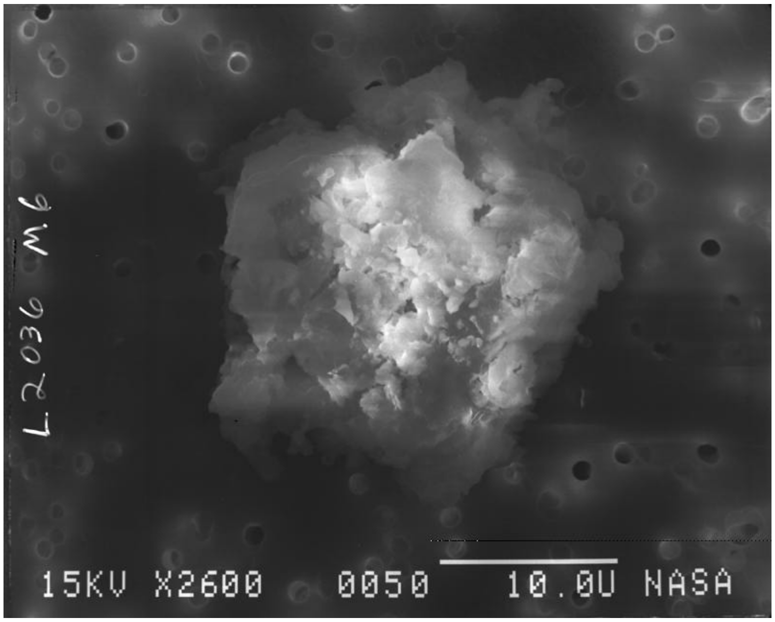


97E00256

Size:	26x21
Shape:	I
Trans:	O
Color:	White
Luster:	SV
Type:	TCN
Comments:	



L2036M6



97E00257

Size: 22x20

Shape: I

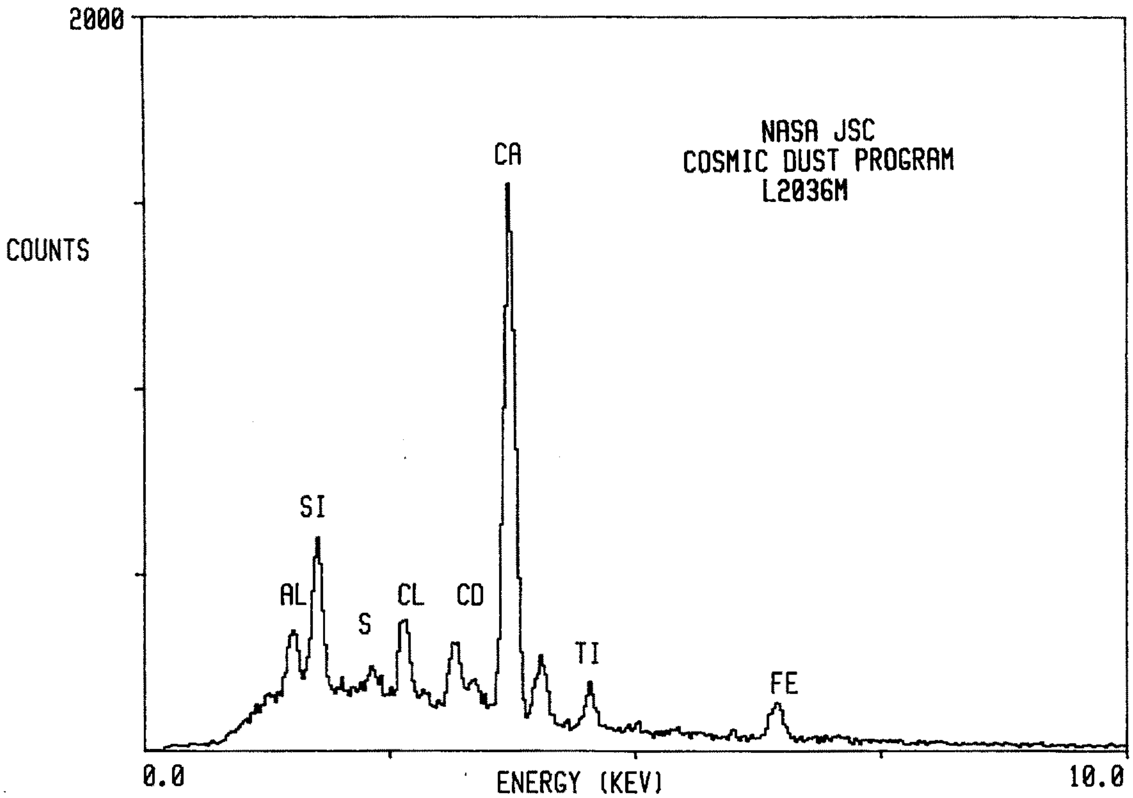
Trans: O

Color: White

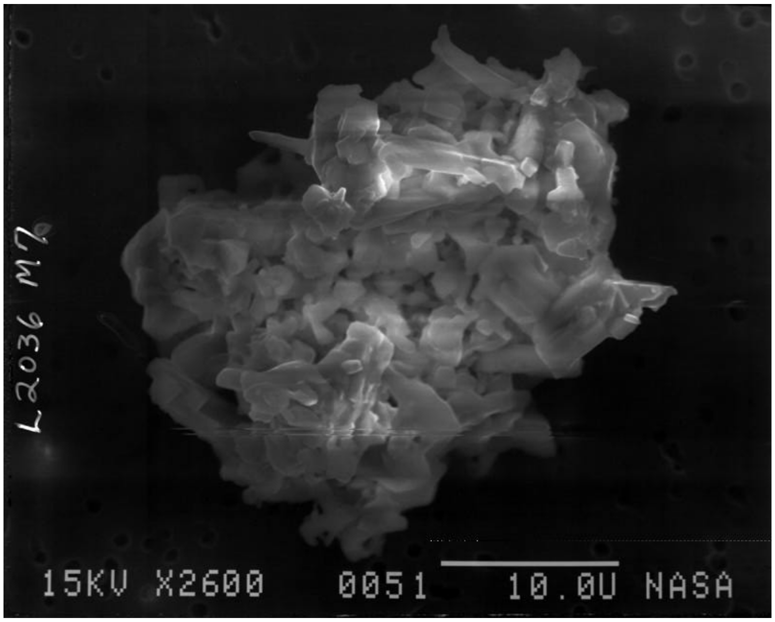
Luster: SV

Type: TCN

Comments:

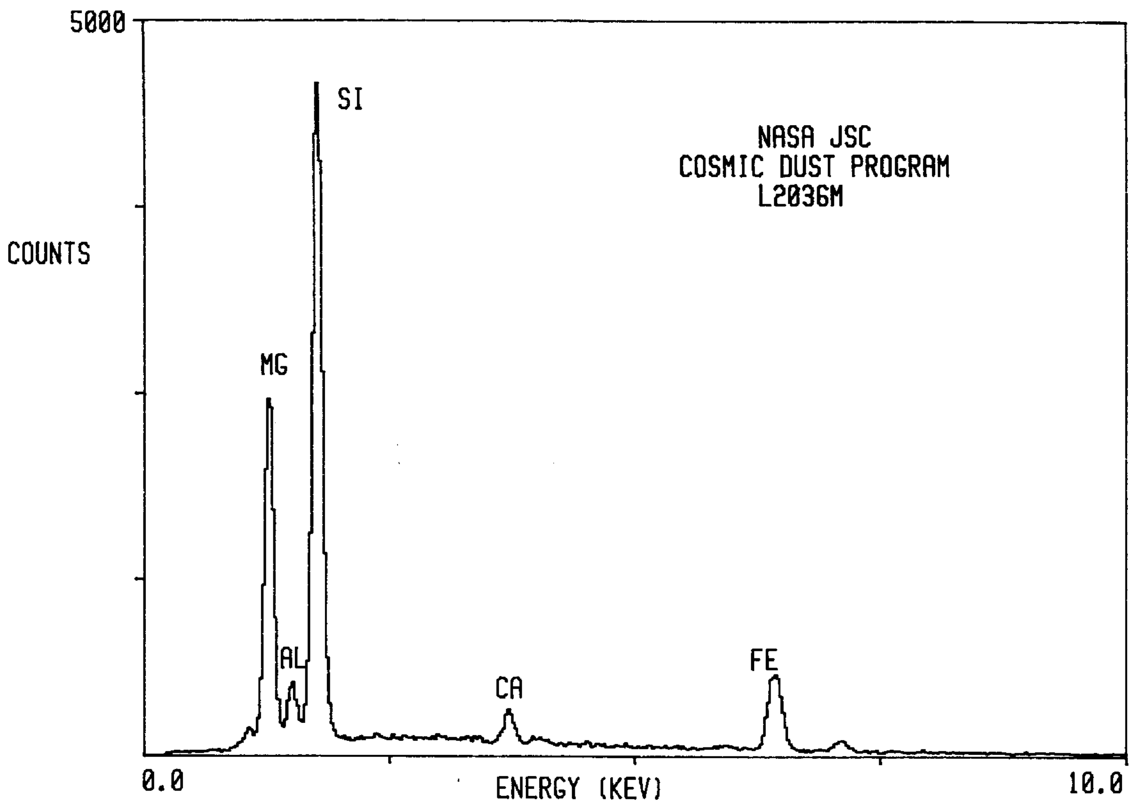


L2036M7

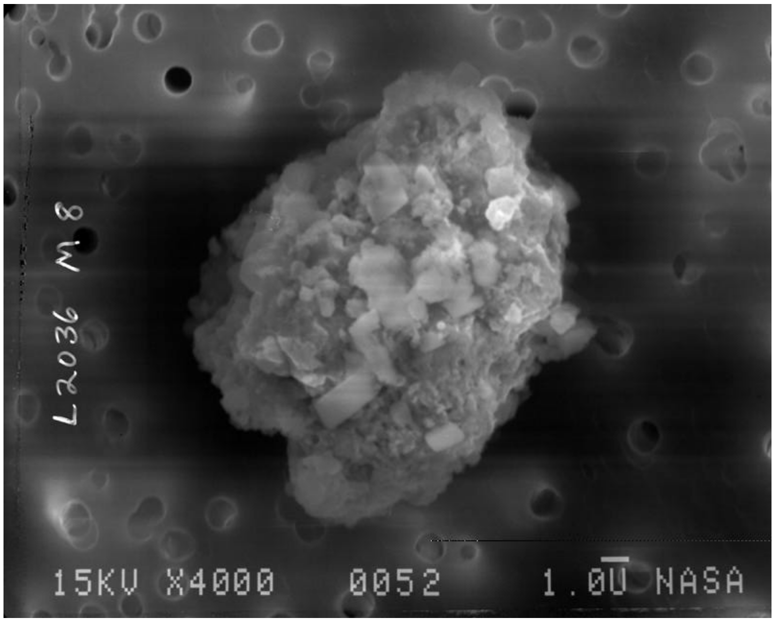


97E00258

Size: 7
Shape: I
Trans: O
Color: Black
Luster: D
Type: TCN?
Comments:

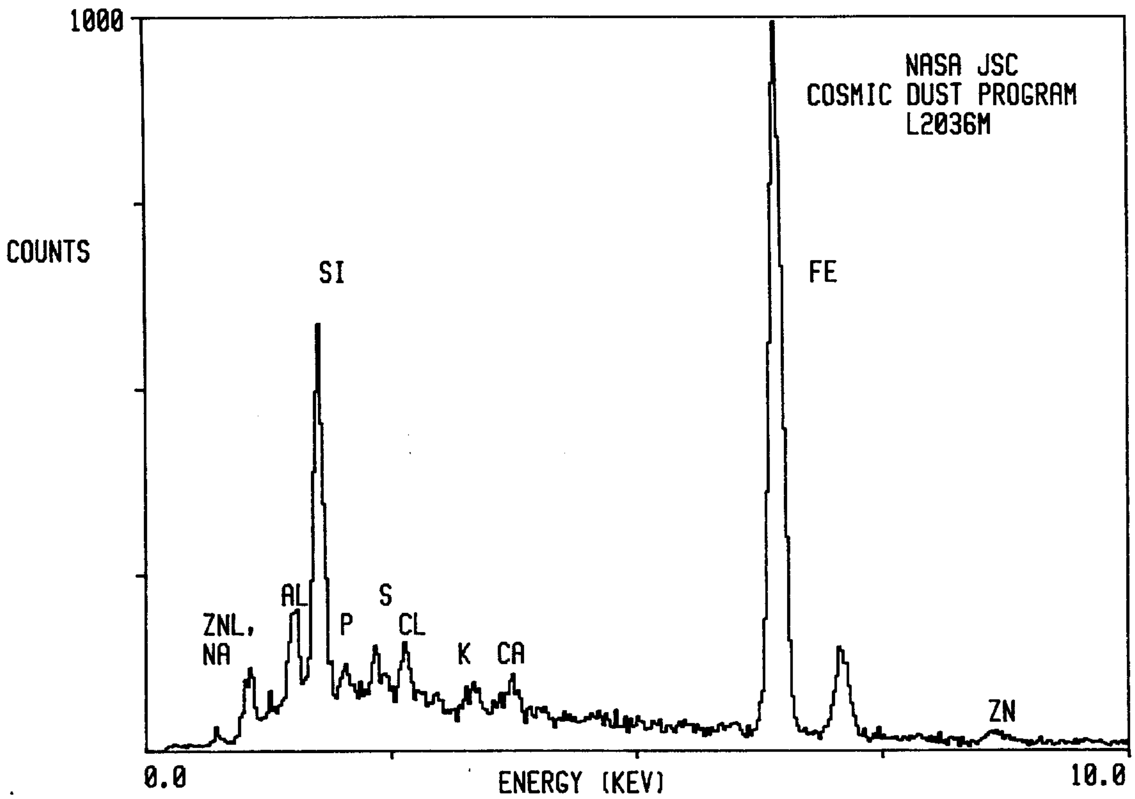


L2036M8

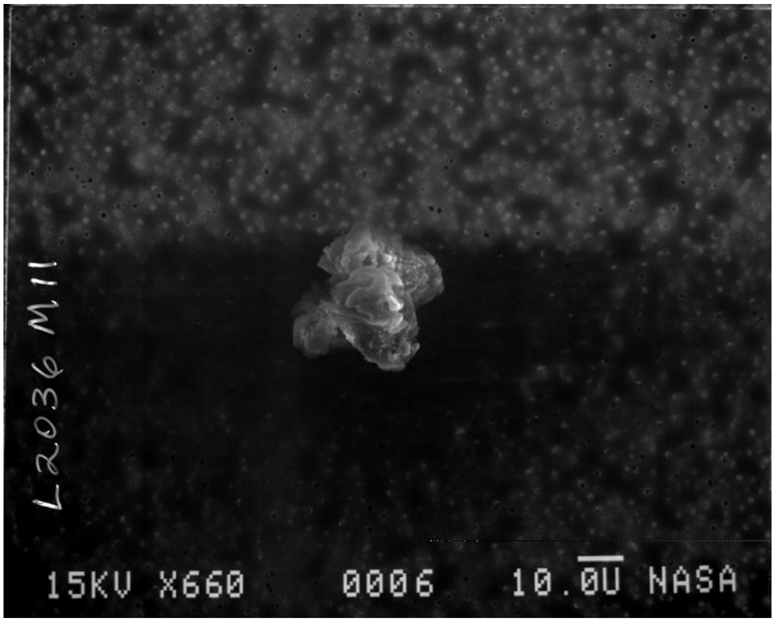


97E00259

Size: 14x10
Shape: I
Trans: O
Color: Black
Luster: D
Type: TCN
Comments:

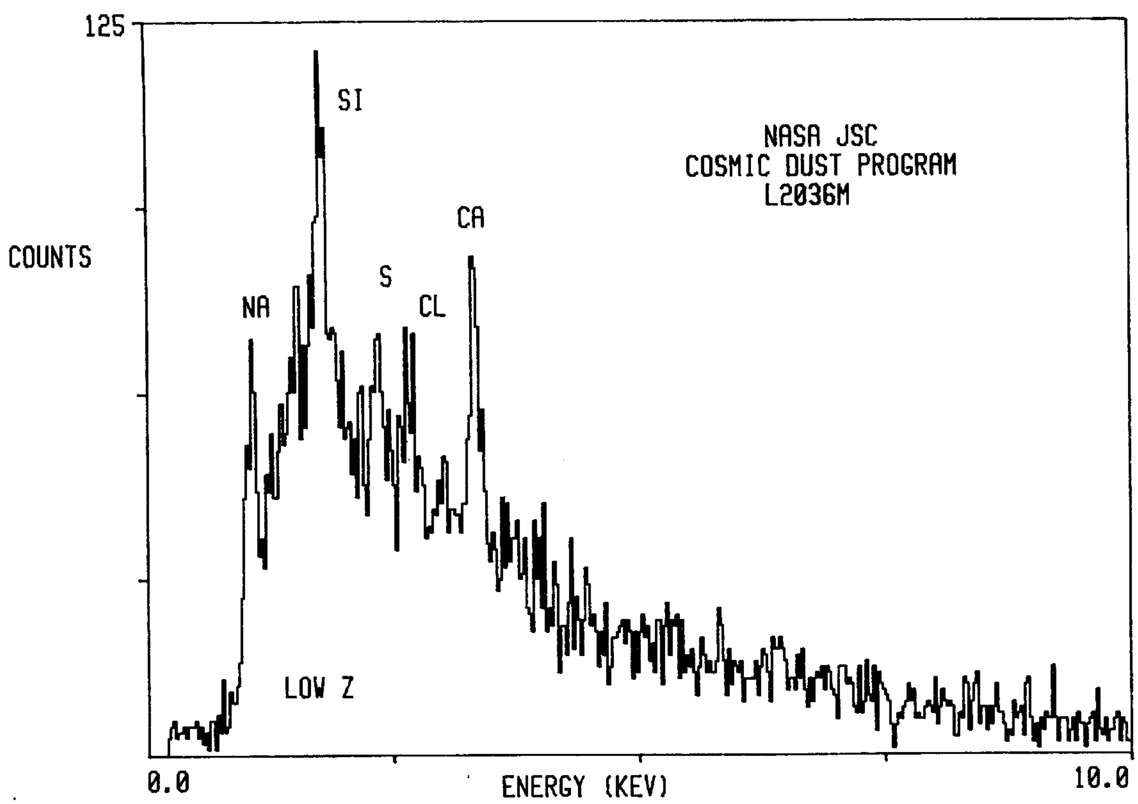


L2036M11

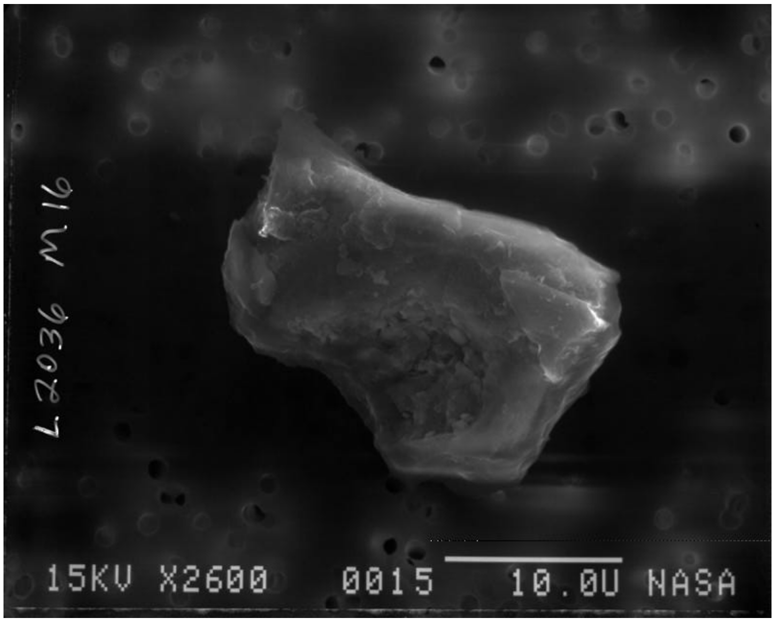


97E00262

Size:	30
Shape:	I
Trans:	O
Color:	White
Luster:	SV
Type:	TCN
Comments:	



L2036M16



97E00267

Size: 22x14

Shape: I

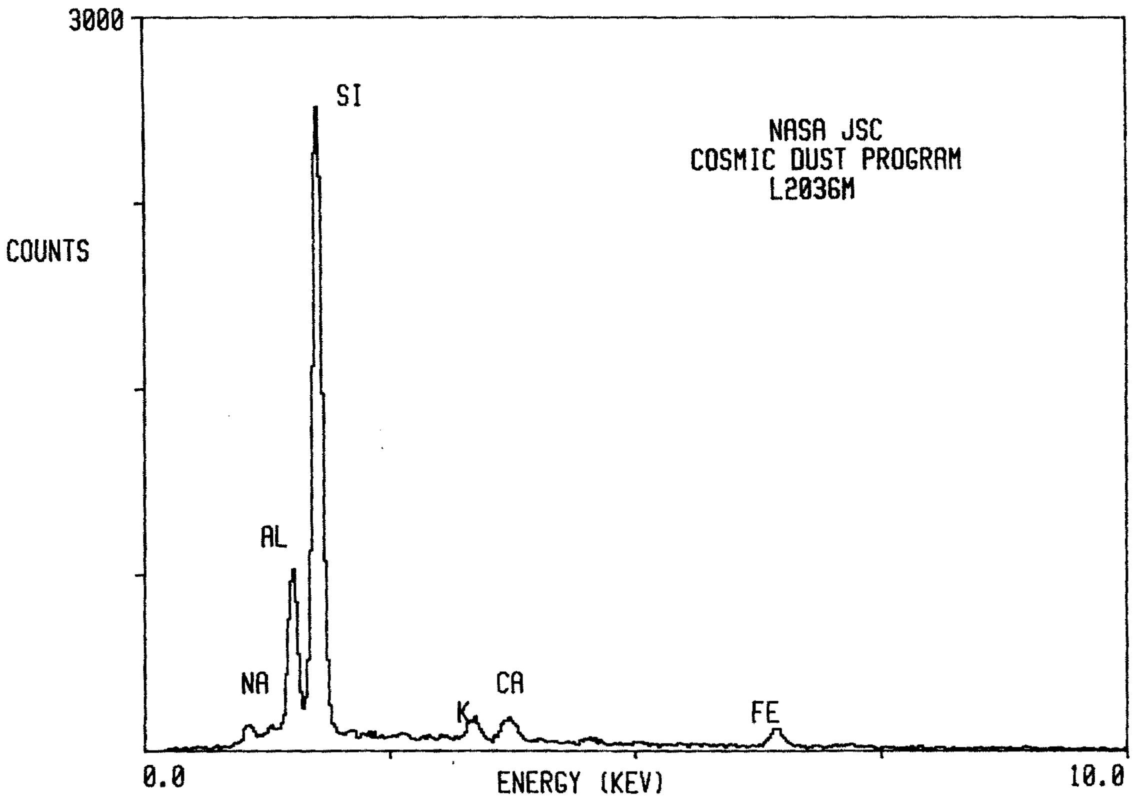
Trans: T

Color: Colorless

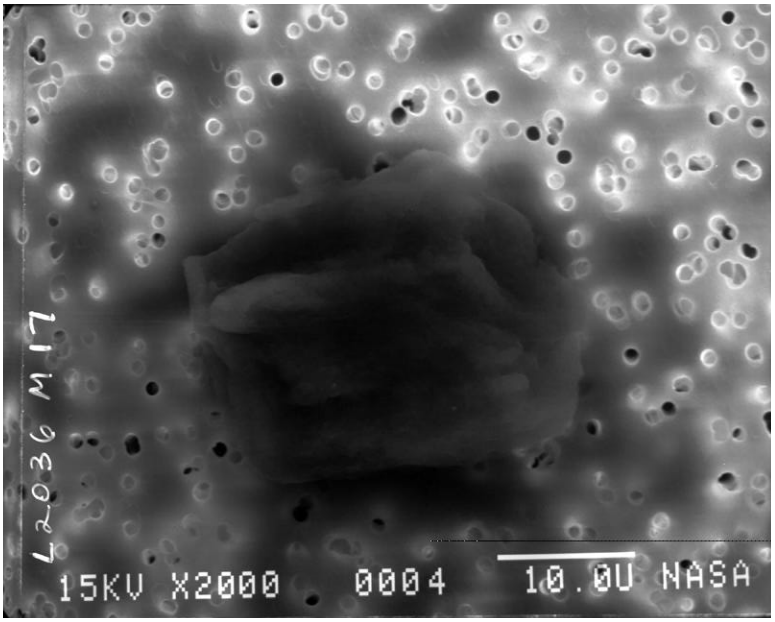
Luster: SV

Type: TCN

Comments:



L2036M17



97E00268

Size: 29x24

Shape: I

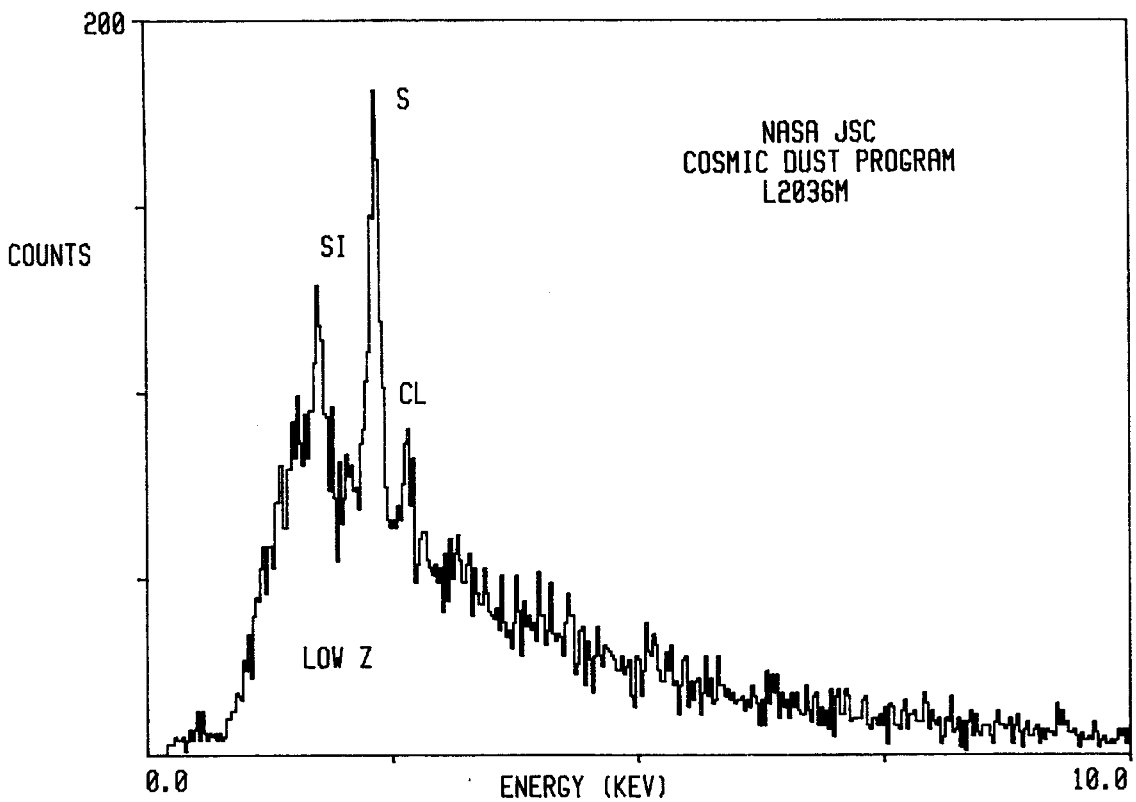
Trans: T

Color: Colorless

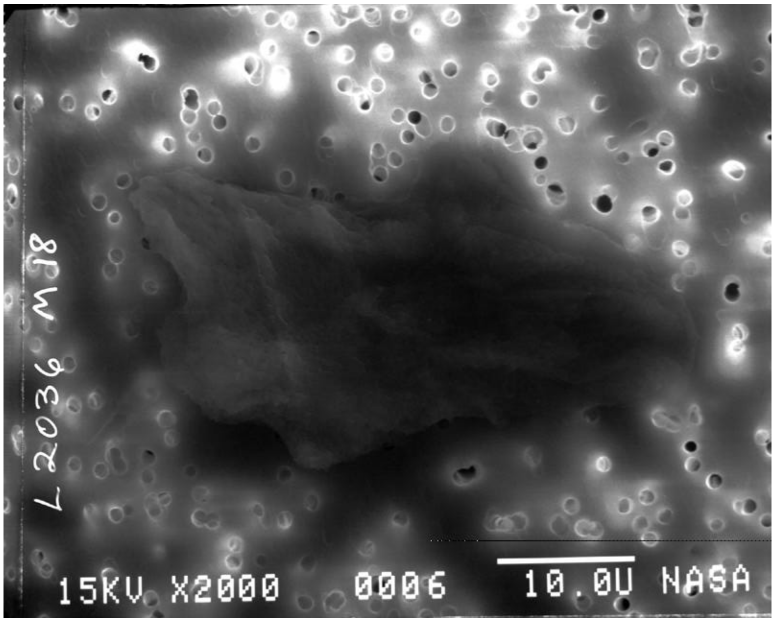
Luster: V

Type: TCN

Comments:



L2036M18



97E00269

Size: 44x19

Shape: I

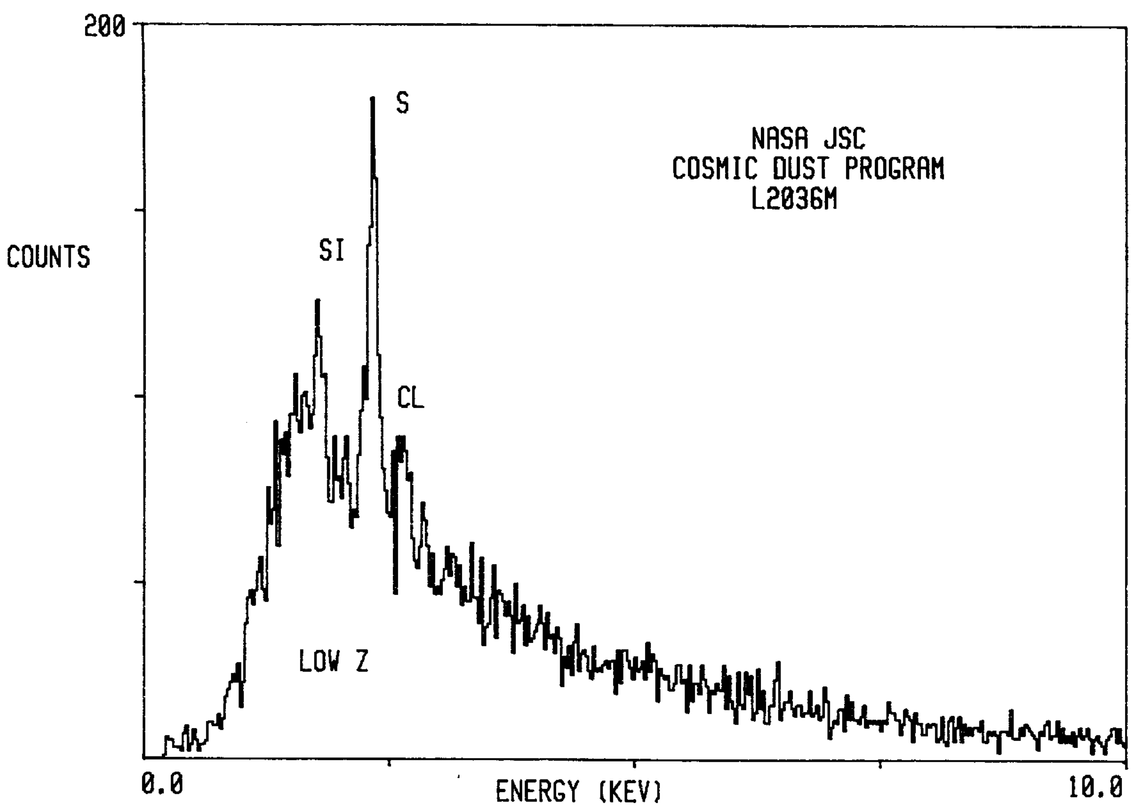
Trans: T

Color: Colorless

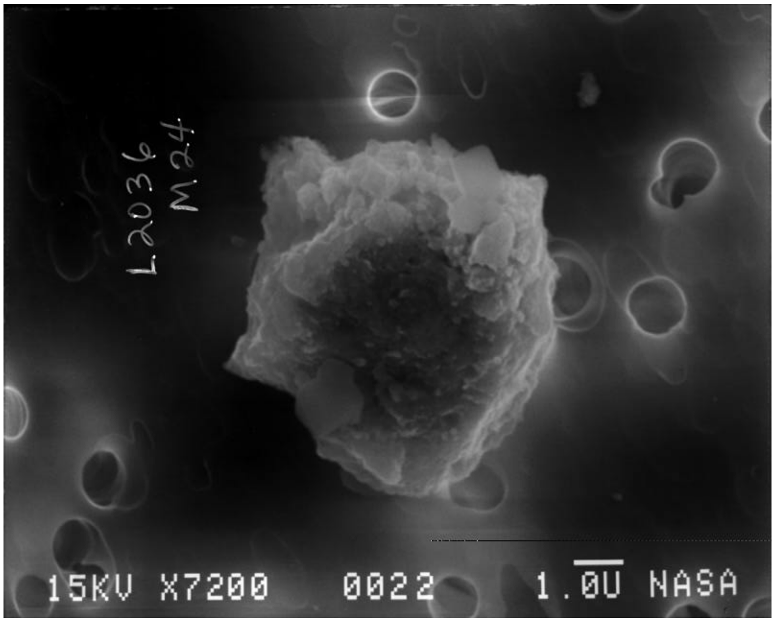
Luster: V

Type: TCN

Comments:



L2036M24



97E00275

Size: 6

Shape: S

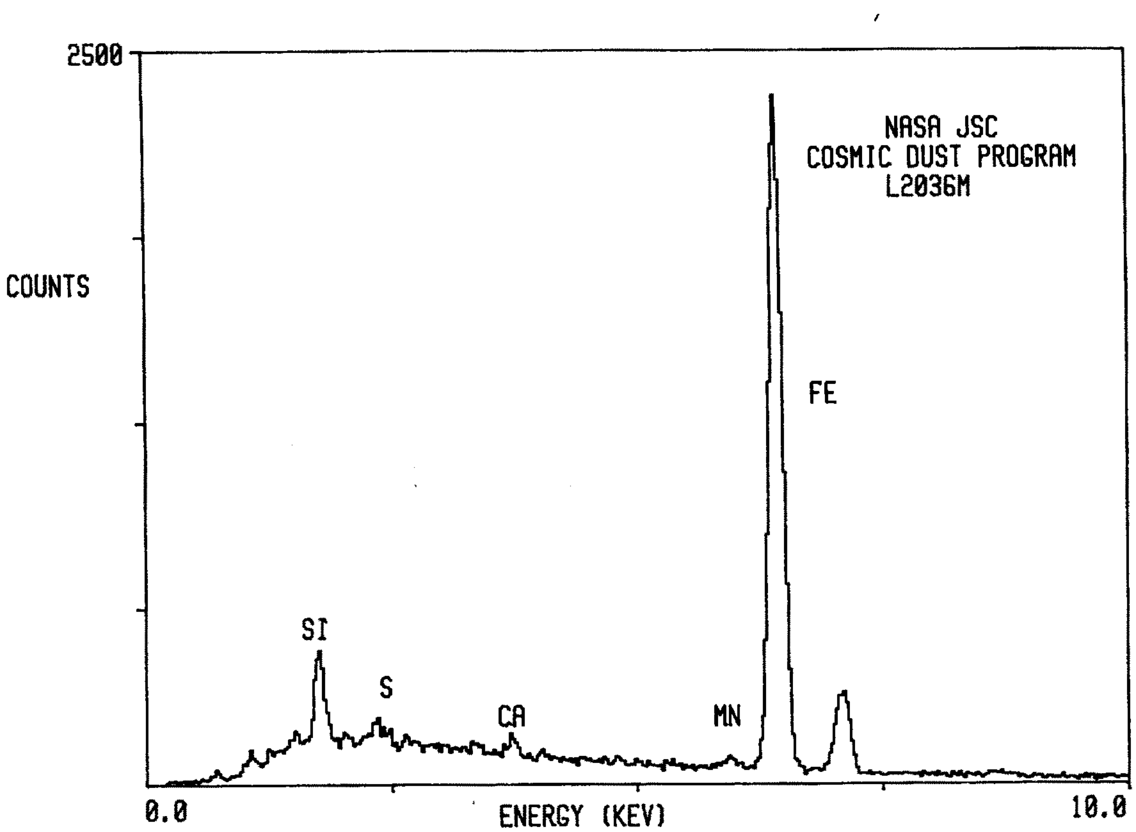
Trans: O

Color: Brown-Red

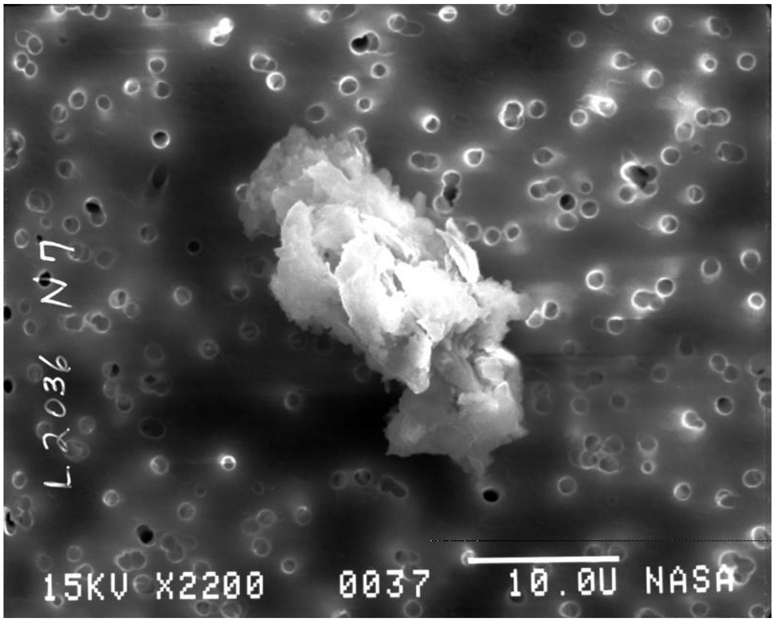
Luster: SV

Type: TCN

Comments:

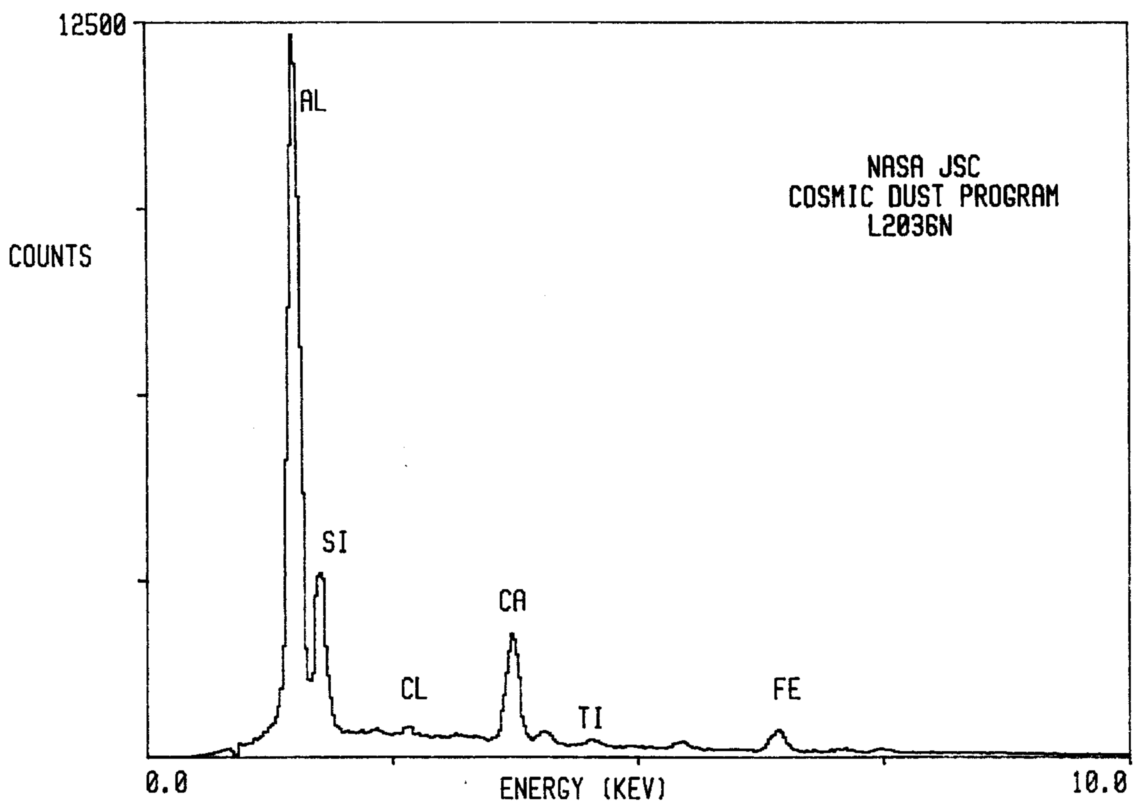


L2036N7

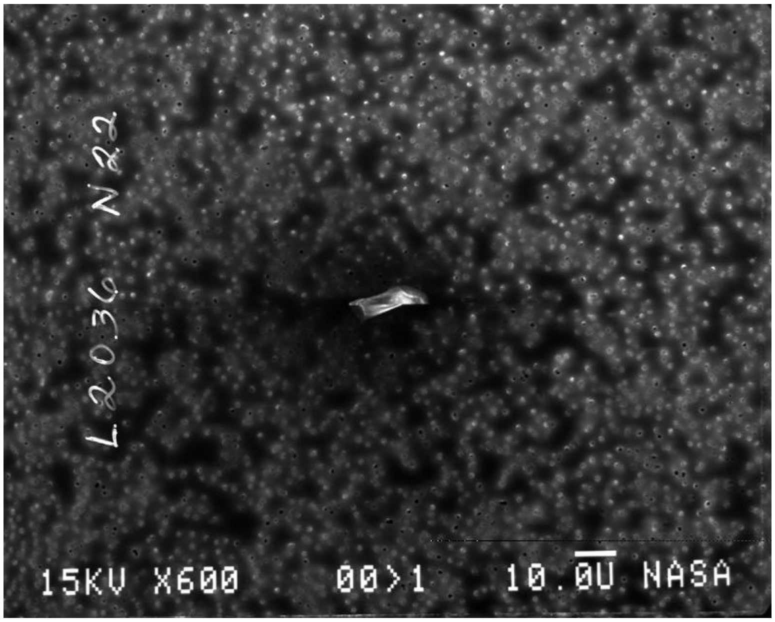


97E00287

Size:	22x19
Shape:	I
Trans:	TL
Color:	White
Luster:	SV
Type:	TCN?
Comments:	



L2036N22



97E00302

Size: 16x14

Shape: I

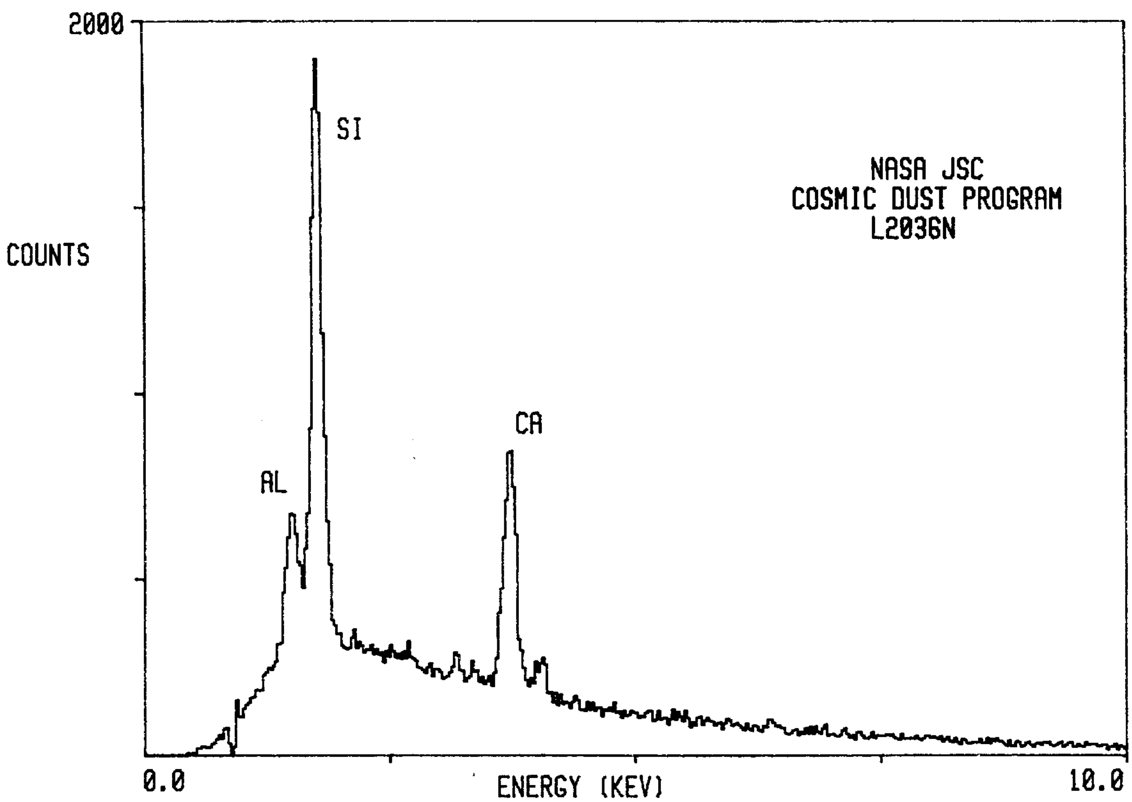
Trans: TL

Color: Colorless

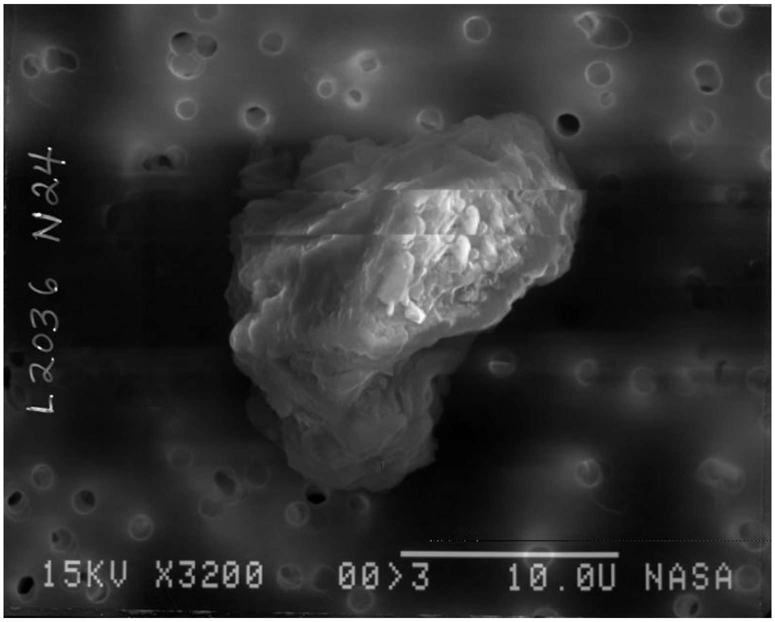
Luster: V

Type: TCN?

Comments:

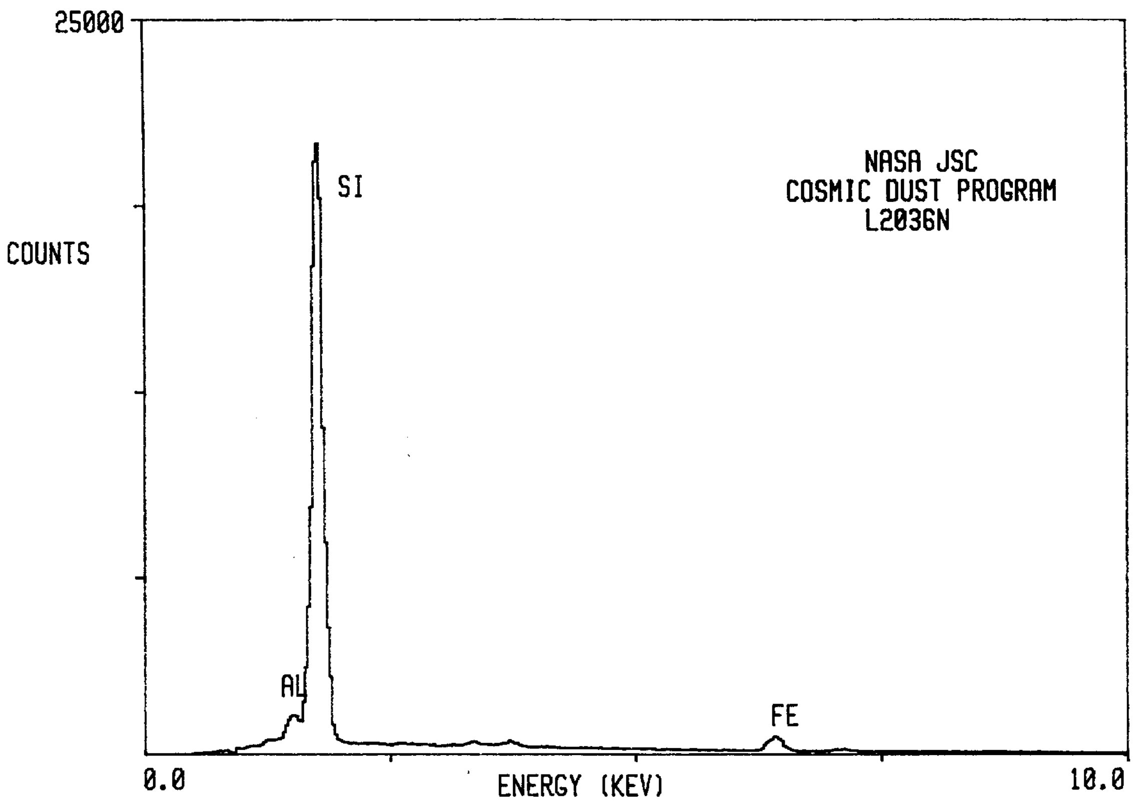


L2036N24

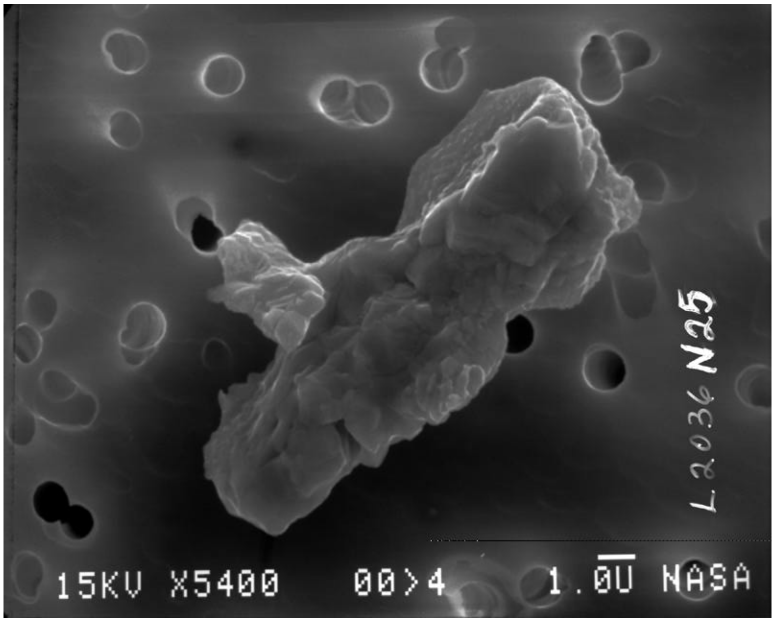


97E00304

Size:	16x14
Shape:	I
Trans:	TL
Color:	White
Luster:	SV
Type:	TCN
Comments:	

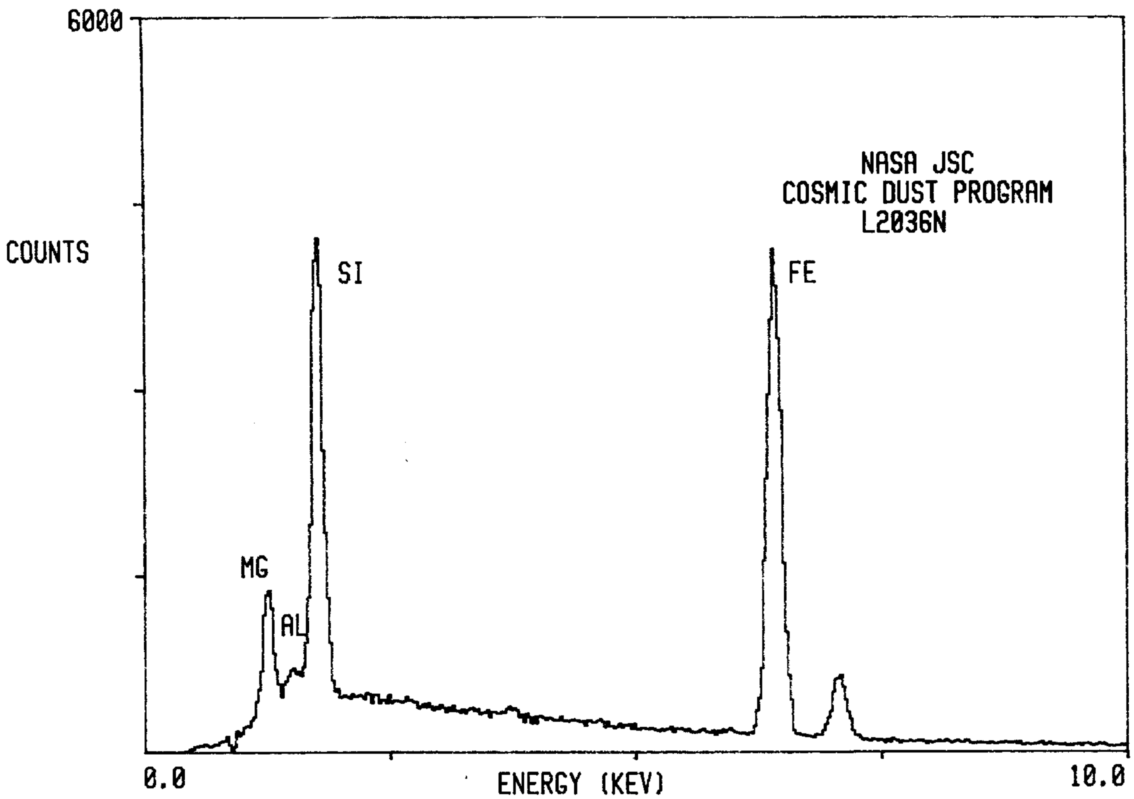


L2036N25

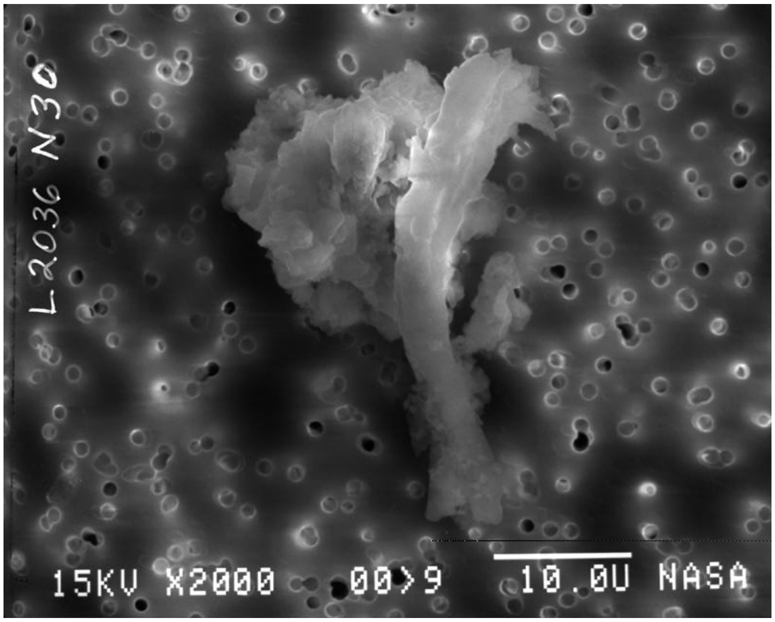


97E00305

Size:	16x7
Shape:	I
Trans:	O
Color:	Black
Luster:	P
Type:	TCN
Comments:	



L2036N30



97E00310

Size: 10x9

Shape: I

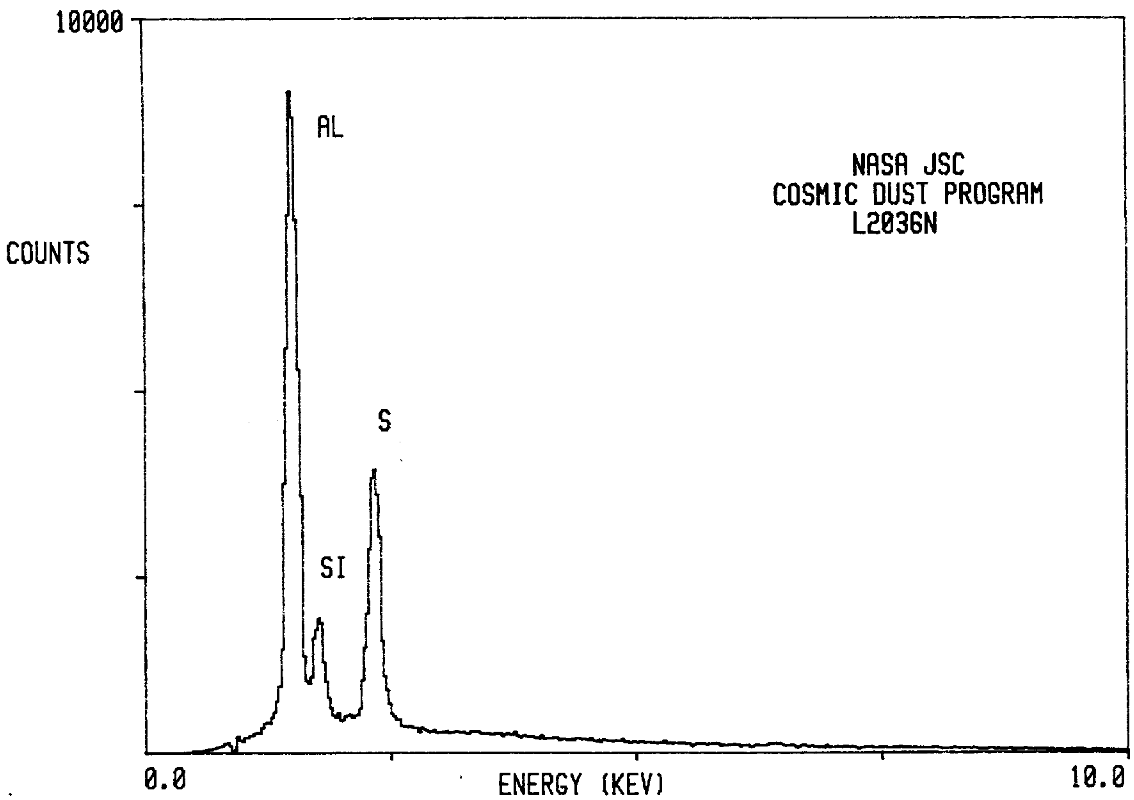
Trans: TL

Color: Brown-Black

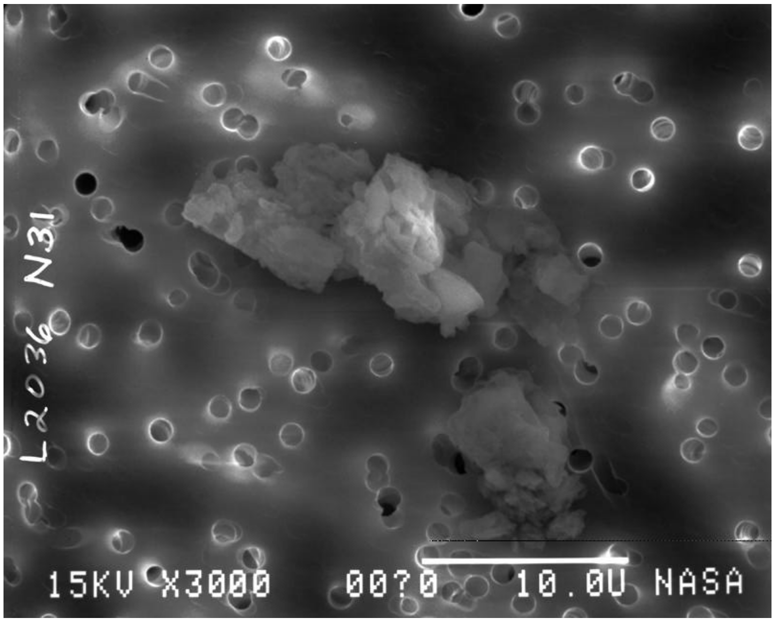
Luster: V

Type: TCN

Comments:



L2036N31



97E00311

Size: 33x26

Shape: I

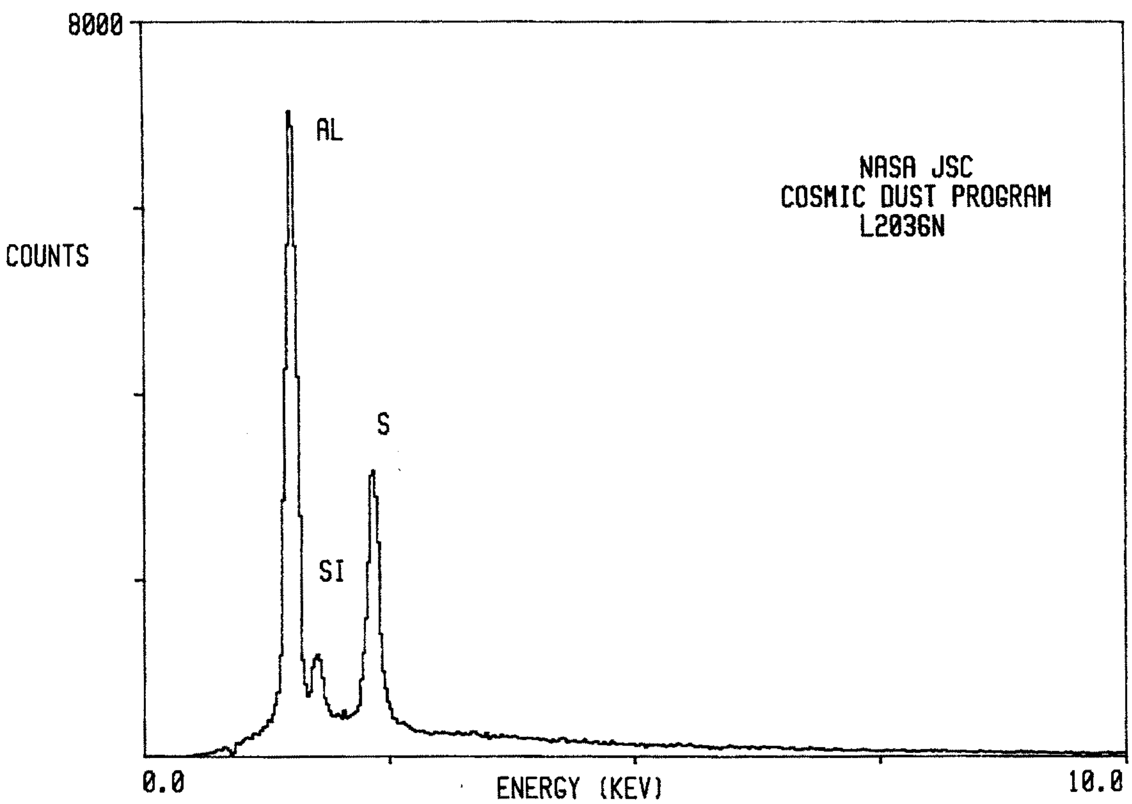
Trans: TL

Color: White

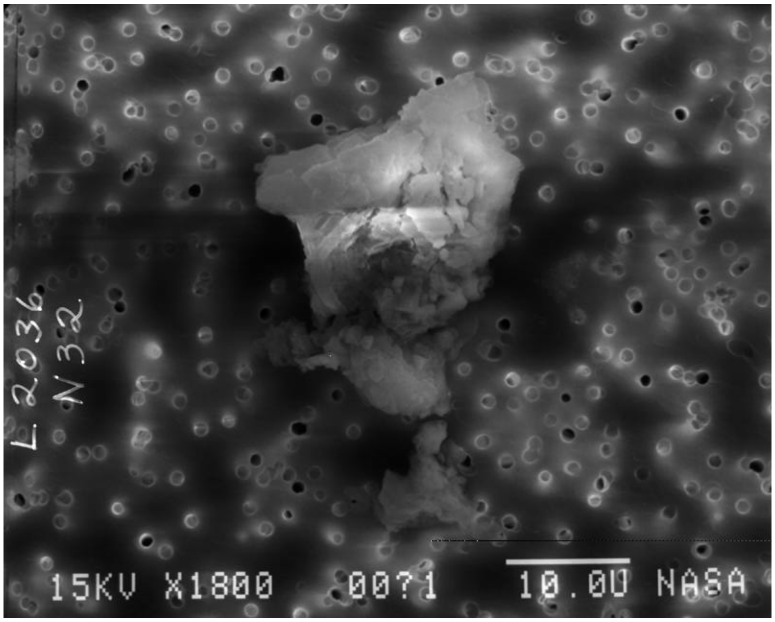
Luster: SV

Type: TCN?

Comments:



L2036N32



97E00312

Size: 35x24

Shape: I

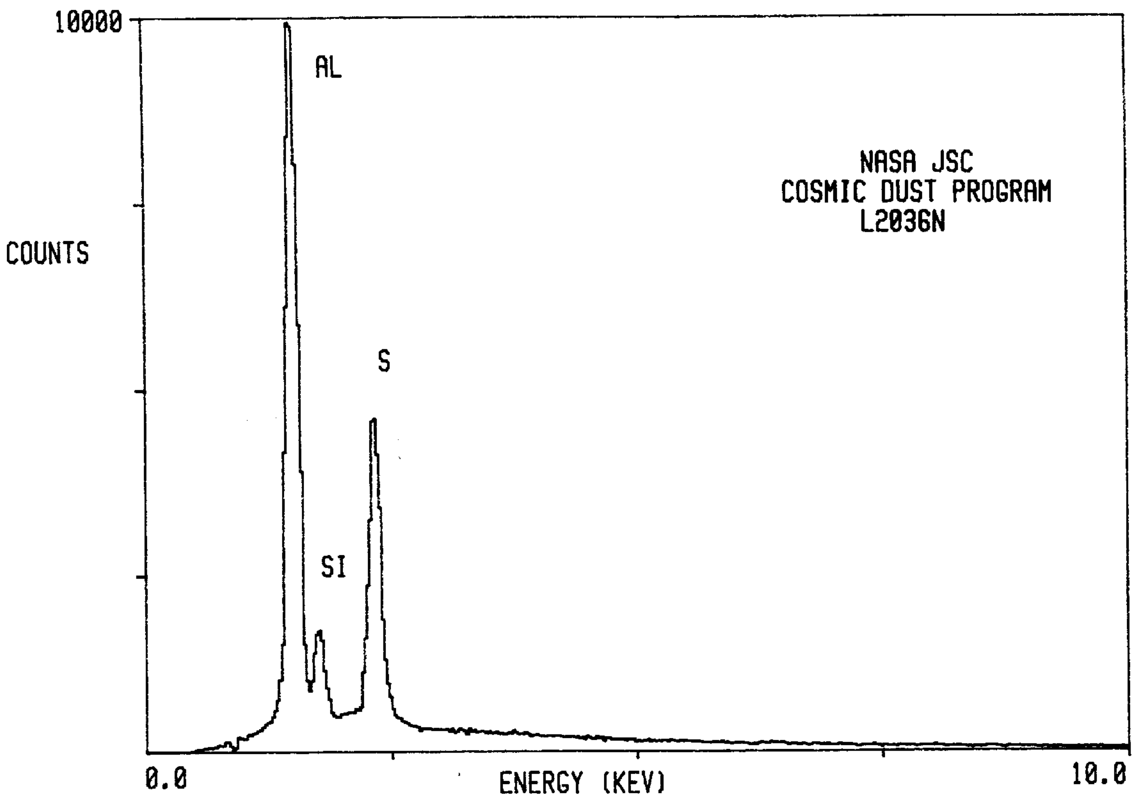
Trans: TL

Color: White

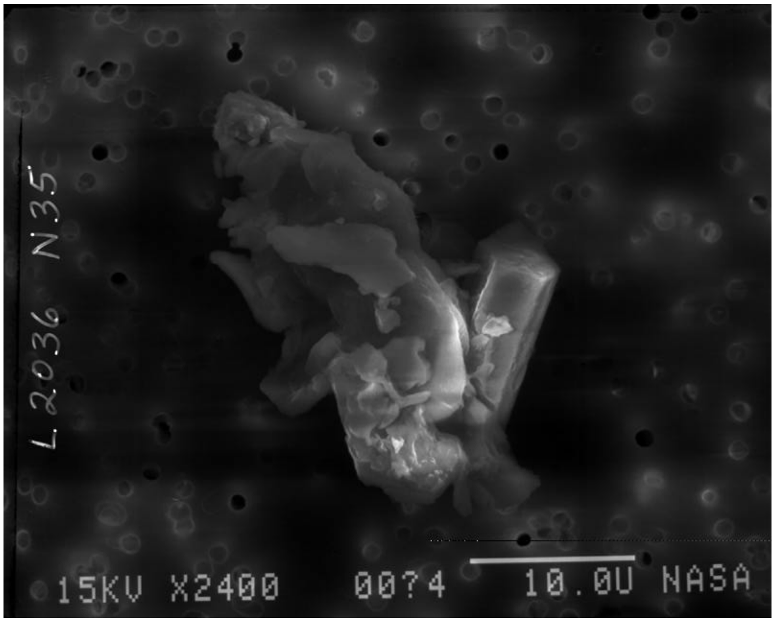
Luster: SV

Type: TCN?

Comments:



L2036N35



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Size: 28x13

Shape: I

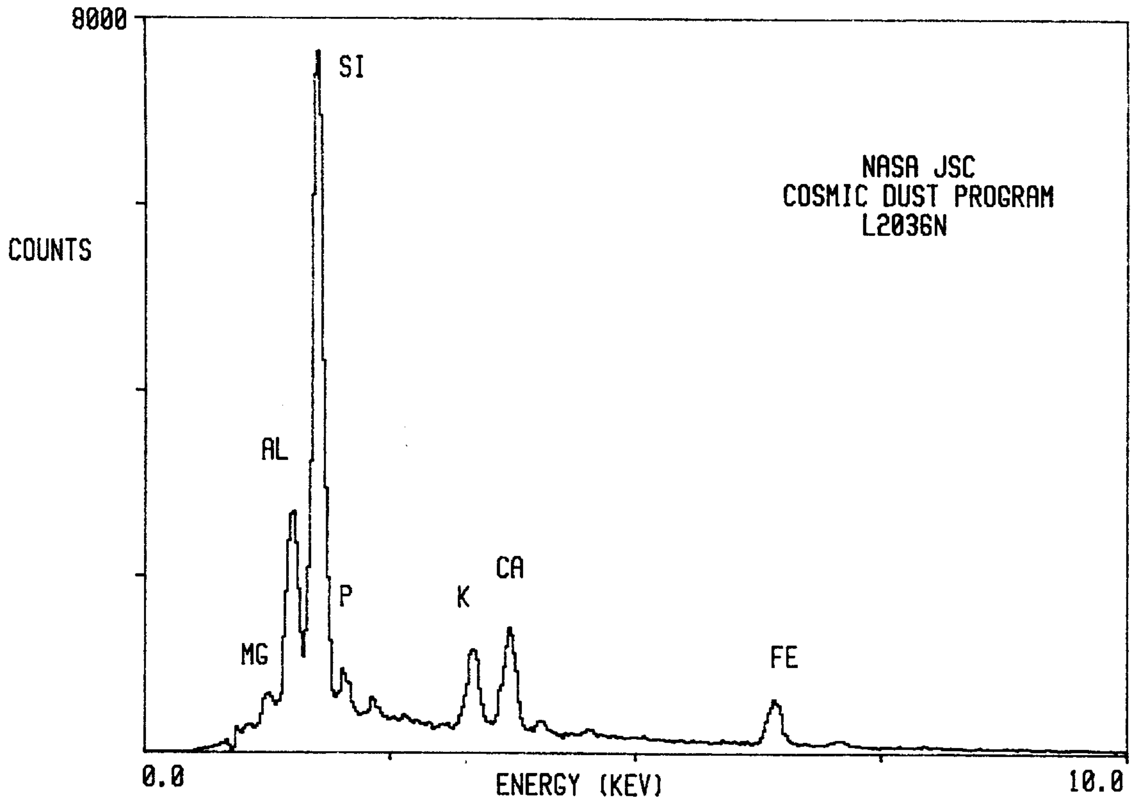
Trans: TL

Color: Brown-White

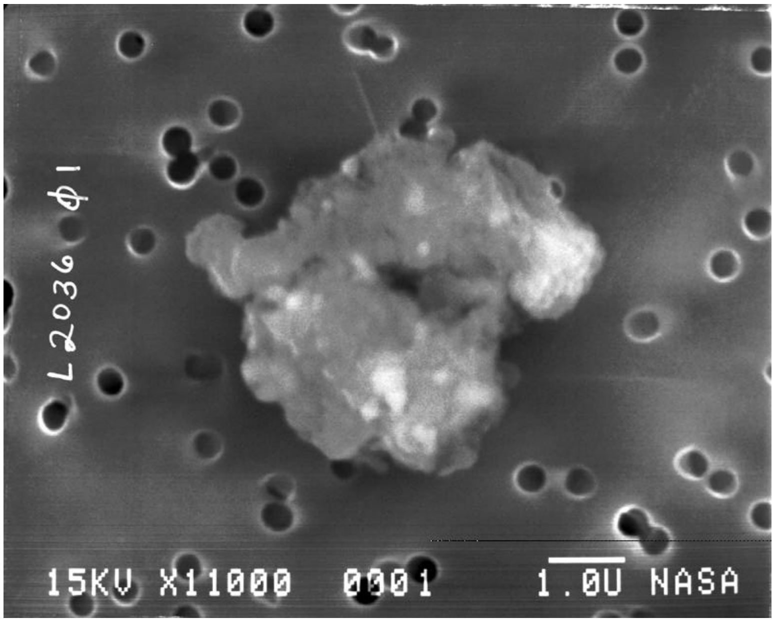
Luster: SV

Type: TCN?

Comments:

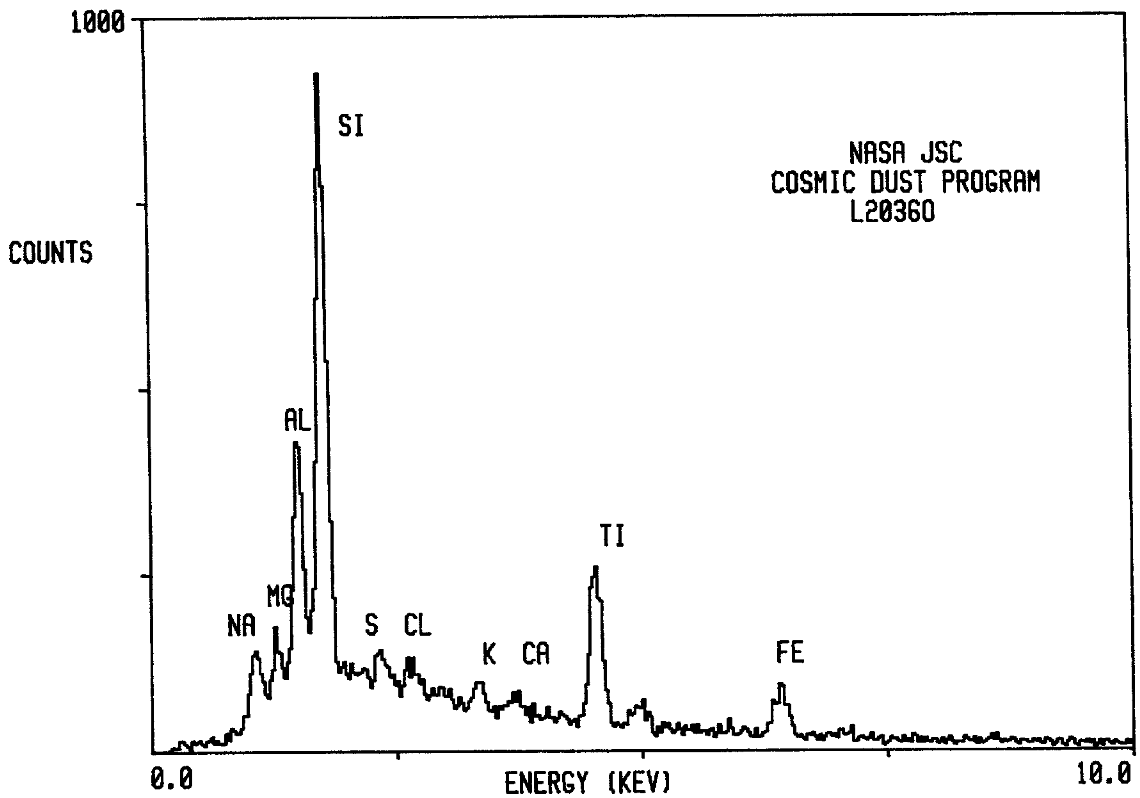


L2036O1

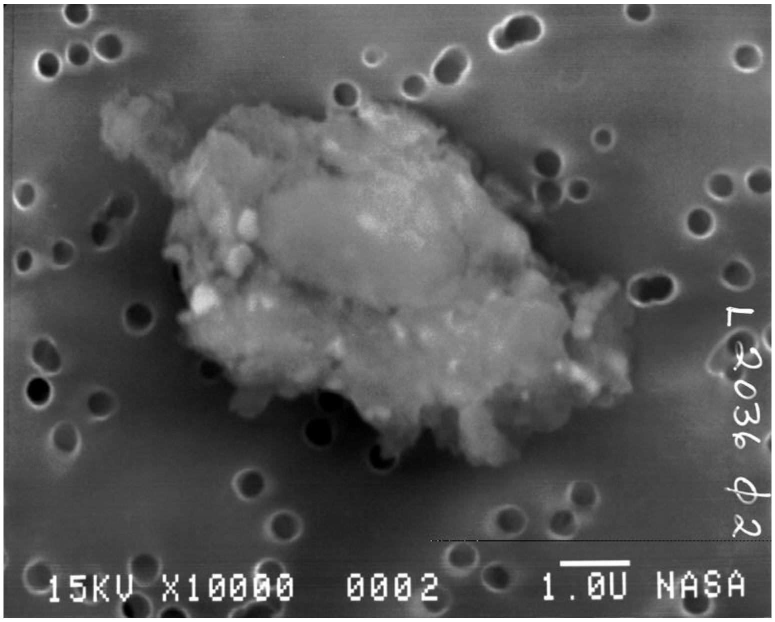


97E00318

Size:	4
Shape:	I
Trans:	O
Color:	Black
Luster:	D
Type:	TCN
Comments:	Cluster 5, Related to L2036 O2

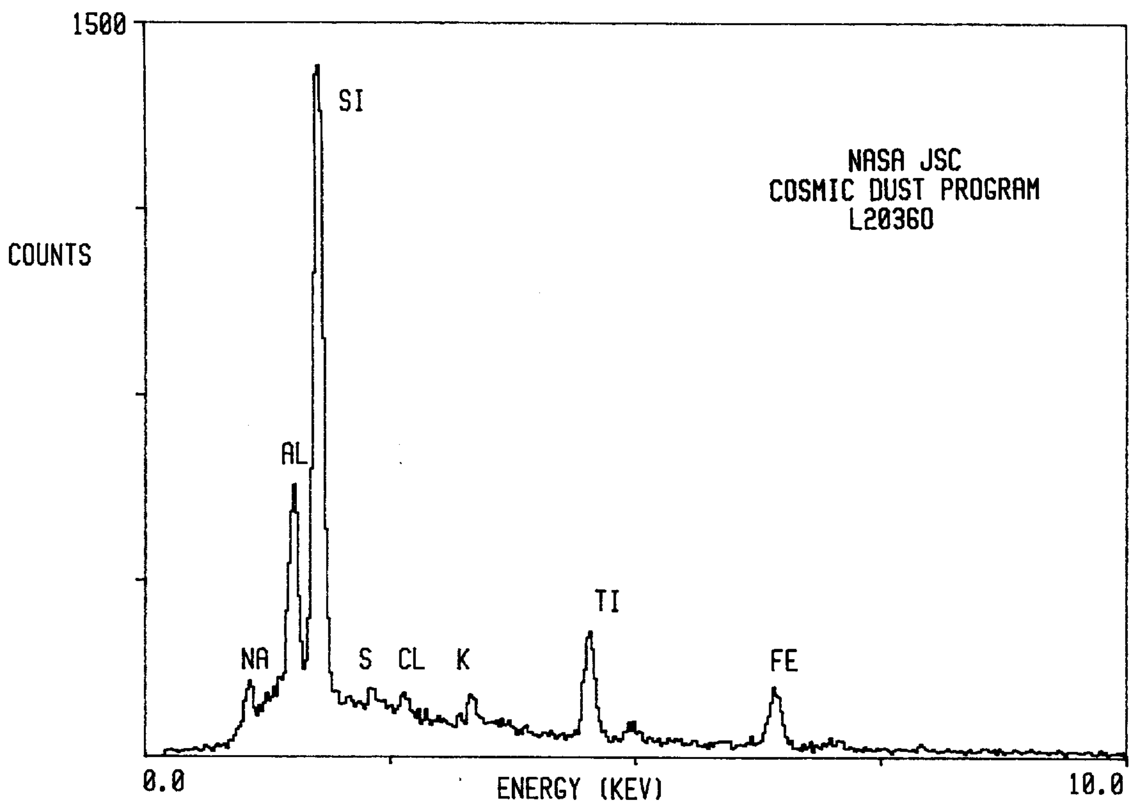


L2036O2



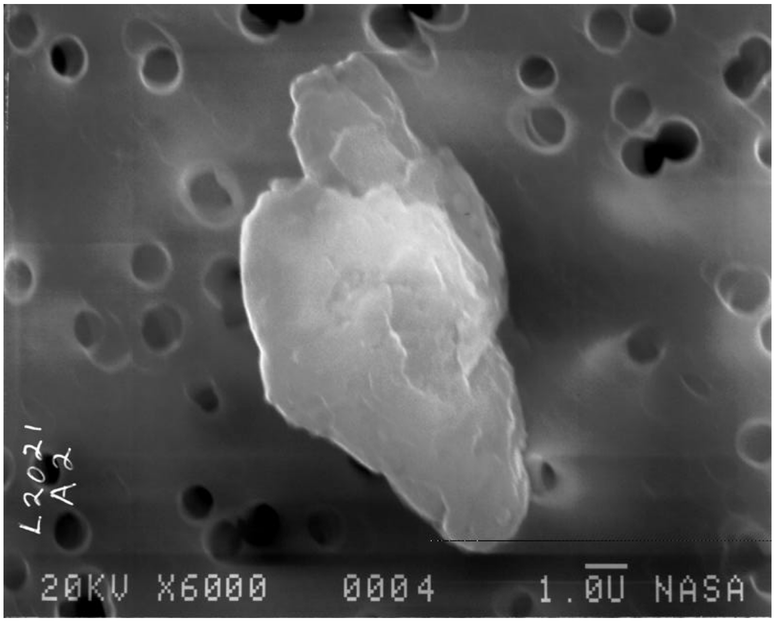
97E00319

Size:	7x5
Shape:	I
Trans:	O
Color:	Black
Luster:	D
Type:	TCN
Comments:	Cluster 5, Related to L2036 O1



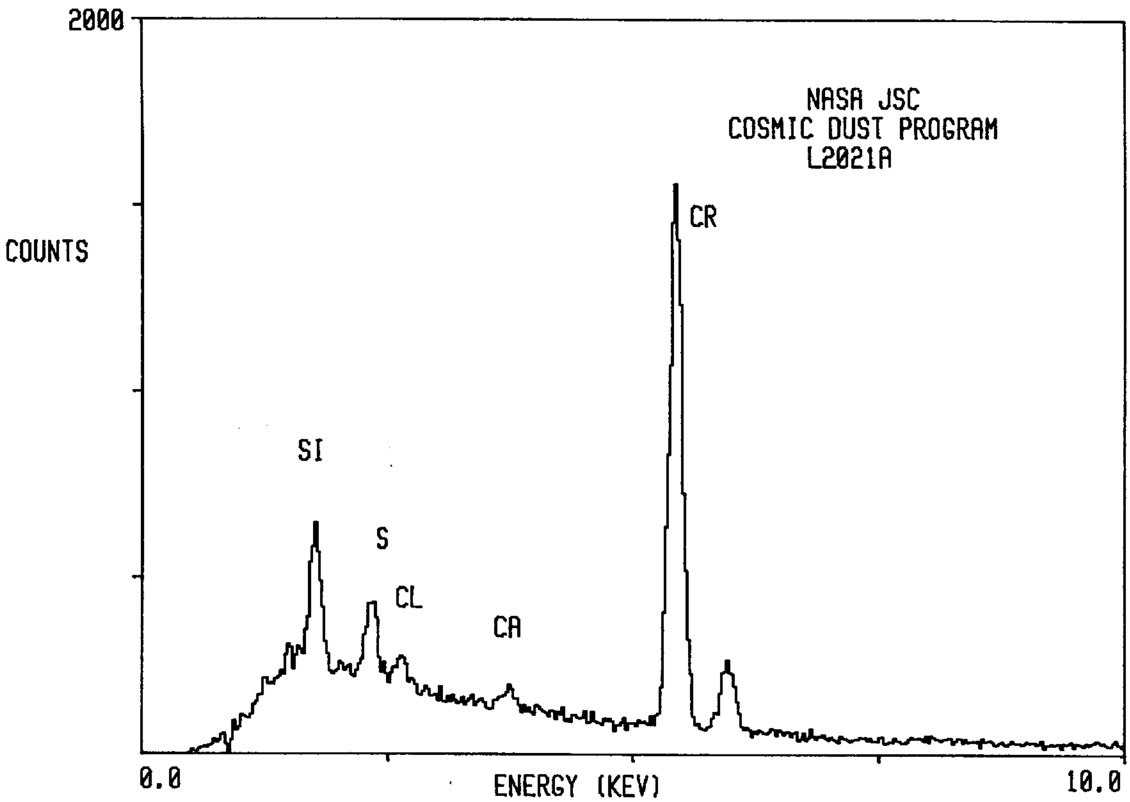
Particle Descriptions
TCA Type

L2021A2

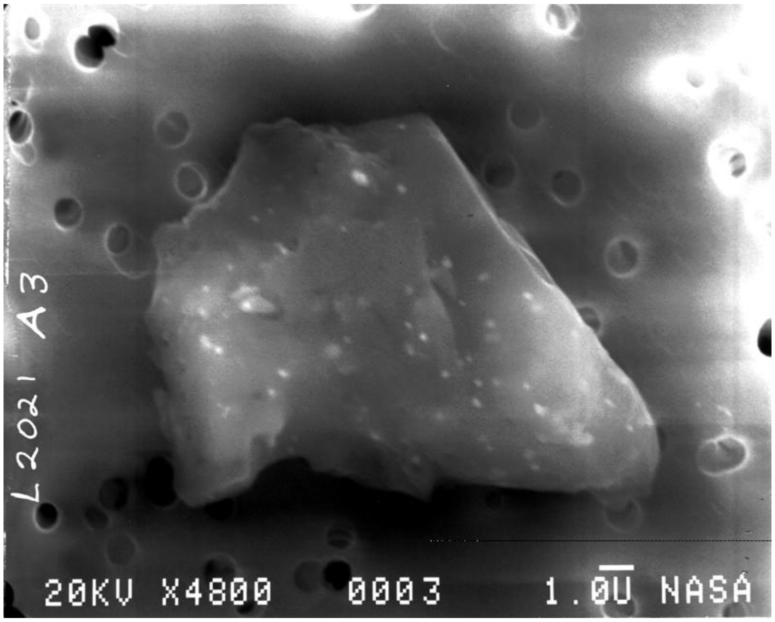


97E00329

Size:	17x9
Shape:	I
Trans:	O
Color:	Black-Gray
Luster:	D
Type:	TCA
Comments:	Cluster 2



L2021A3



97E00330

Size: 20x16

Shape: I

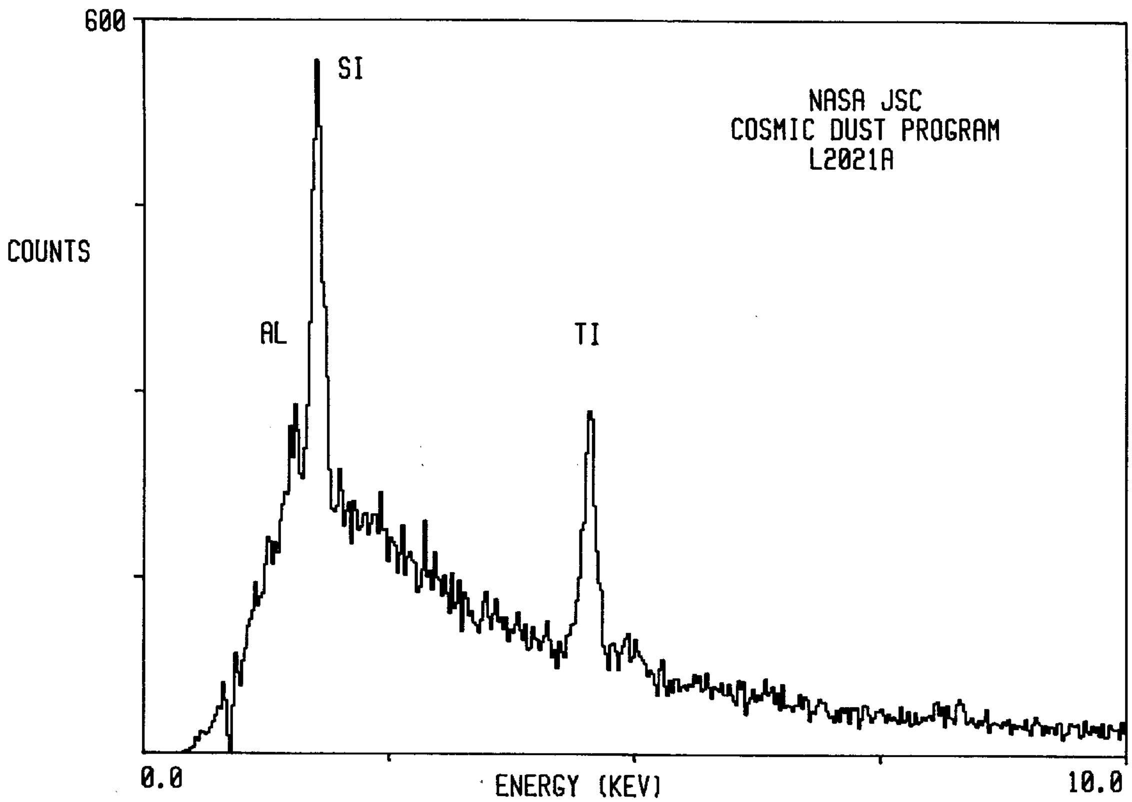
Trans: O

Color: White

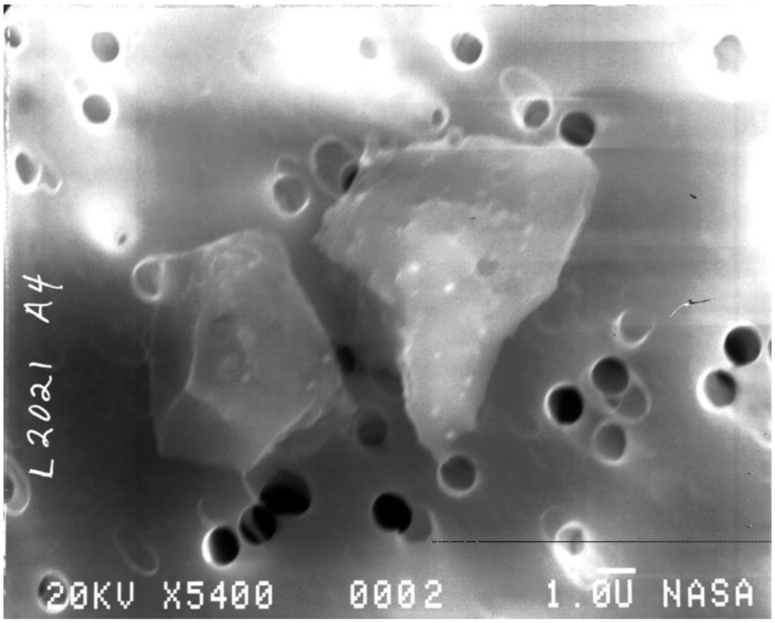
Luster: P

Type: TCA

Comments: Cluster 3, Related to L2021 A4



L2021A4



97E00331

Size: 15x10

Shape: I

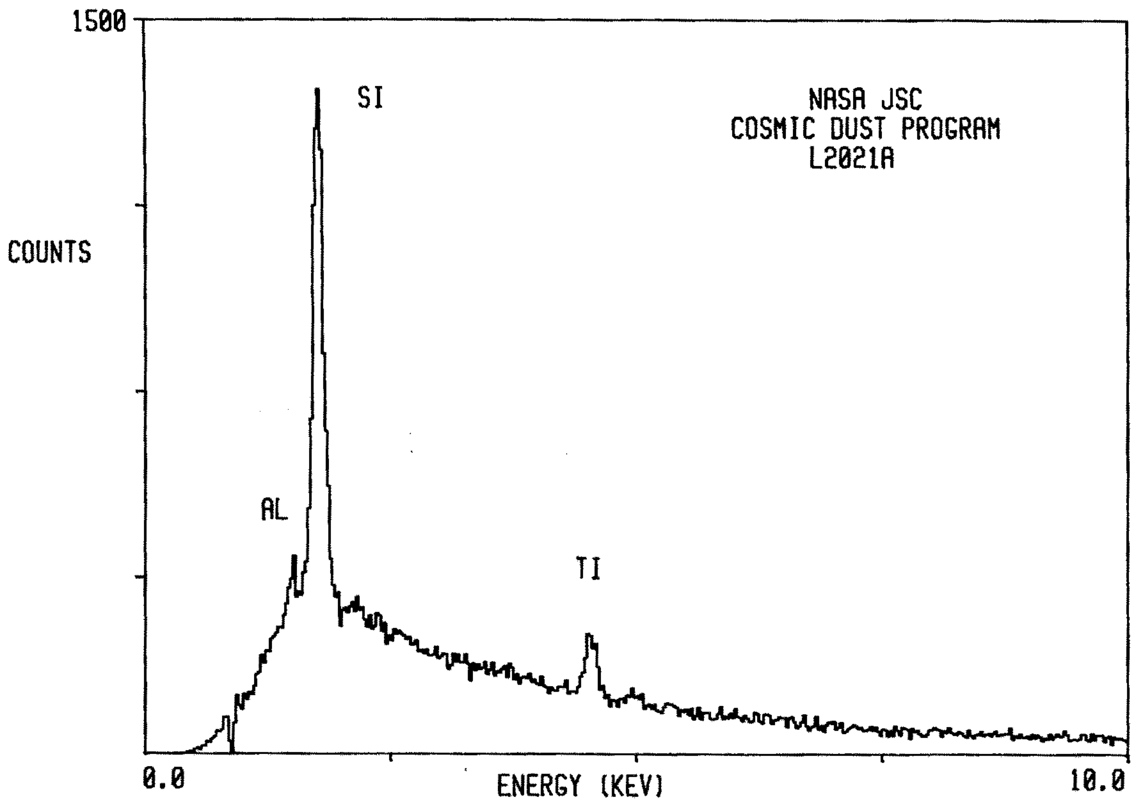
Trans: O

Color: White

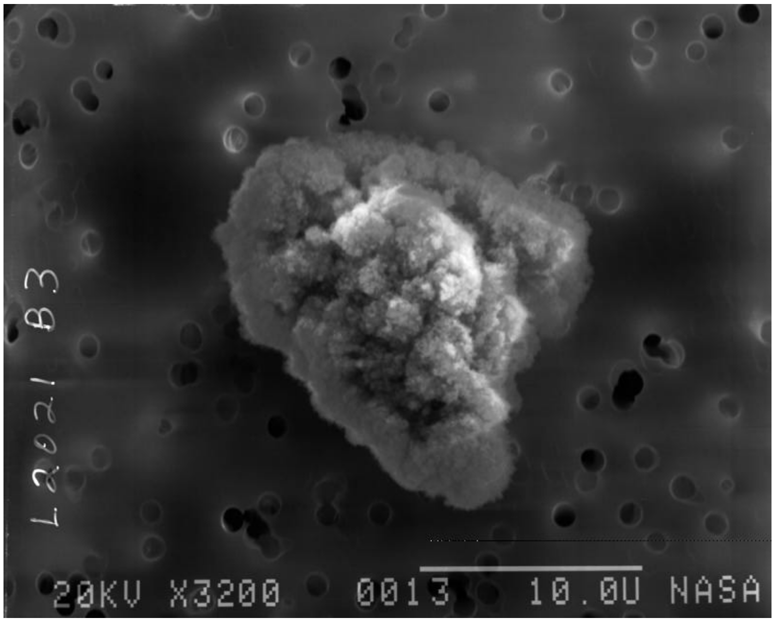
Luster: D

Type: TCA

Comments: Cluster 3, Related to L2021A3

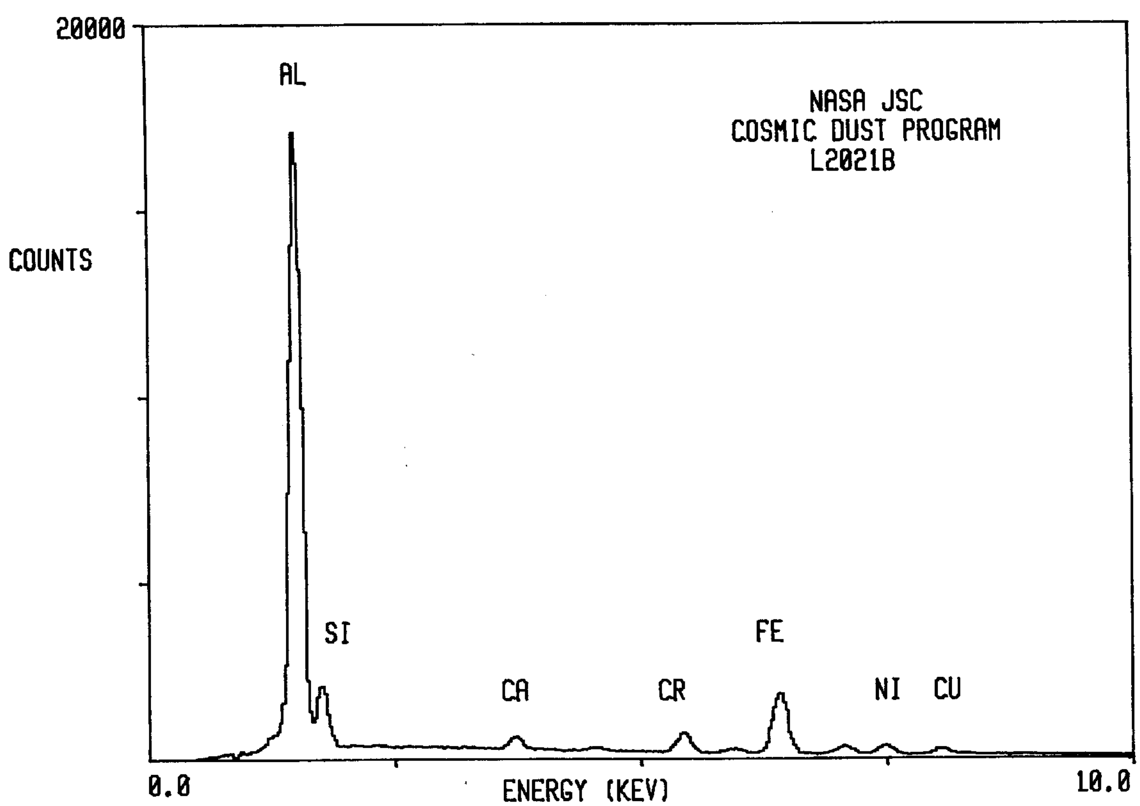


L2021B3

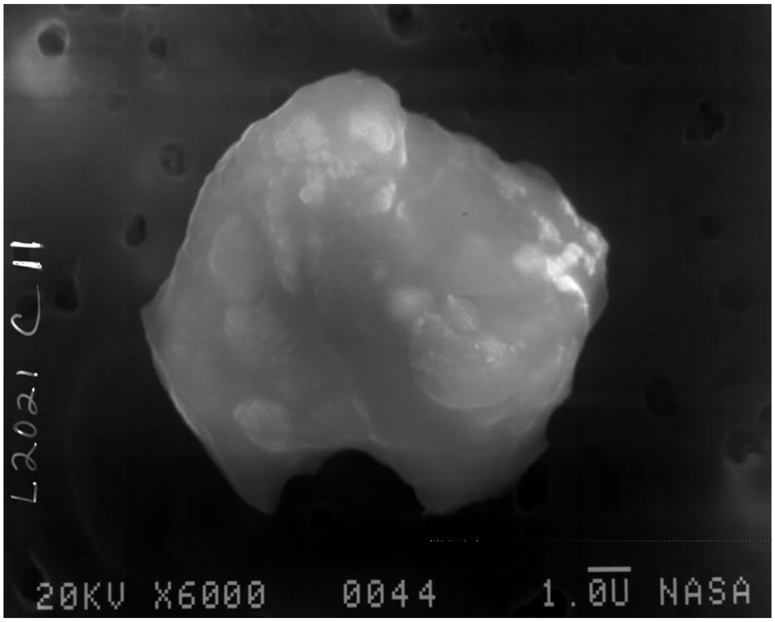


97E00337

Size: 14
Shape: I
Trans: O
Color: Black-Gray
Luster: D
Type: TCA
Comments:



L2021C11



97E00364

Size: 10

Shape: E

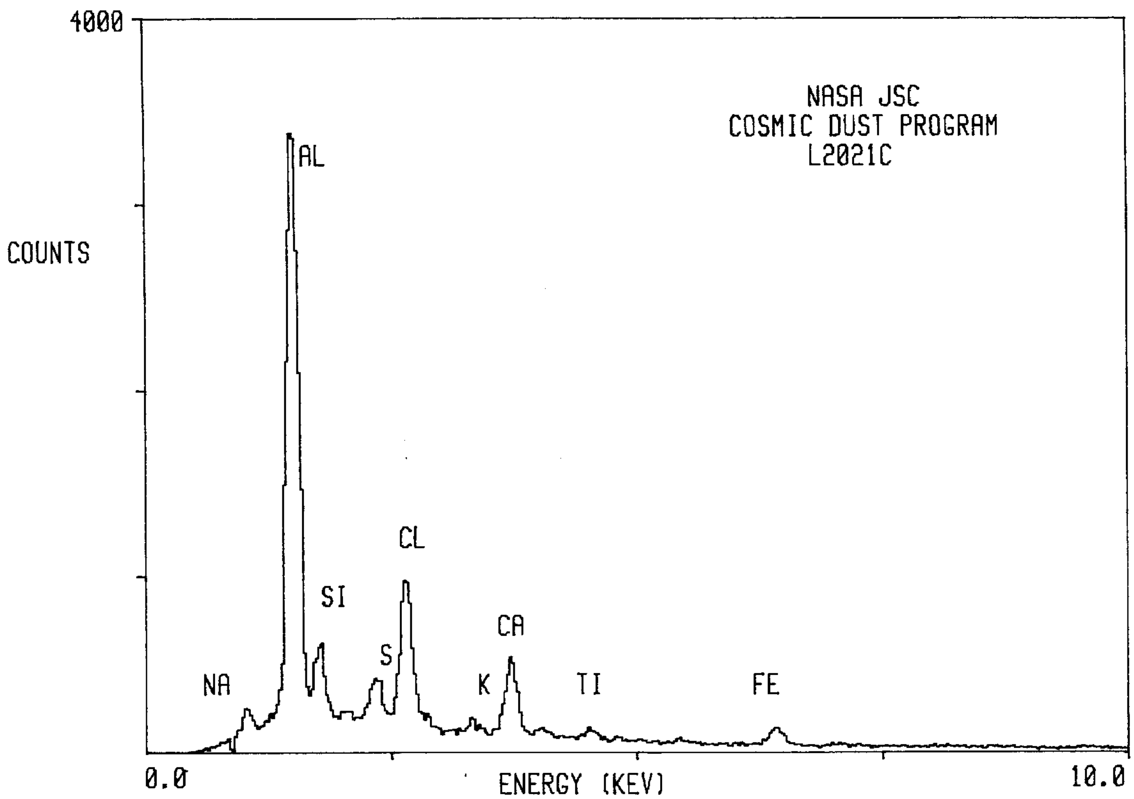
Trans: O

Color: Black

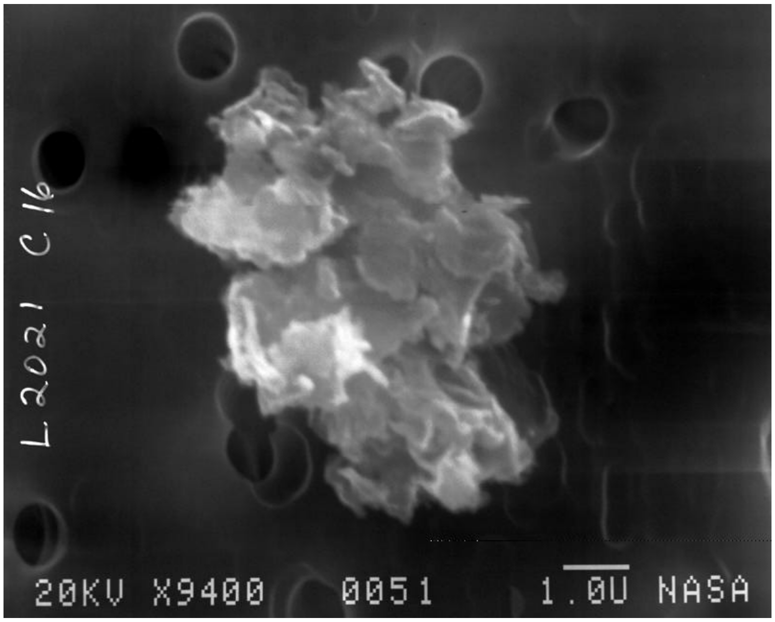
Luster: D

Type: TCA

Comments:



L2021C16



97E00369

Size: 8

Shape: I

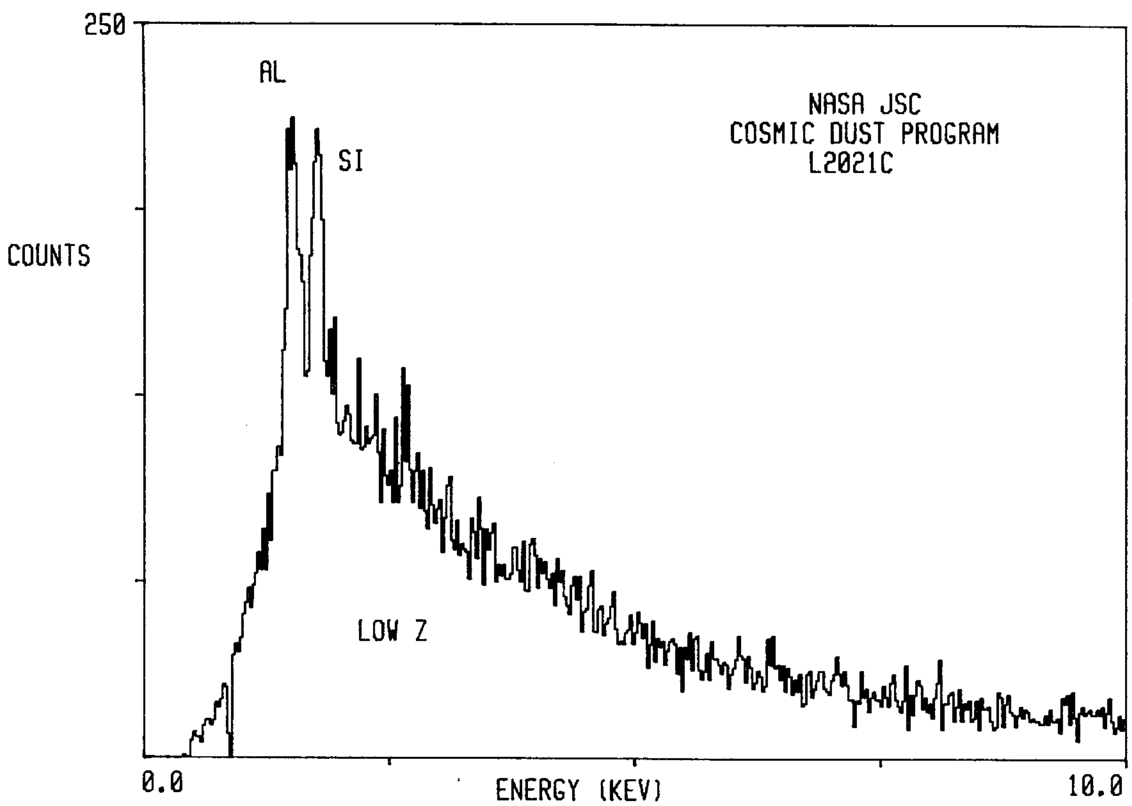
Trans: O

Color: Black

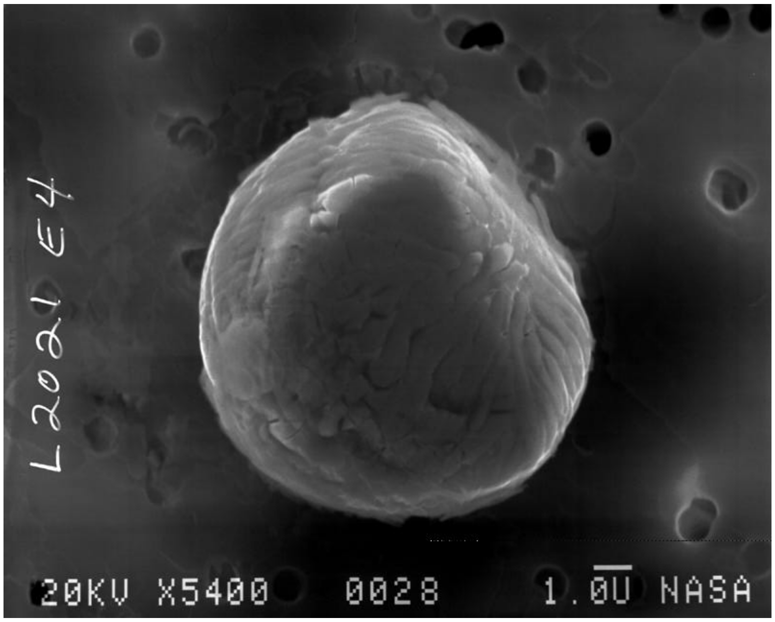
Luster: D

Type: TCA

Comments:

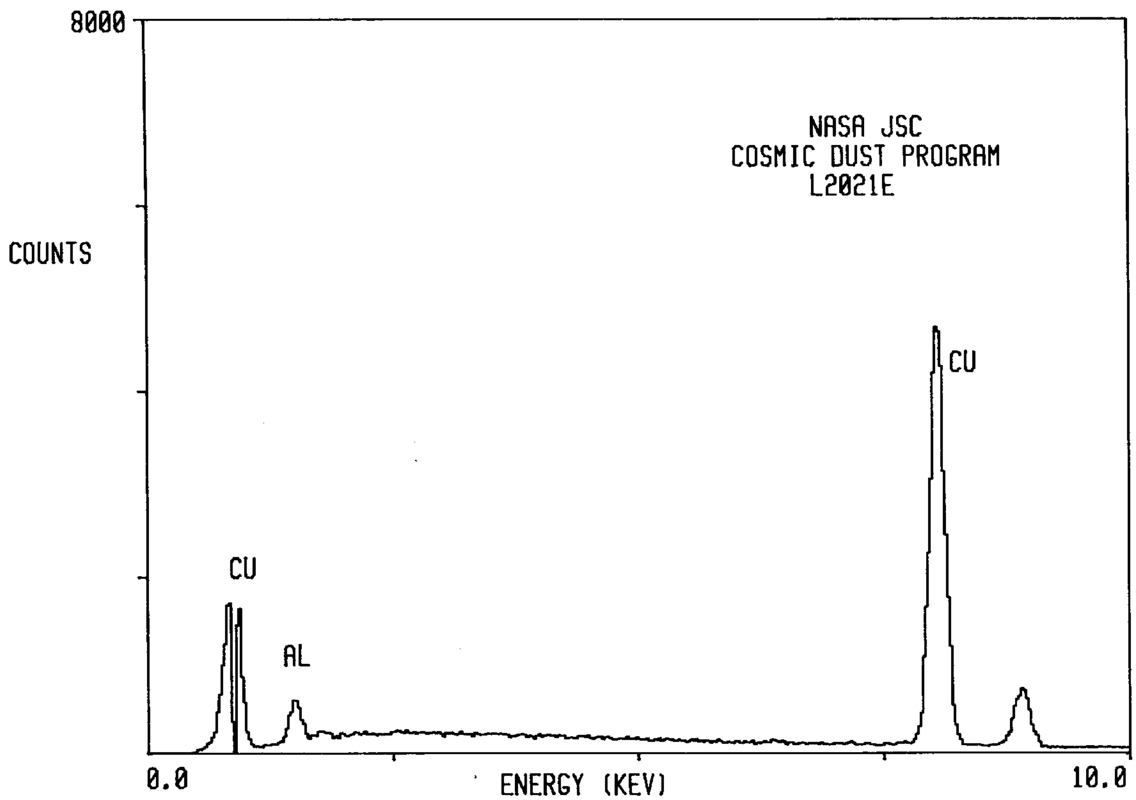


L2021E4

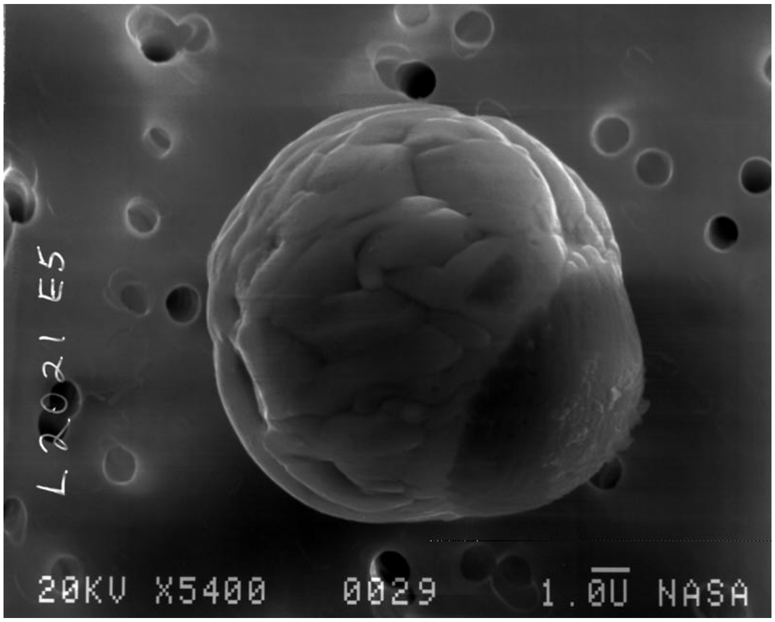


97E00394

Size: 11
Shape: S
Trans: TL
Color: Red
Luster: SV
Type: TCA
Comments:

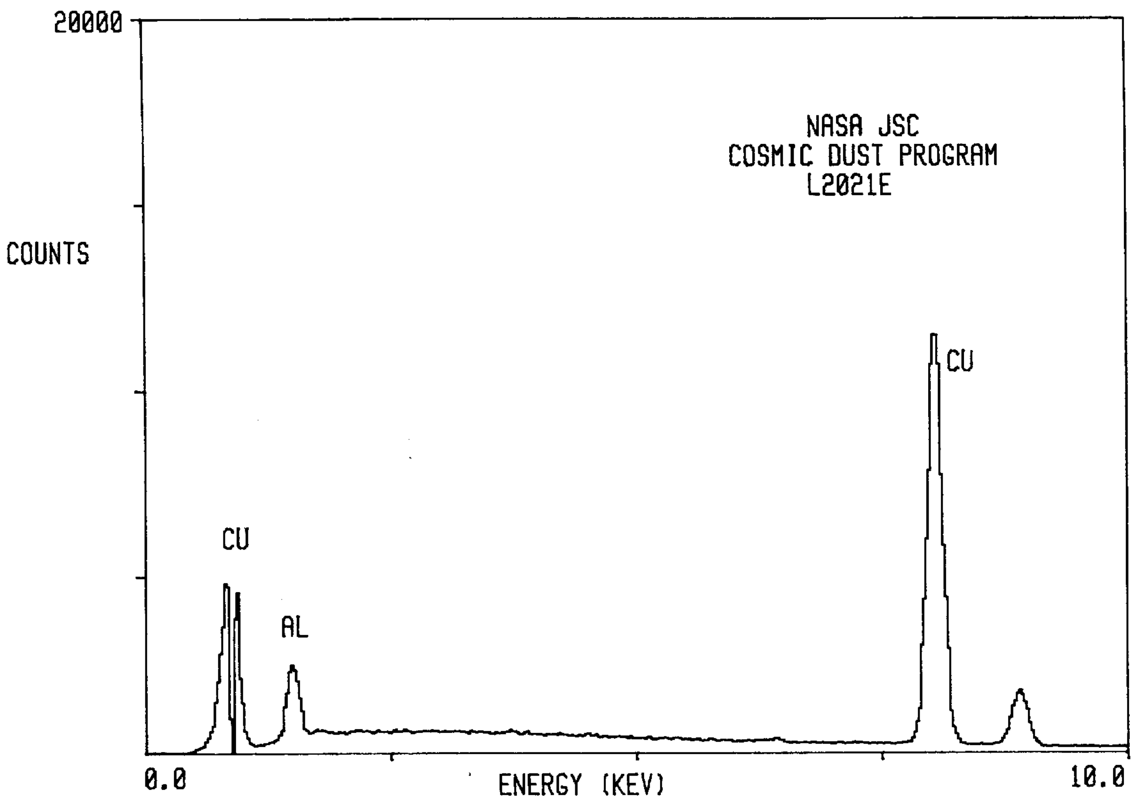


L2021E5

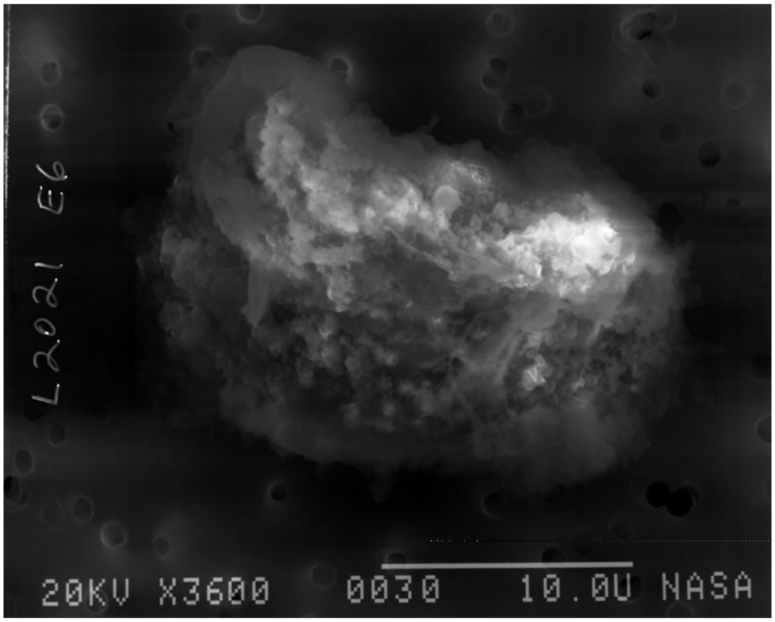


97E00395

Size:	12
Shape:	S
Trans:	TL
Color:	Red
Luster:	P
Type:	TCA
Comments:	



L2021E6



97E00396

Size: 24x17

Shape: E

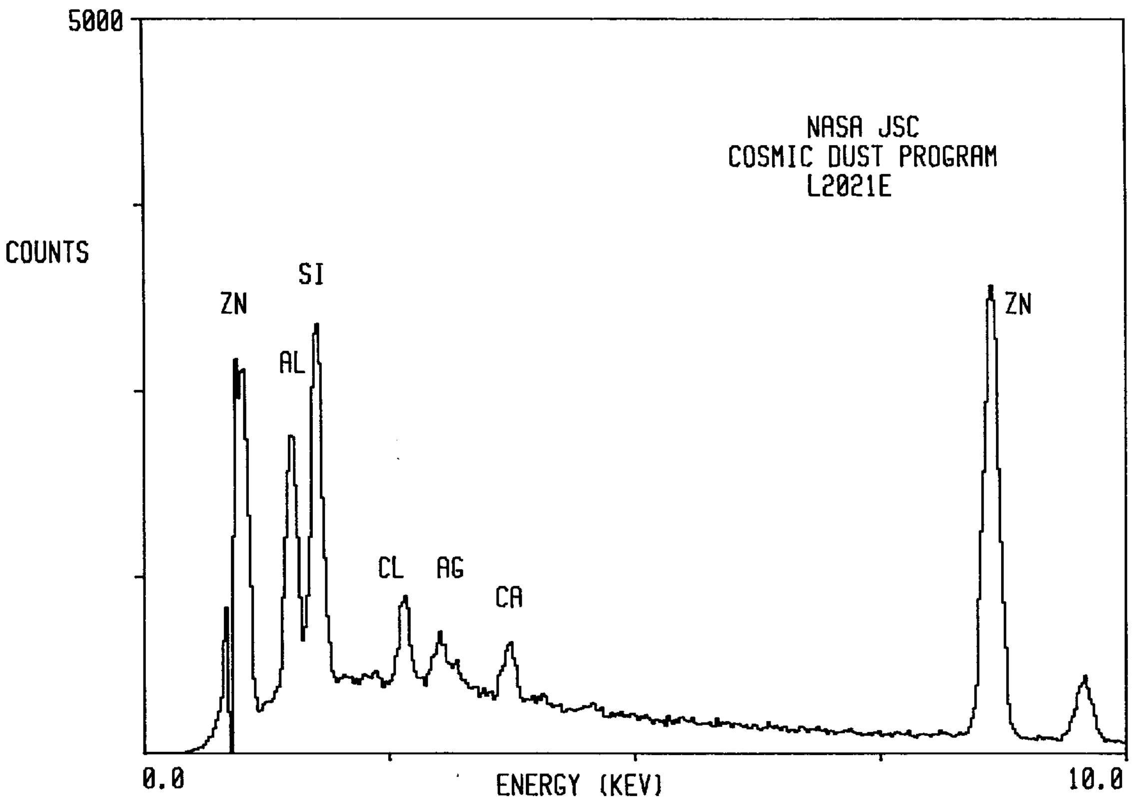
Trans: TL

Color: White

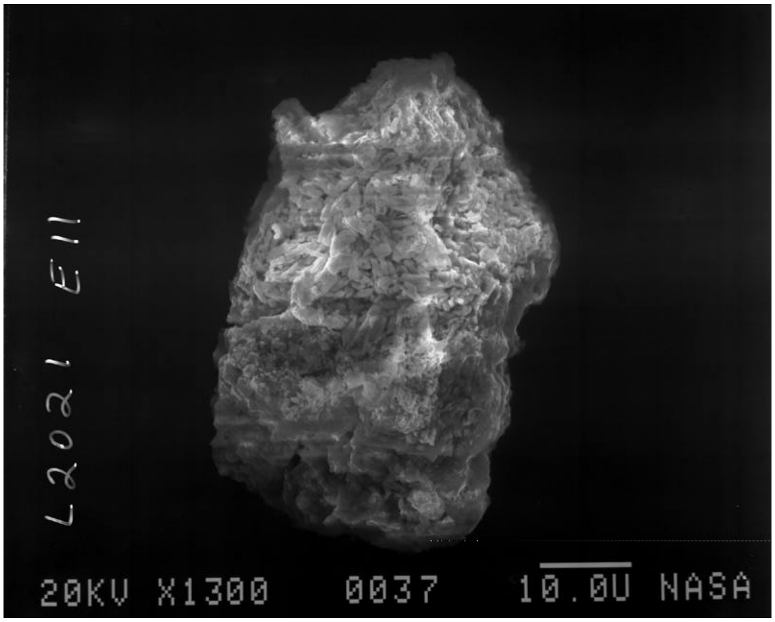
Luster: SV

Type: TCA

Comments:

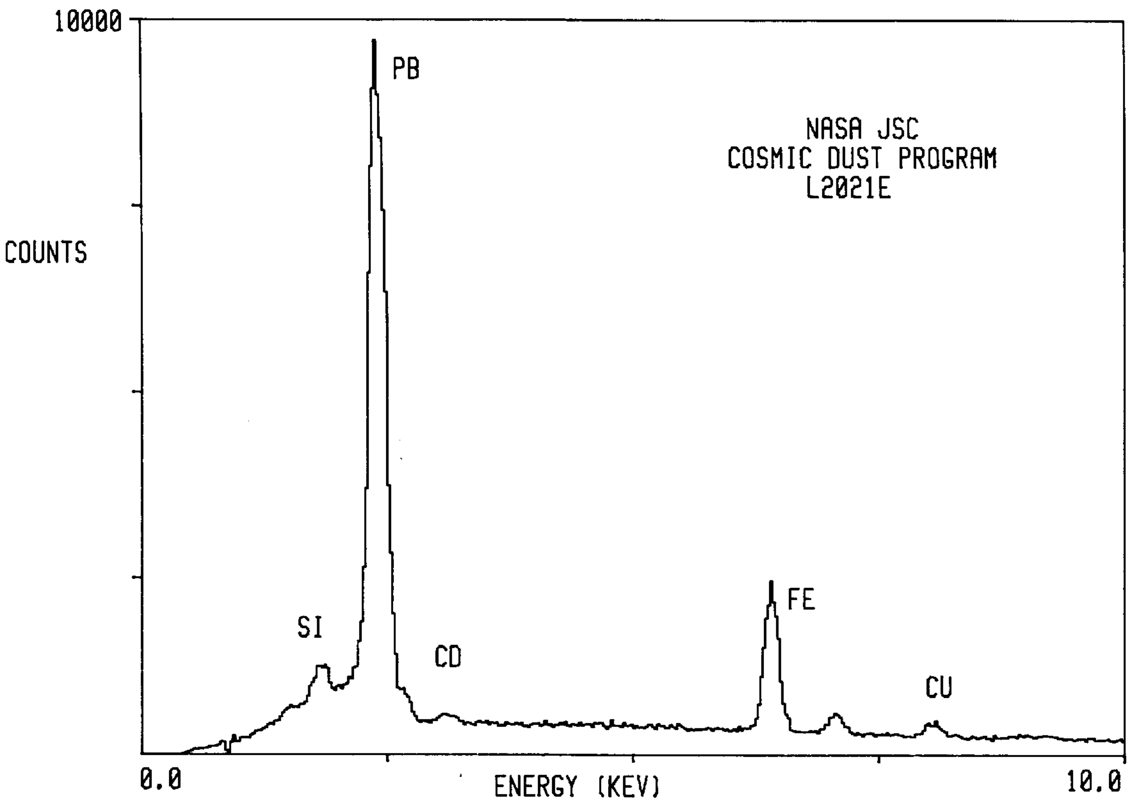


L2021E11

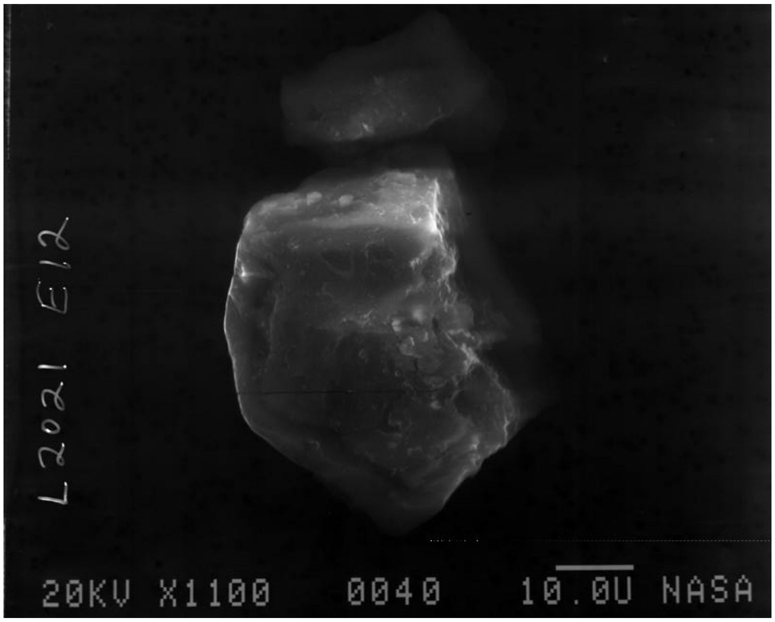


97E00401

Size: 50x35
Shape: I
Trans: TL
Color: Red
Luster: SV
Type: TCA
Comments:

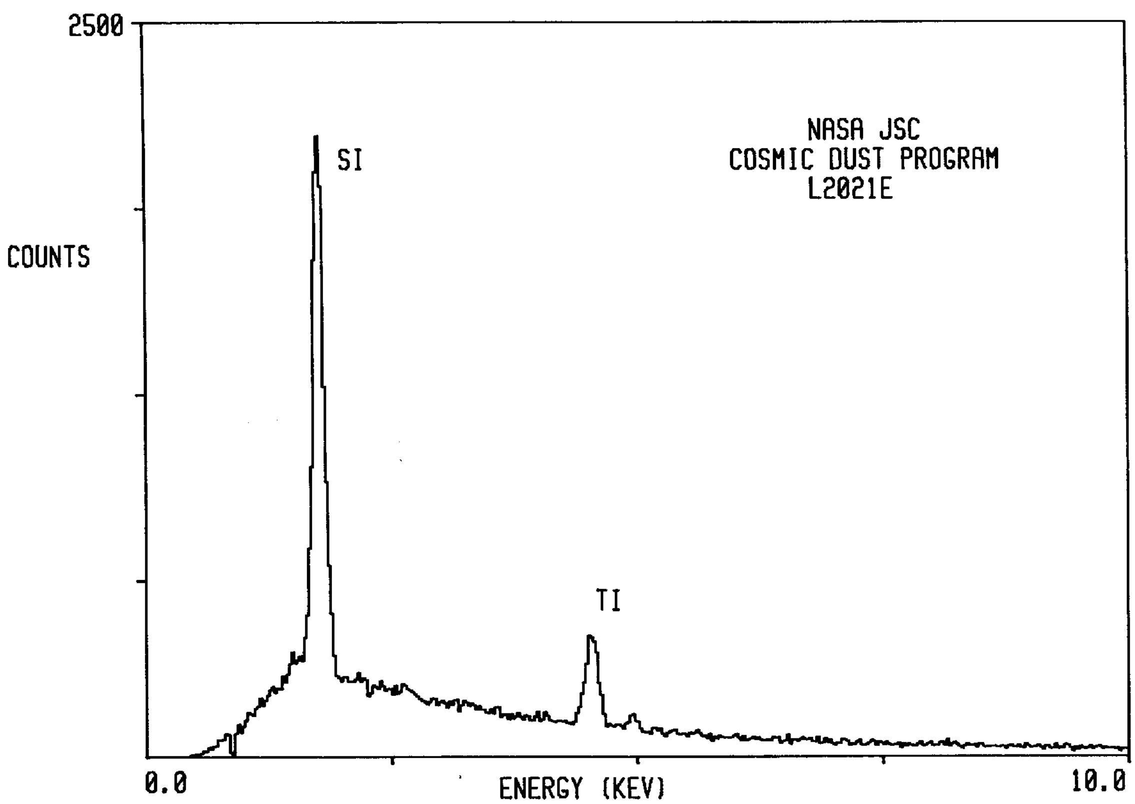


L2021E12

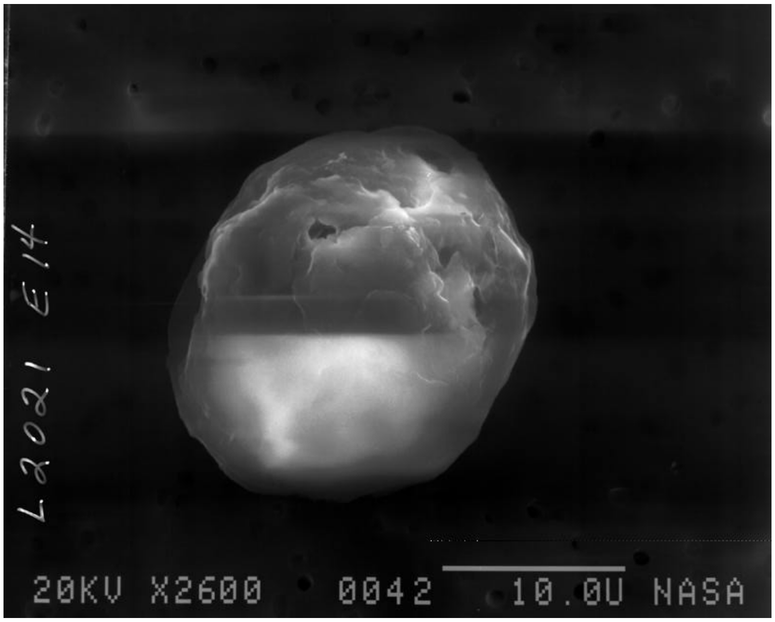


97E00402

Size:	44x42
Shape:	E
Trans:	TL
Color:	White
Luster:	SV
Type:	TCA?
Comments:	

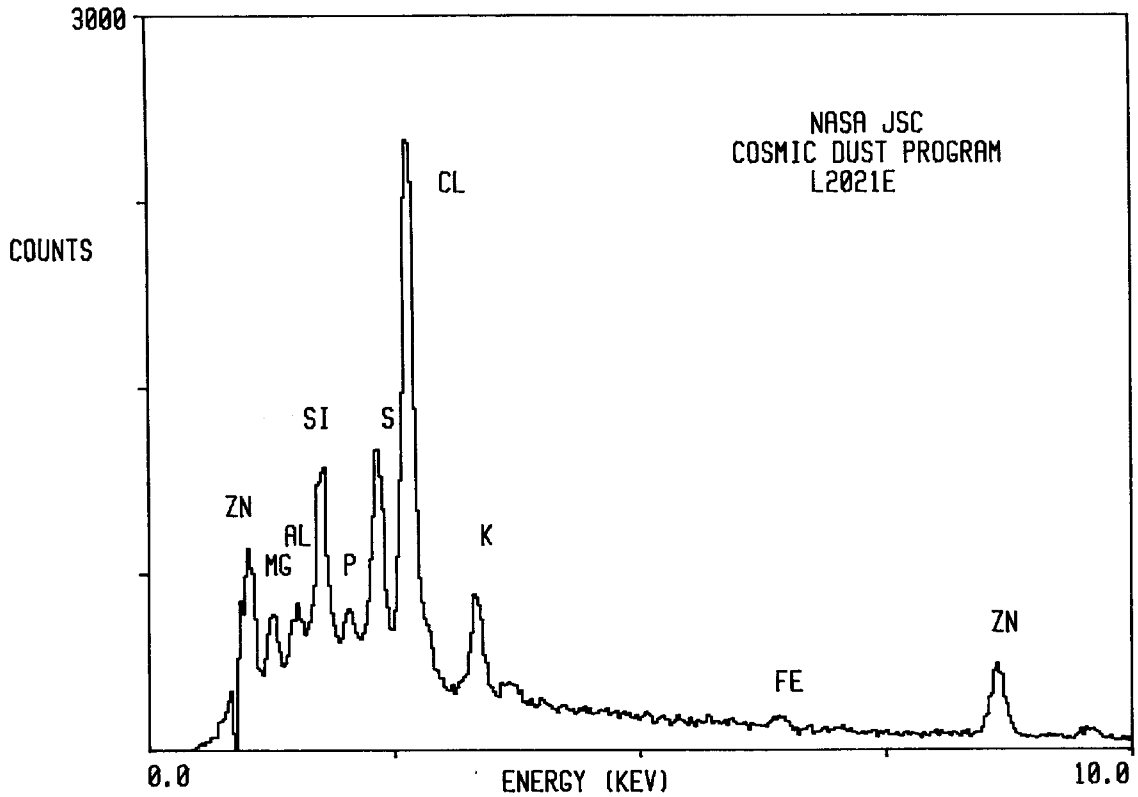


L2021E14

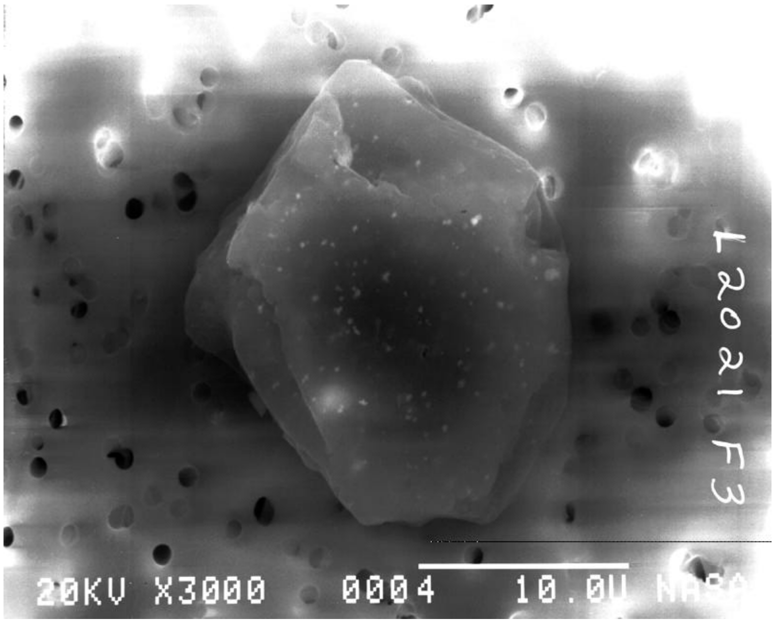


97E00404

Size: 22x20
Shape: E
Trans: TL
Color: White
Luster: SV
Type: TCA
Comments:



L2021F3



97E00410

Size: 20x18

Shape: E

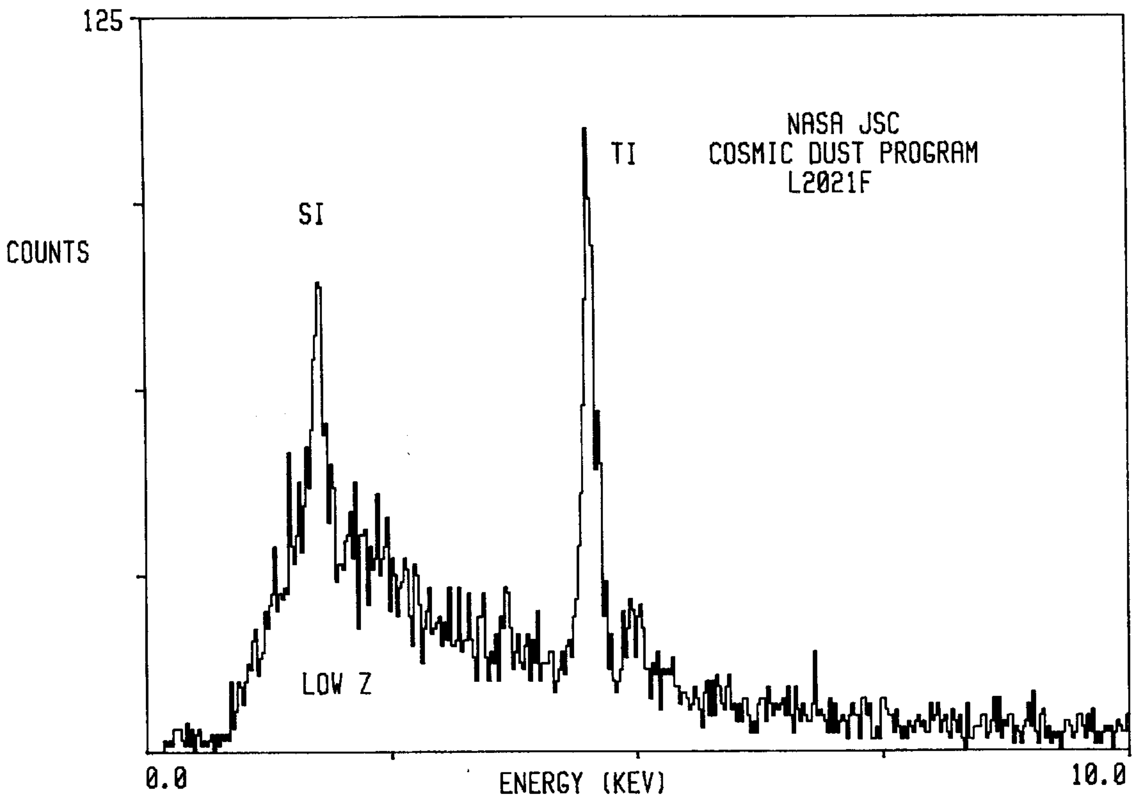
Trans: TL

Color: Colorless

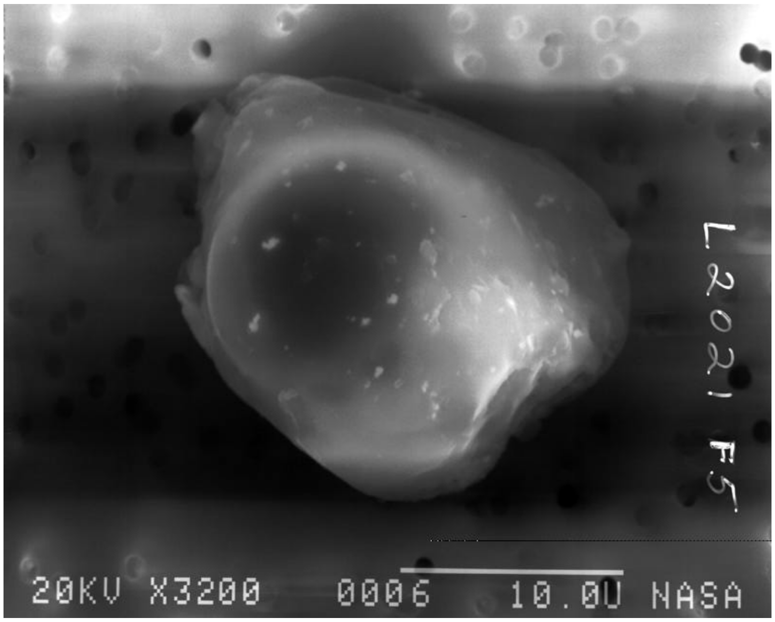
Luster: SV

Type: TCA?

Comments:

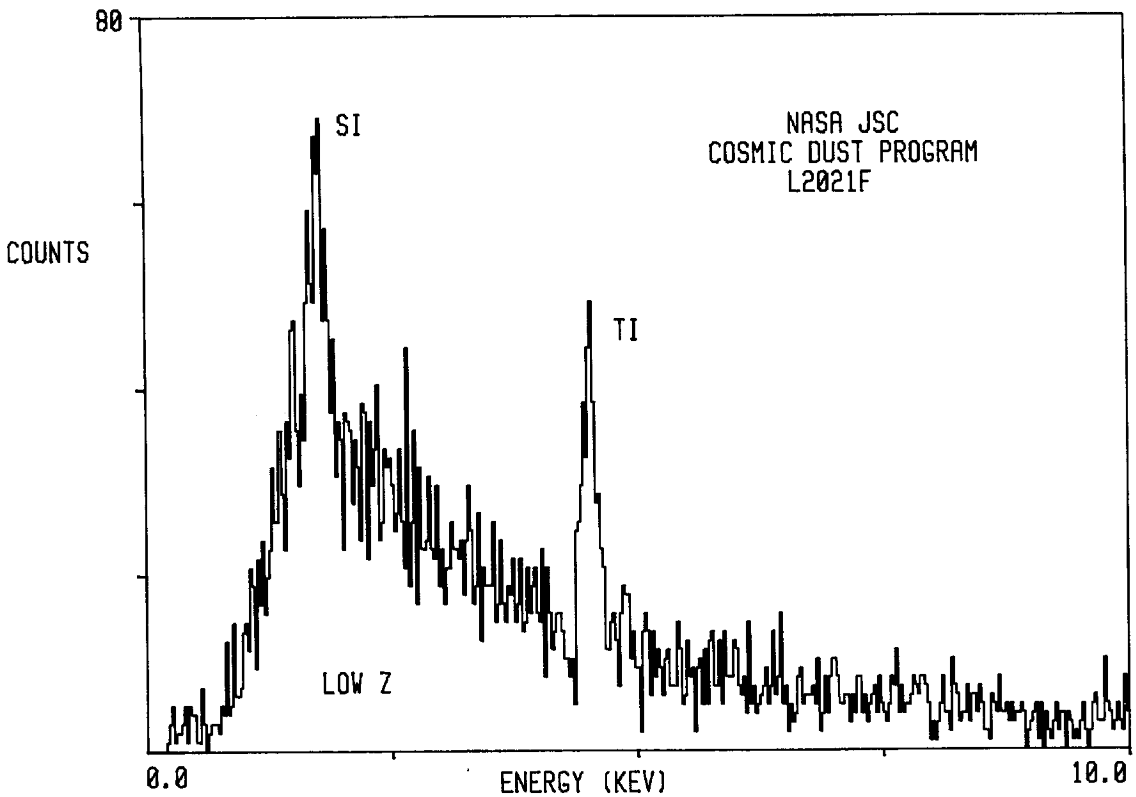


L2021F5

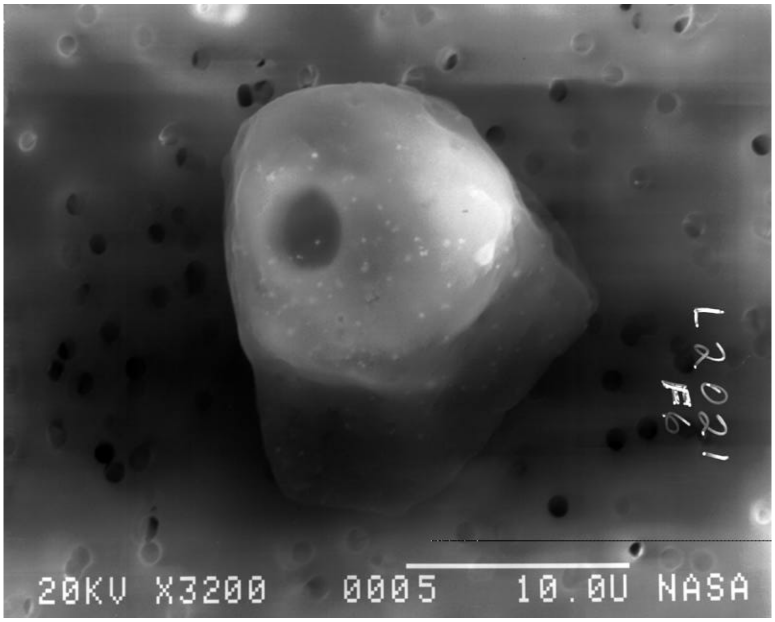


97E00412

Size: 22
Shape: I
Trans: TL
Color: Colorless
Luster: SV
Type: TCA
Comments:



L2021F6



97E00413

Size: 16

Shape: I

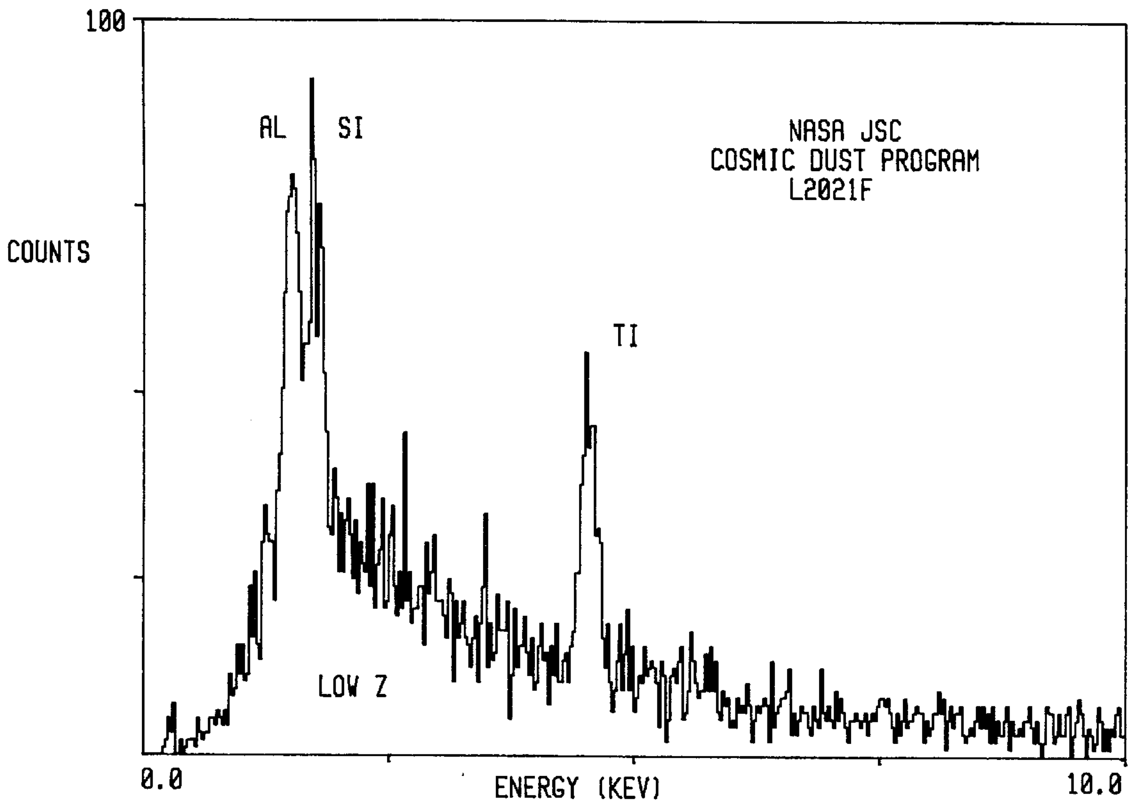
Trans: TL

Color: Colorless

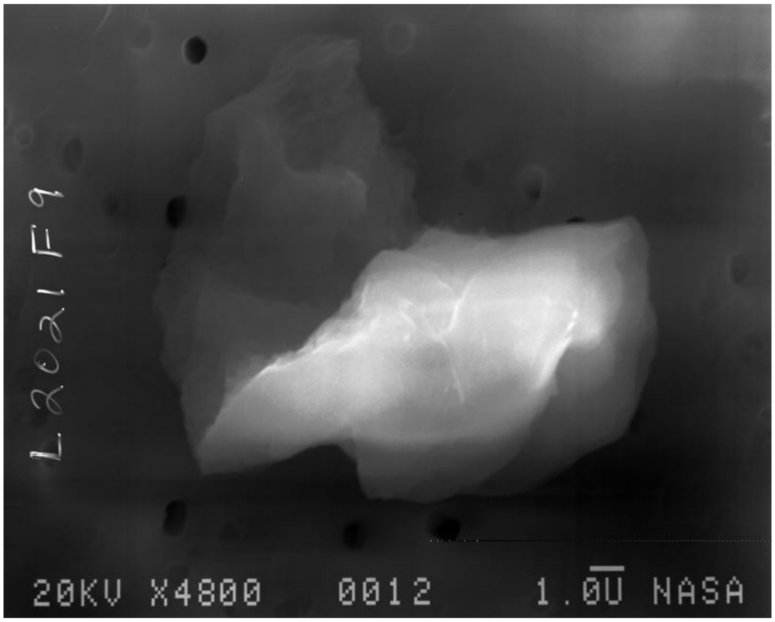
Luster: SV

Type: TCA

Comments:



L2021F9



97E00416

Size: 16x12

Shape: I

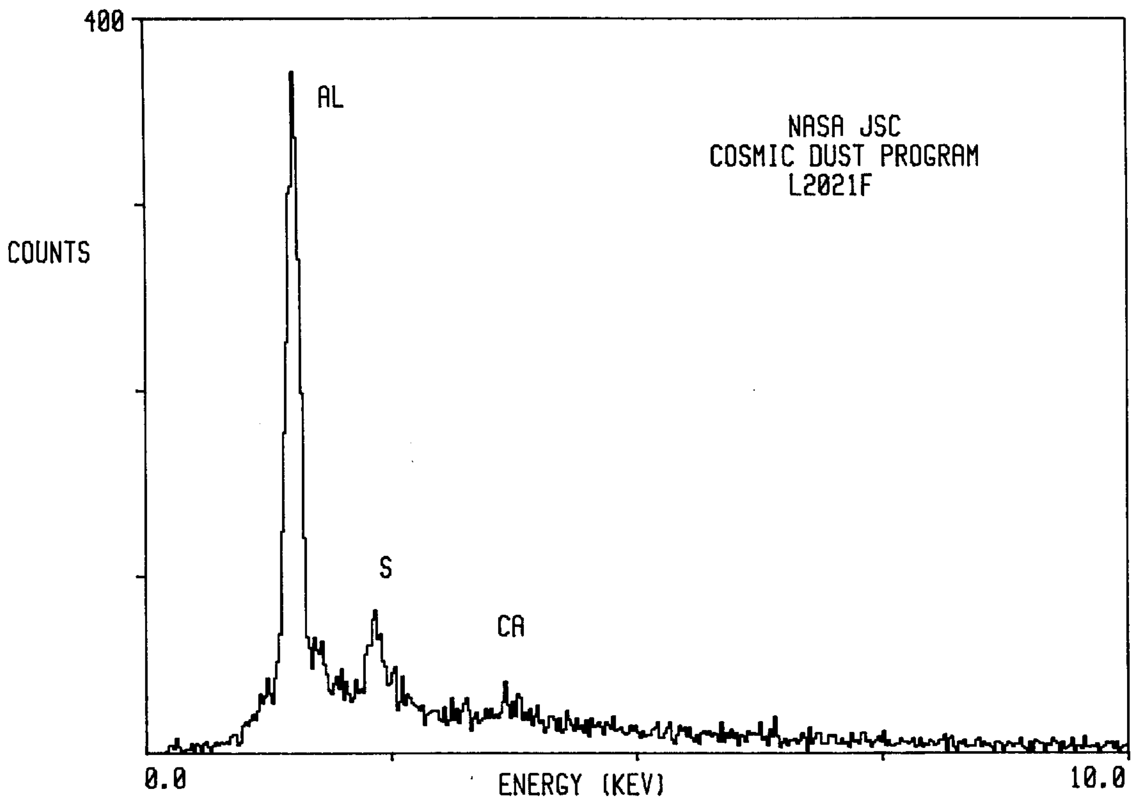
Trans: T

Color: Colorless

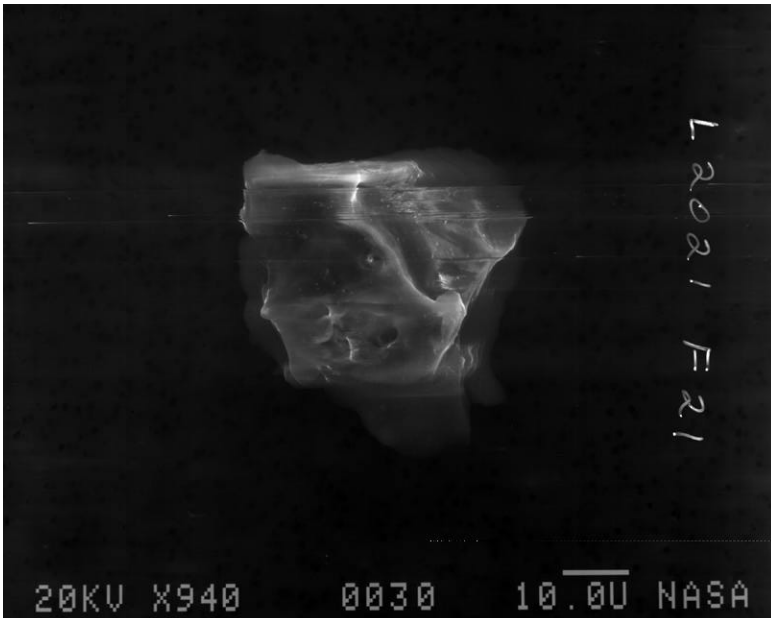
Luster: V

Type: TCA

Comments:

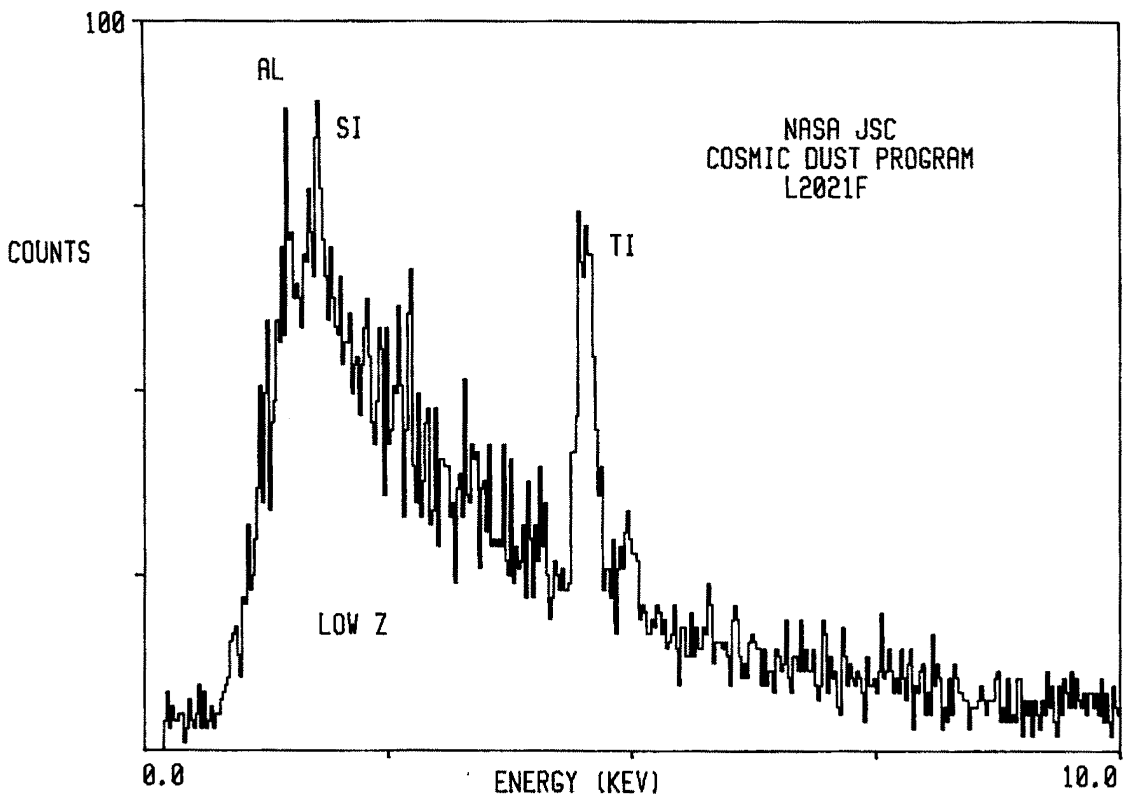


L2021F21

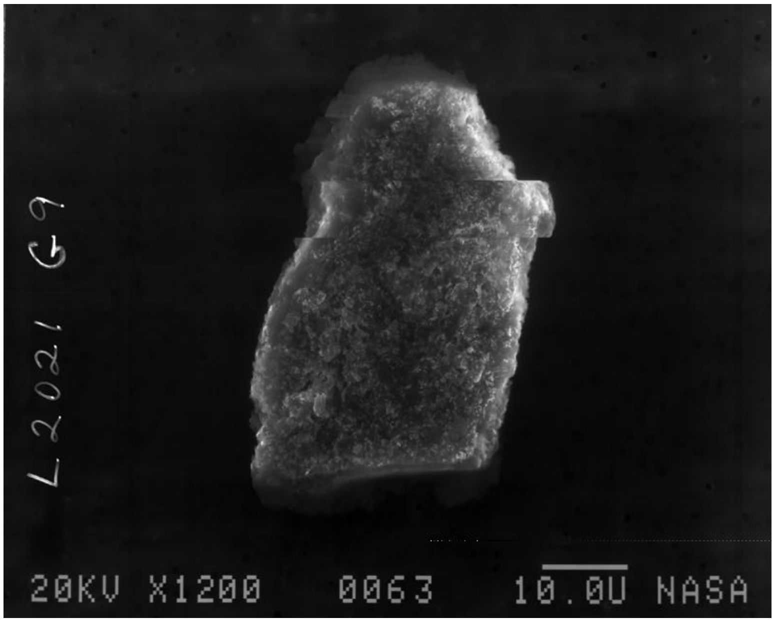


97E00428

Size: 40x38
Shape: E
Trans: TL
Color: White
Luster: SV
Type: TCA
Comments:

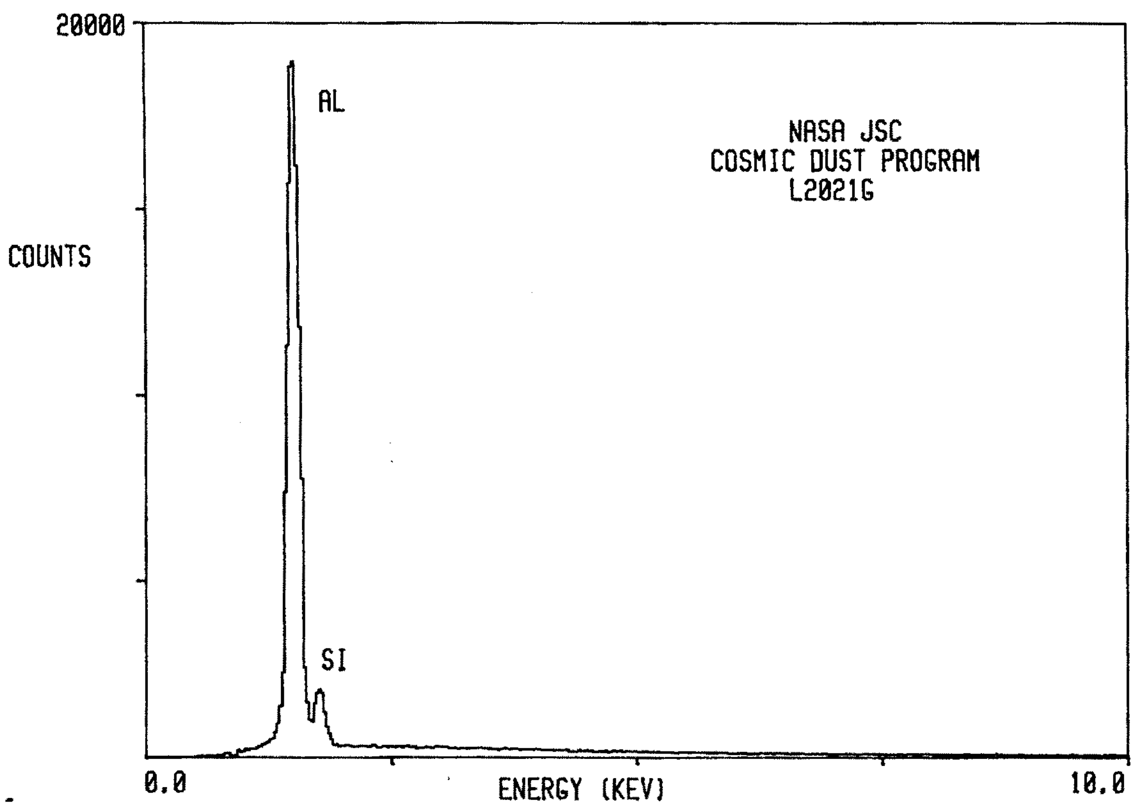


L2021G9

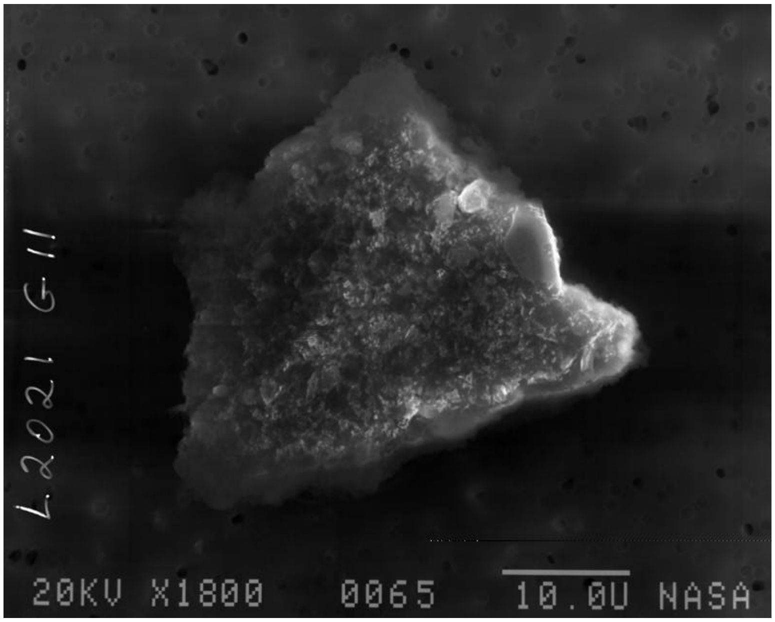


97E00445

Size: 50x3
Shape: I
Trans: O
Color: White
Luster: SV
Type: TCA
Comments:



L2021G11



97E00447

Size: 38x34

Shape: I

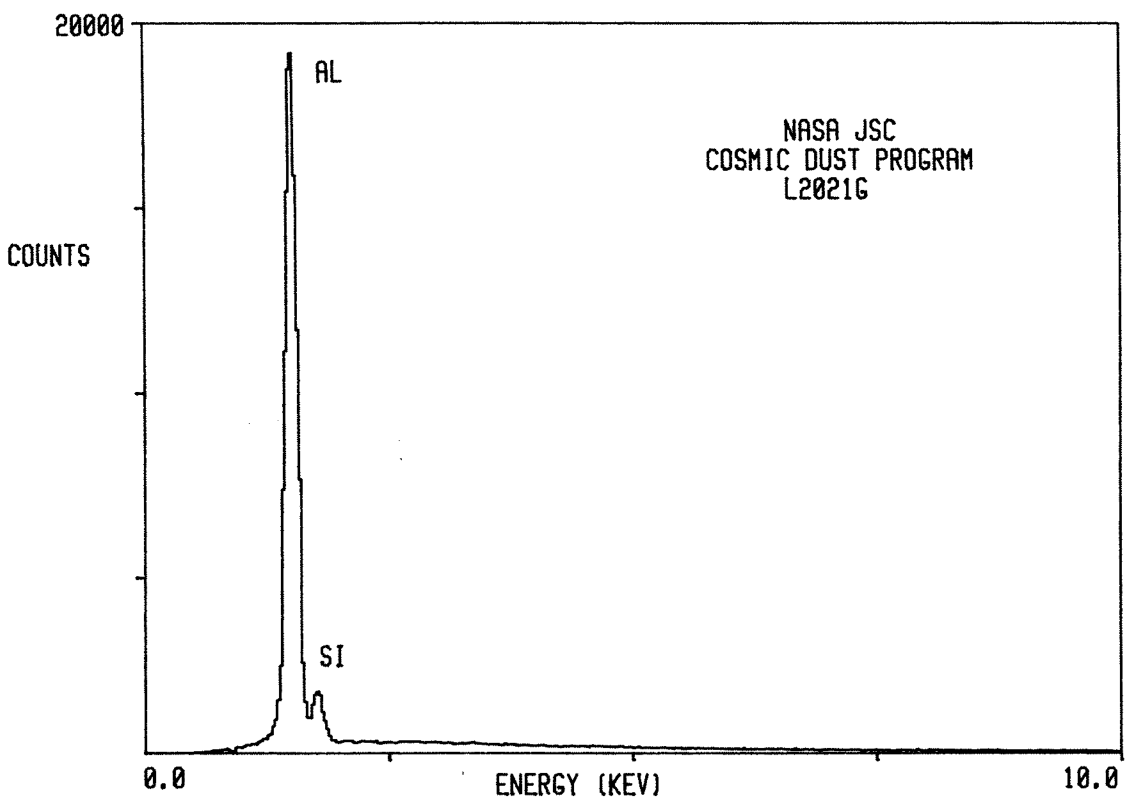
Trans: O

Color: White

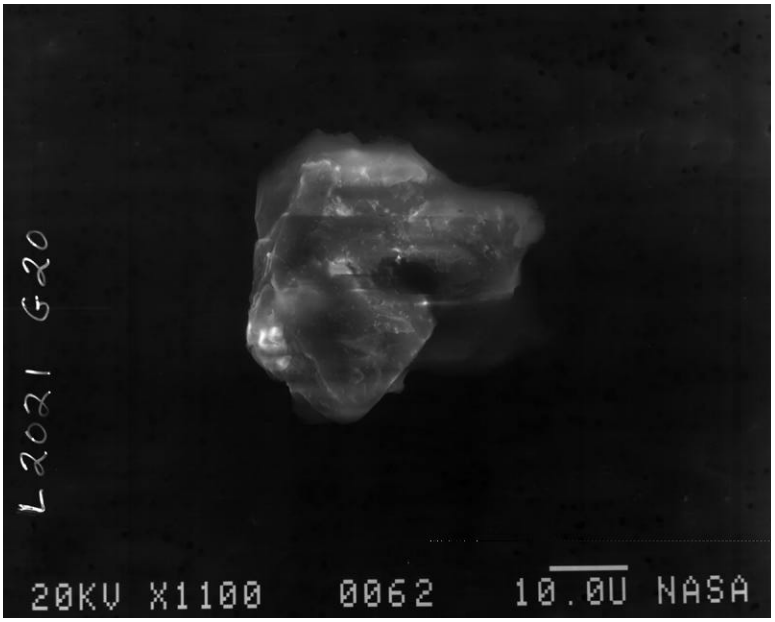
Luster: SV

Type: TCA

Comments:



L2021G20



97E00456

Size: 38

Shape: I

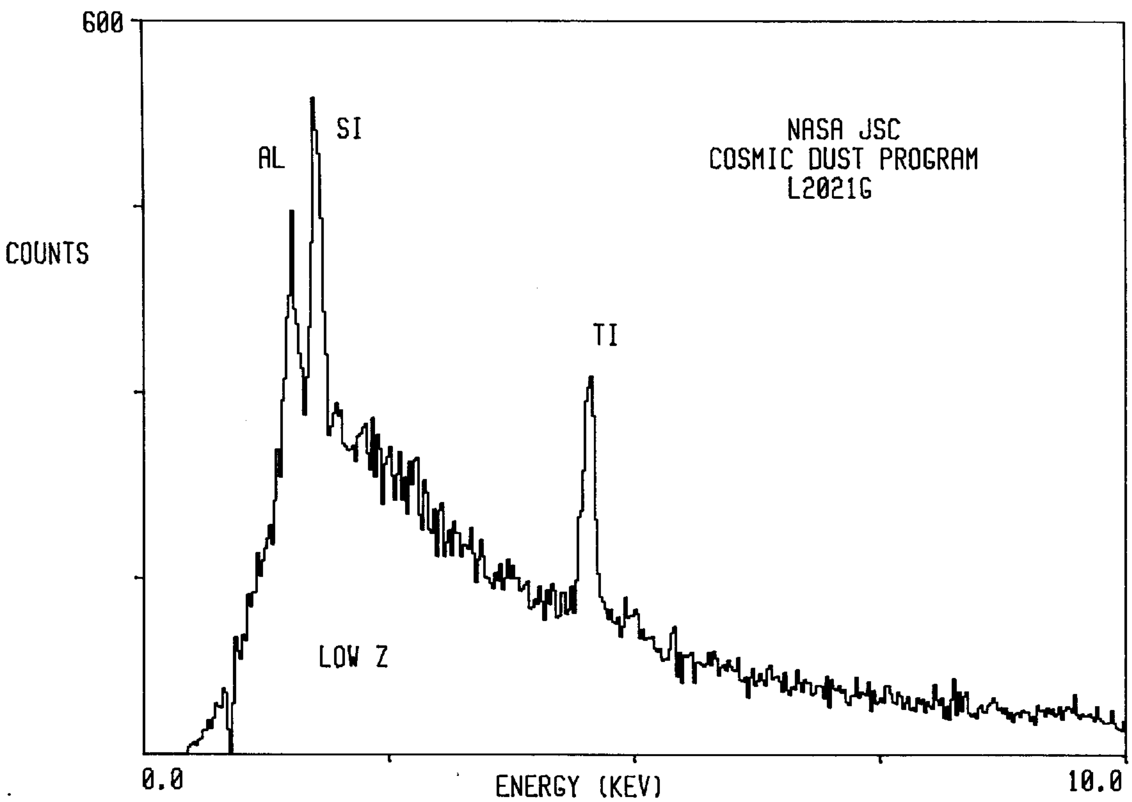
Trans: TL

Color: White

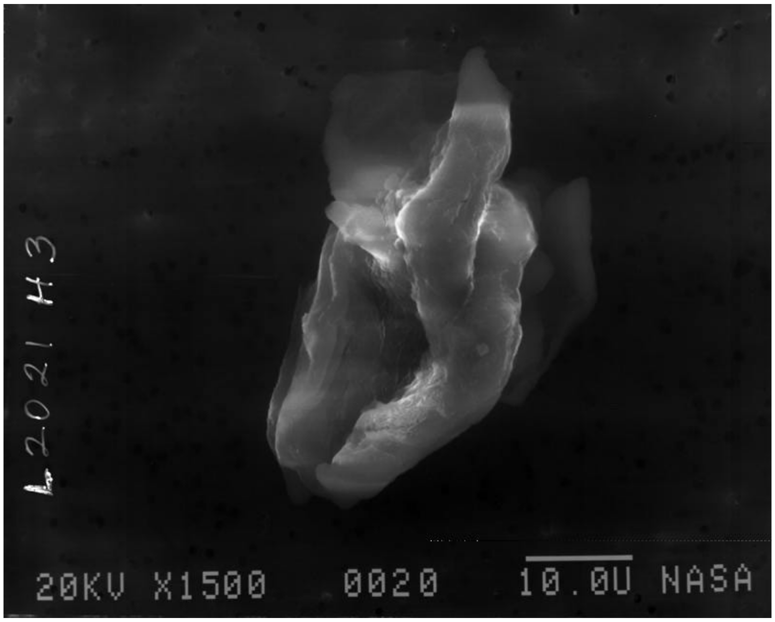
Luster: SV

Type: TCA?

Comments:

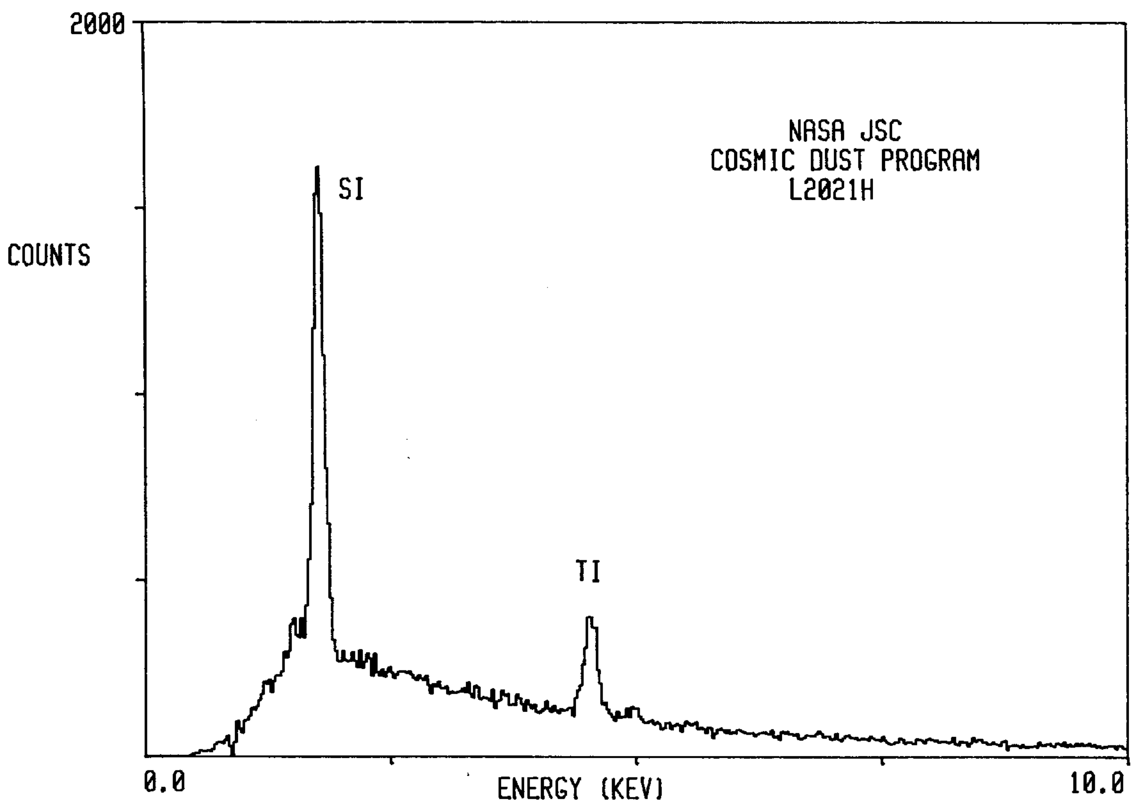


L2021H3

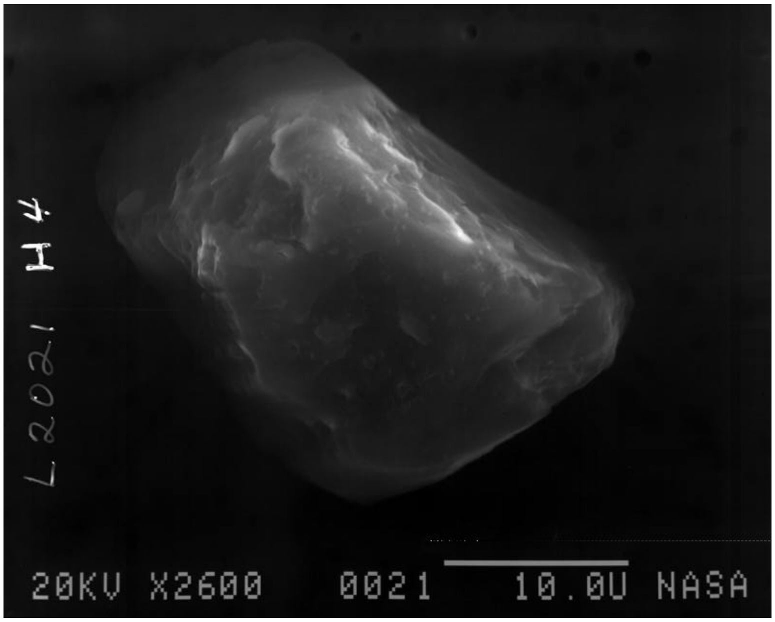


97E00460

Size: 44x27
Shape: E
Trans: TL
Color: White
Luster: SV
Type: TCA
Comments:



L2021H4



97E00461

Size: 30x20

Shape: E

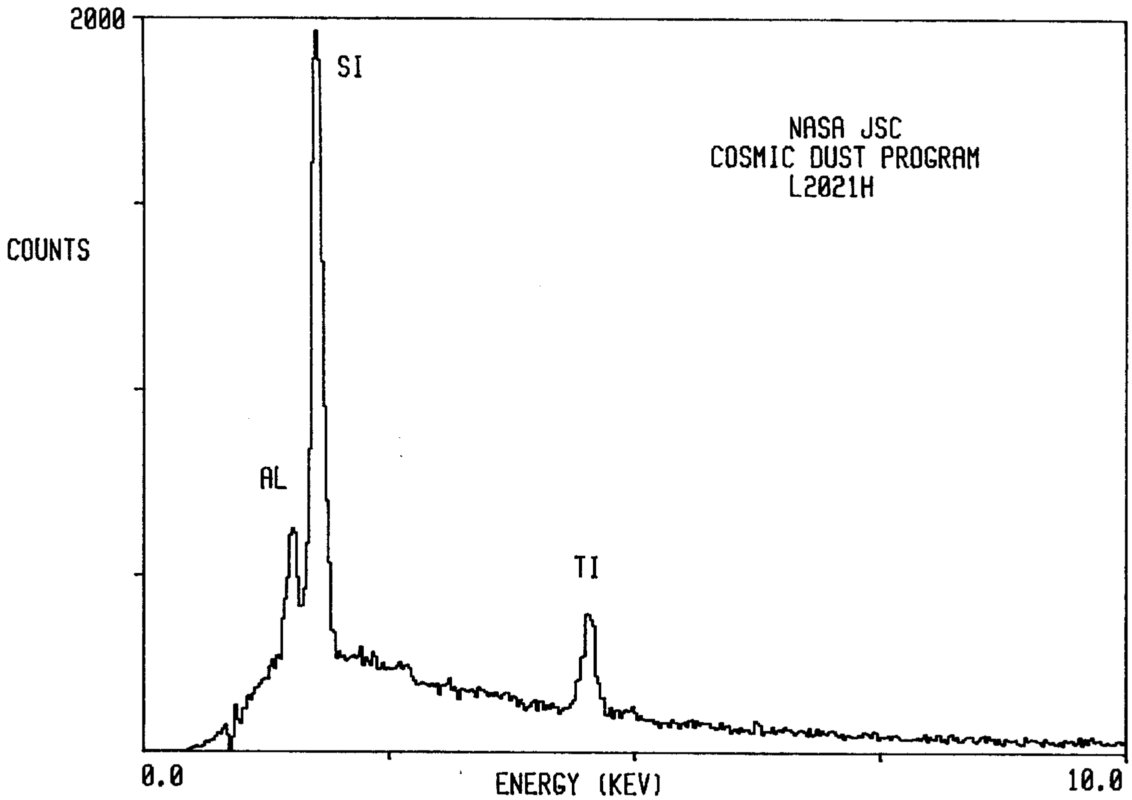
Trans: TL

Color: White

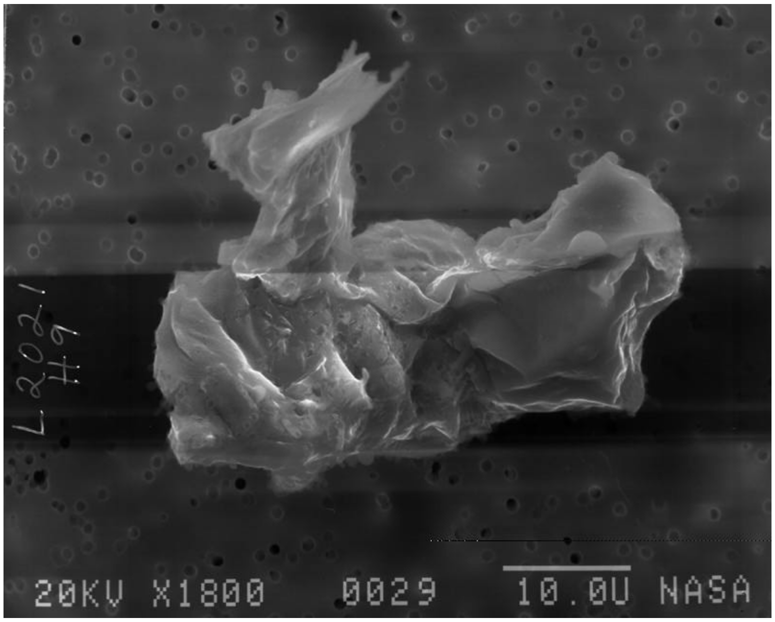
Luster: SV

Type: TCA

Comments:

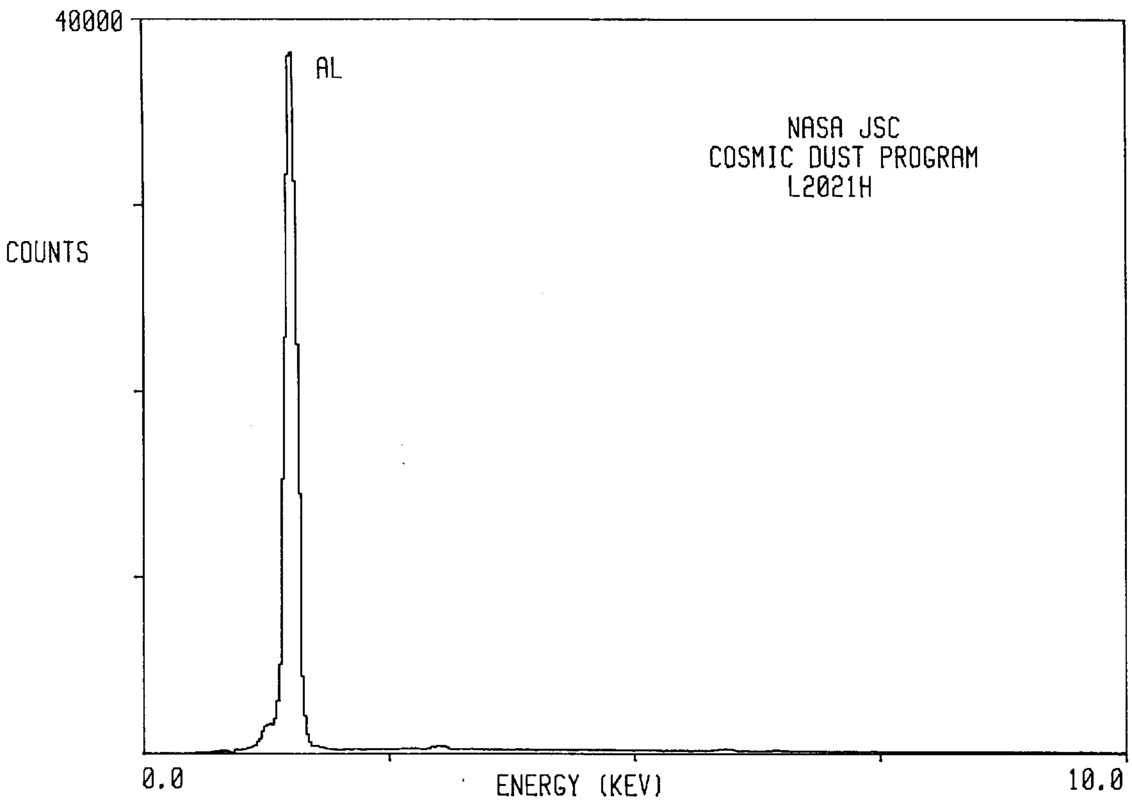


L2021H9

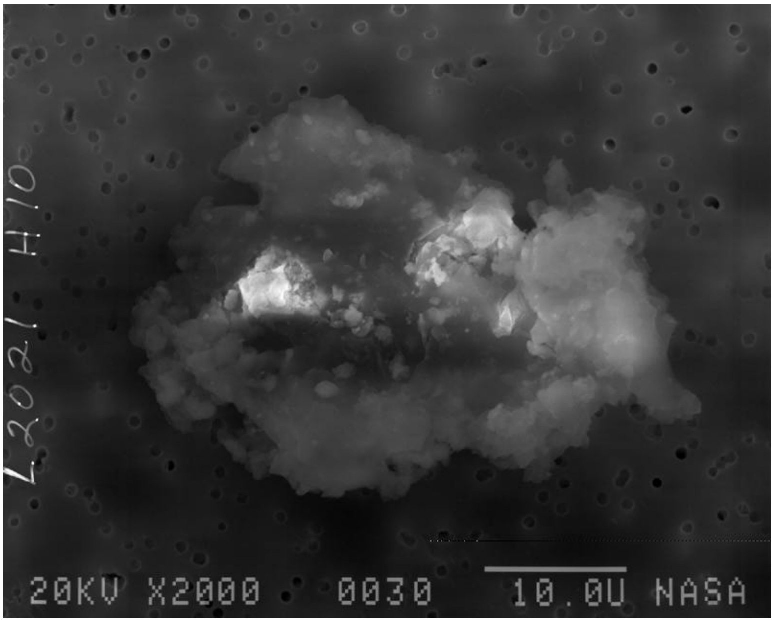


97E00466

Size: 40x34
Shape: I
Trans: O
Color: Black-Silver
Luster: M
Type: TCA
Comments:

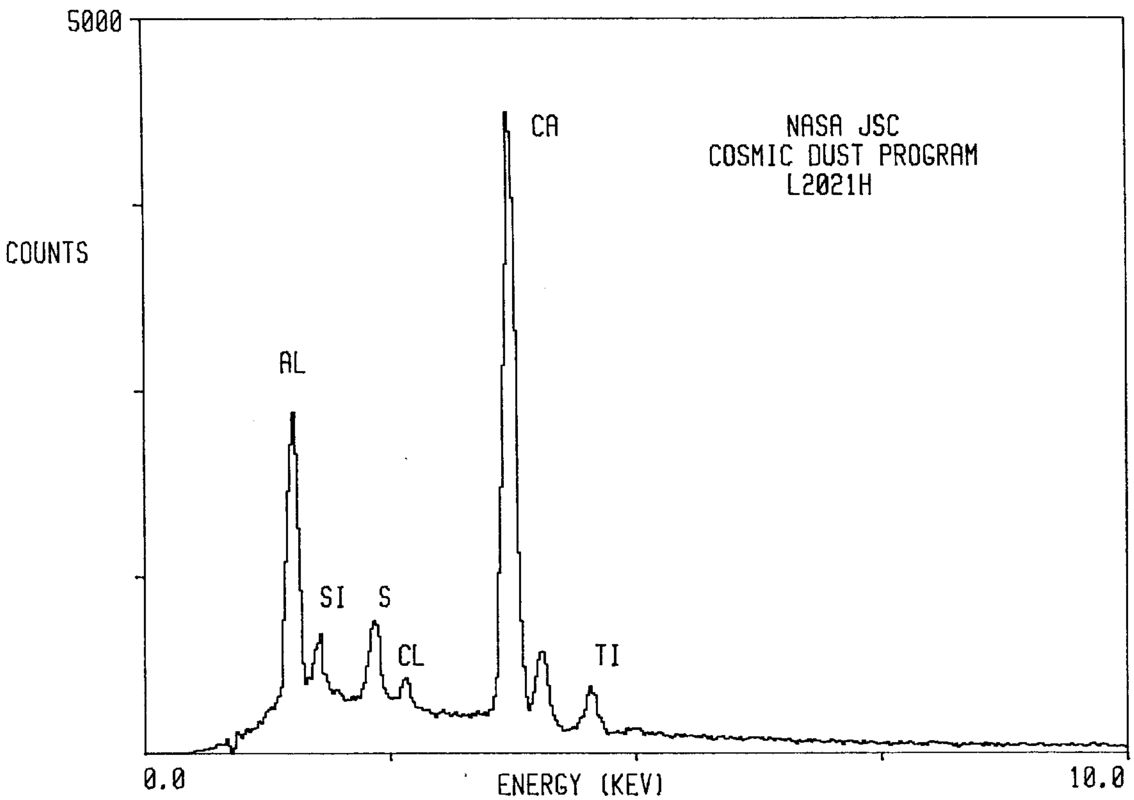


L2021H10

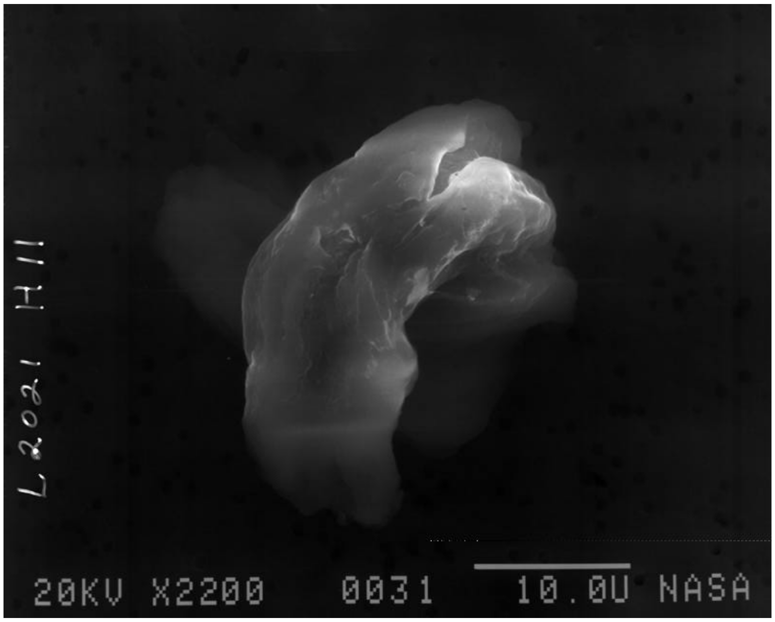


97E00467

Size:	40x28
Shape:	I
Trans:	O
Color:	White
Luster:	P
Type:	TCA
Comments:	

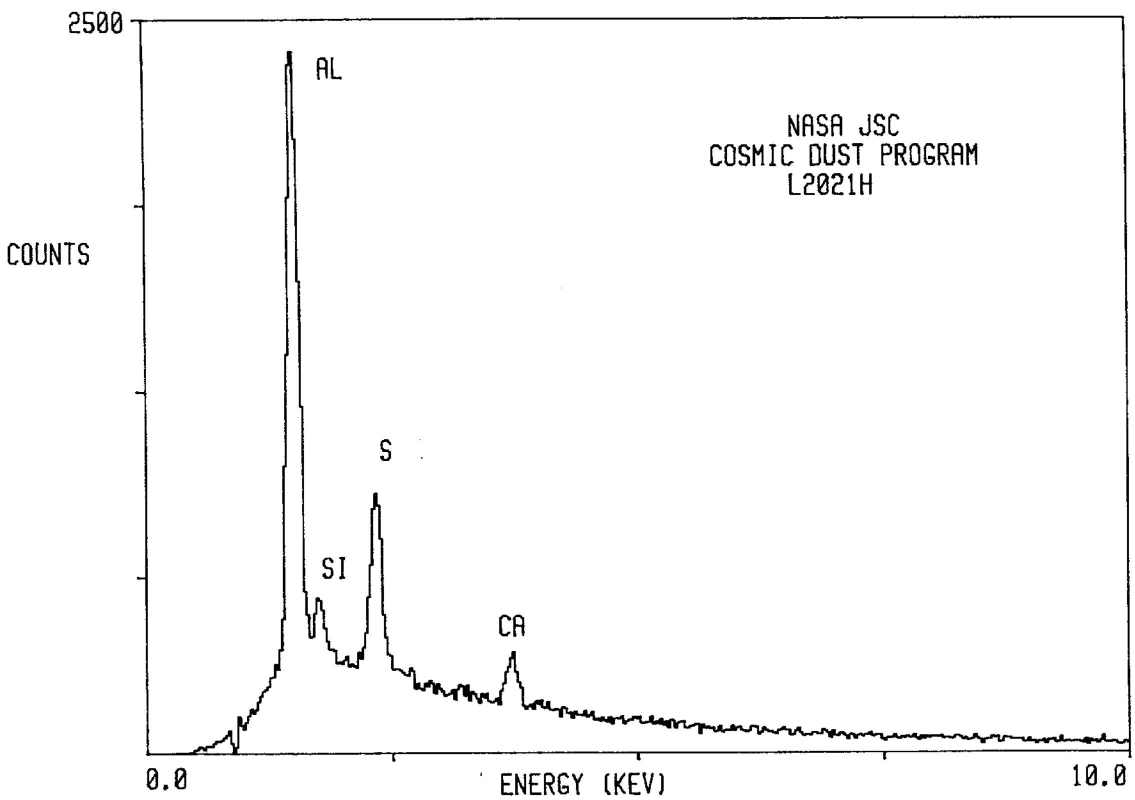


L2021H11

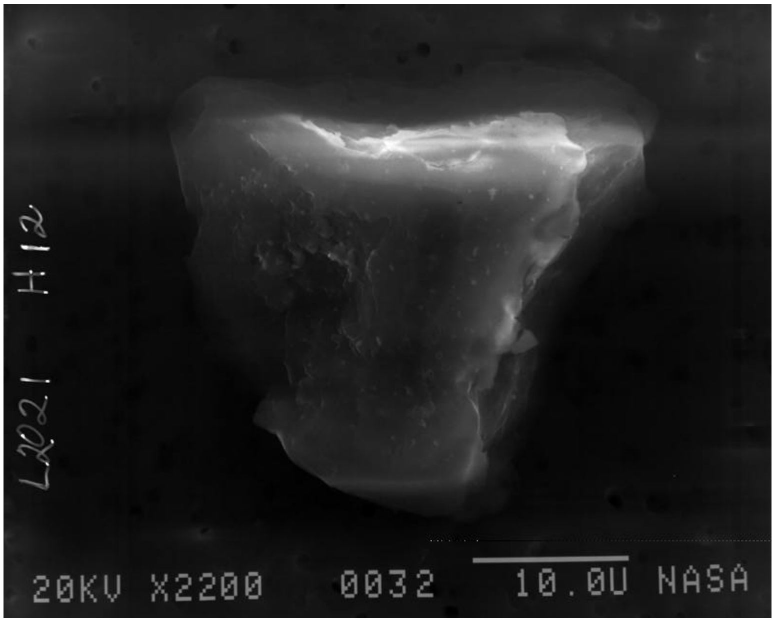


97E00468

Size: 28x26
Shape: I
Trans: TL
Color: Colorless
Luster: V
Type: TCA
Comments:

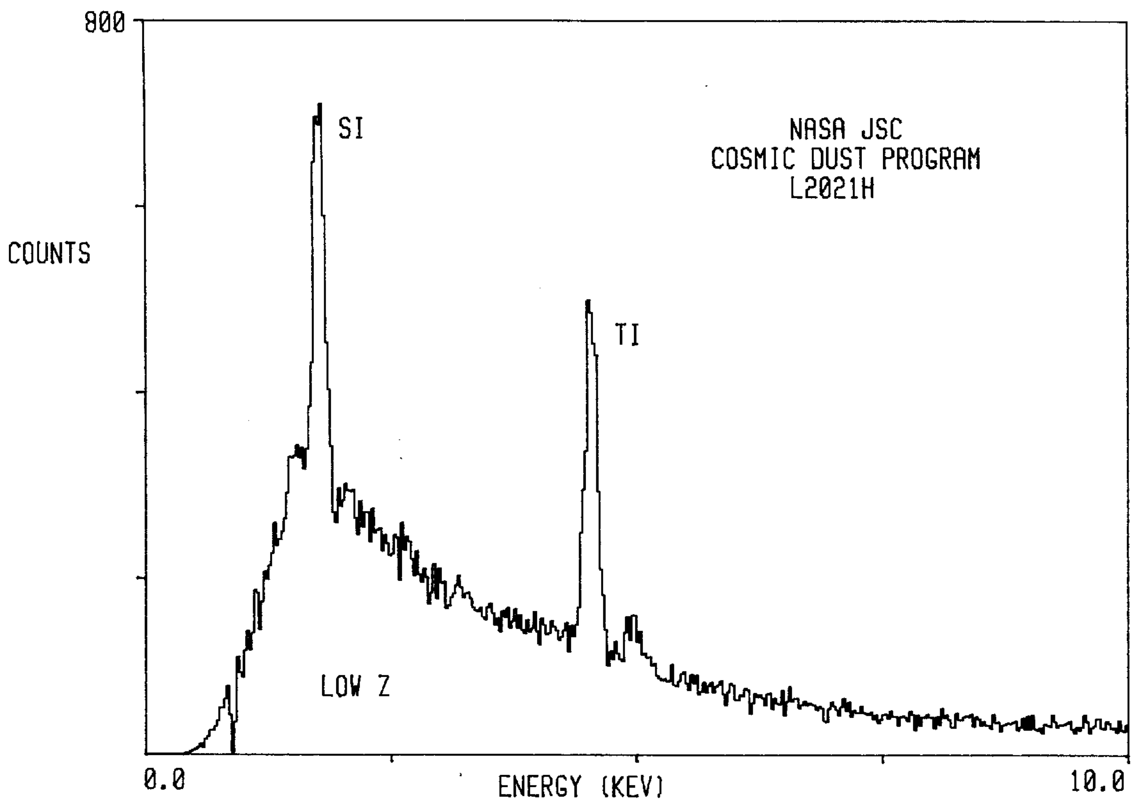


L2021H12

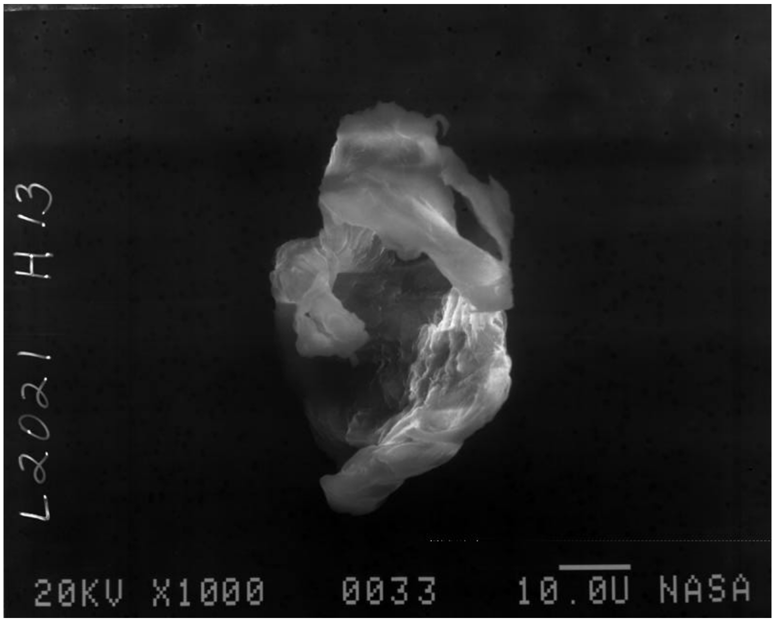


97E00469

Size: 14x10
Shape: I
Trans: O
Color: Black
Luster: D
Type: TCA
Comments:



L2021H13



97E00470

Size: 32

Shape: I

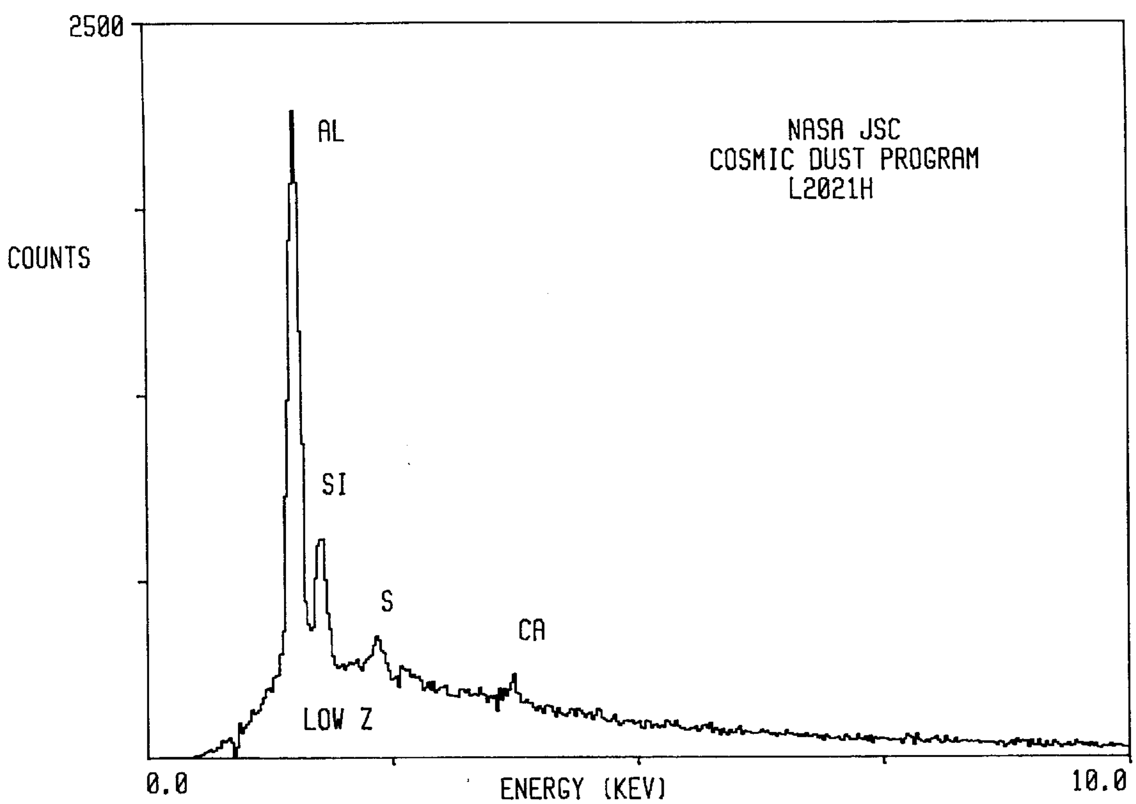
Trans: TL

Color: White

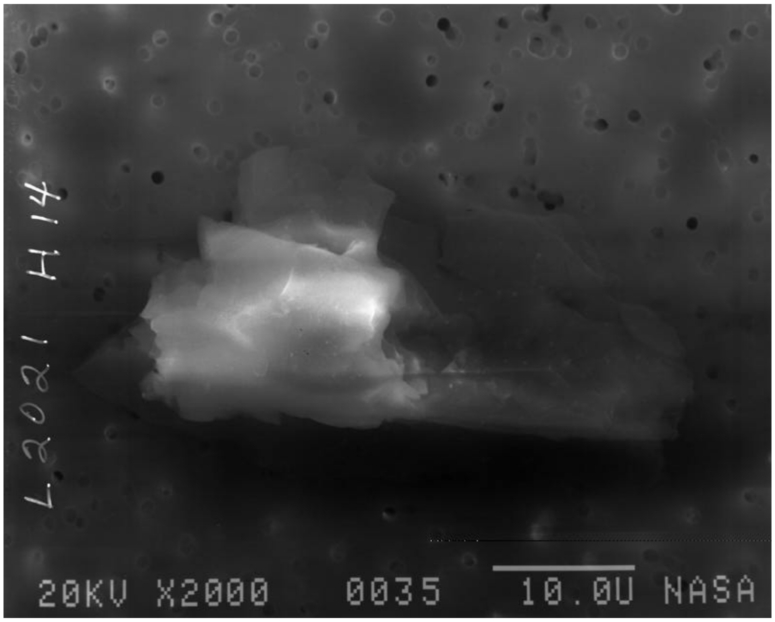
Luster: SV

Type: TCA

Comments:

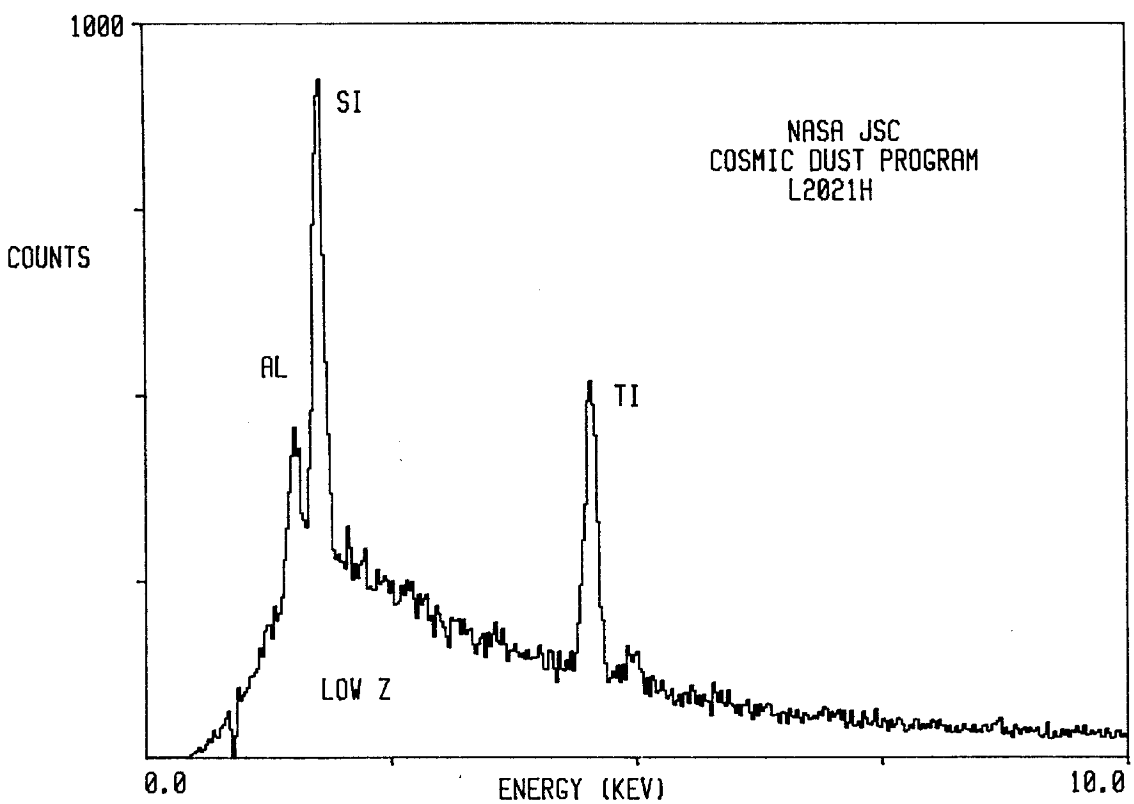


L2021H14

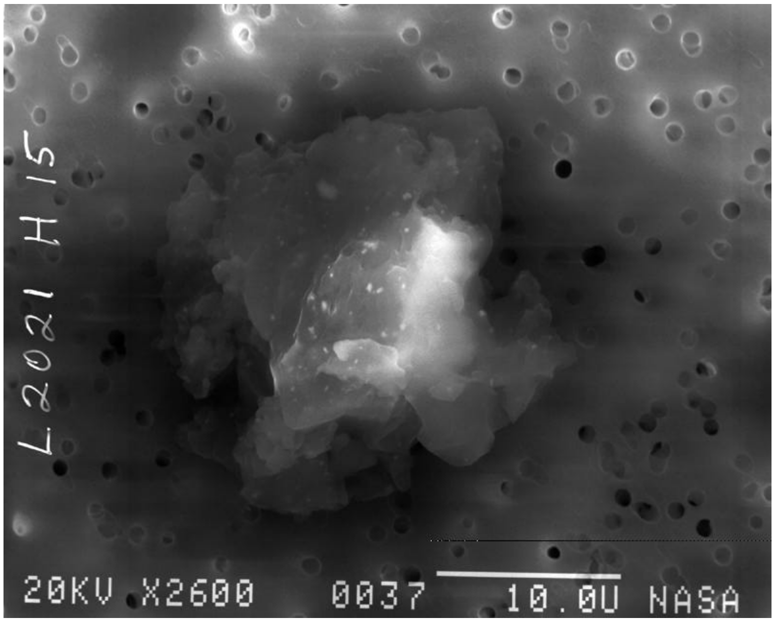


97E00471

Size:	42x24
Shape:	I
Trans:	TL
Color:	White
Luster:	SV
Type:	TCA
Comments:	



L2021H15



97E00472

Size: 22

Shape: E

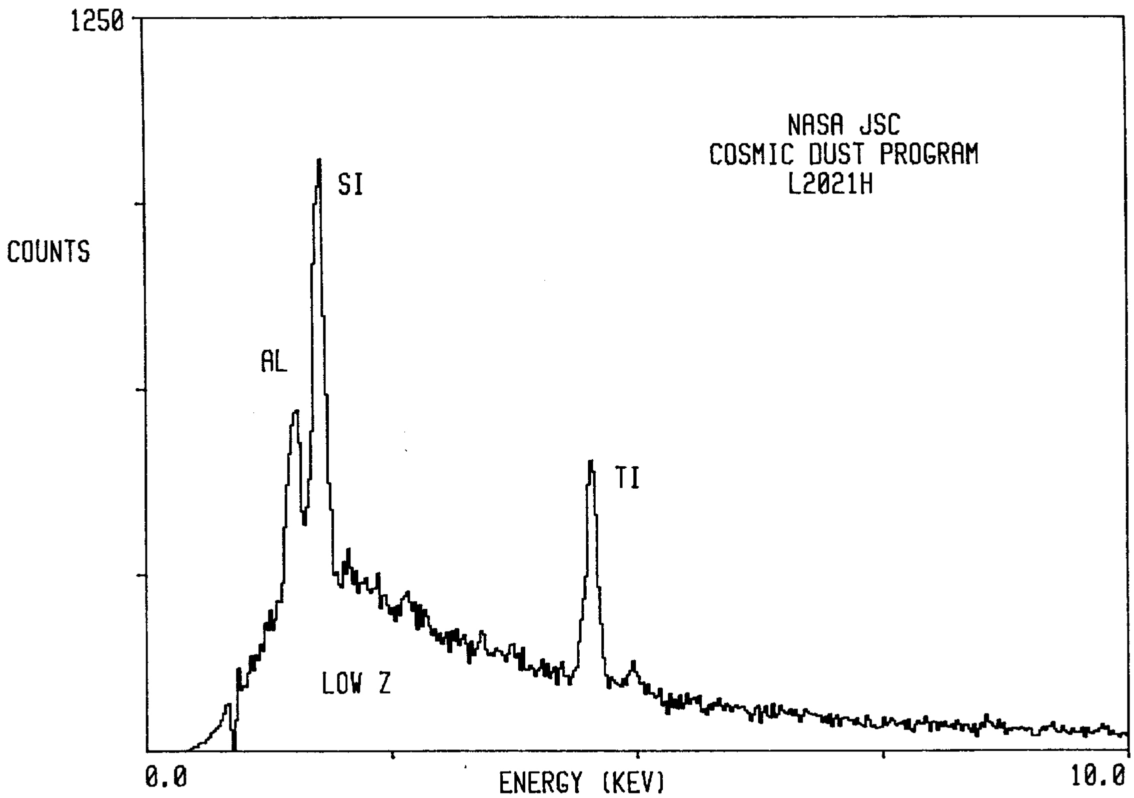
Trans: TL

Color: White

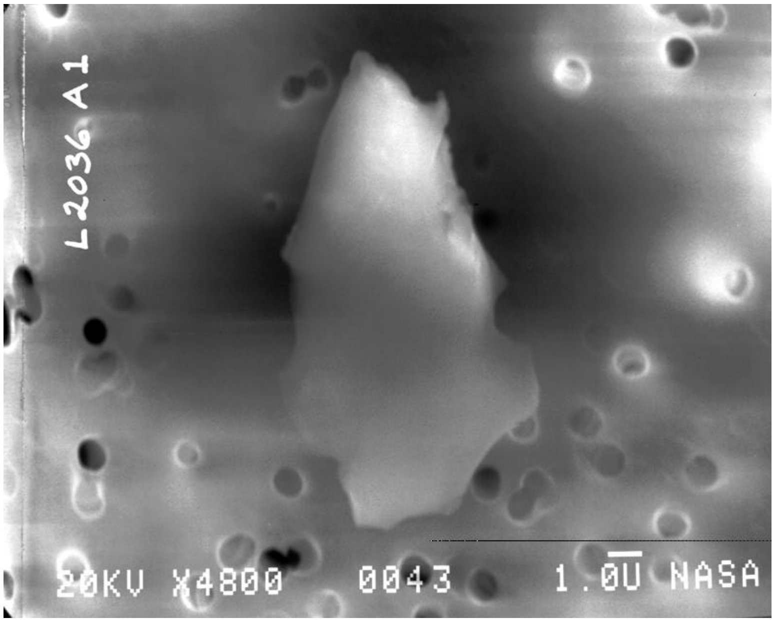
Luster: SV

Type: TCA

Comments:



L2036A1



97E00007

Size: 15x8

Shape: I

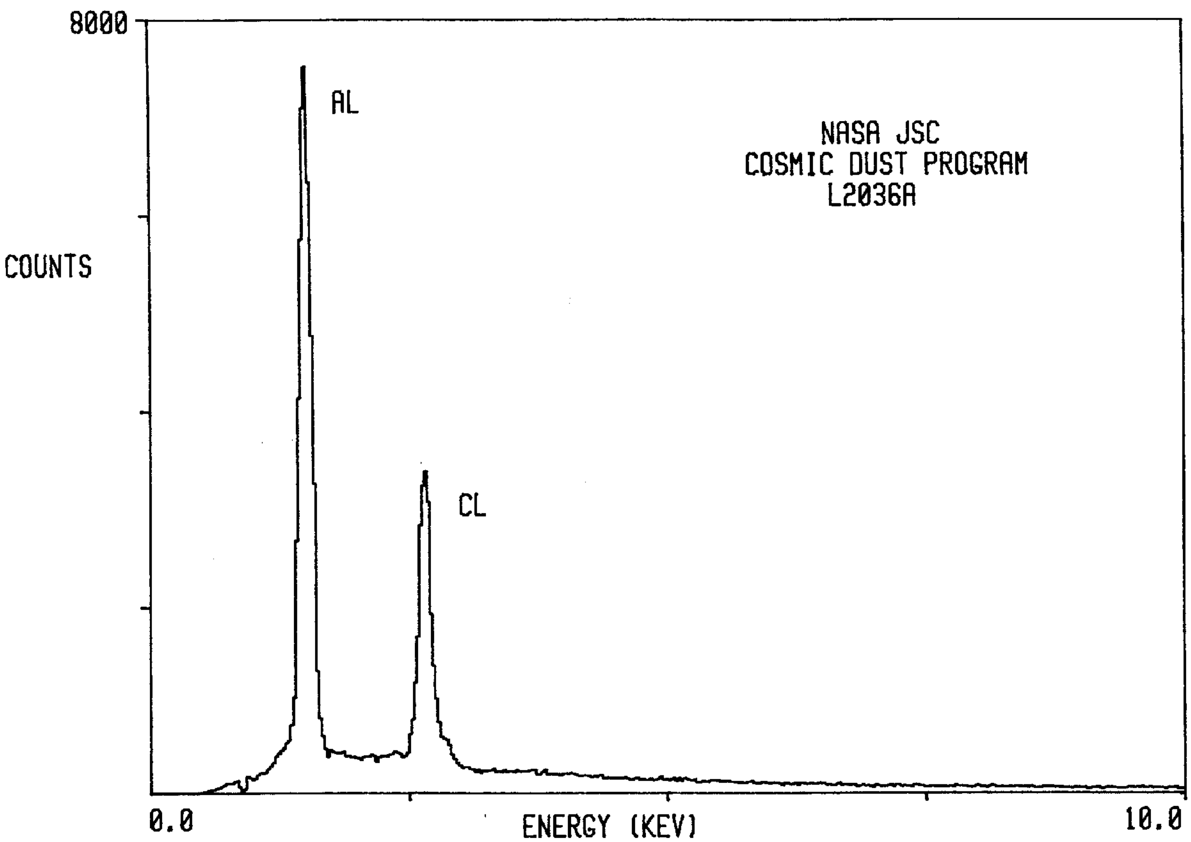
Trans: T

Color: Colorless

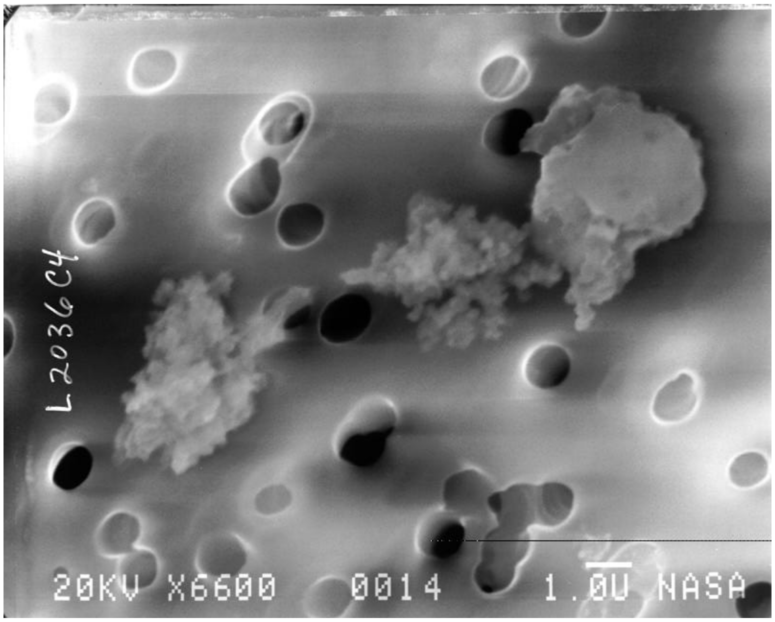
Luster: V

Type: TCA

Comments: Cluster 1

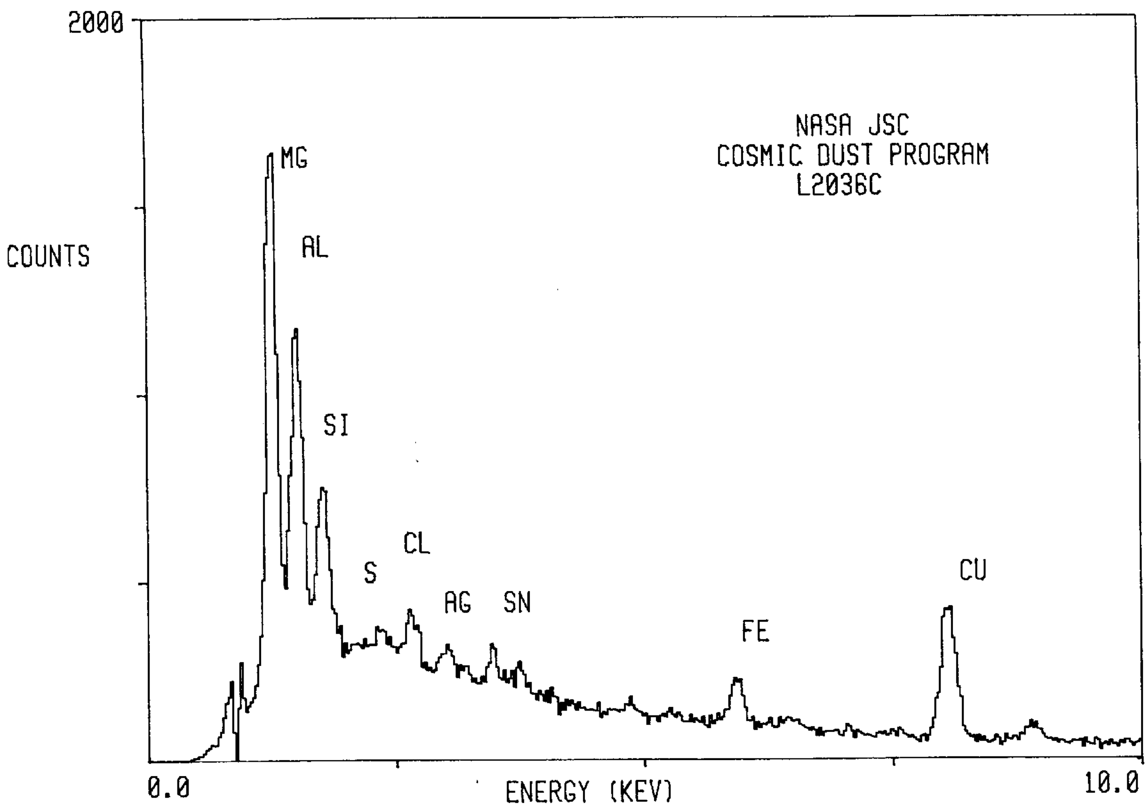


L2036C4

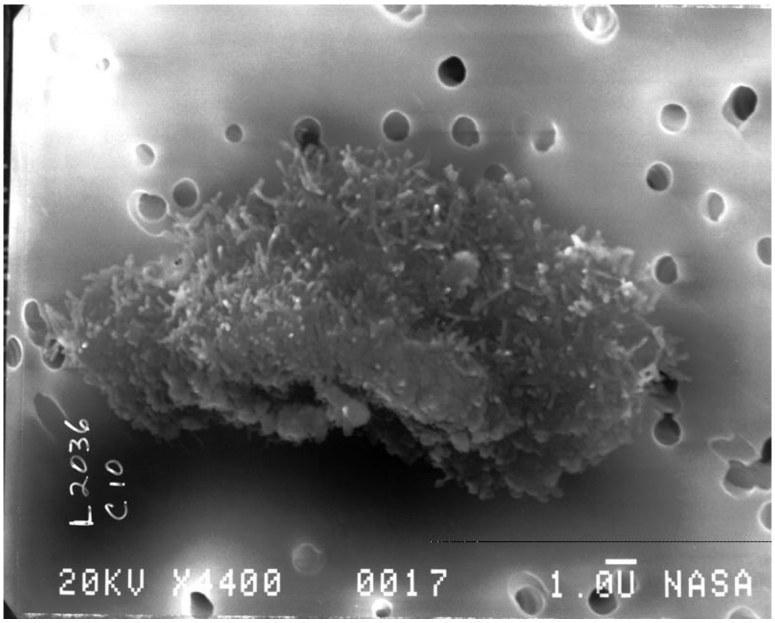


97E00024

Size:	3
Shape:	I
Trans:	O/T
Color:	Black-Colorless
Luster:	P/V
Type:	TCA
Comments:	Cluster 15

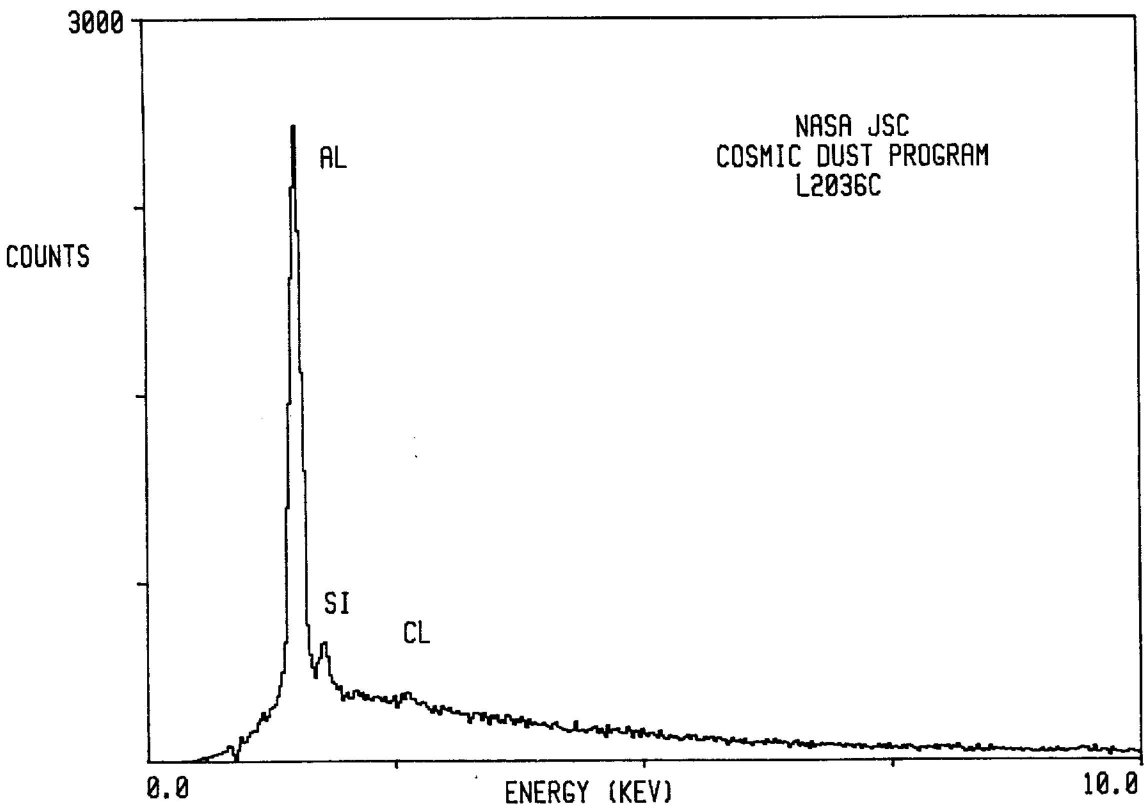


L2036C10

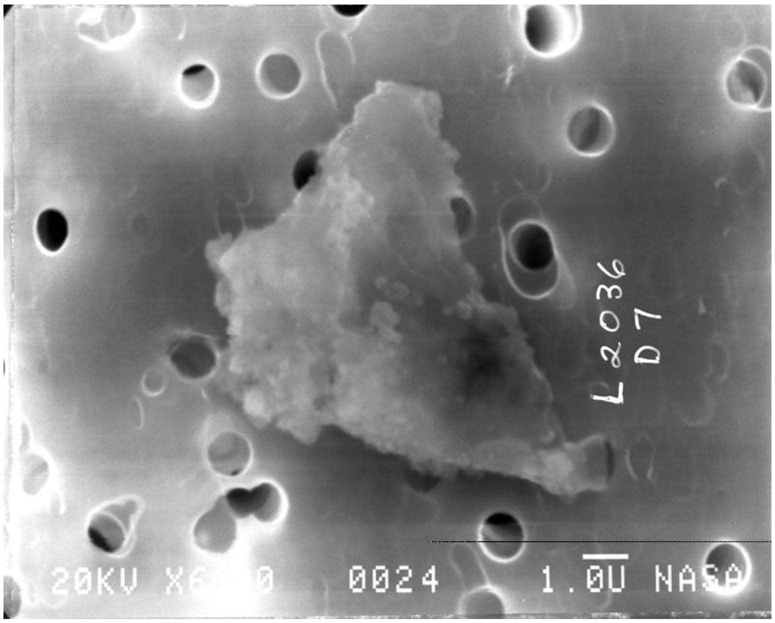


97E00030

Size: 22x19
Shape: I
Trans: O
Color: Black
Luster: D
Type: TCA
Comments:



L2036D7



97E00040

Size: 10x8

Shape: I

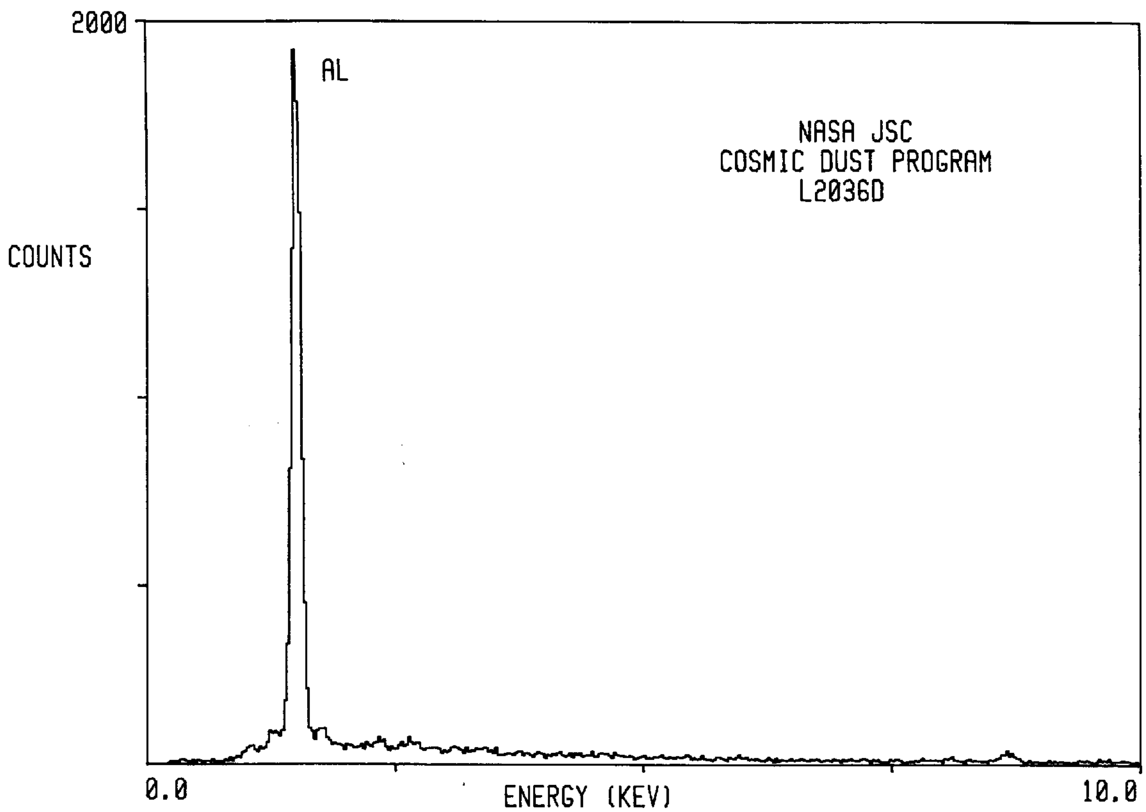
Trans: O

Color: Black

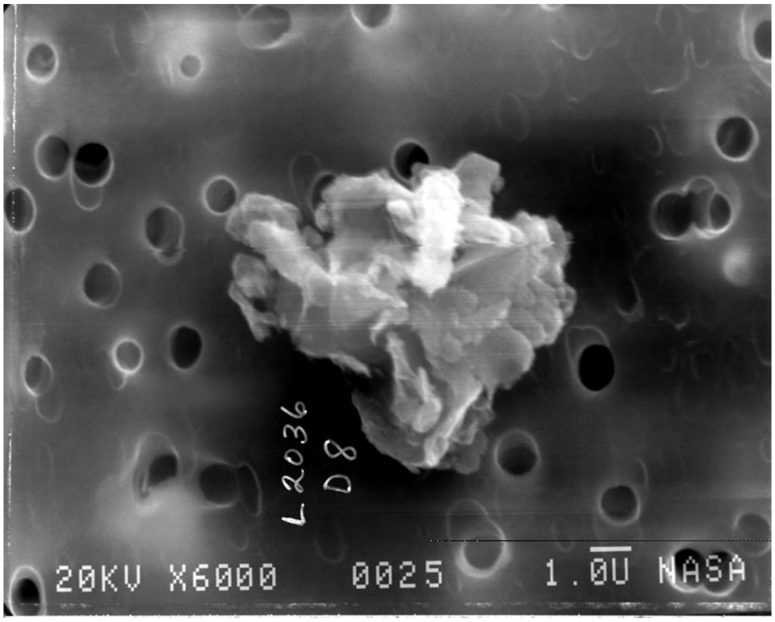
Luster: D/M

Type: TCA

Comments: Cluster 22, Related to L2036 D8



L2036D8



97E00041

Size: 9

Shape: I

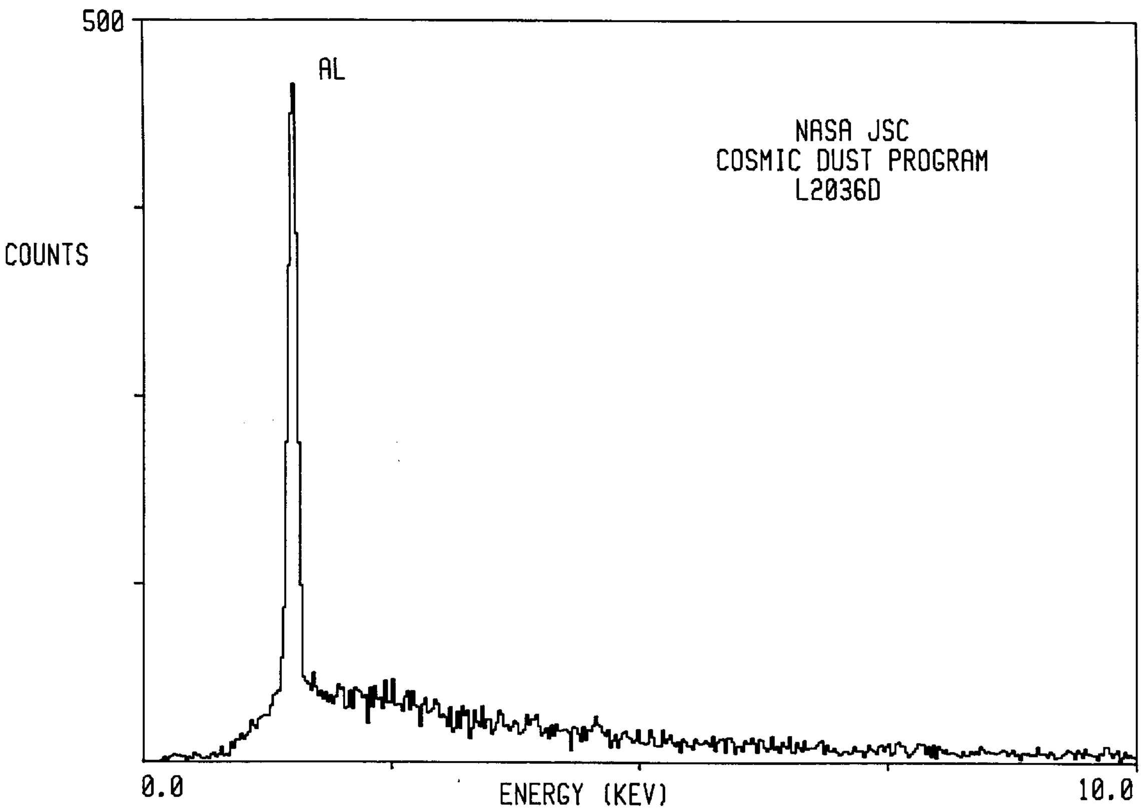
Trans: O

Color: Black

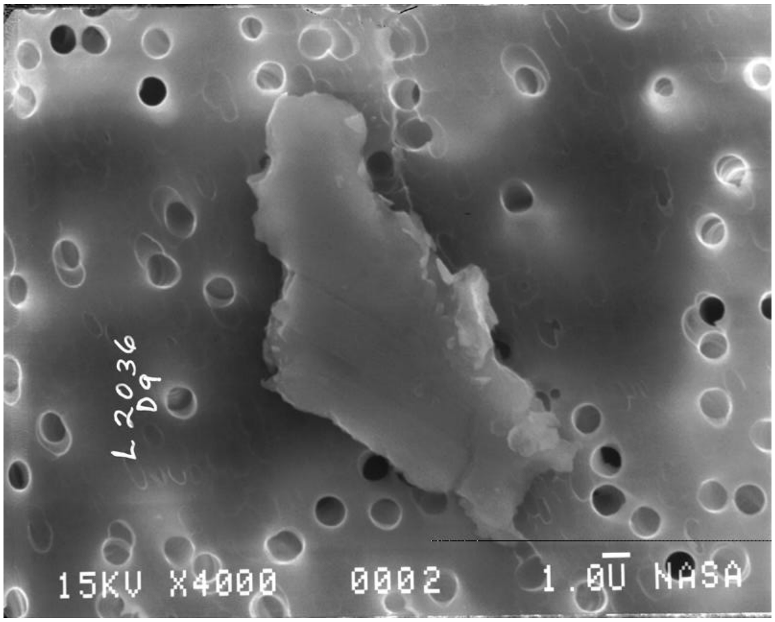
Luster: D/M

Type: TCA

Comments: Cluster 22, Related to L2036 D7



L2036D9



97E00042

Size: 4

Shape: E

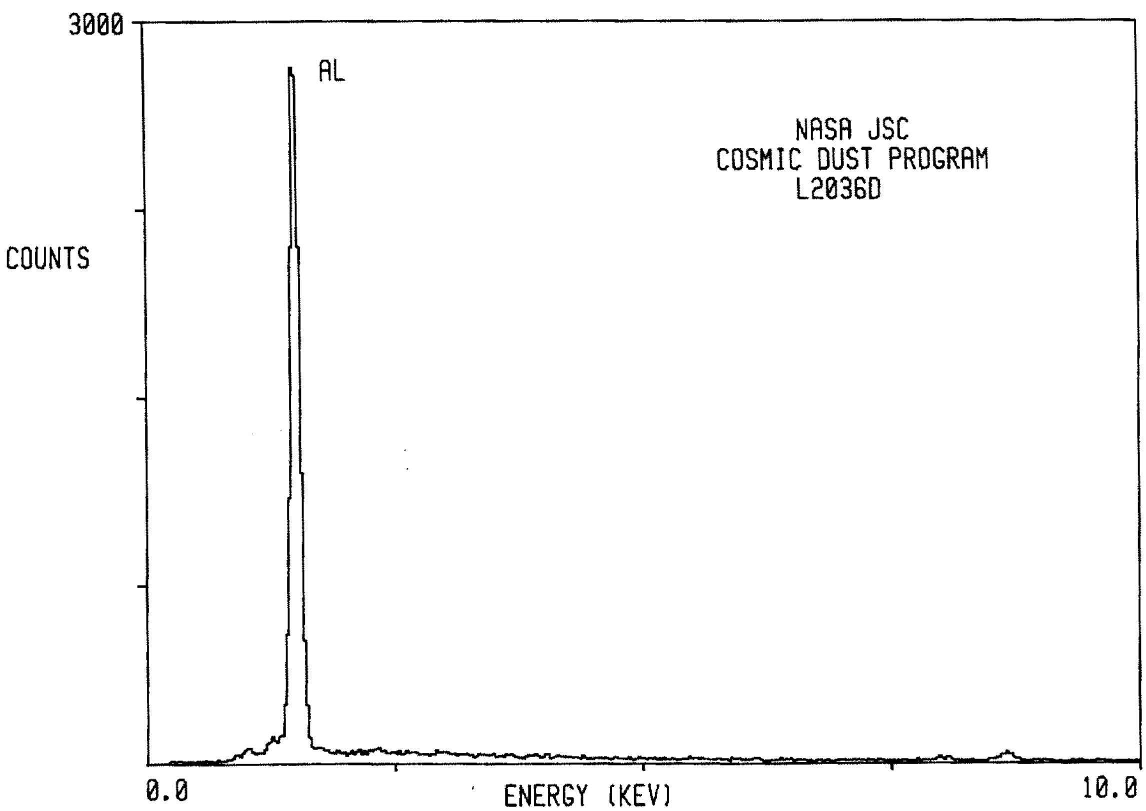
Trans: O

Color: Black

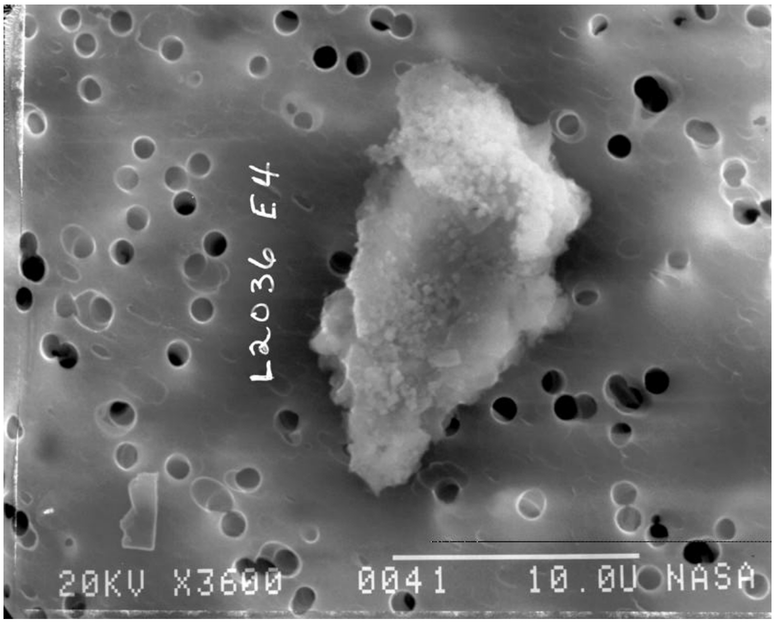
Luster: D

Type: TCA

Comments: Cluster 23



L2036E4



97E00047

Size: 17x10

Shape: I

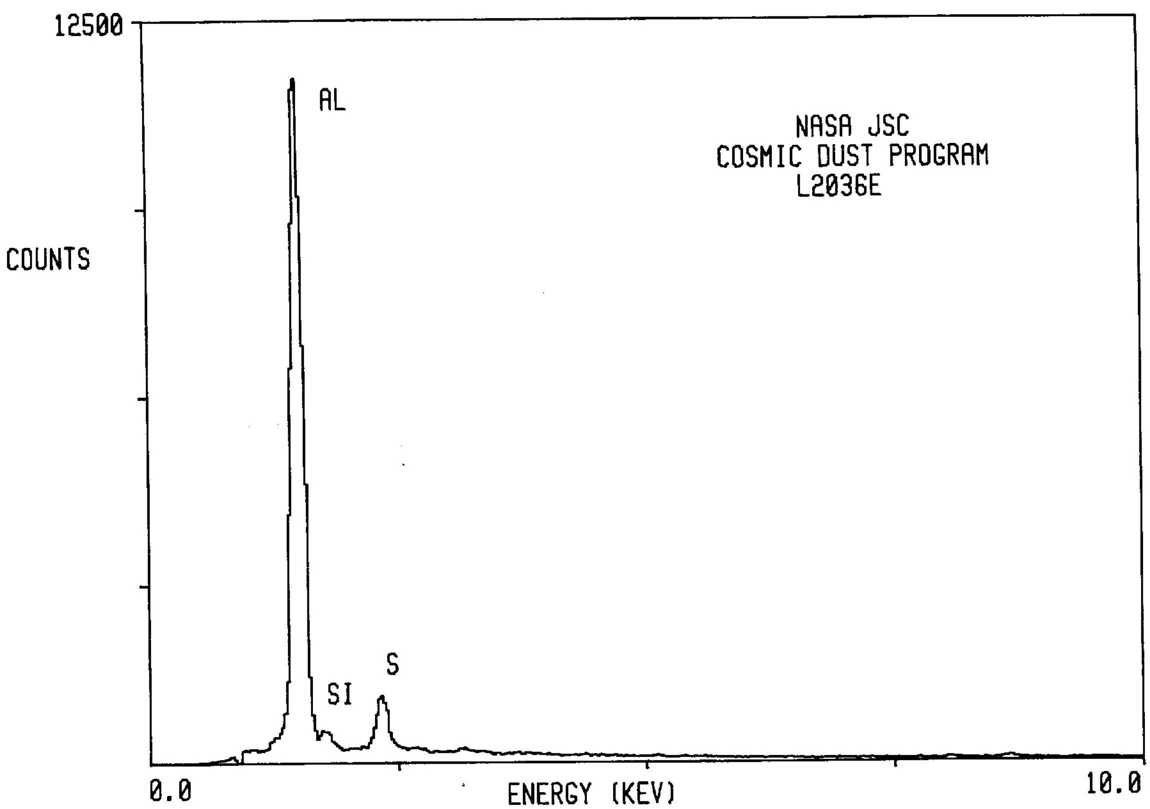
Trans: O

Color: Black

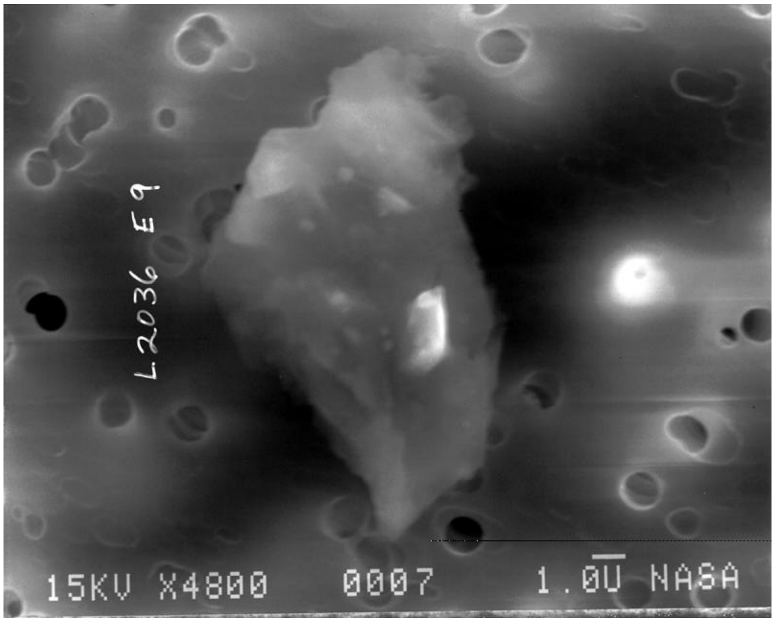
Luster: M

Type: TCA

Comments:

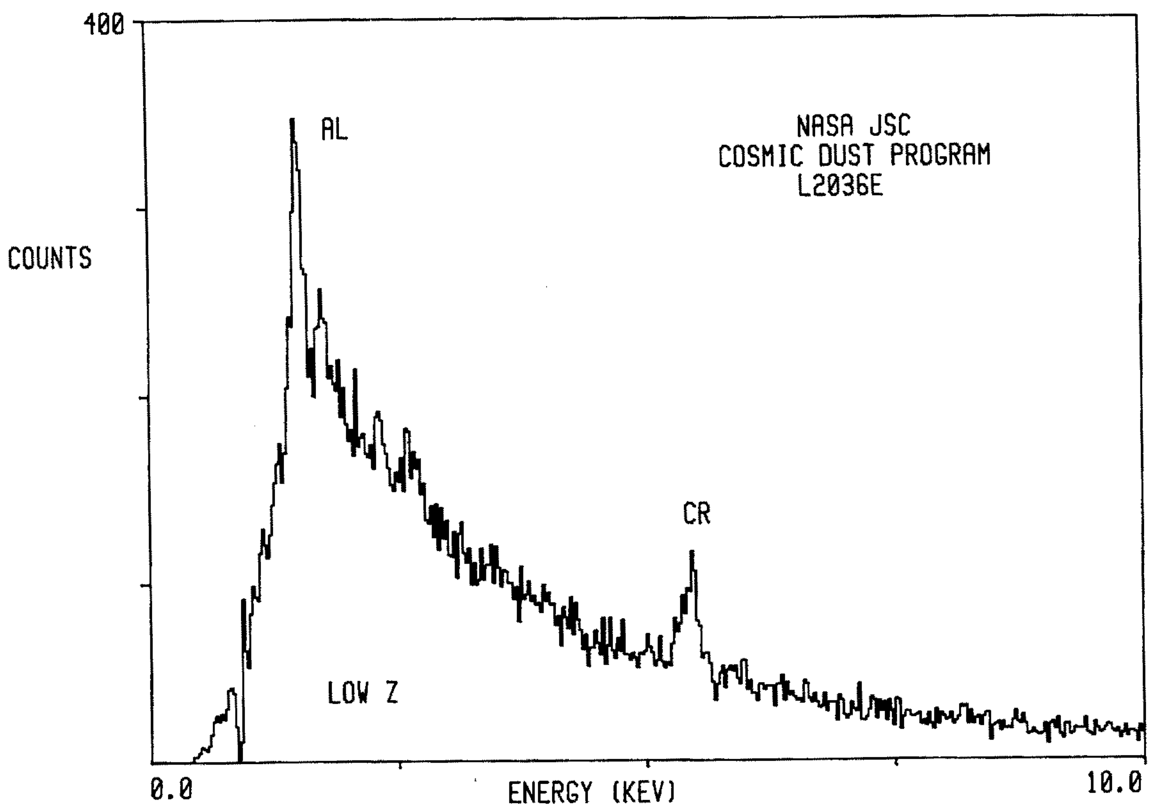


L2036E9

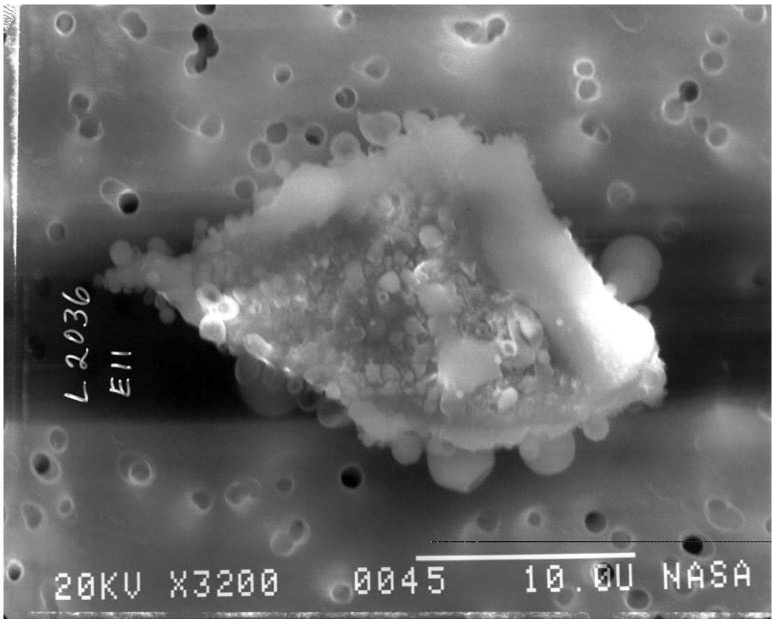


97E00052

Size:	10x6
Shape:	I
Trans:	T
Color:	Colorless
Luster:	V
Type:	TCA
Comments:	



L2036E11



97E00054

Size: 27x16

Shape: I

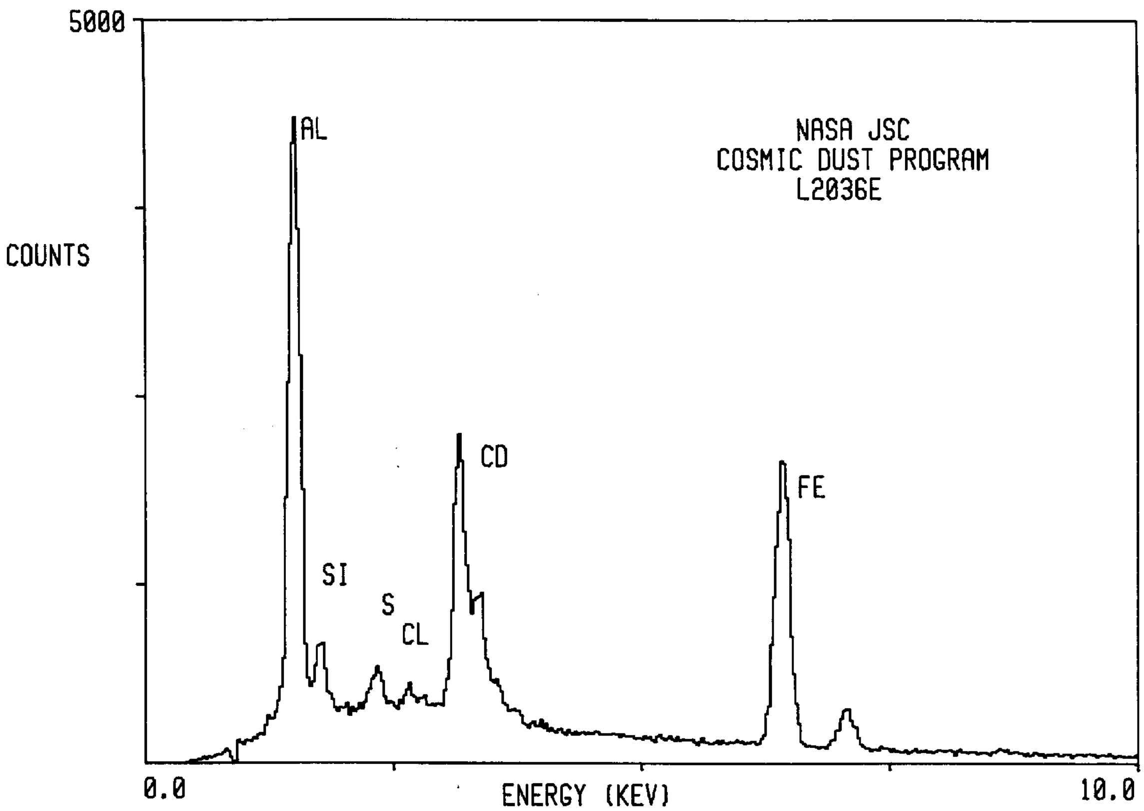
Trans: O/TL

Color: Black-Colorless

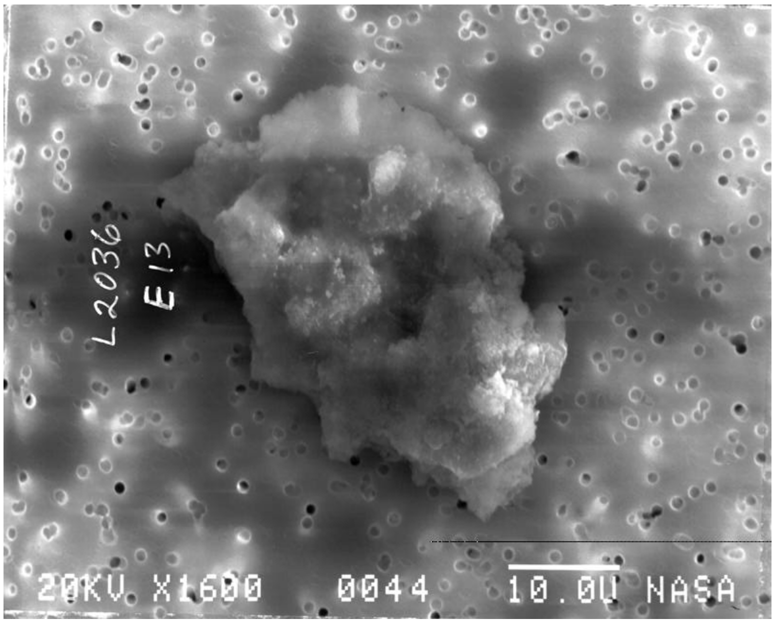
Luster: D/SV

Type: TCA

Comments:



L2036E13



97E00056

Size: 44x26

Shape: I

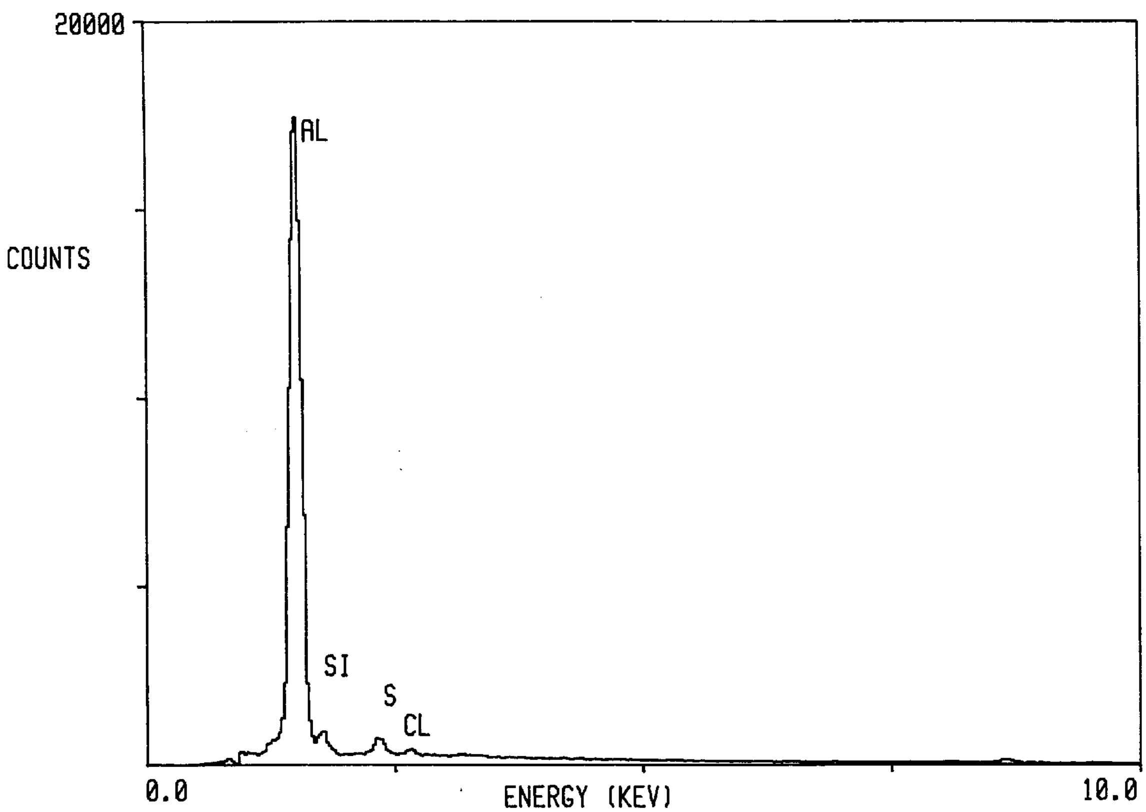
Trans: O

Color: Black-Brown

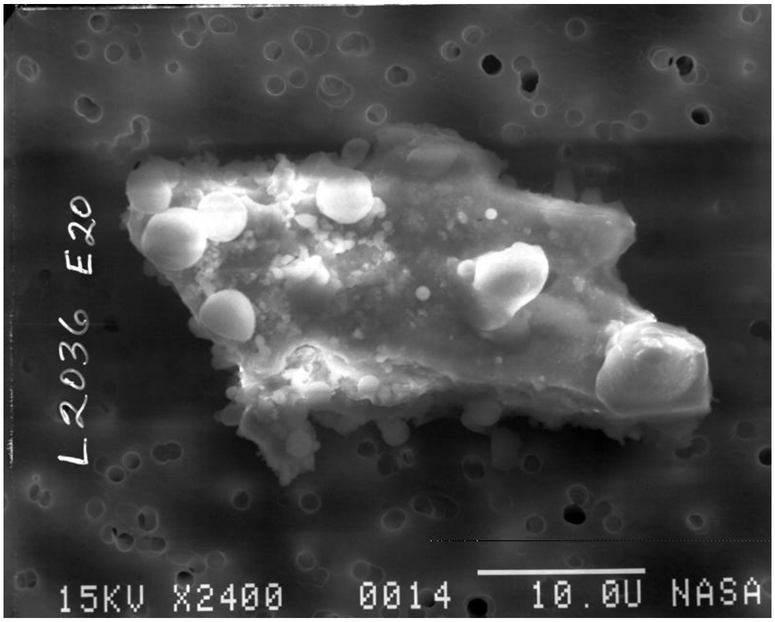
Luster: P

Type: TCA

Comments:

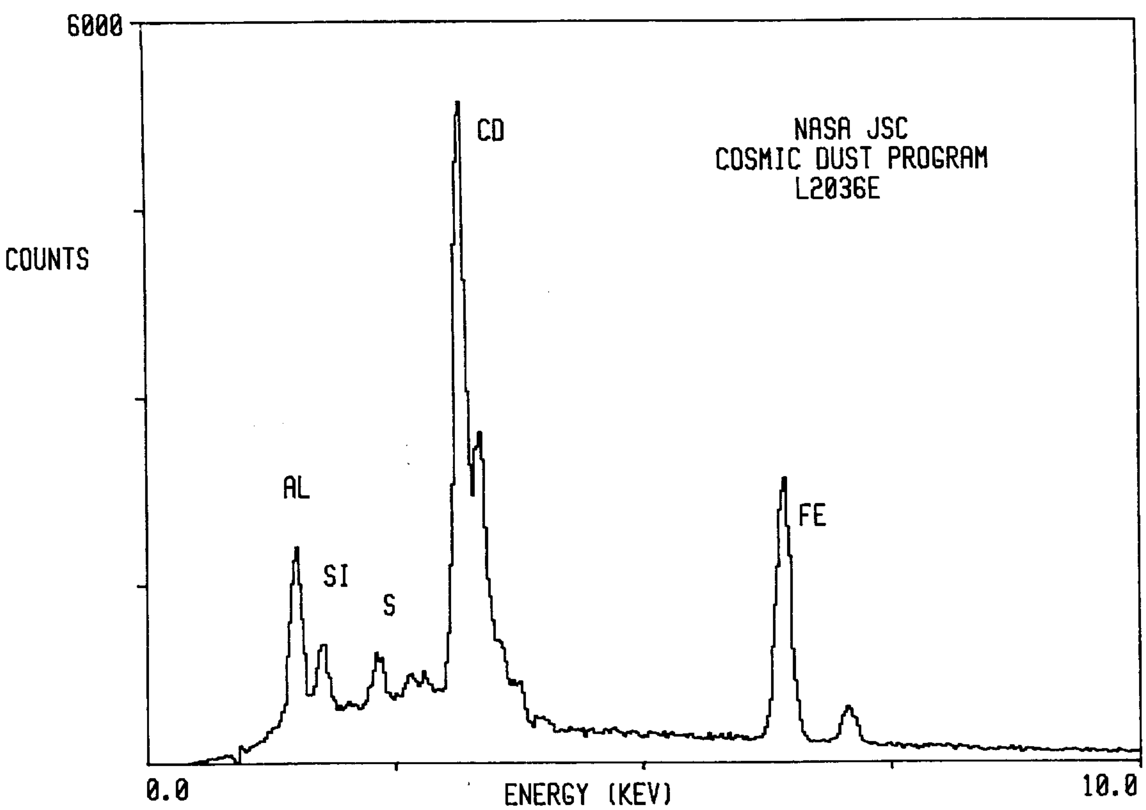


L2036E20

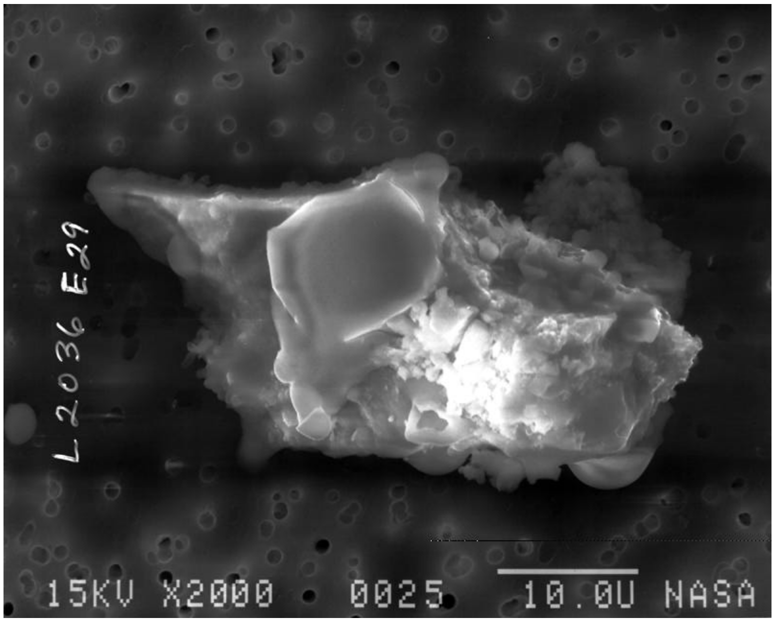


97E00063

Size: 35x16
Shape: I
Trans: O
Color: Black
Luster: M
Type: TCA
Comments:

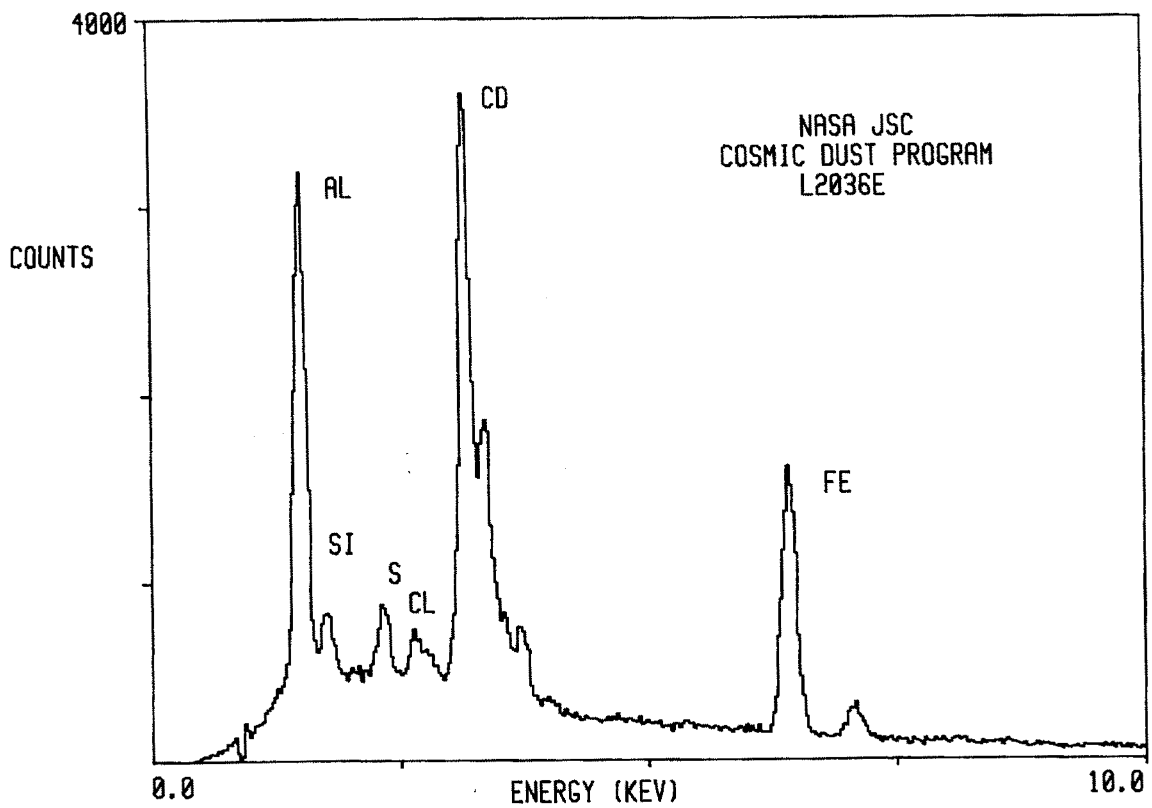


L2036E29

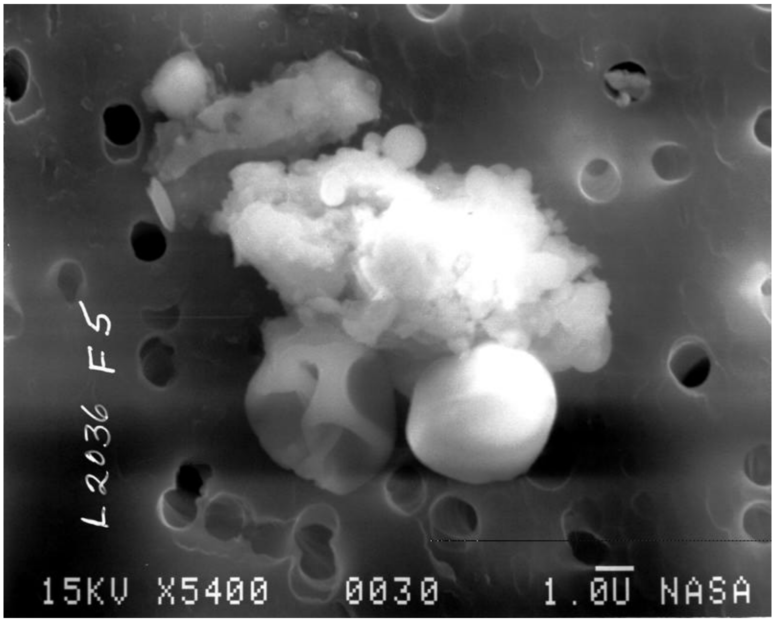


97E00072

Size:	44x24
Shape:	I
Trans:	O
Color:	Black-Brown
Luster:	D/SV
Type:	TCA
Comments:	



L2036F5



97E00077

Size: 12x8

Shape: E

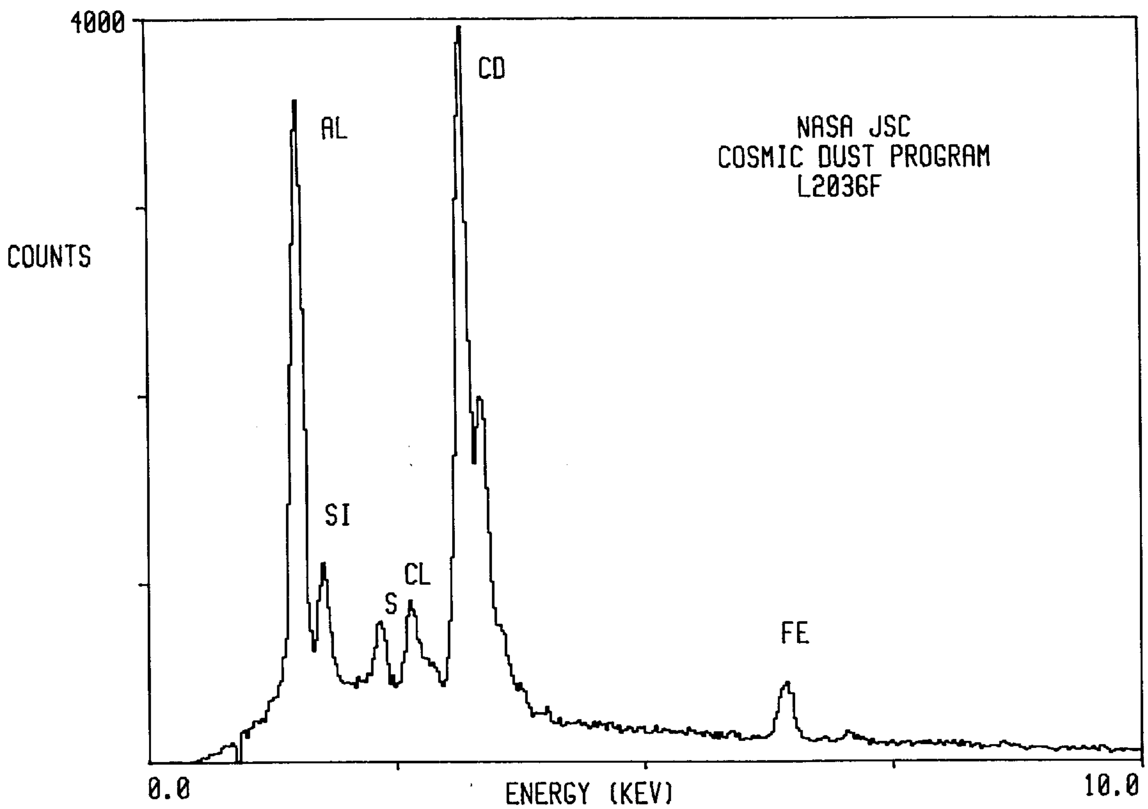
Trans: TL

Color: White

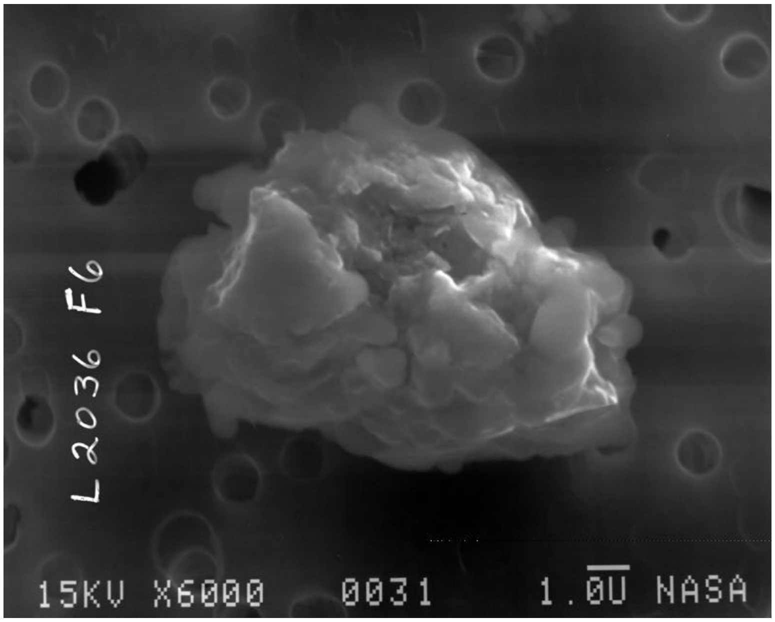
Luster: SV

Type: TCA

Comments:

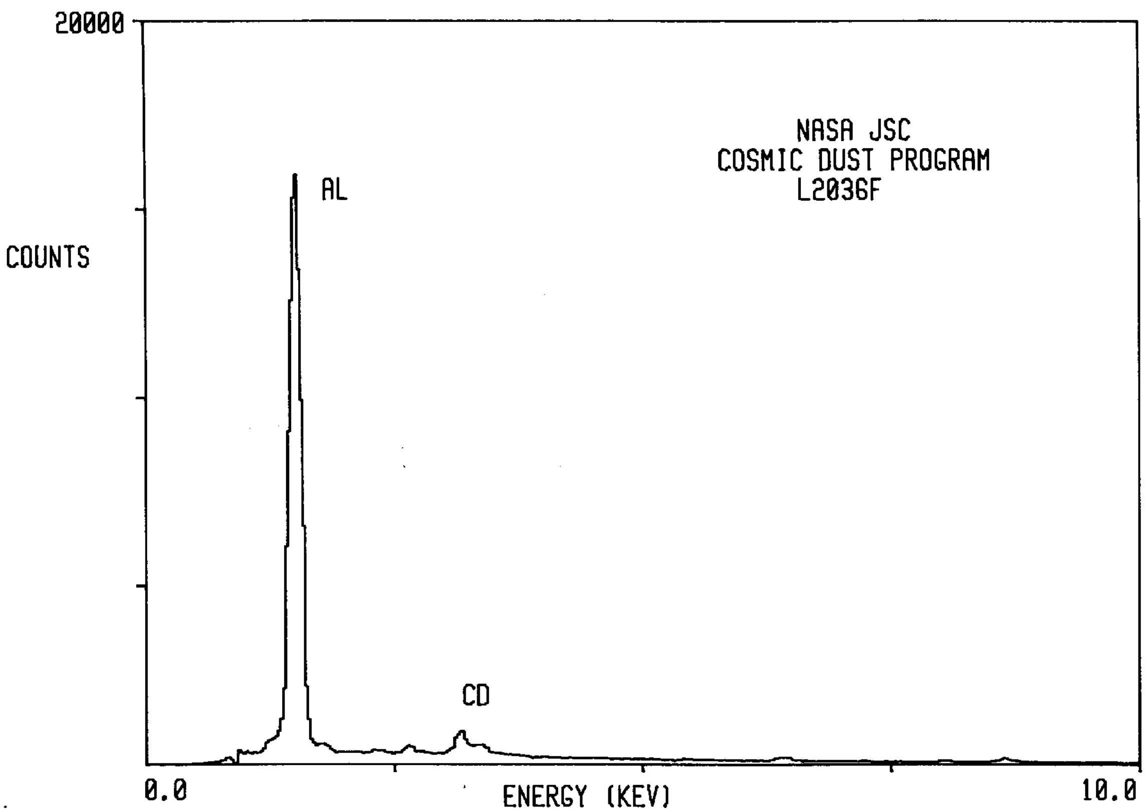


L2036F6

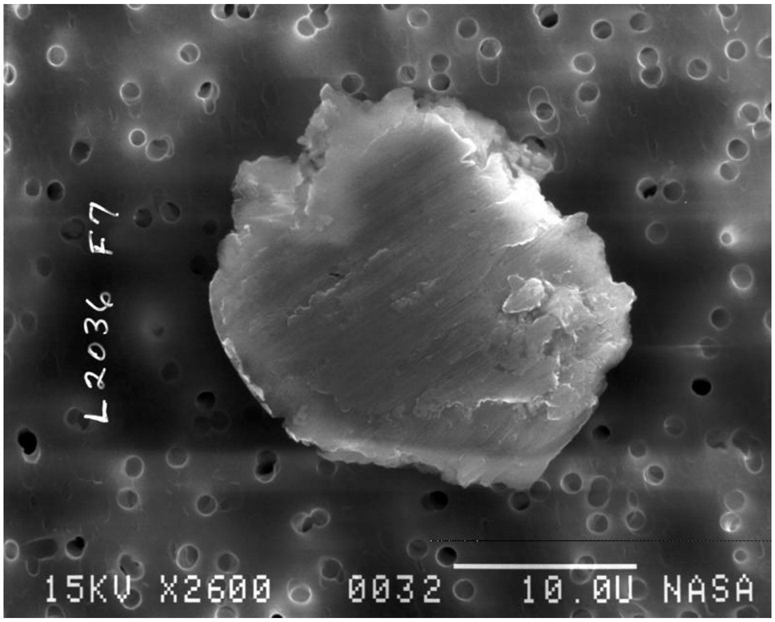


97E00078

Size: 9x8
Shape: E
Trans: O
Color: Black
Luster: D
Type: TCA
Comments:



L2036F7



97E00079

Size: 30x22

Shape: I

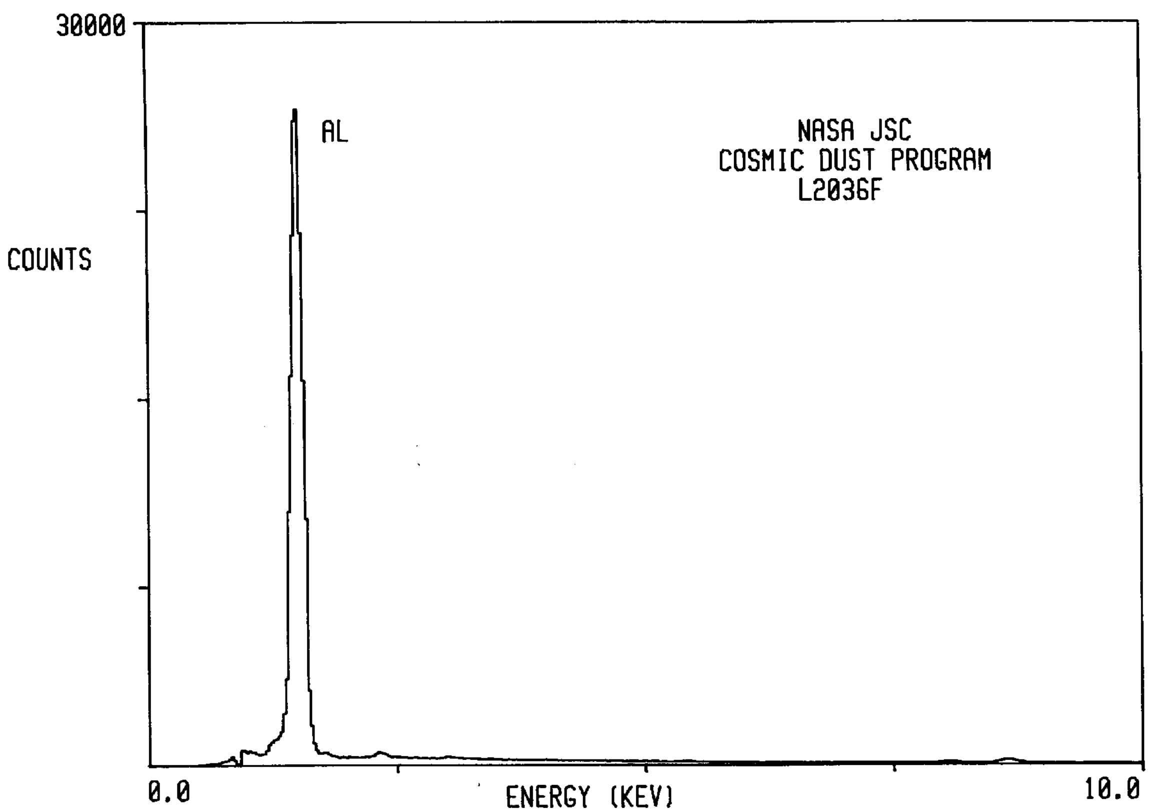
Trans: O

Color: Black

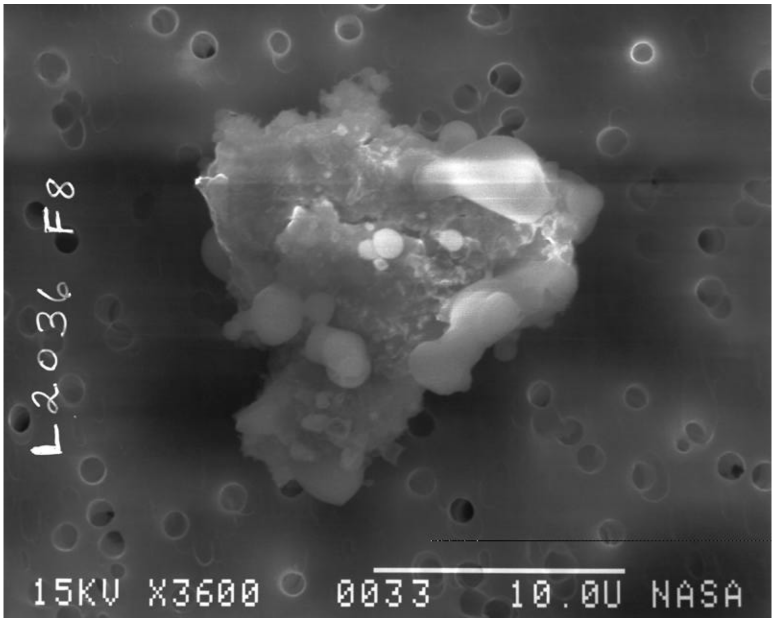
Luster: SM

Type: TCA

Comments:

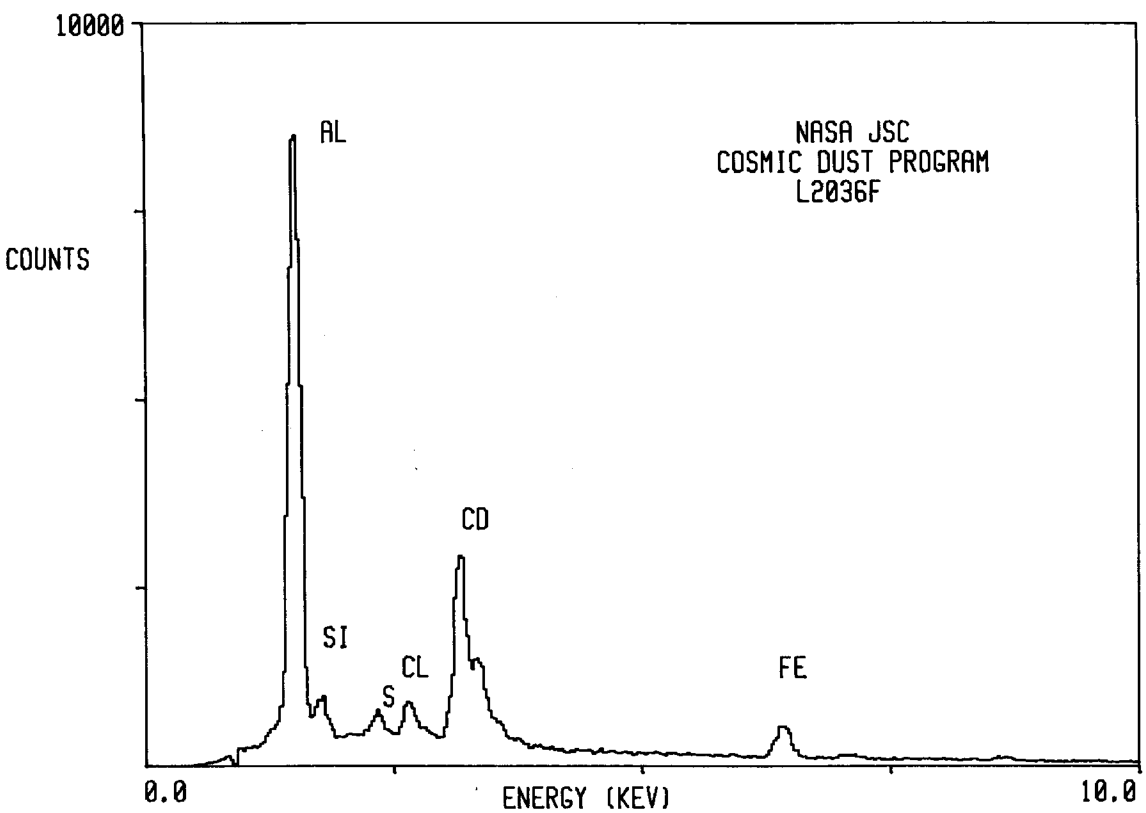


L2036F8

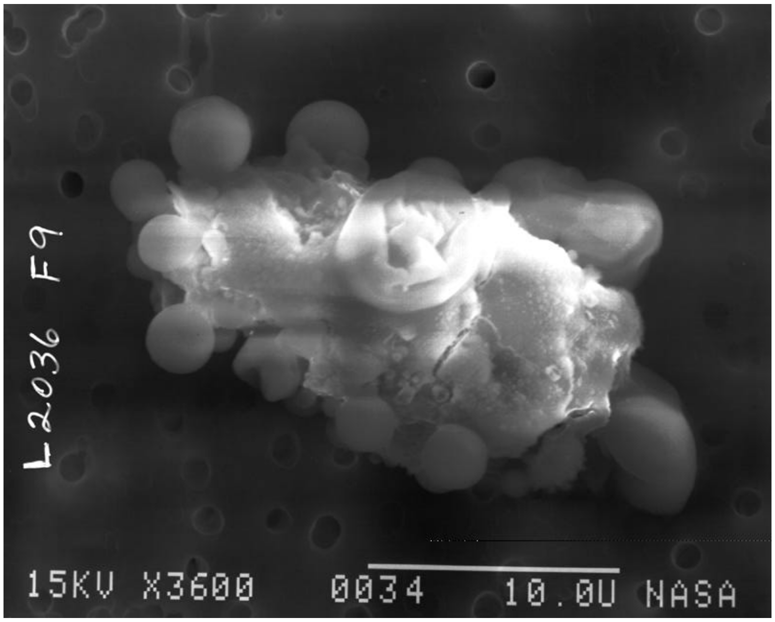


97E00080

Size: 14x13
Shape: I
Trans: O
Color: Sliver
Luster: M
Type: TCA
Comments:

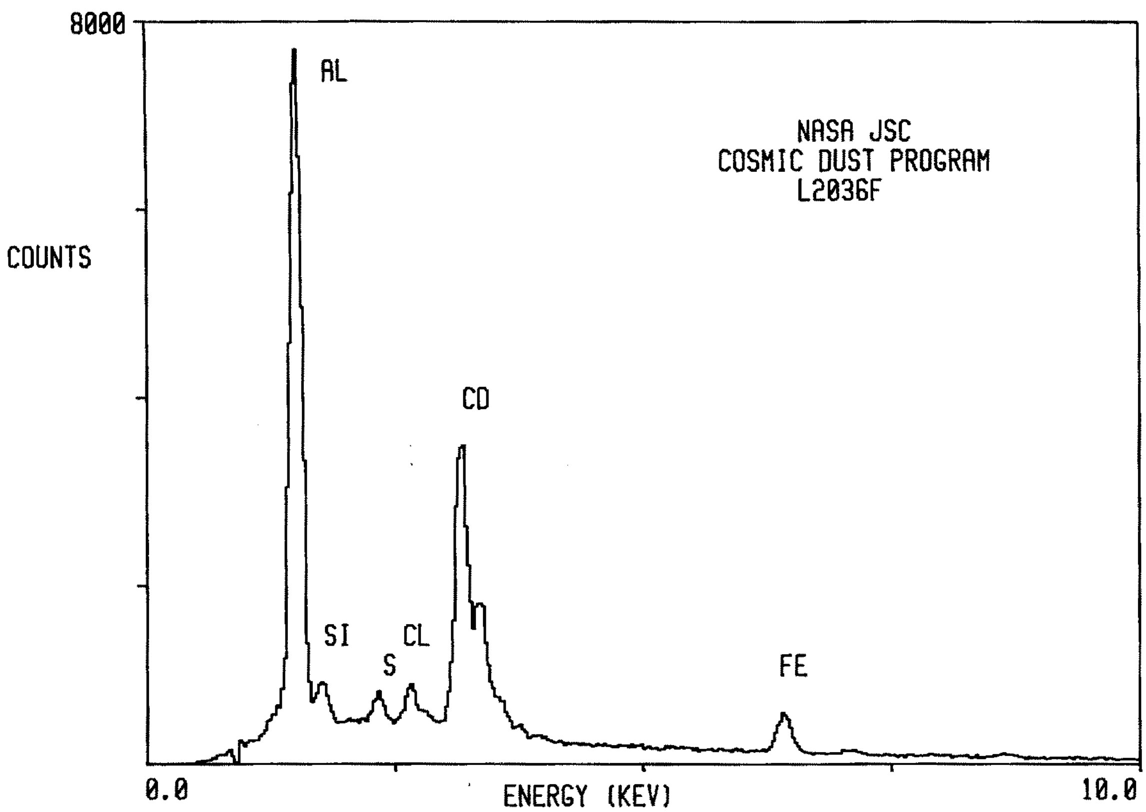


L2036F9

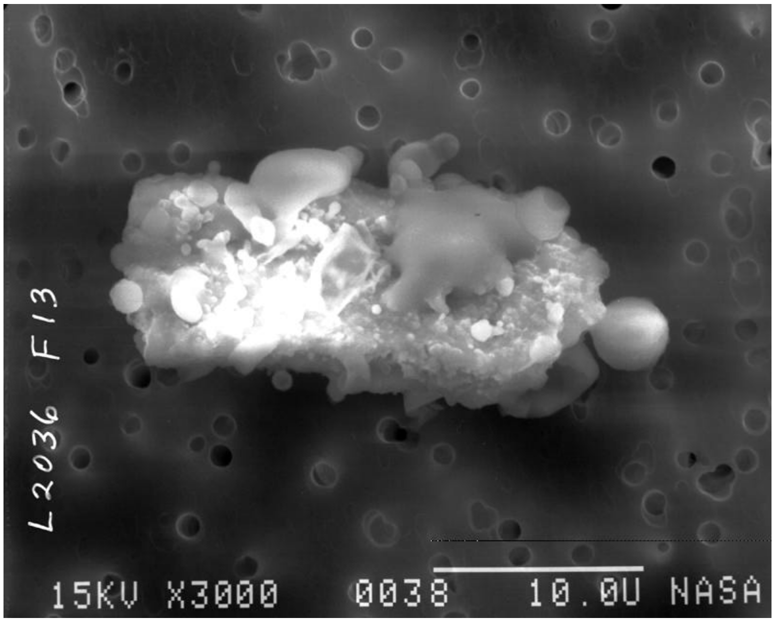


97E00081

Size:	24x11
Shape:	I
Trans:	O
Color:	Black-Brown
Luster:	SM/SV
Type:	TCA
Comments:	

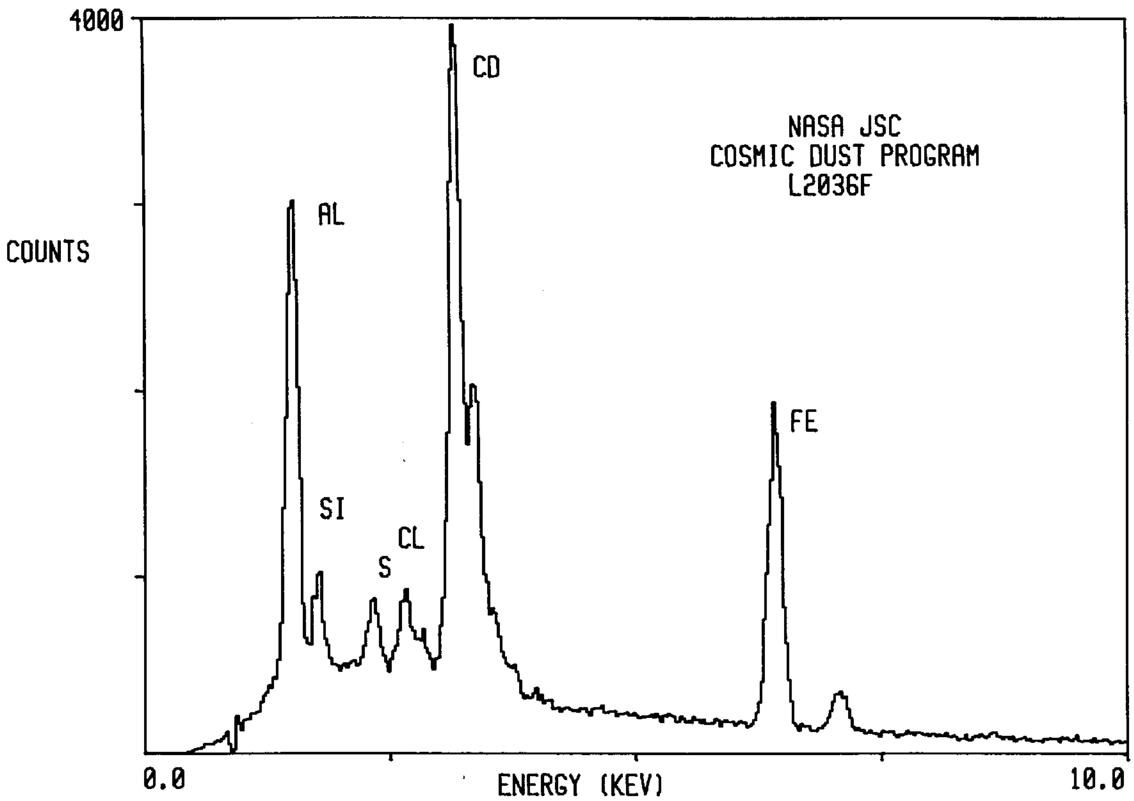


L2036F13

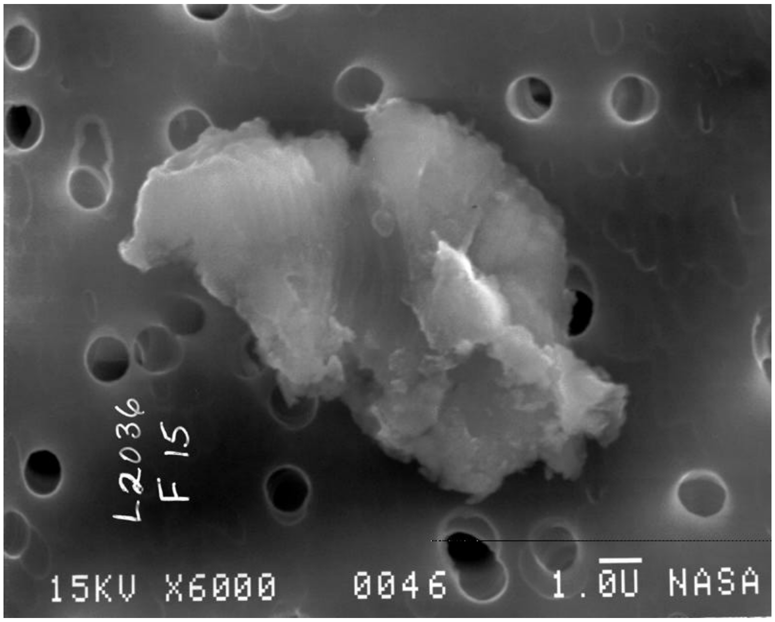


97E00085

Size: 26x11
Shape: I
Trans: O/TL
Color: Black/White
Luster: D/SV
Type: TCA
Comments:



L2036F15



97E00087

Size: 24

Shape: S

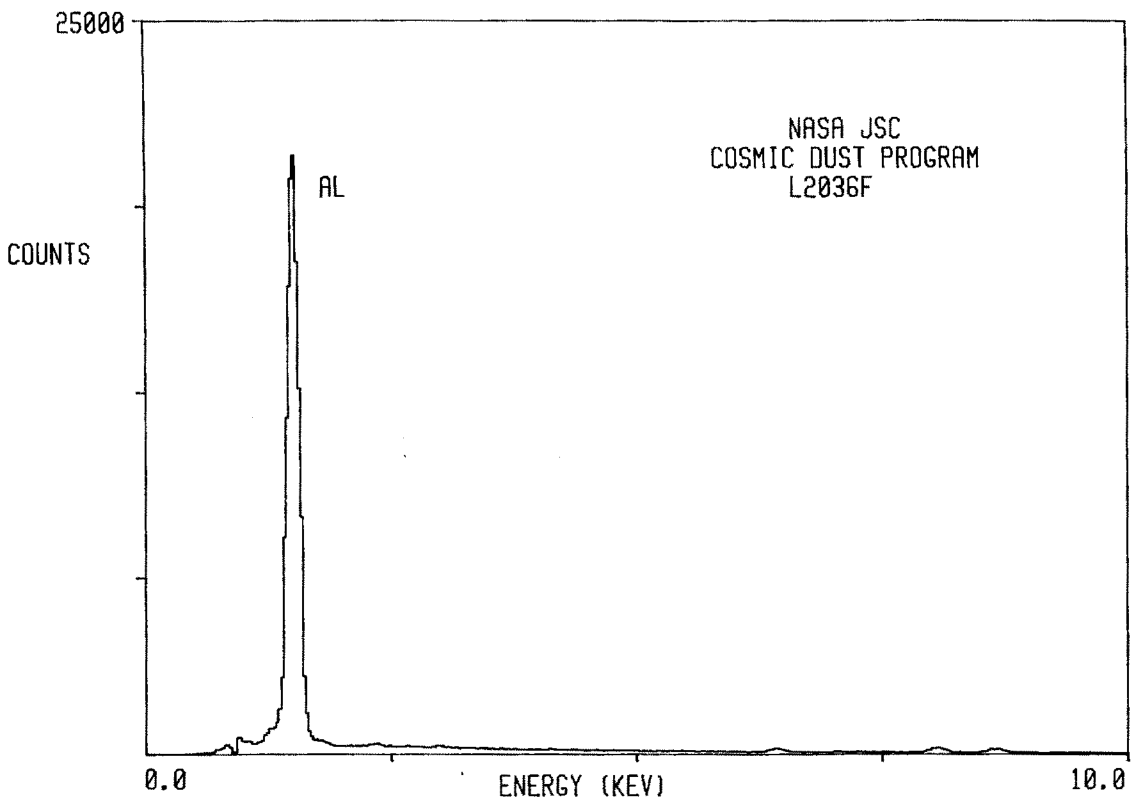
Trans: TL

Color: White

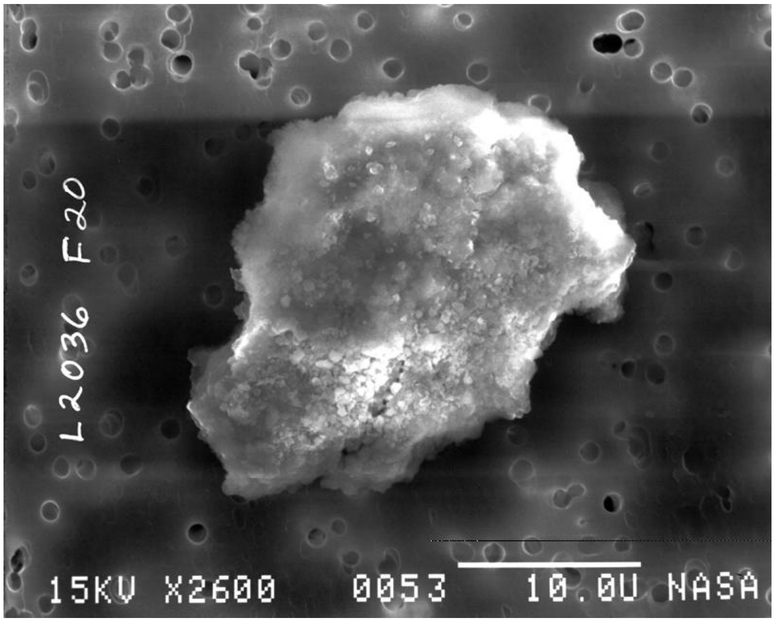
Luster: SV

Type: TCA

Comments:



L2036F20



97E00092

Size: 25x20

Shape: I

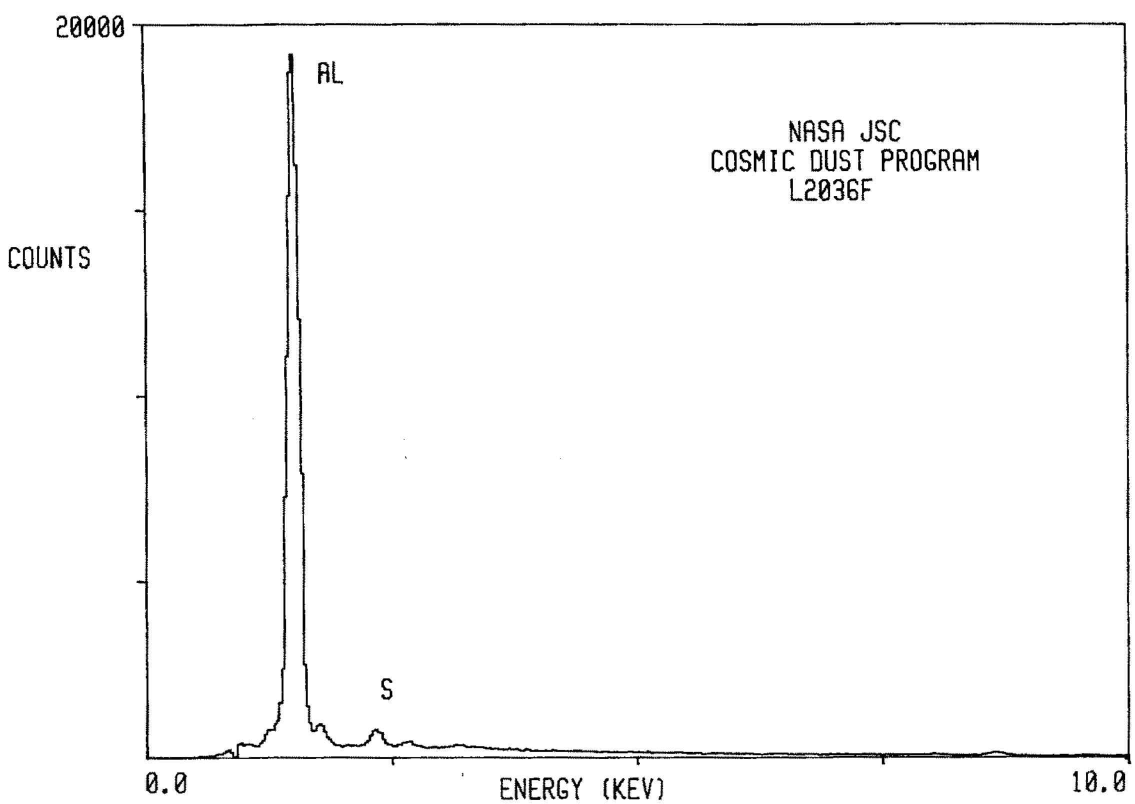
Trans: O

Color: Black

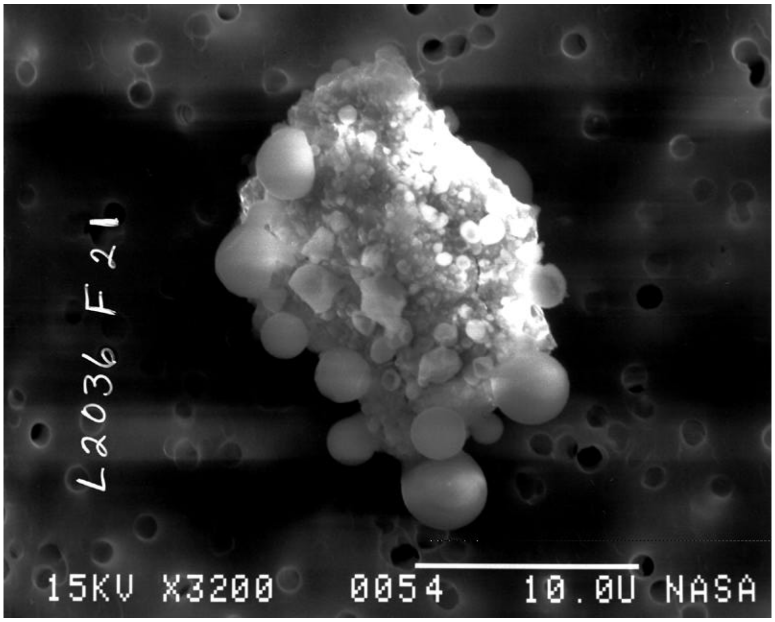
Luster: P

Type: TCA

Comments:



L2036F21



97E00093

Size: 20x14

Shape: I

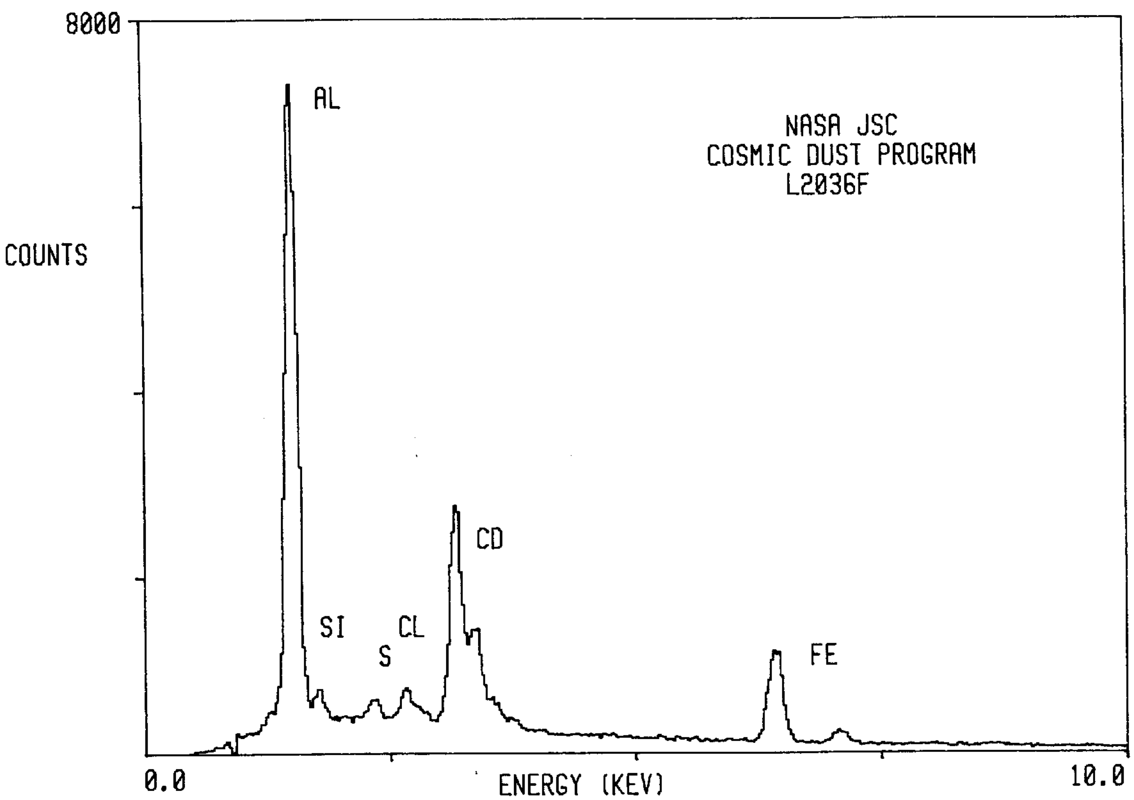
Trans: O

Color: Gray

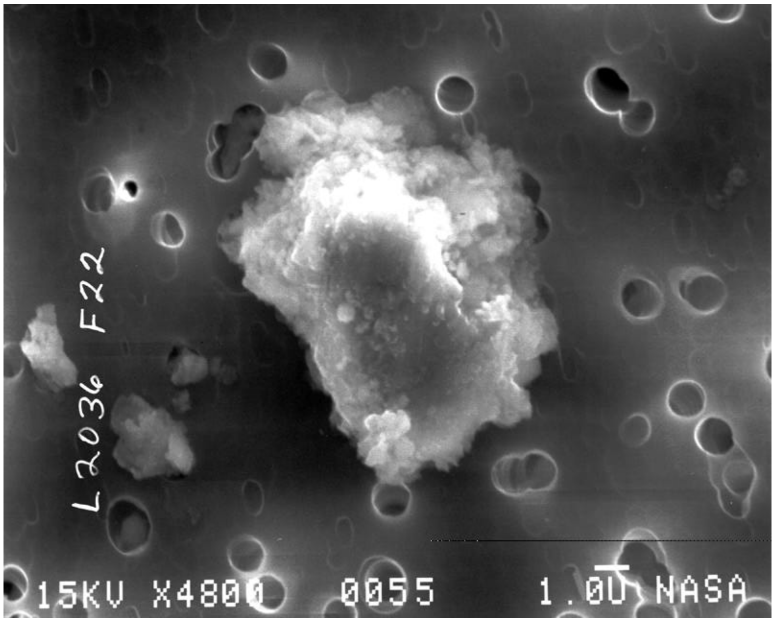
Luster: SM

Type: TCA

Comments:



L2036F22



97E00094

Size: 11

Shape: S

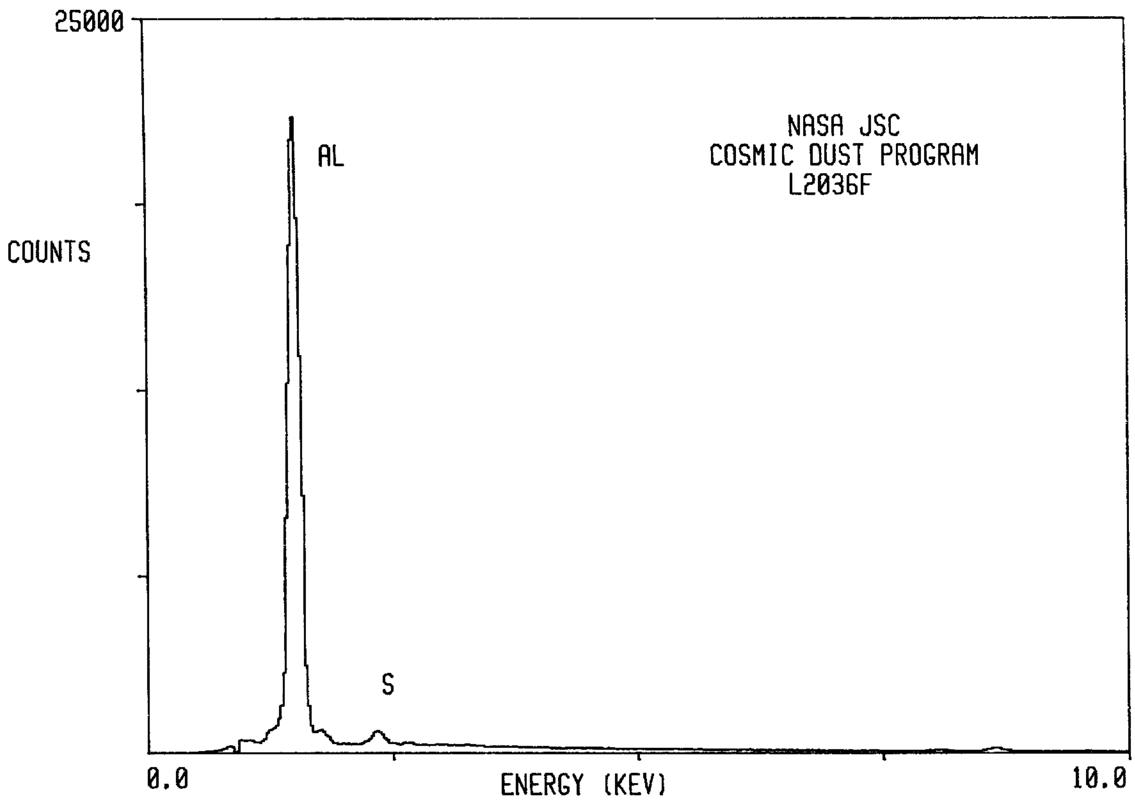
Trans: O

Color: Black

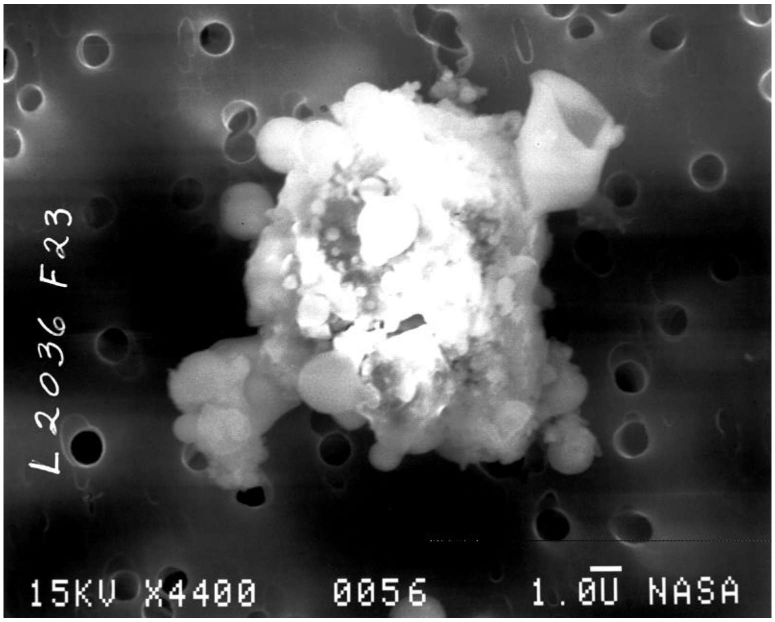
Luster: P

Type: TCA

Comments:



L2036F23



97E00095

Size: 15x12

Shape: I

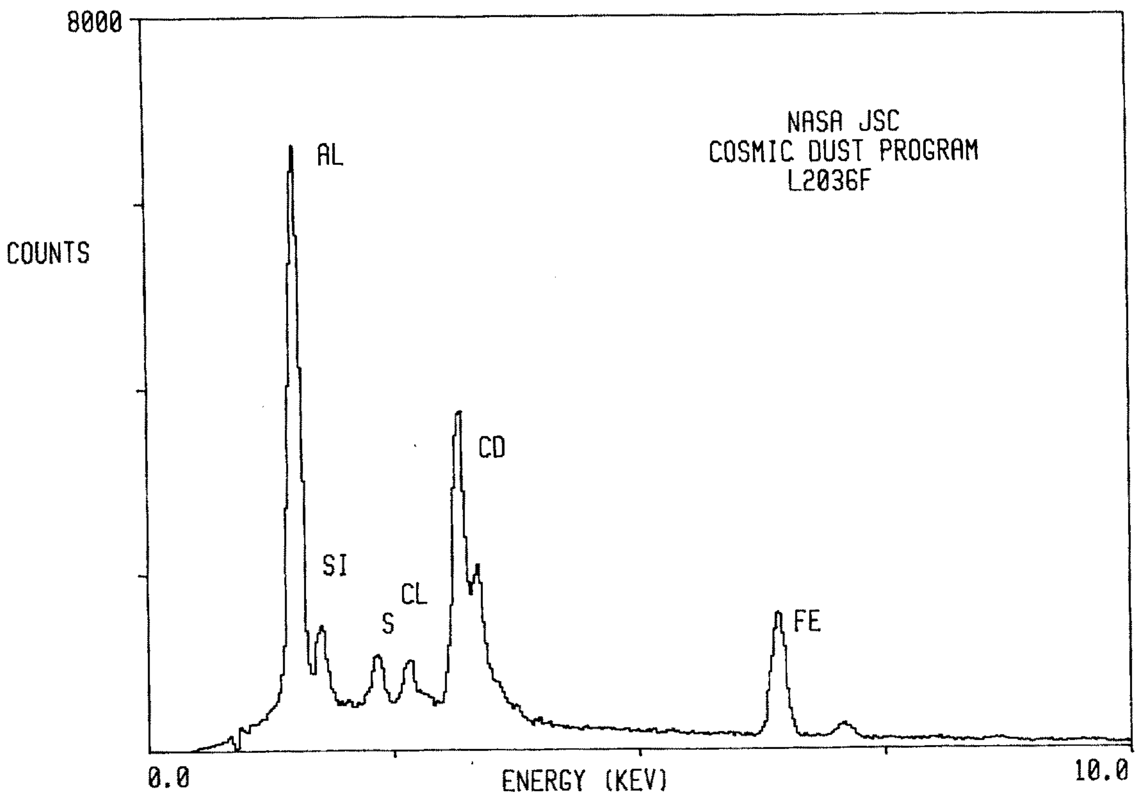
Trans: O/TL

Color: Black-Colorless

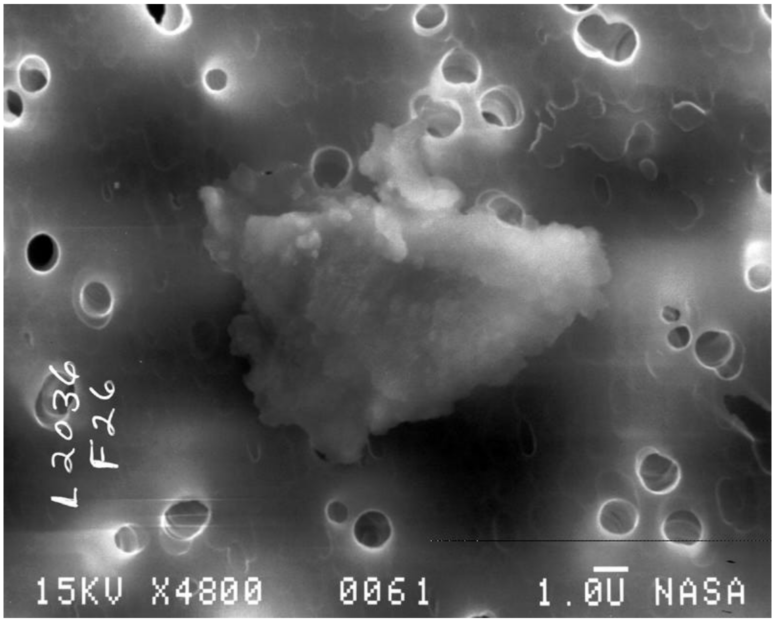
Luster: P/SV

Type: TCA

Comments:



L2036F26



97E00098

Size: 11x9

Shape: I

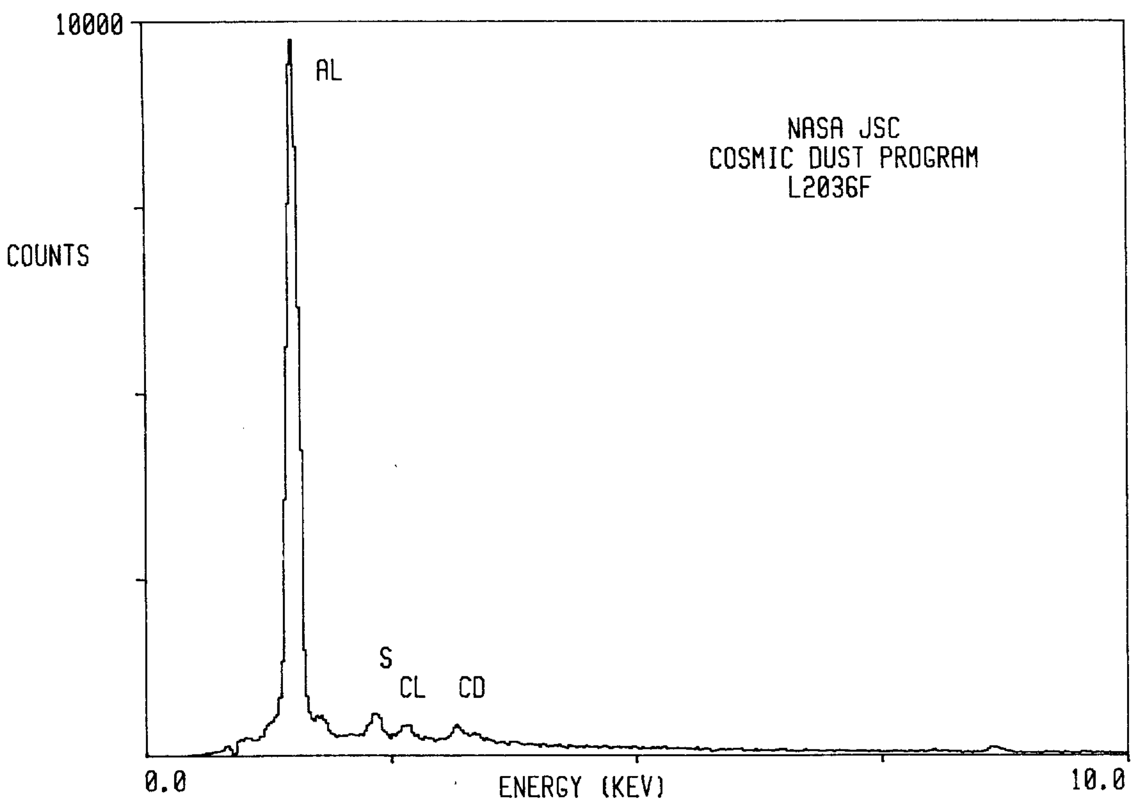
Trans: O

Color: Black

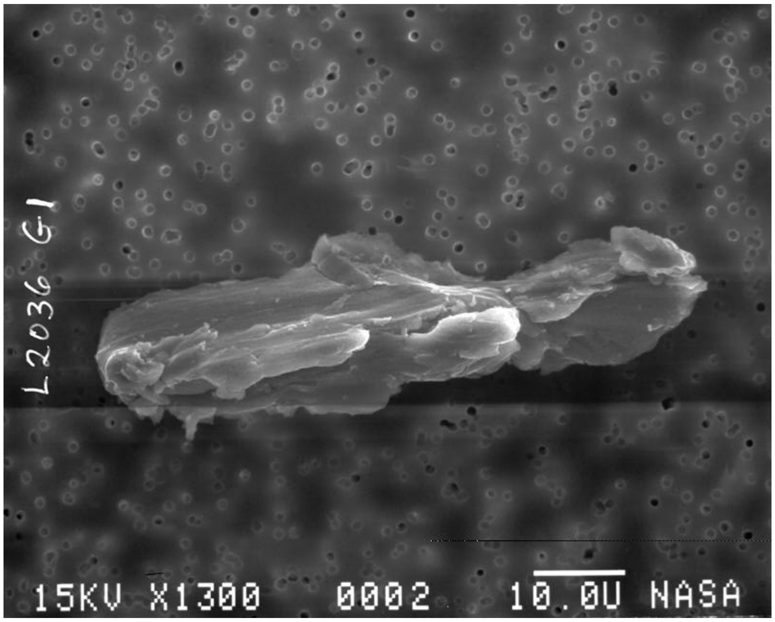
Luster: D

Type: TCA

Comments:



L2036G1



97E00099

Size: 66x19

Shape: I

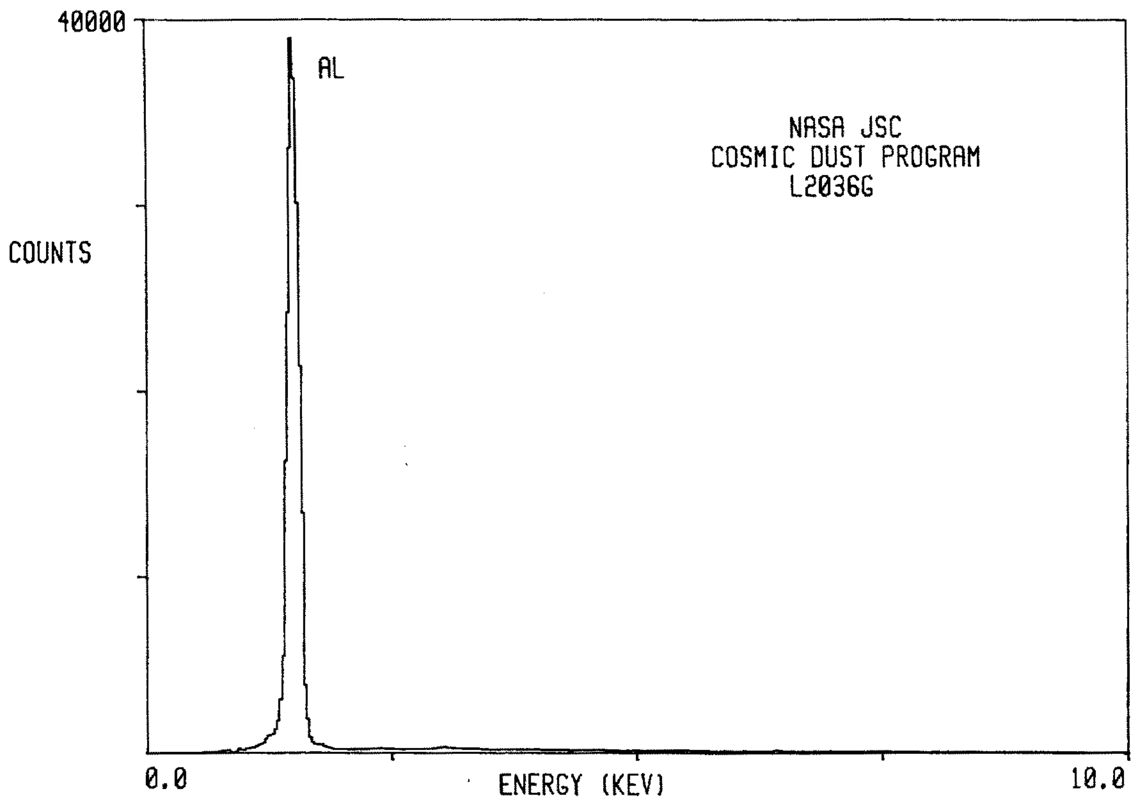
Trans: O

Color: Silver

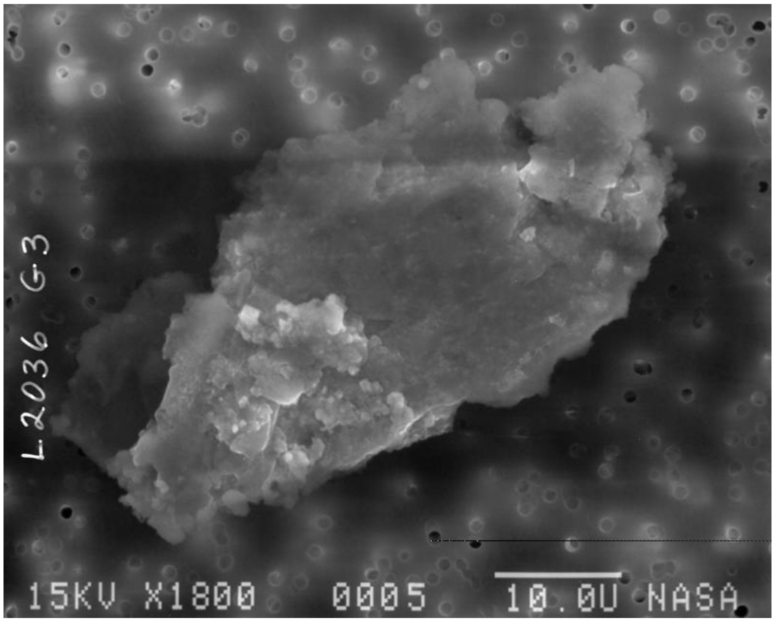
Luster: M

Type: TCA

Comments:



L2036G3



97E00101

Size:	52x26
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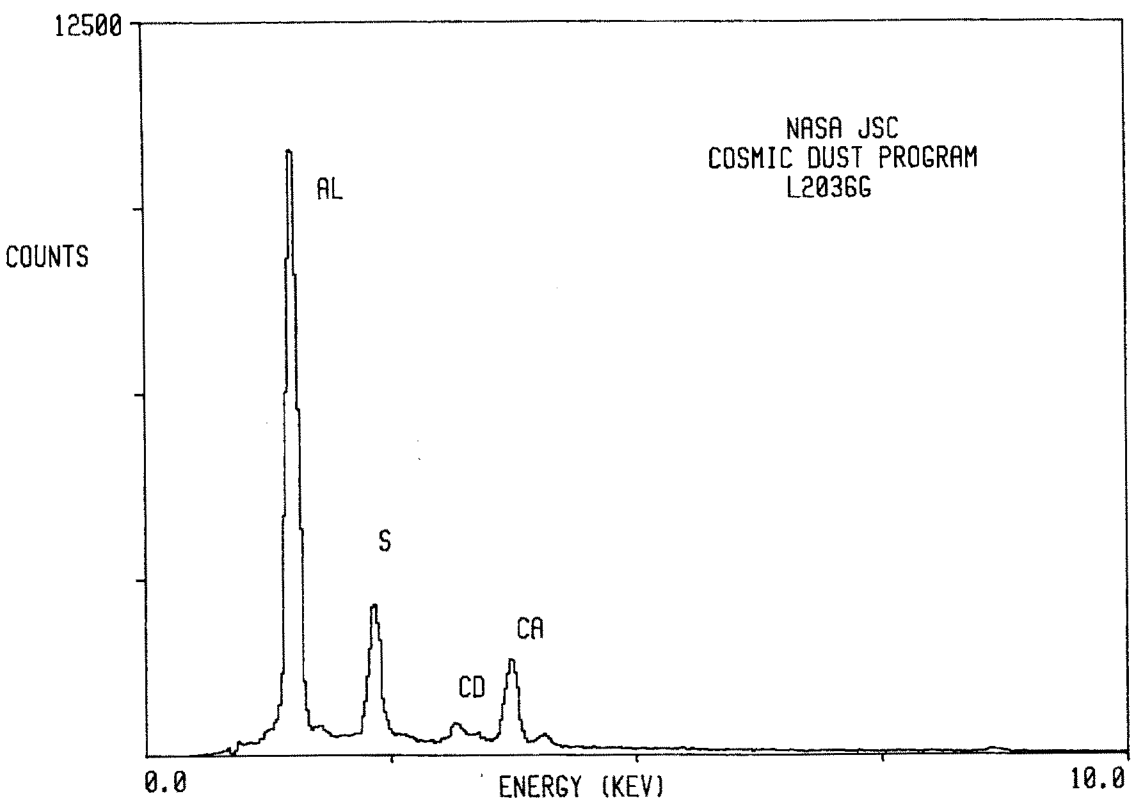
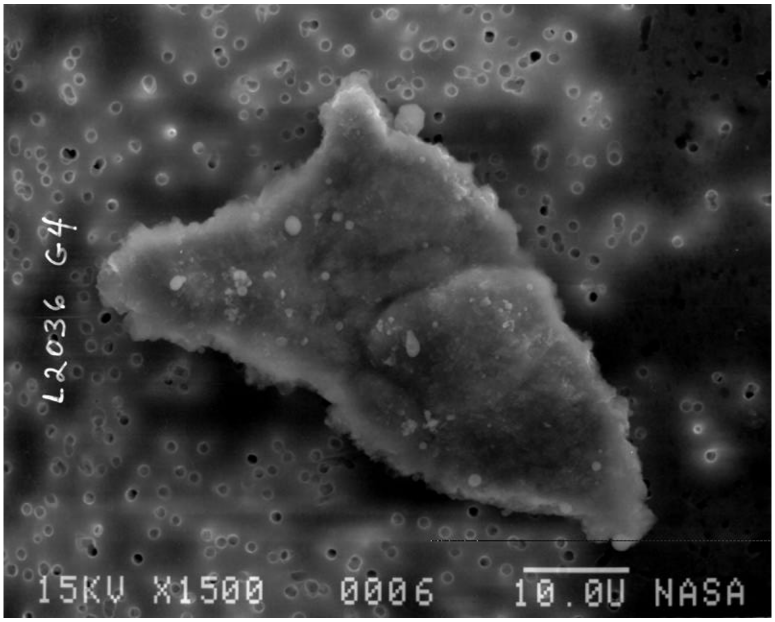
Trans:	O
Color:	Black-Gray
Luster:	M
Type:	TCA
Comments:	



L2036G4



97E00102

Size: 63x28

Shape: I

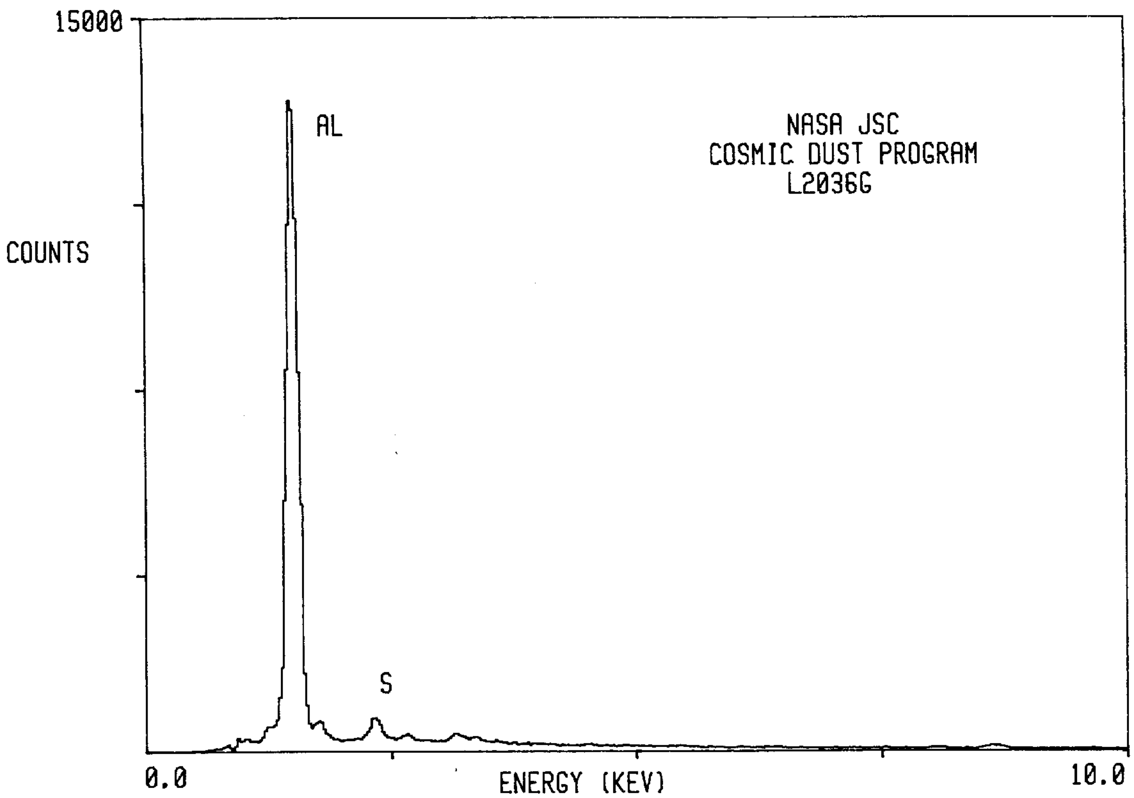
Trans: O

Color: Black-Brown

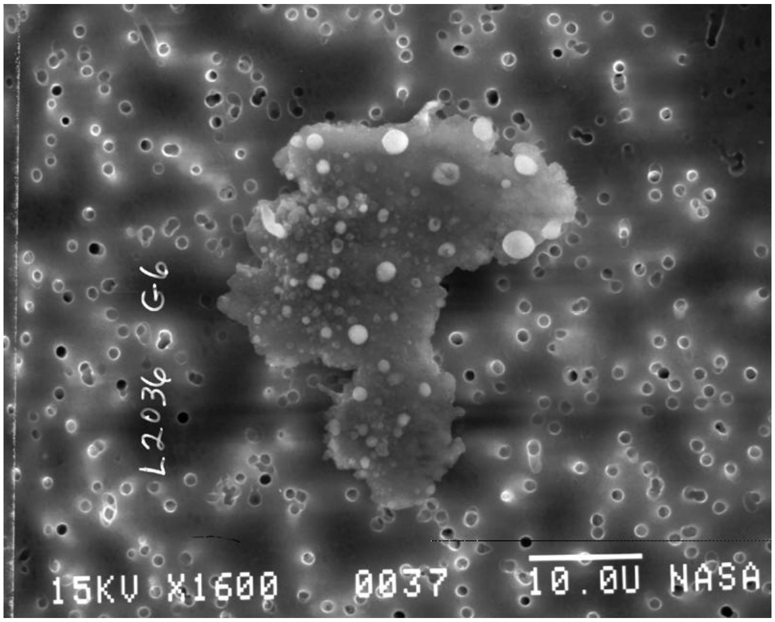
Luster: M/SV

Type: TCA

Comments:



L2036G6



97E00104

Size: 35x18

Shape: I

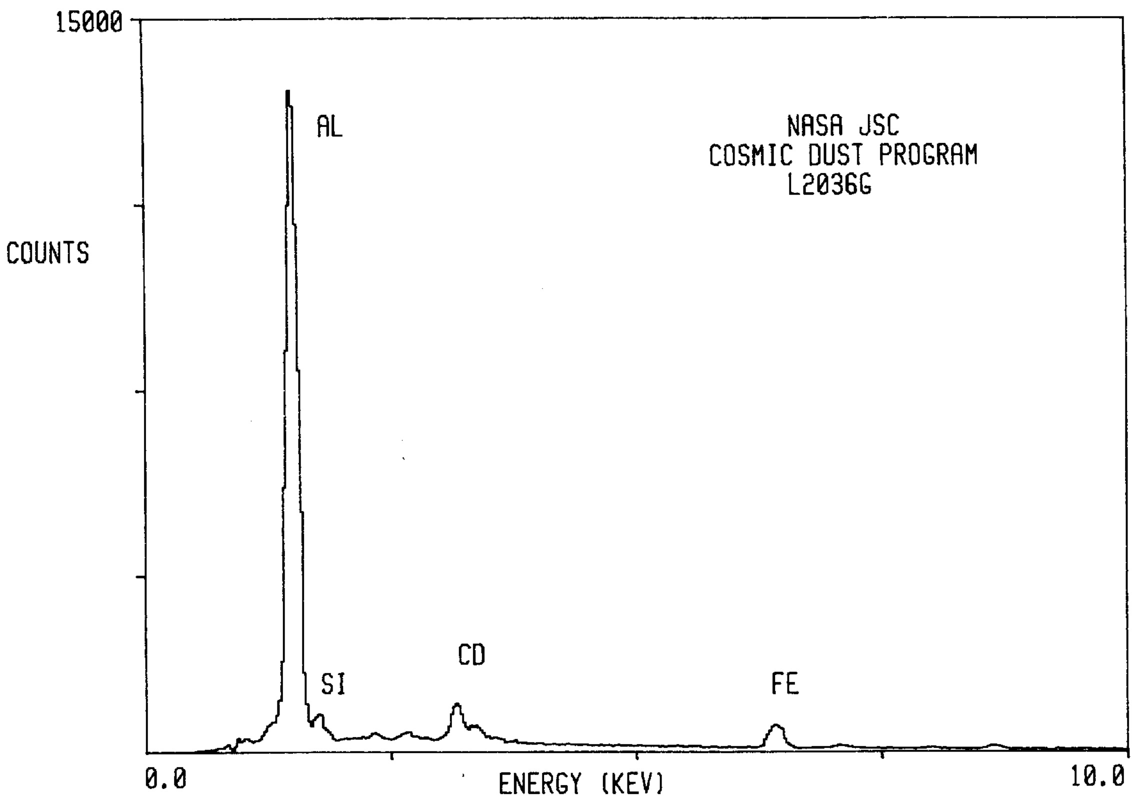
Trans: O

Color: Gray-Brown

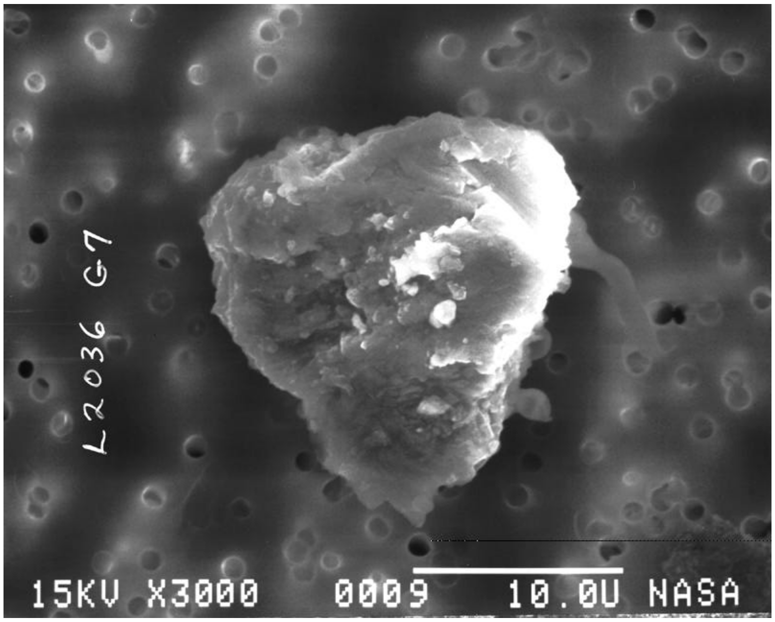
Luster: M

Type: TCA

Comments:

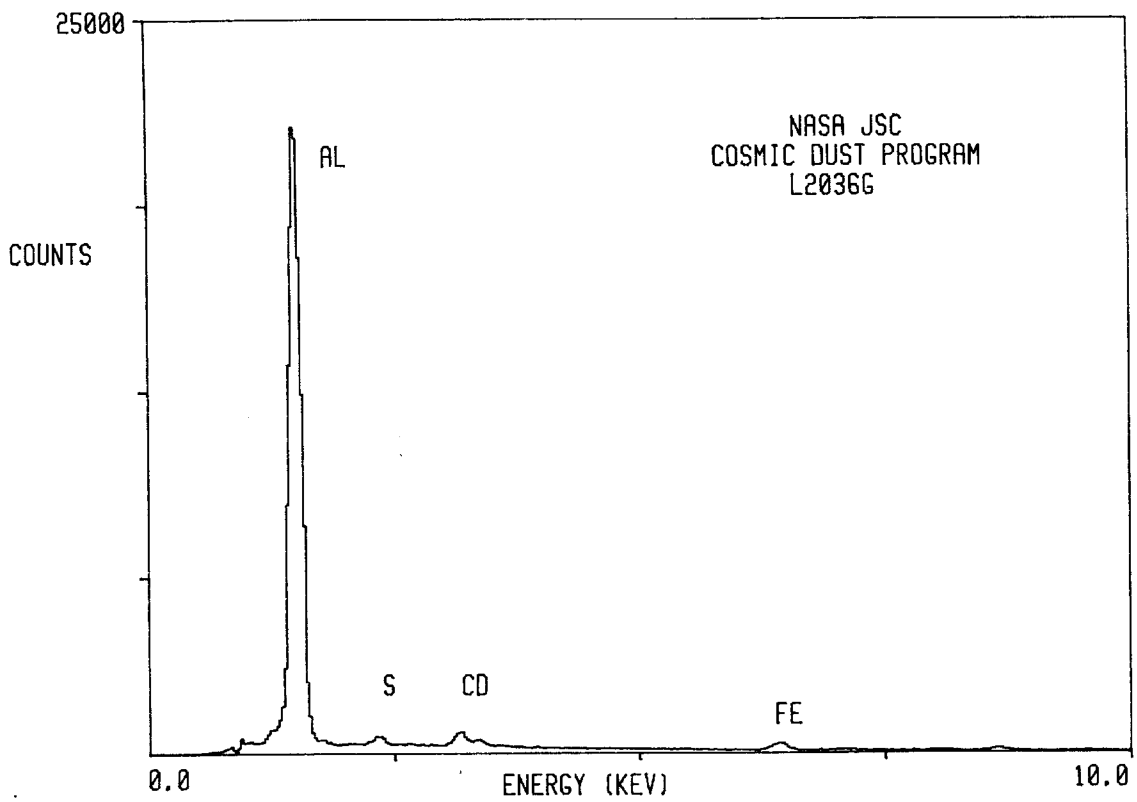


L2036G7

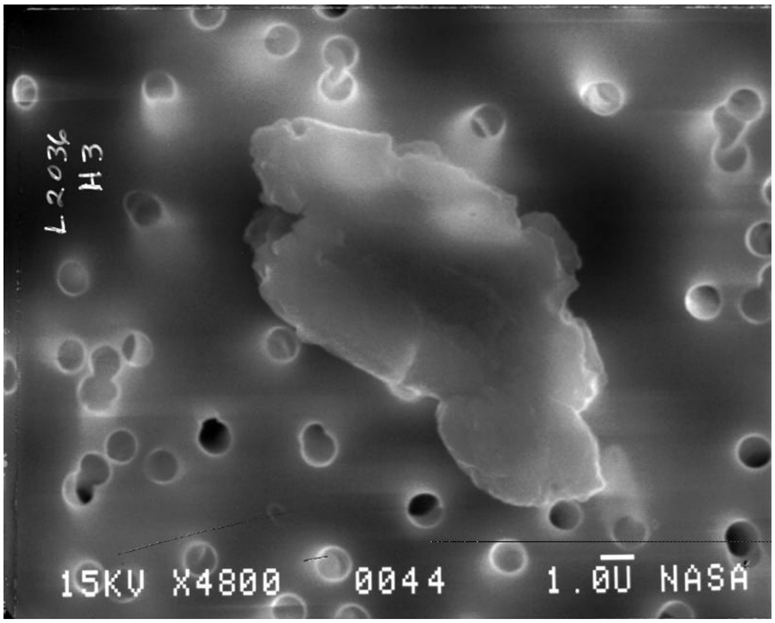


97E00105

Size: 18x15
Shape: I
Trans: O
Color: Silver
Luster: M
Type: TCA
Comments:



L2036H3



97E00121

Size: 13x8

Shape: I

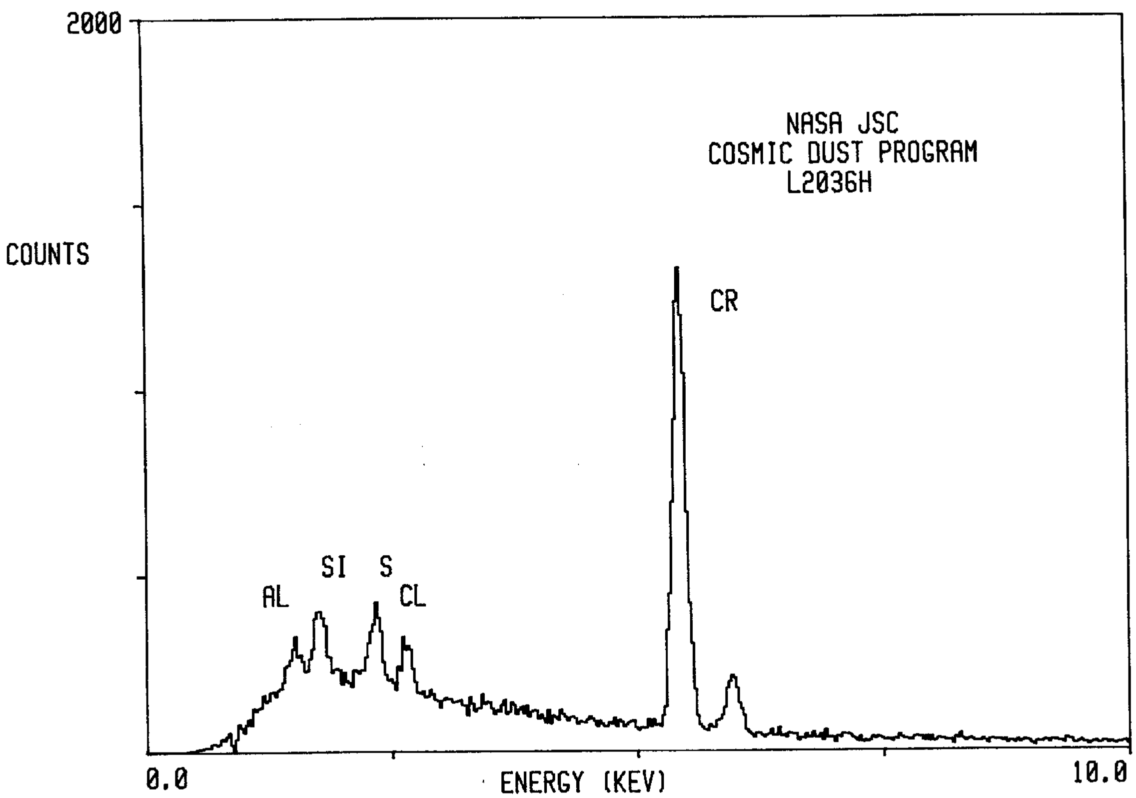
Trans: T

Color: Colorless

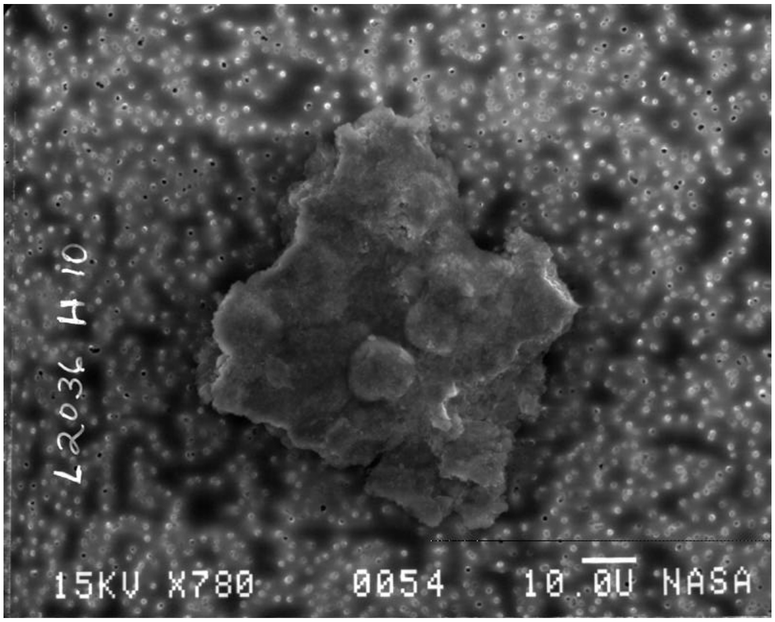
Luster: V

Type: TCA

Comments:

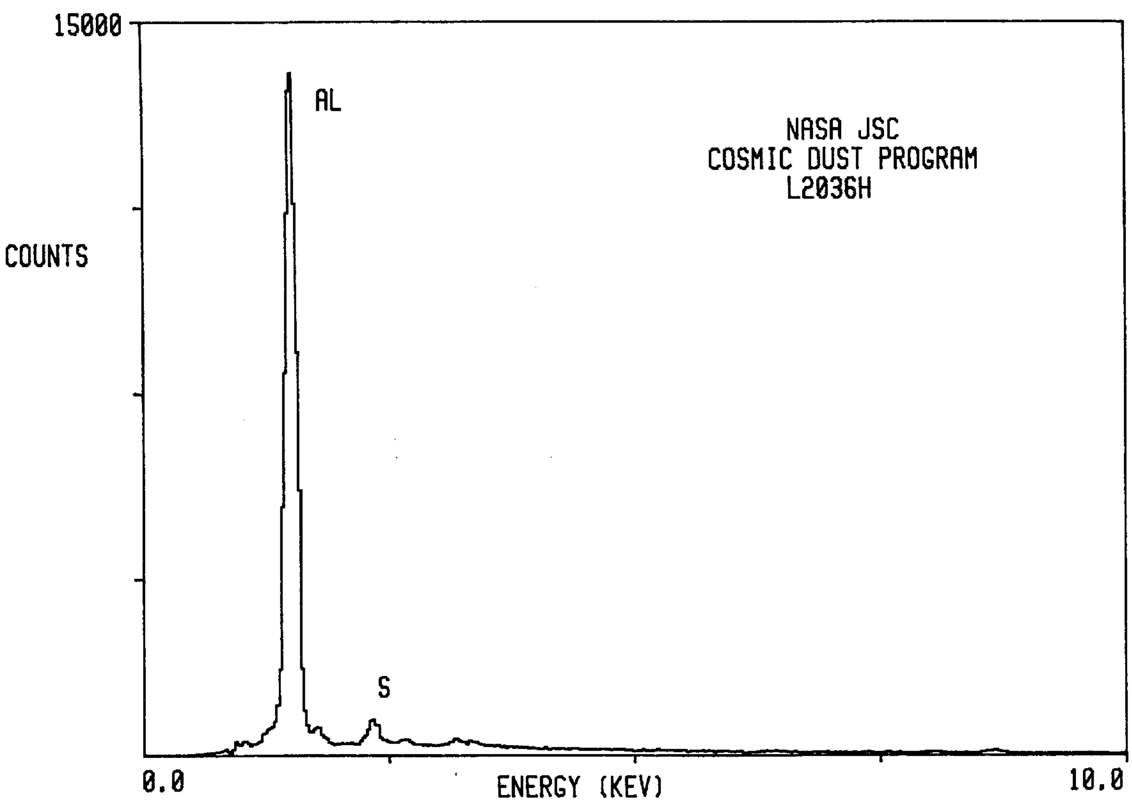


L2036H10

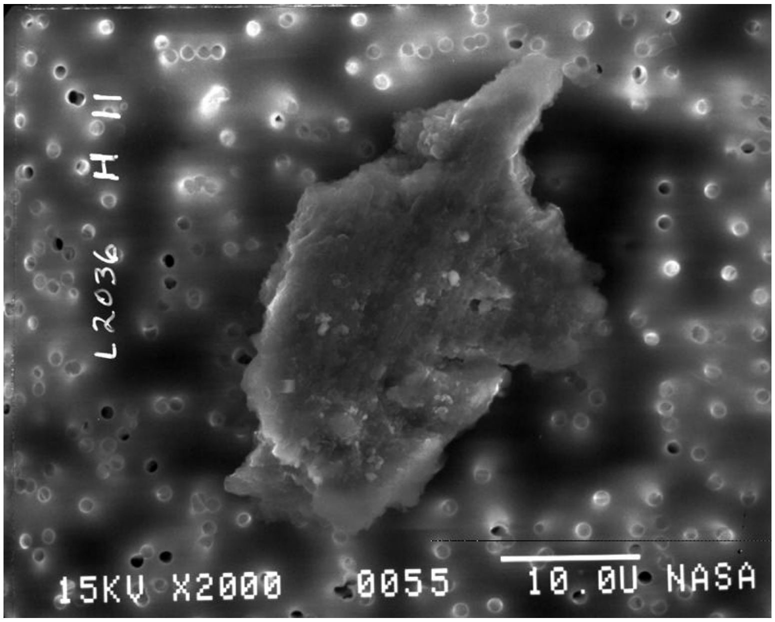


97E00128

Size: 35x18
Shape: I
Trans: O
Color: Silver
Luster: M
Type: TCA
Comments:

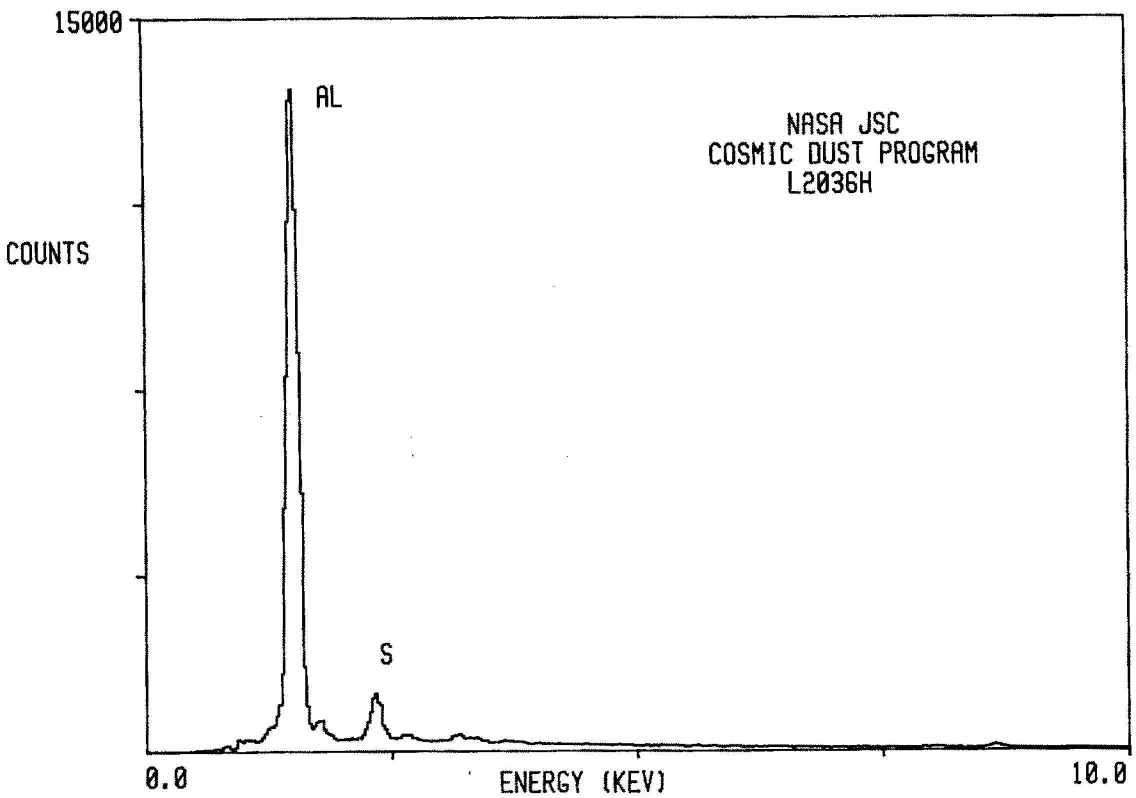


L2036H11

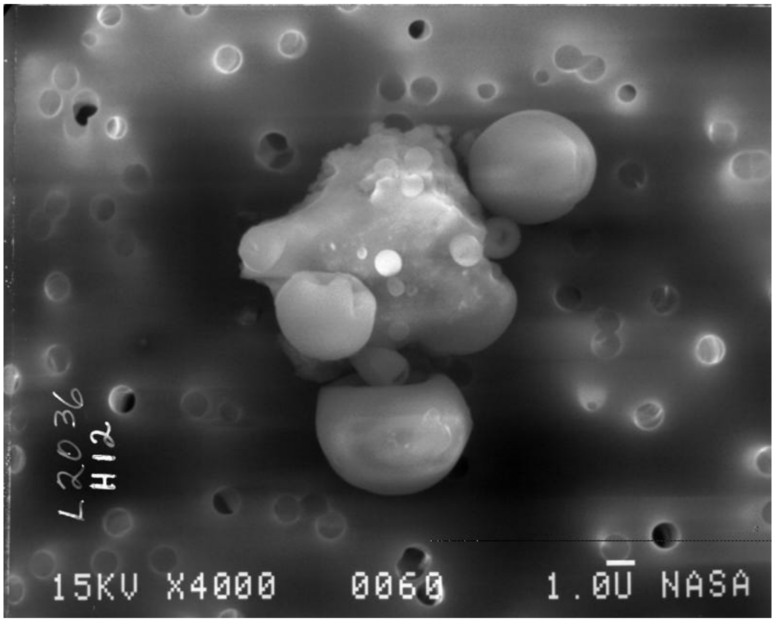


97E00029

Size: 19x14
Shape: I
Trans: O
Color: Silver
Luster: M
Type: TCA
Comments:

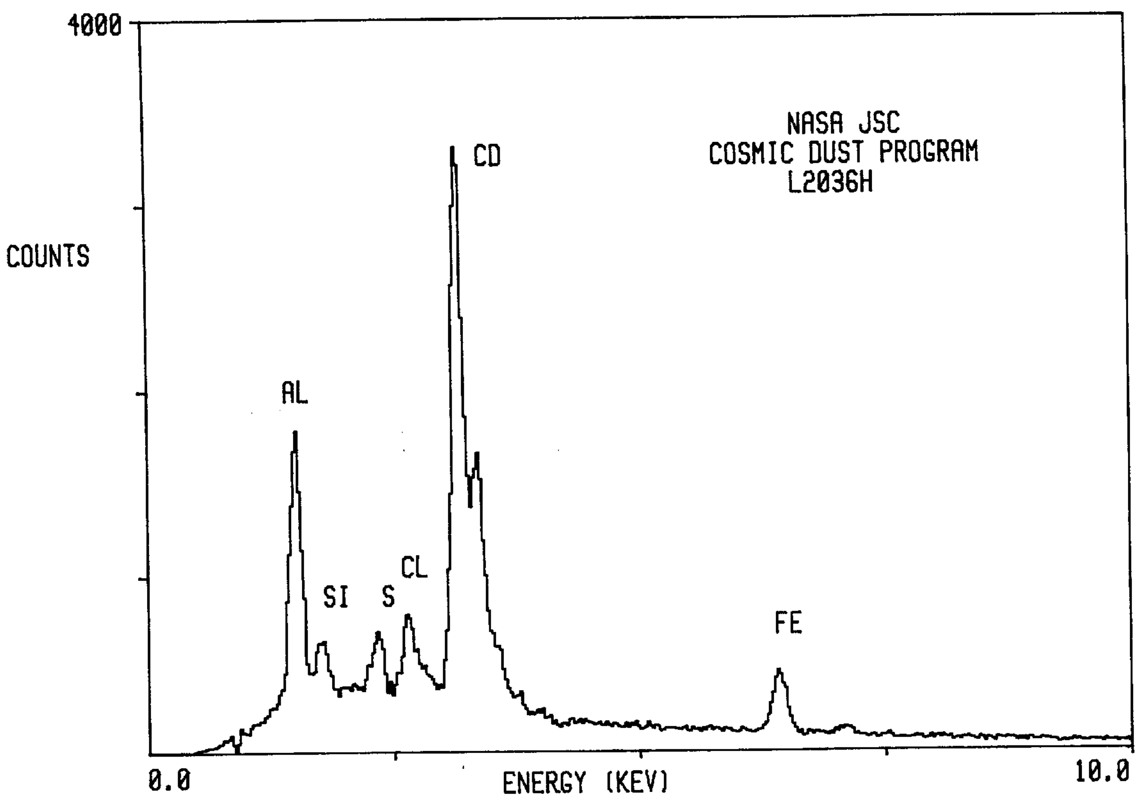


L2036H12

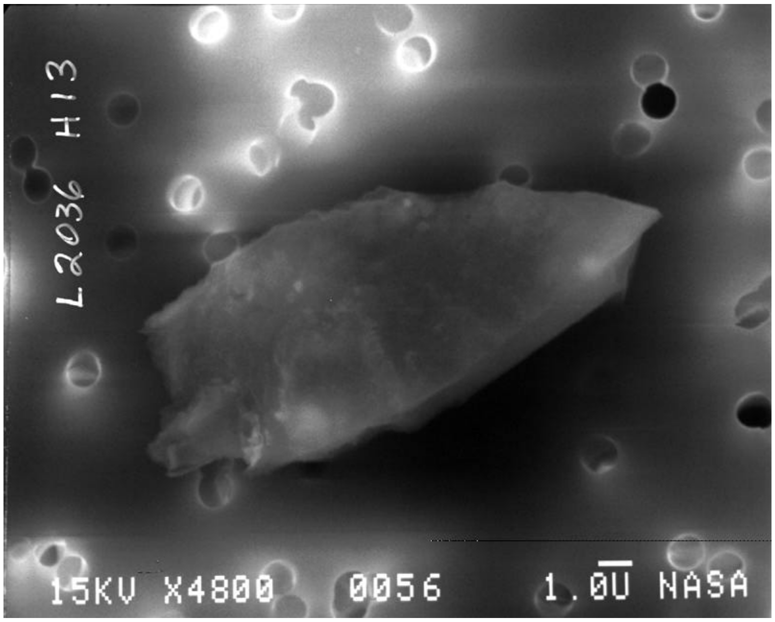


97E00130

Size:	14x11
Shape:	I
Trans:	O/T
Color:	Black-Colorless
Luster:	D/V
Type:	TCA
Comments:	

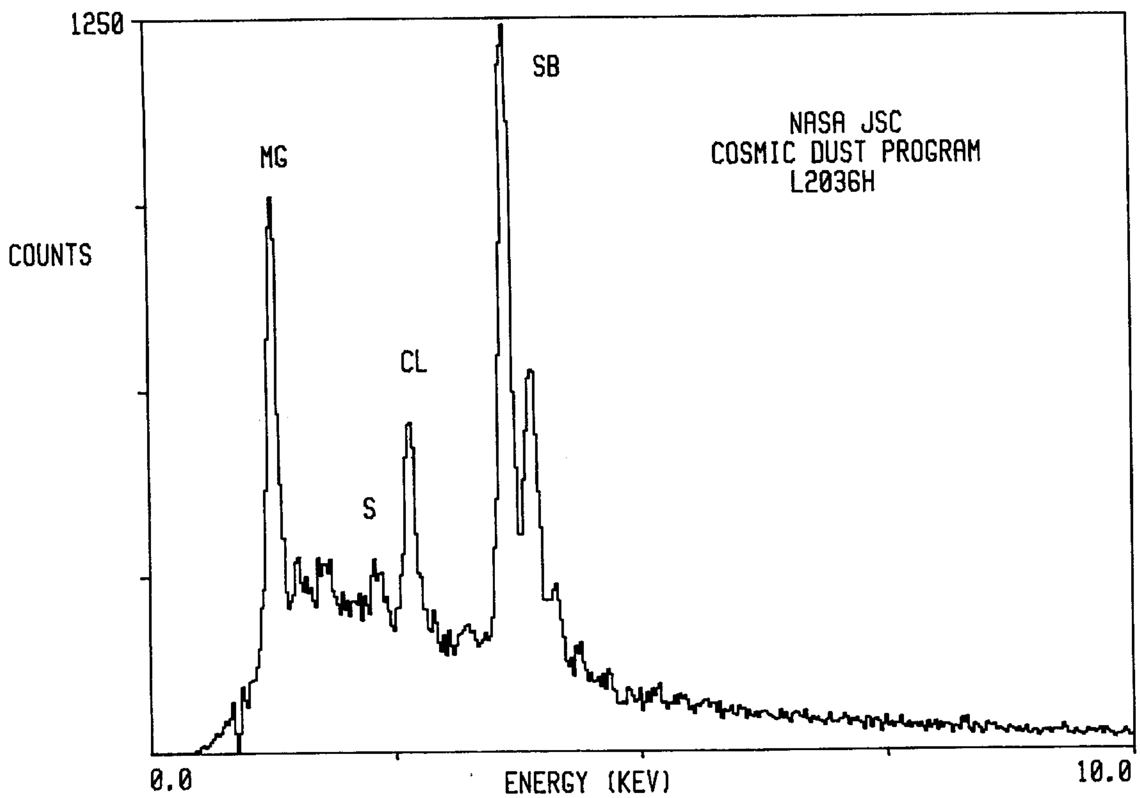


L2036H13

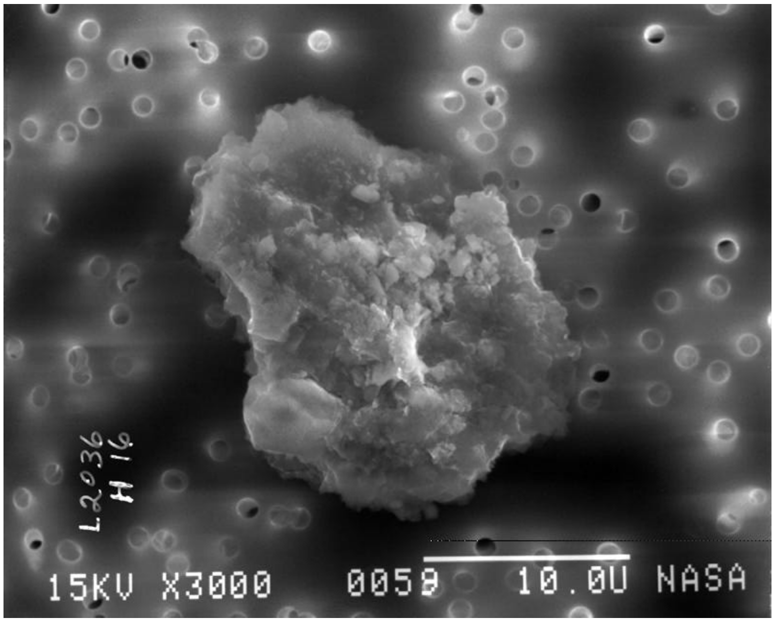


97E00131

Size: 20x12
Shape: I
Trans: O
Color: Silver
Luster: M
Type: TCA
Comments:



L2036H16



97E00134

Size: 18x14

Shape: I

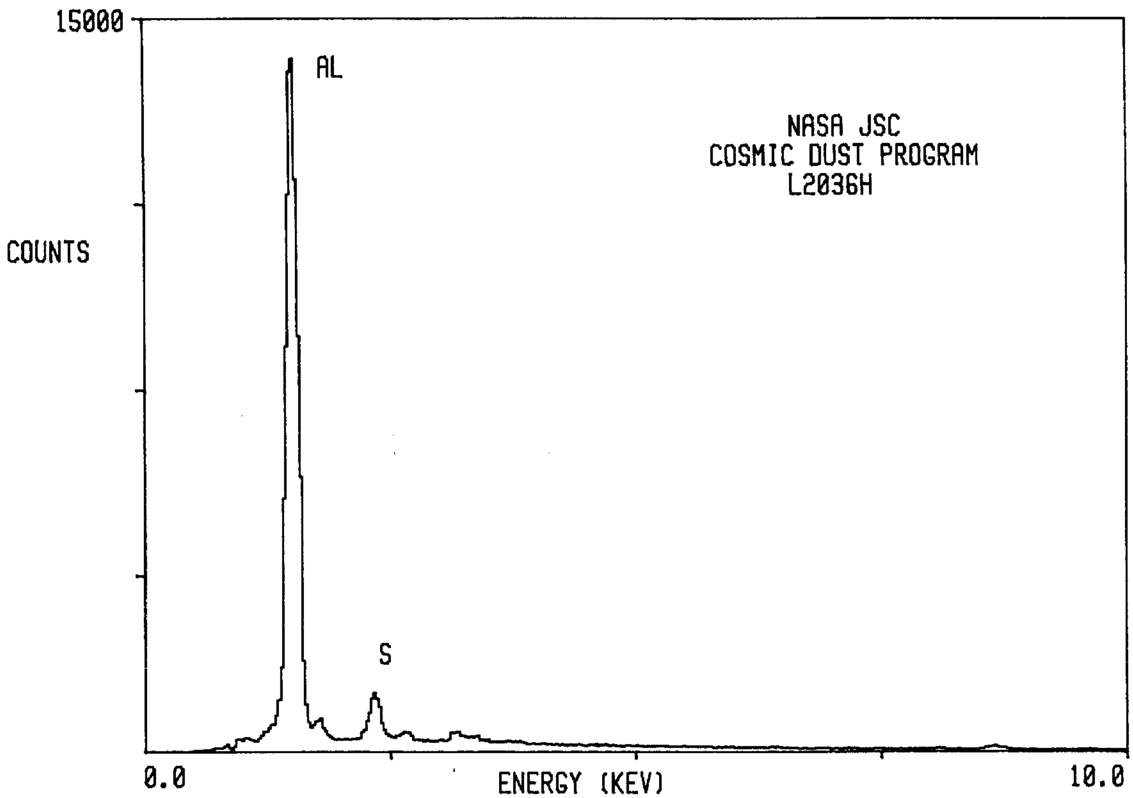
Trans: O

Color: Black

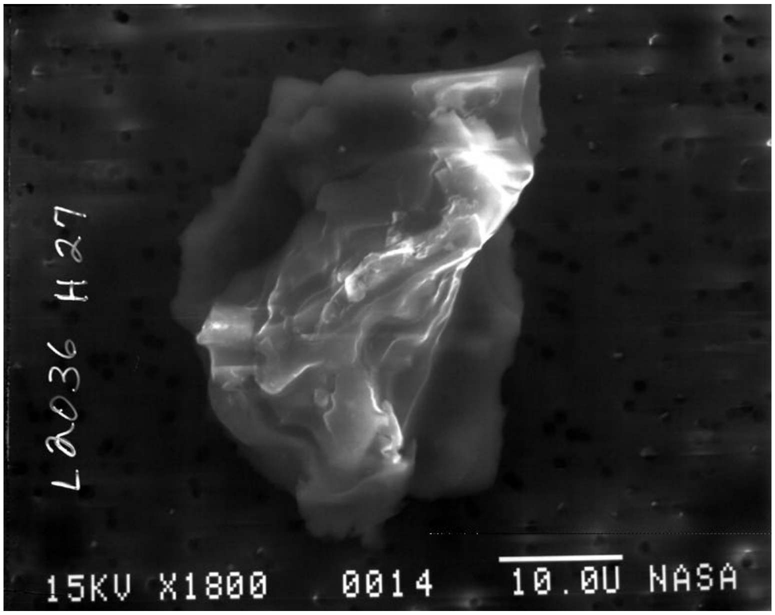
Luster: D

Type: TCA

Comments:

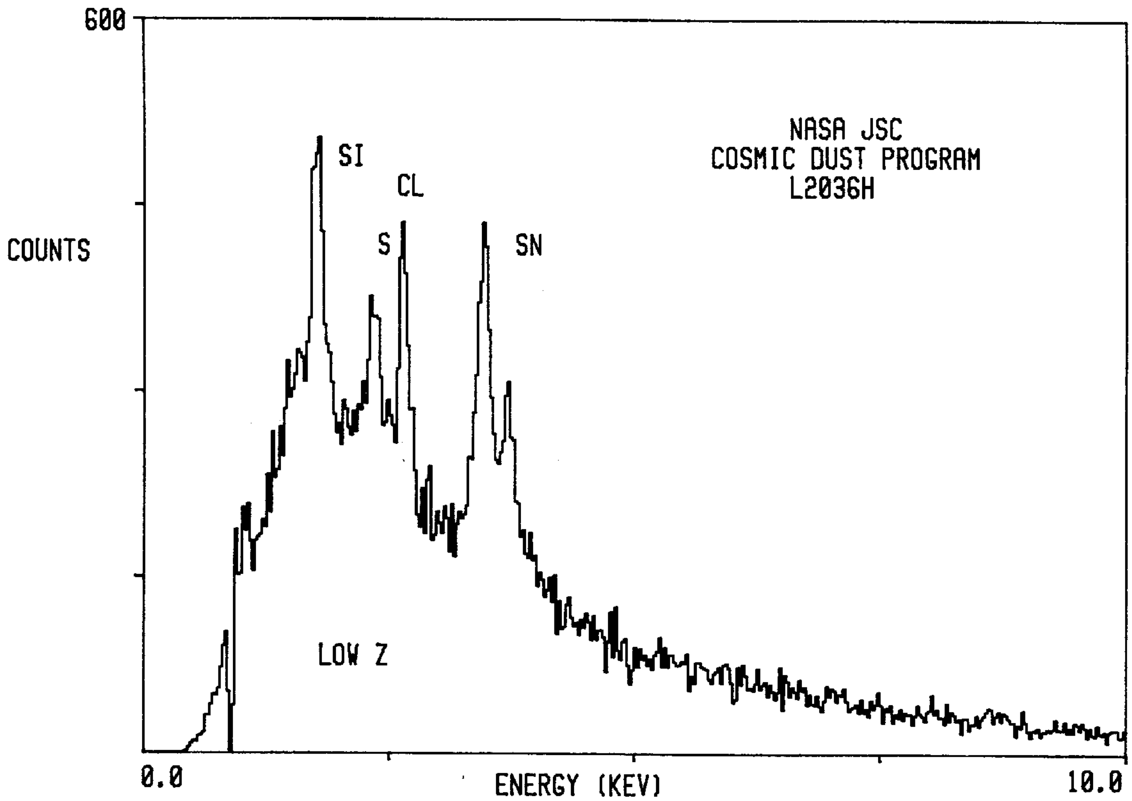


L2036H27

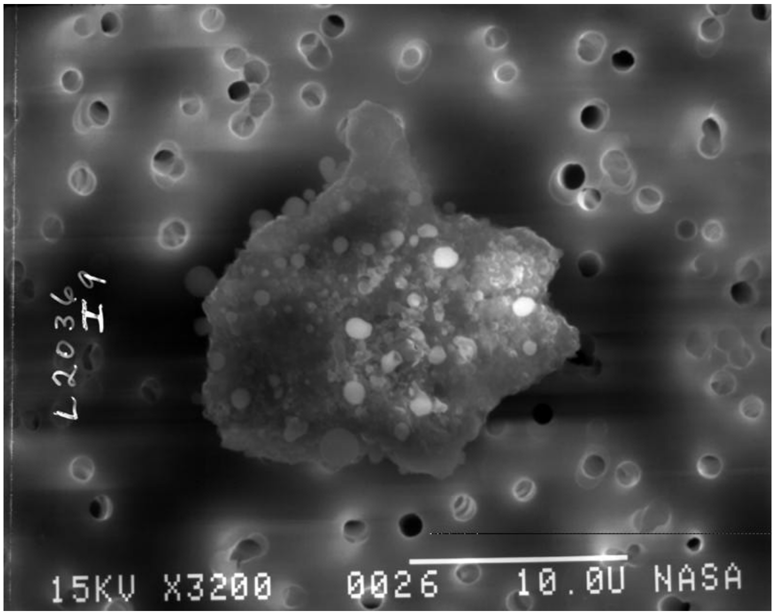


97E00145

Size:	39x28
Shape:	I
Trans:	O
Color:	Black
Luster:	M
Type:	TCA
Comments:	

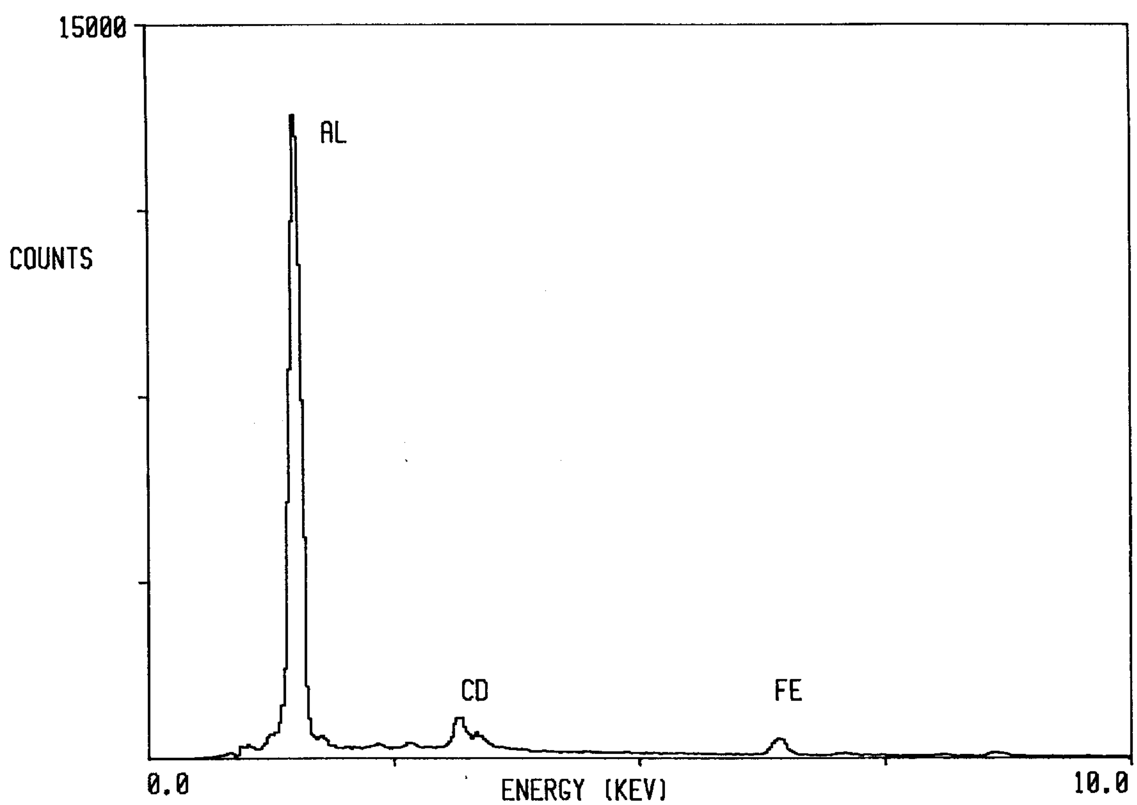


L2036I9

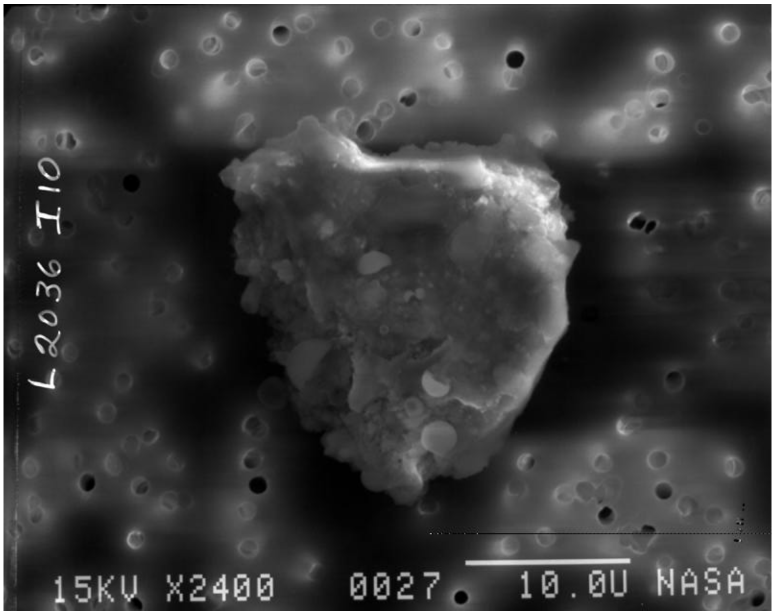


97E00155

Size: 16x14
Shape: I
Trans: TL
Color: Brown
Luster: SV
Type: TCA
Comments:

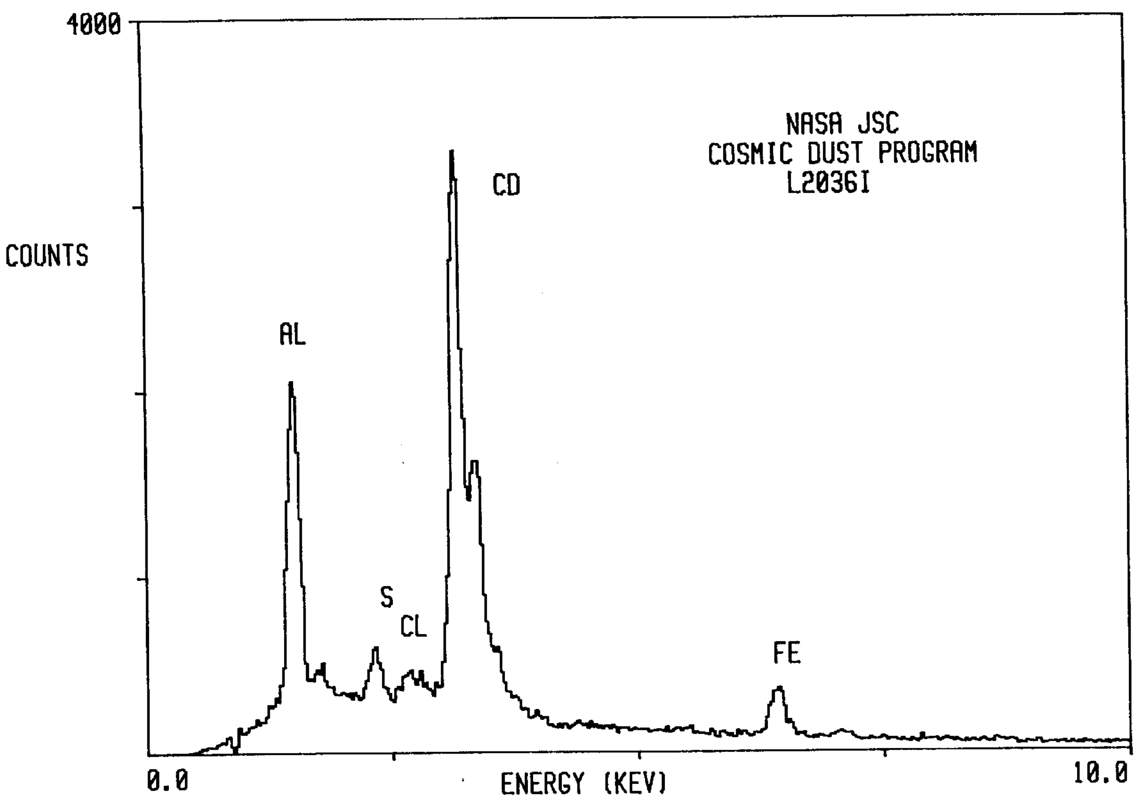


L2036I10

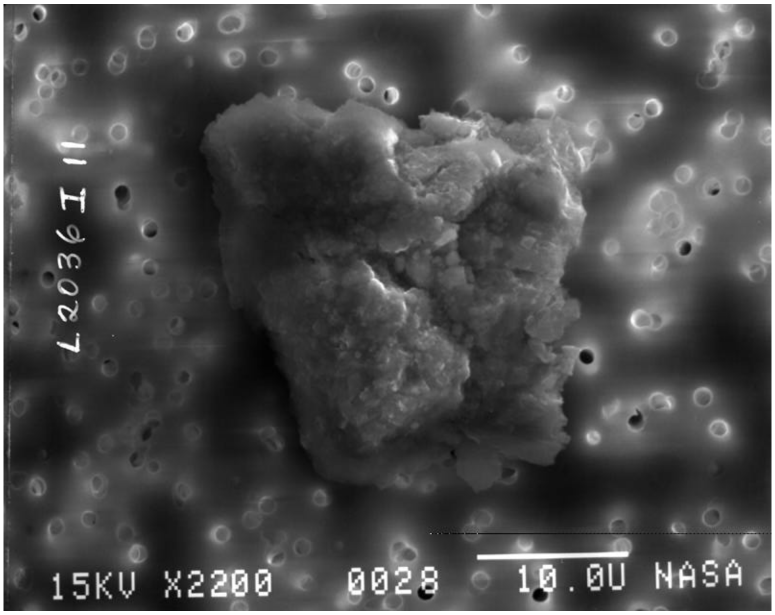


97E00156

Size: 20
Shape: I
Trans: O/TL
Color: Black-Brown
Luster: P/SV
Type: TCA
Comments:



L2036I11



97E00157

Size: 24

Shape: I

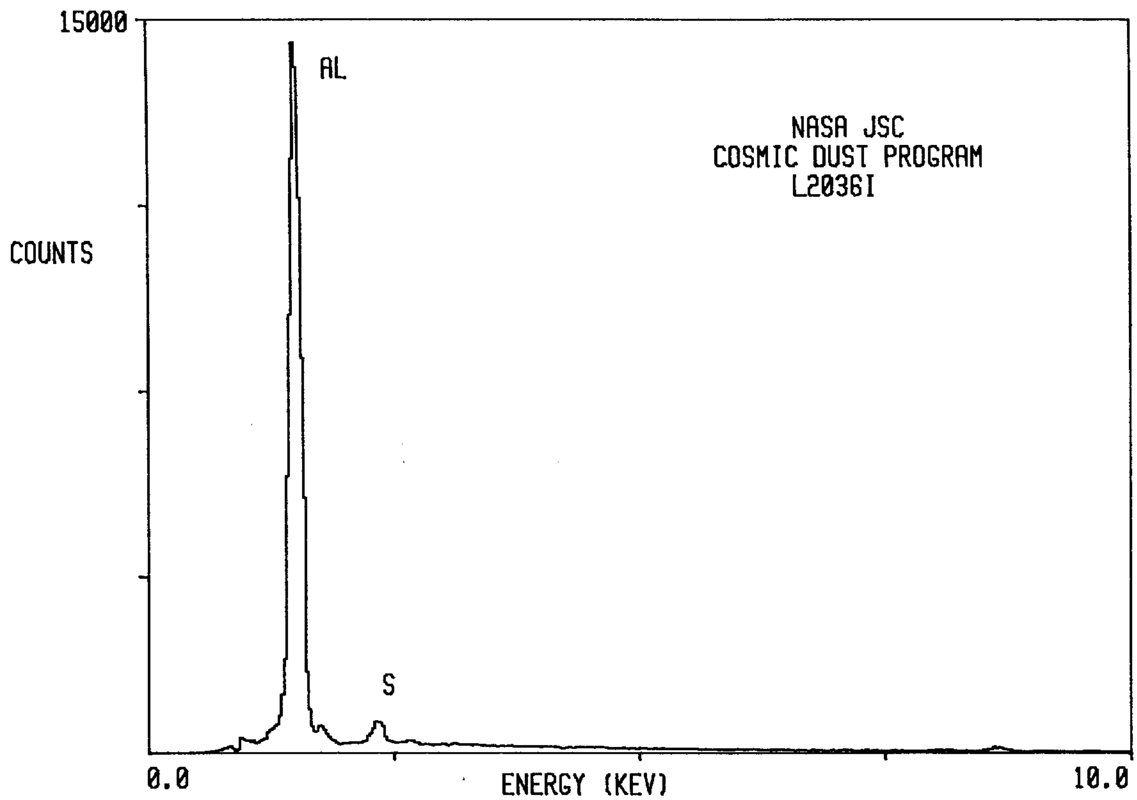
Trans: O

Color: Black-Silver

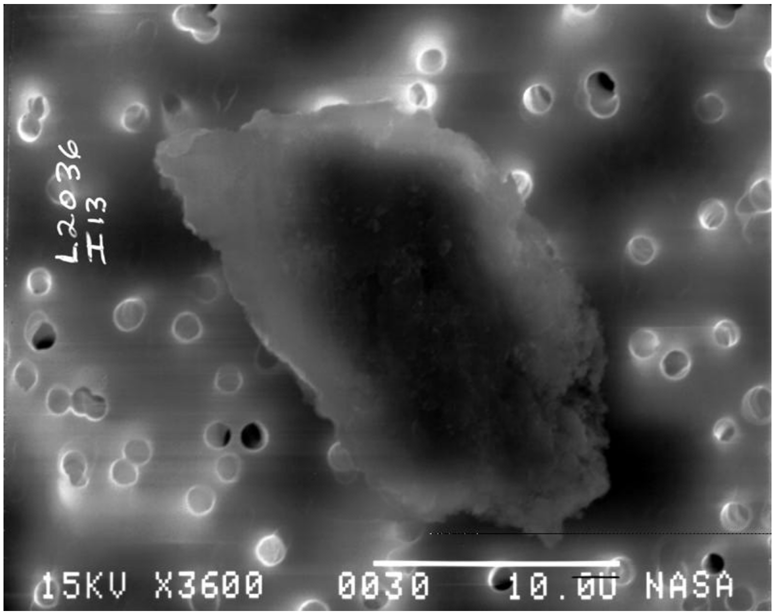
Luster: M

Type: TCA

Comments:

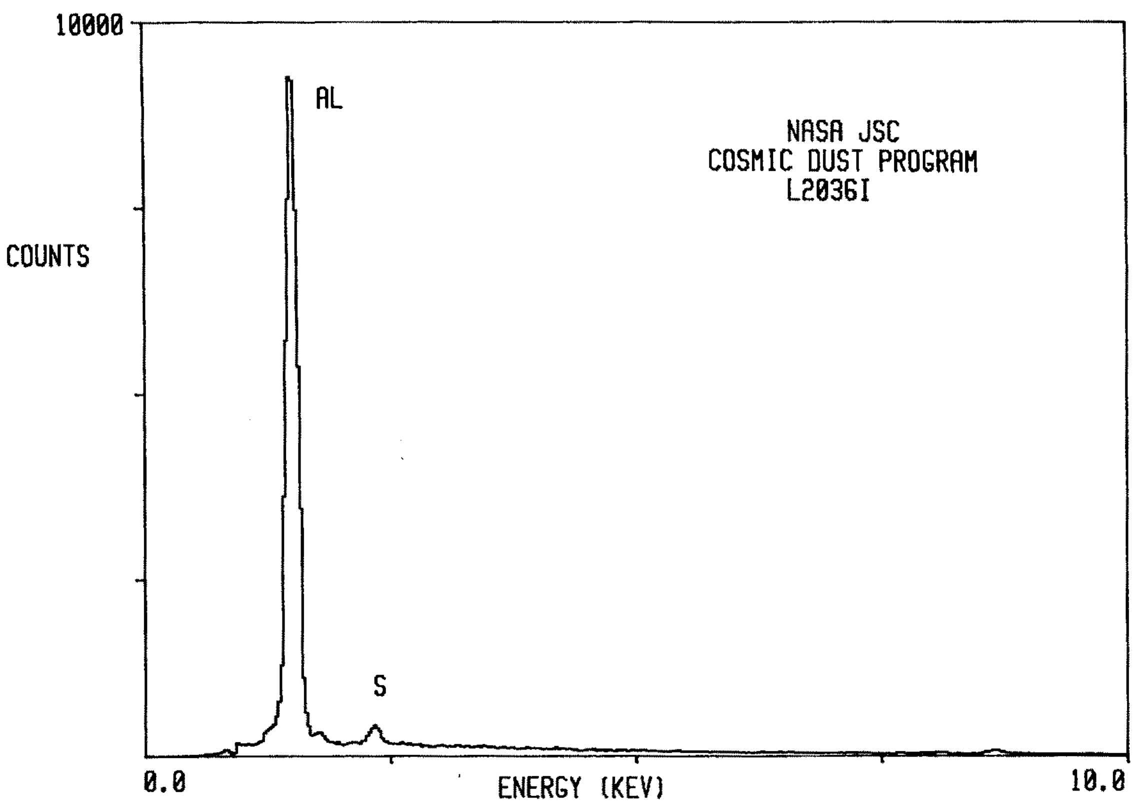


L2036I13

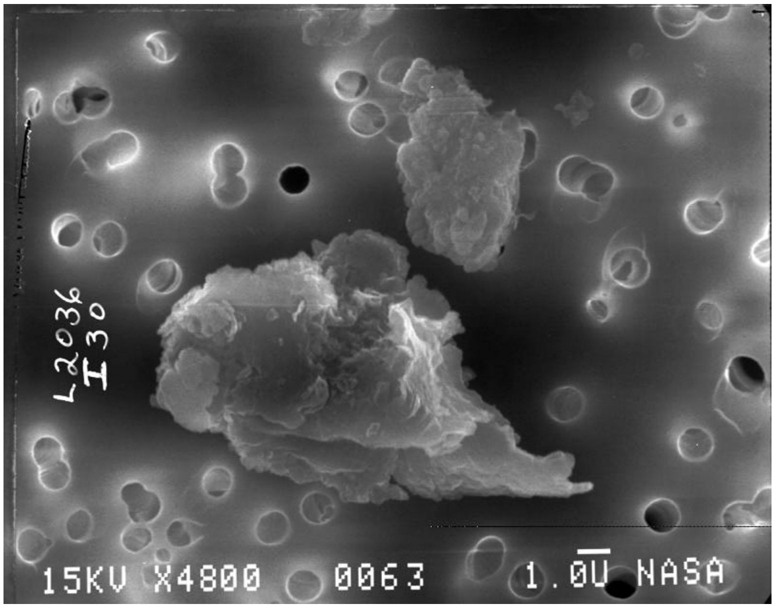


97E00159

Size: 16x10
Shape: I
Trans: T
Color: Colorless
Luster: V
Type: TCA
Comments:



L2036I30



97E00176

Size: 12x6

Shape: I

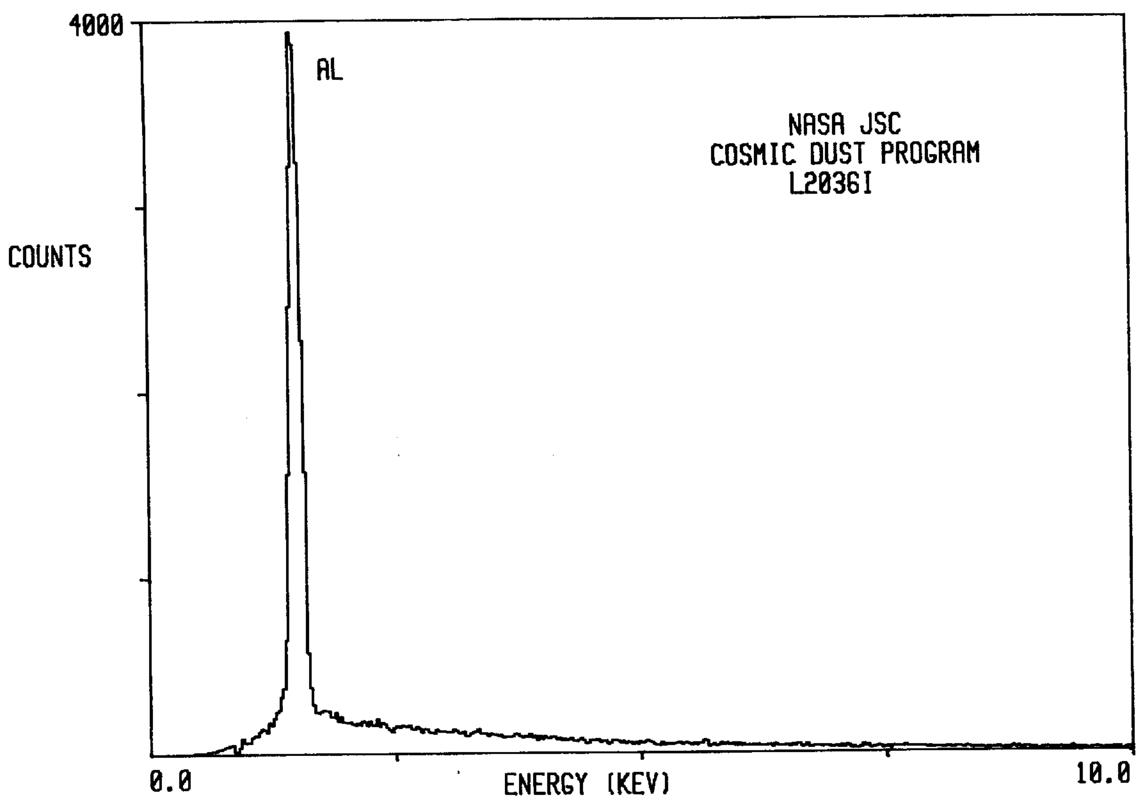
Trans: O

Color: Black

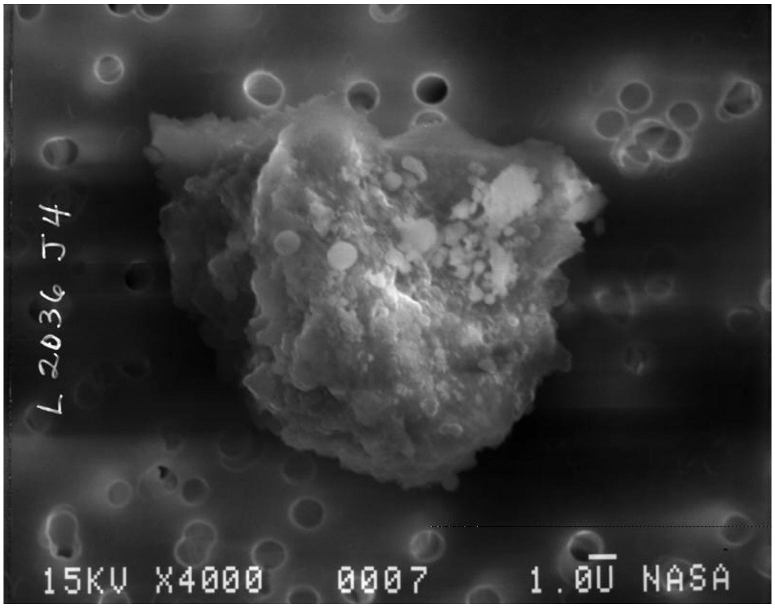
Luster: P

Type: TCA

Comments:

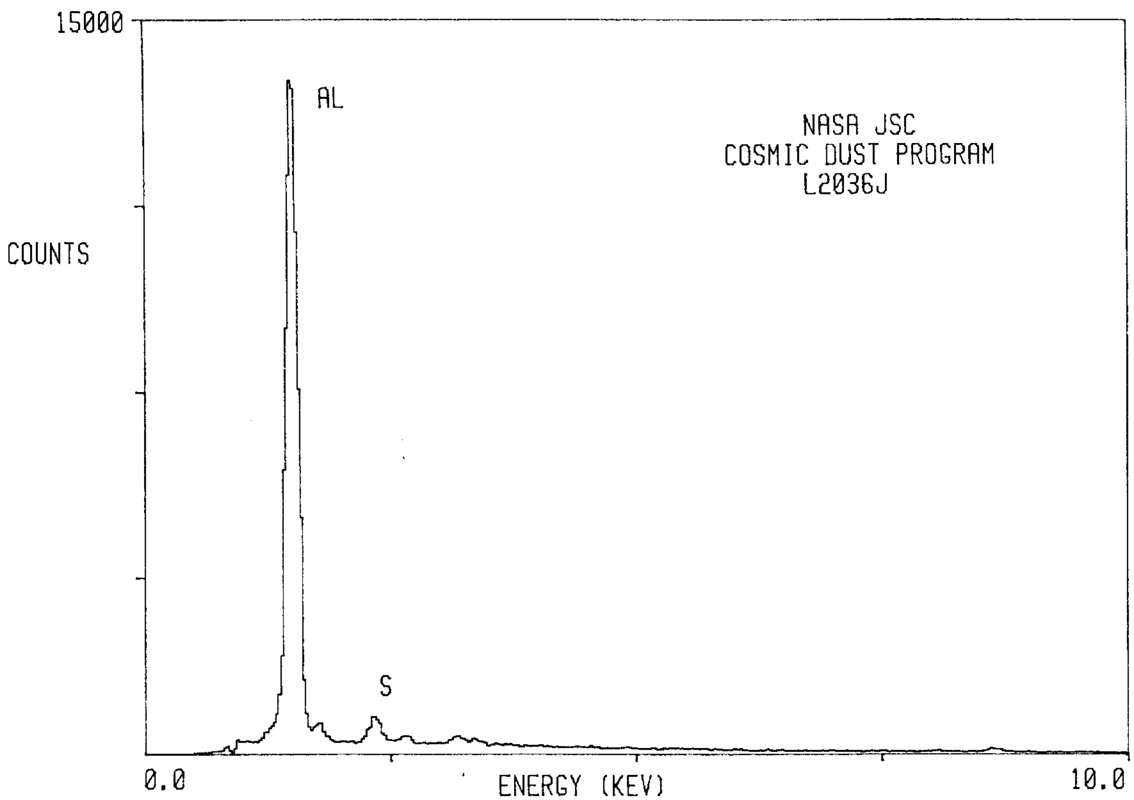


L2036J4

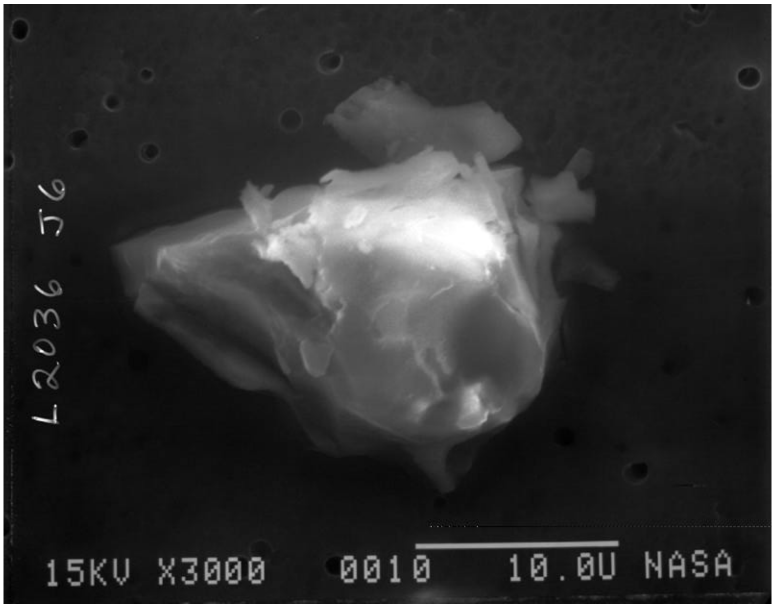


97E00180

Size:	39x26
Shape:	I
Trans:	O
Color:	White
Luster:	SV
Type:	TCA
Comments:	

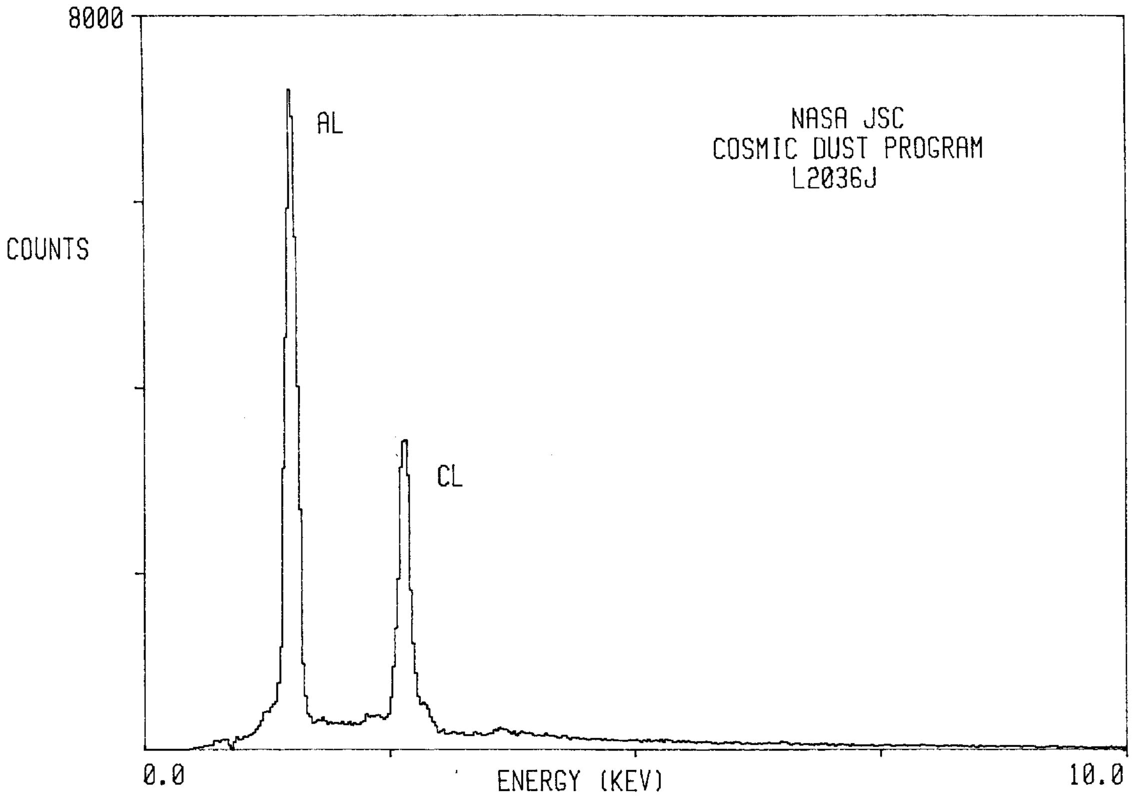


L2036J6

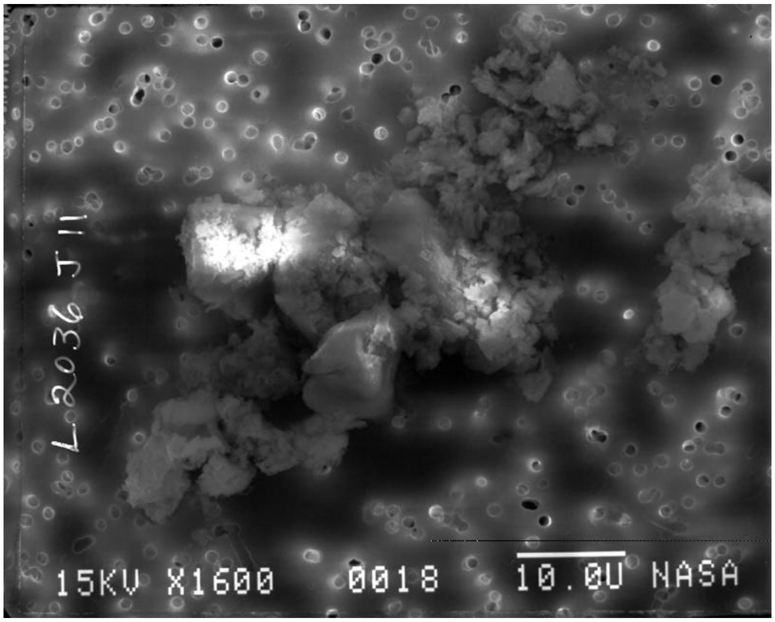


97E00182

Size: 27x14
Shape: I
Trans: TL
Color: Colorless-Brown
Luster: SV
Type: TCA
Comments:



L2036J11



97E00187

Size: 55x26

Shape: I

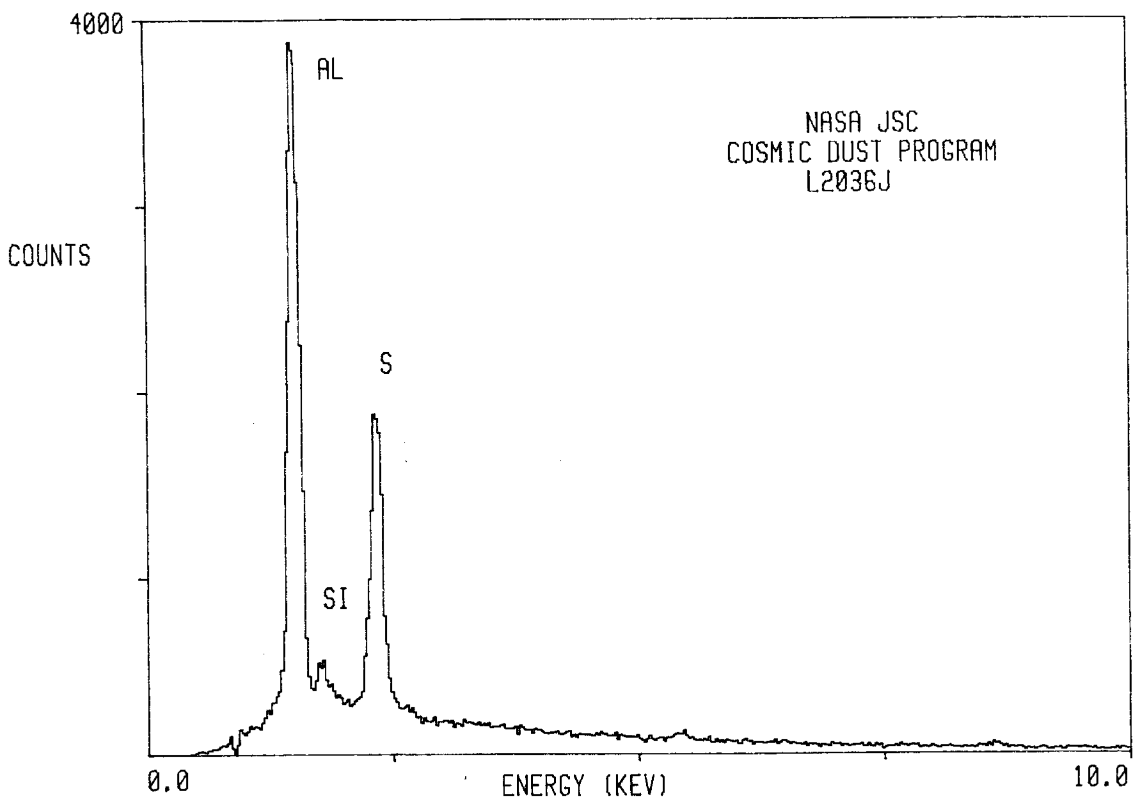
Trans: O

Color: White-Blue

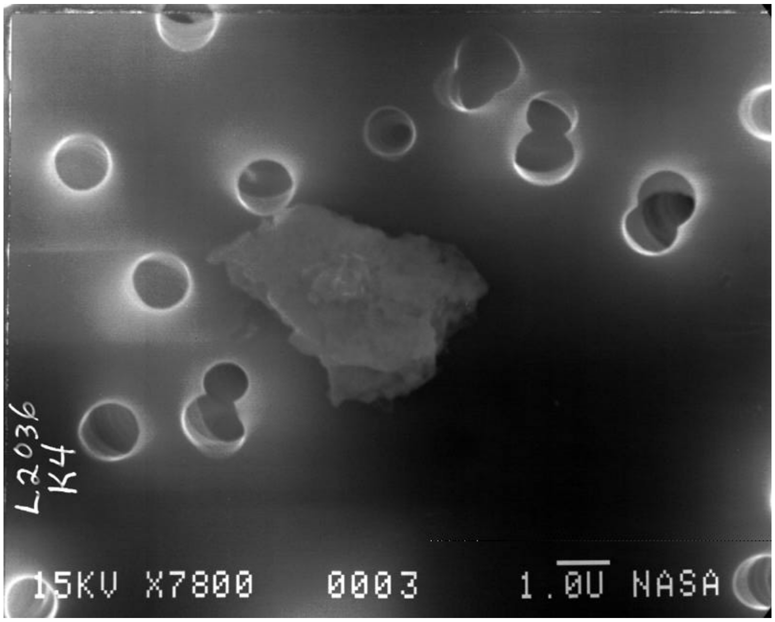
Luster: SV

Type: TCA

Comments:



L2036K4



97E00195

Size: 3

Shape: I

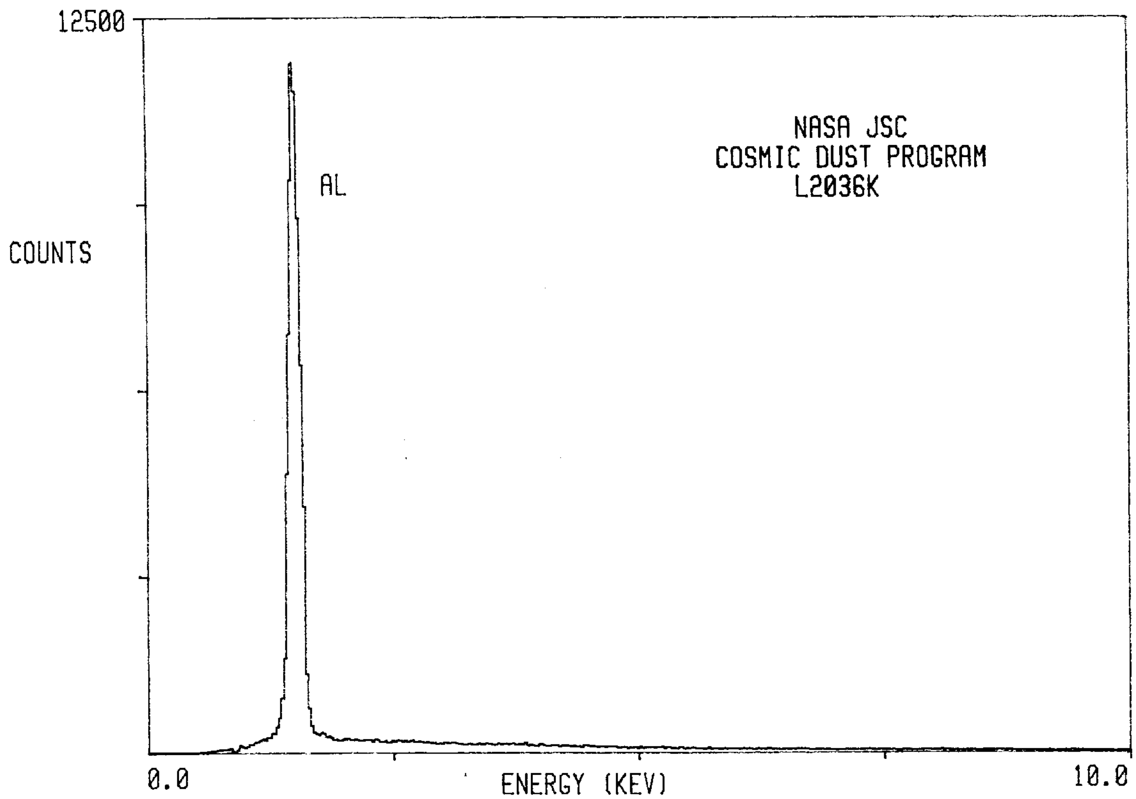
Trans: T

Color: Colorless

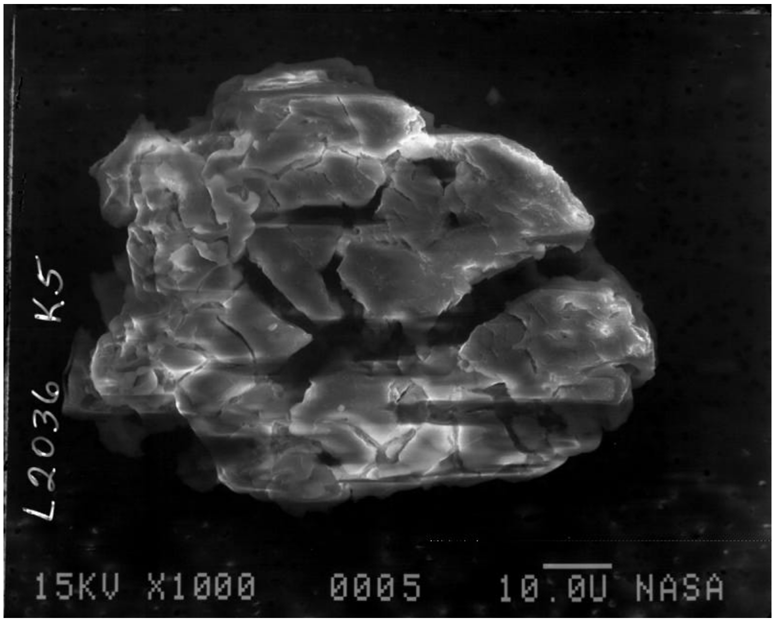
Luster: V

Type: TCA

Comments:



L2036K5



97E00196

Size: 88x68

Shape: I

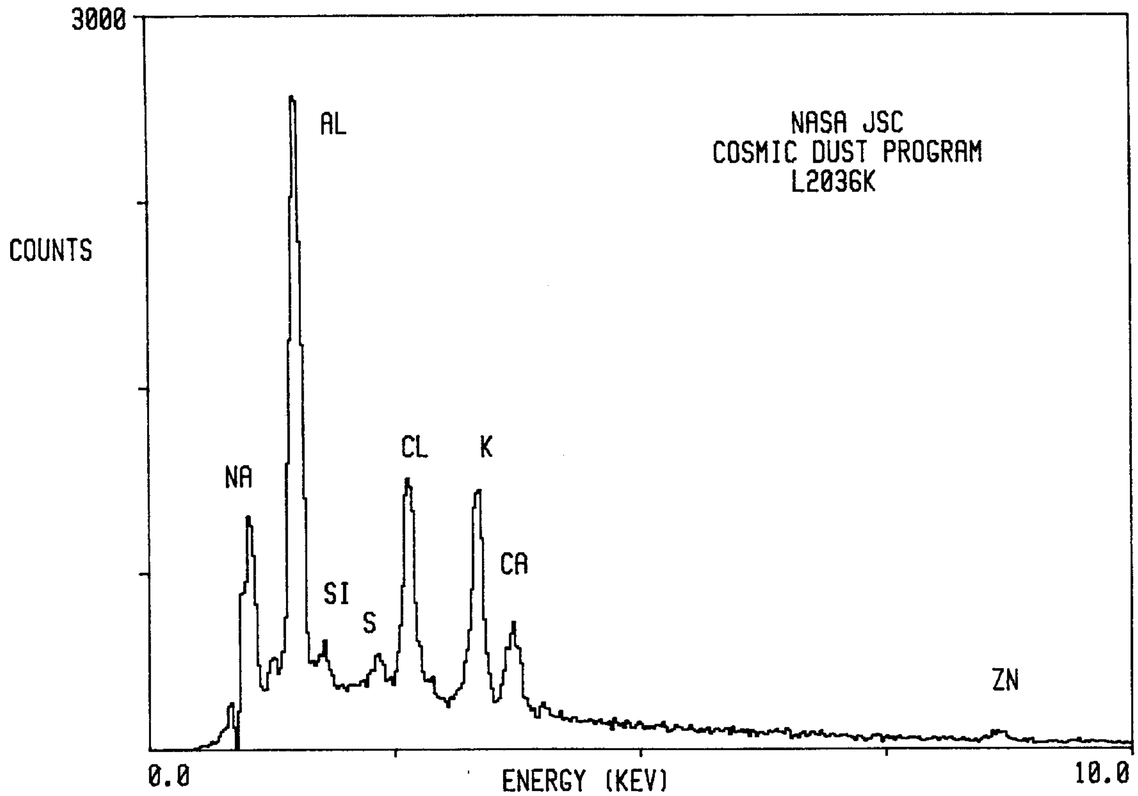
Trans: O

Color: White

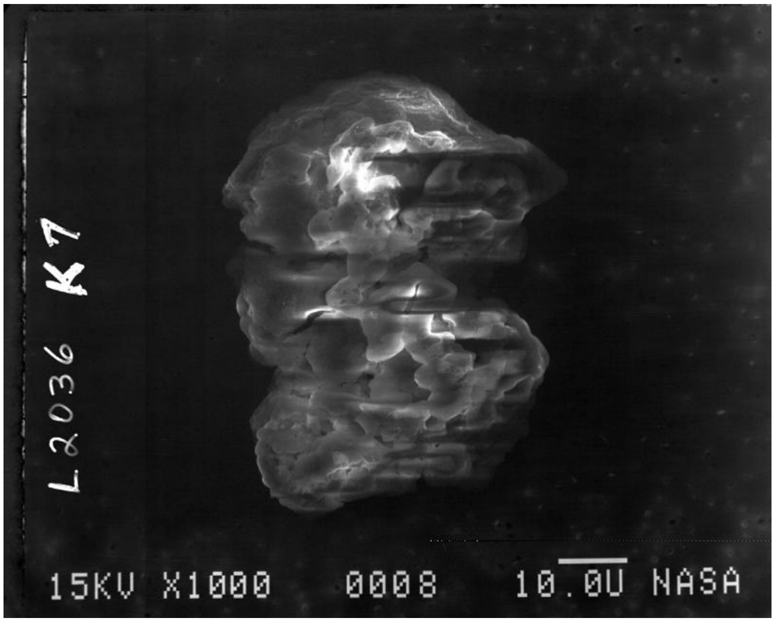
Luster: SV

Type: TCA

Comments:

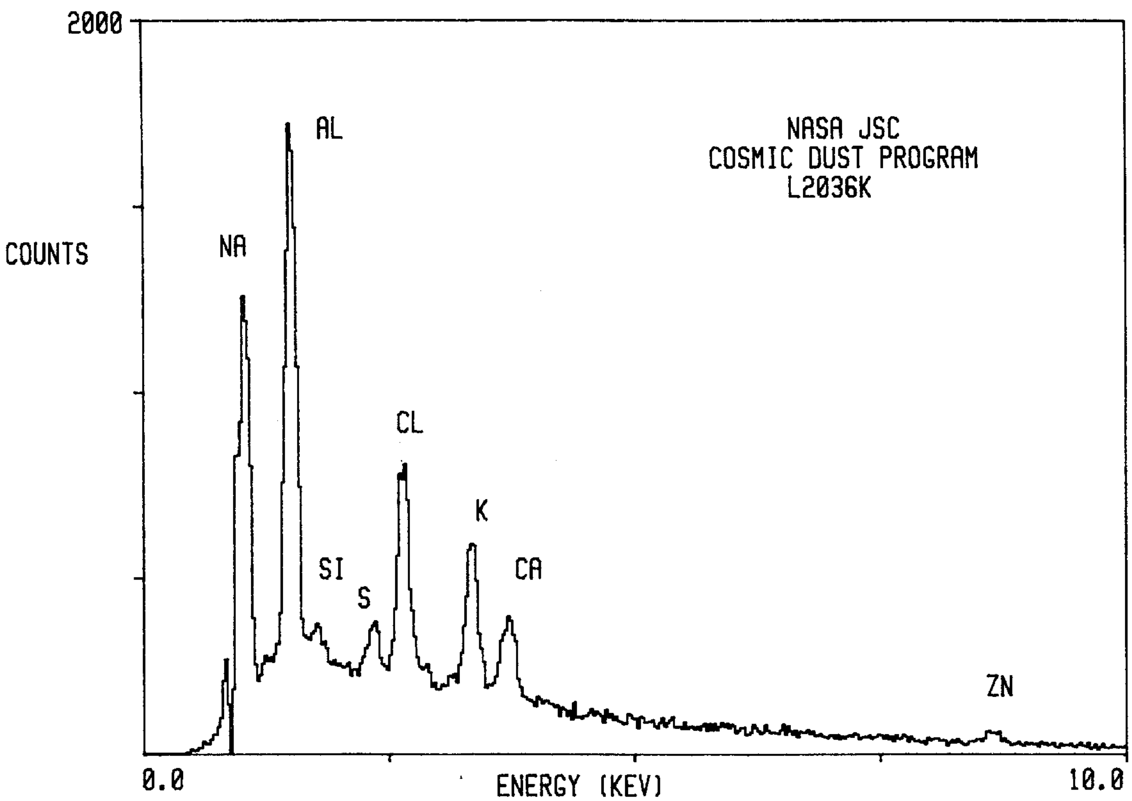


L2036K7

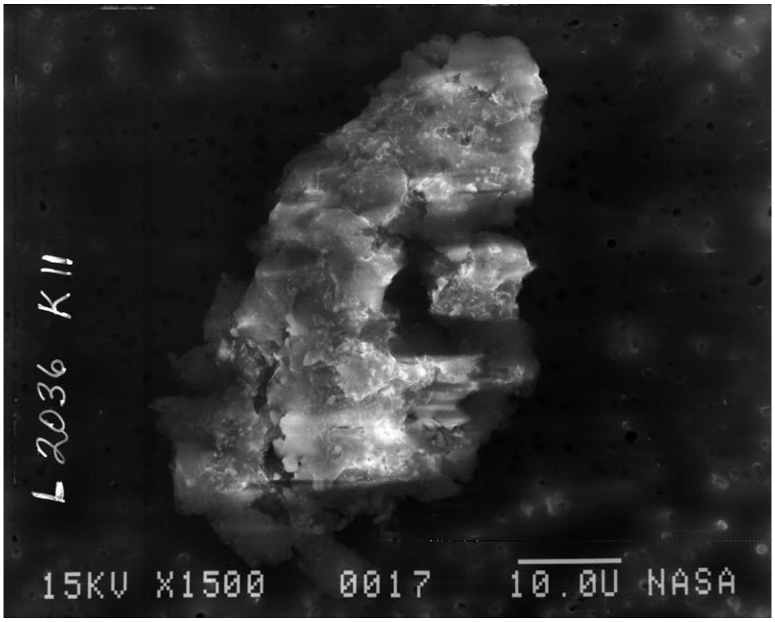


97E00198

Size:	66x44
Shape:	I
Trans:	TL
Color:	Colorless-White
Luster:	SV
Type:	TCA
Comments:	



L2036K11



97E00202

Size: 57x28

Shape: I

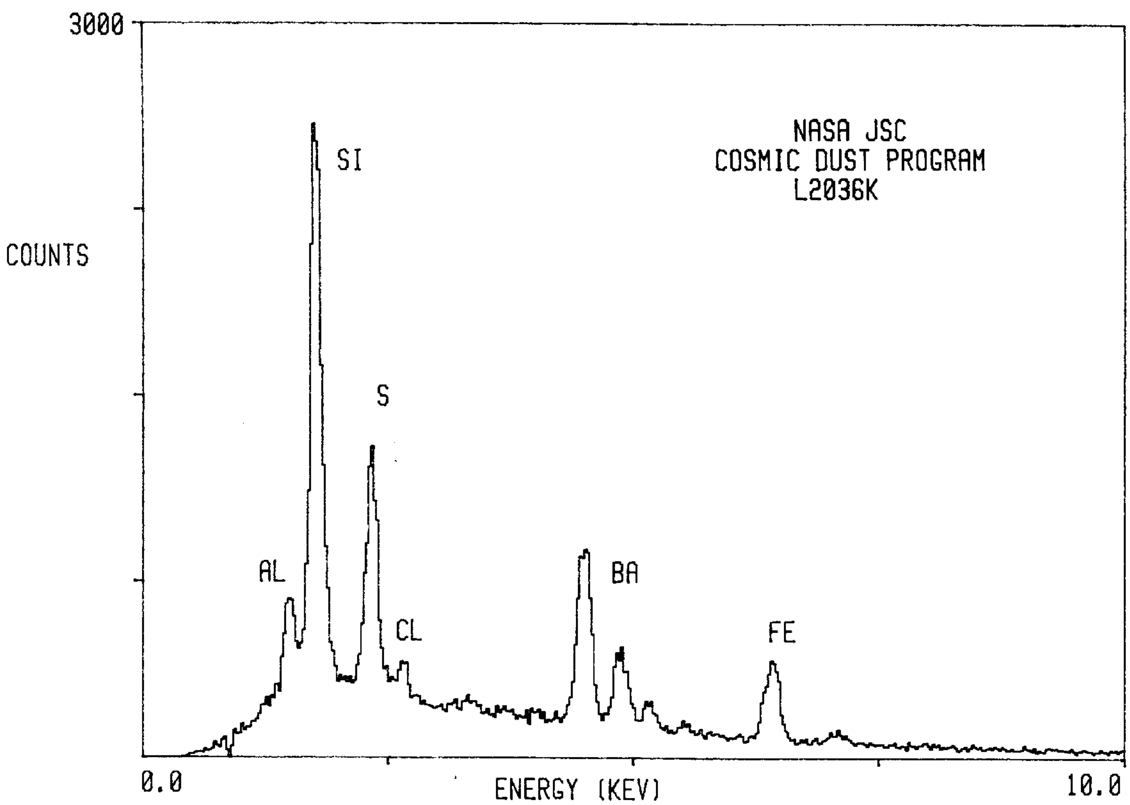
Trans: TL

Color: Colorless-White

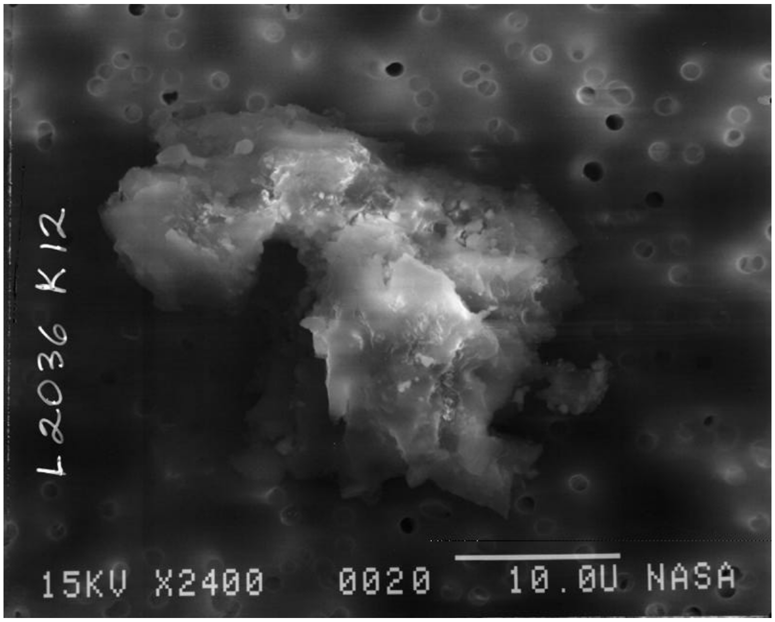
Luster: SV

Type: TCA

Comments:



L2036K12



97E00203

Size: 26x20

Shape: I

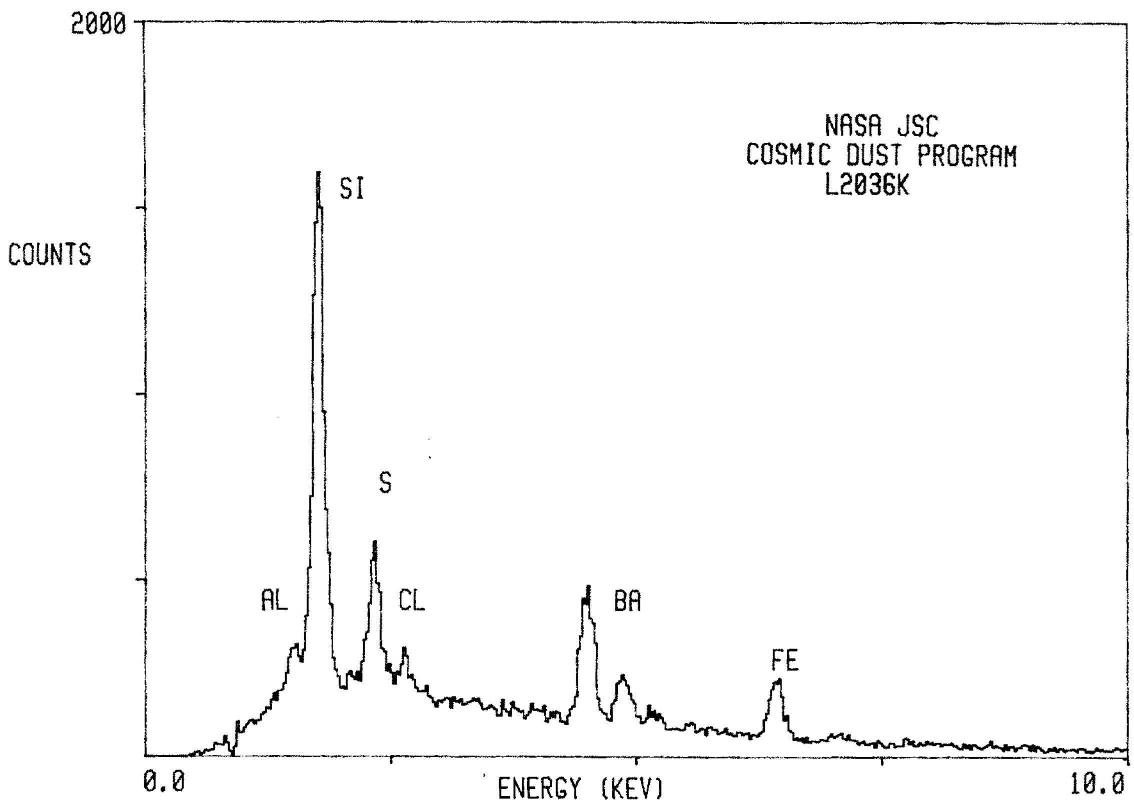
Trans: TL

Color: Colorless-White

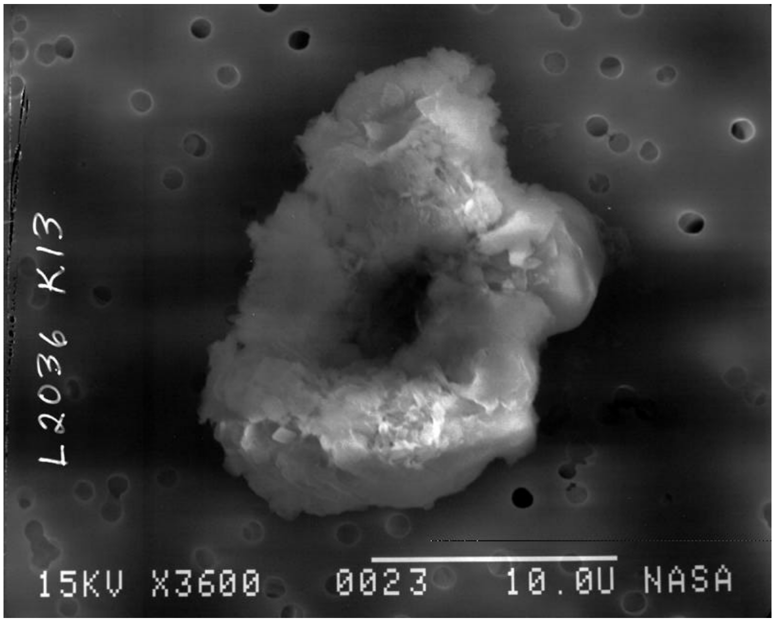
Luster: SV

Type: TCA

Comments:

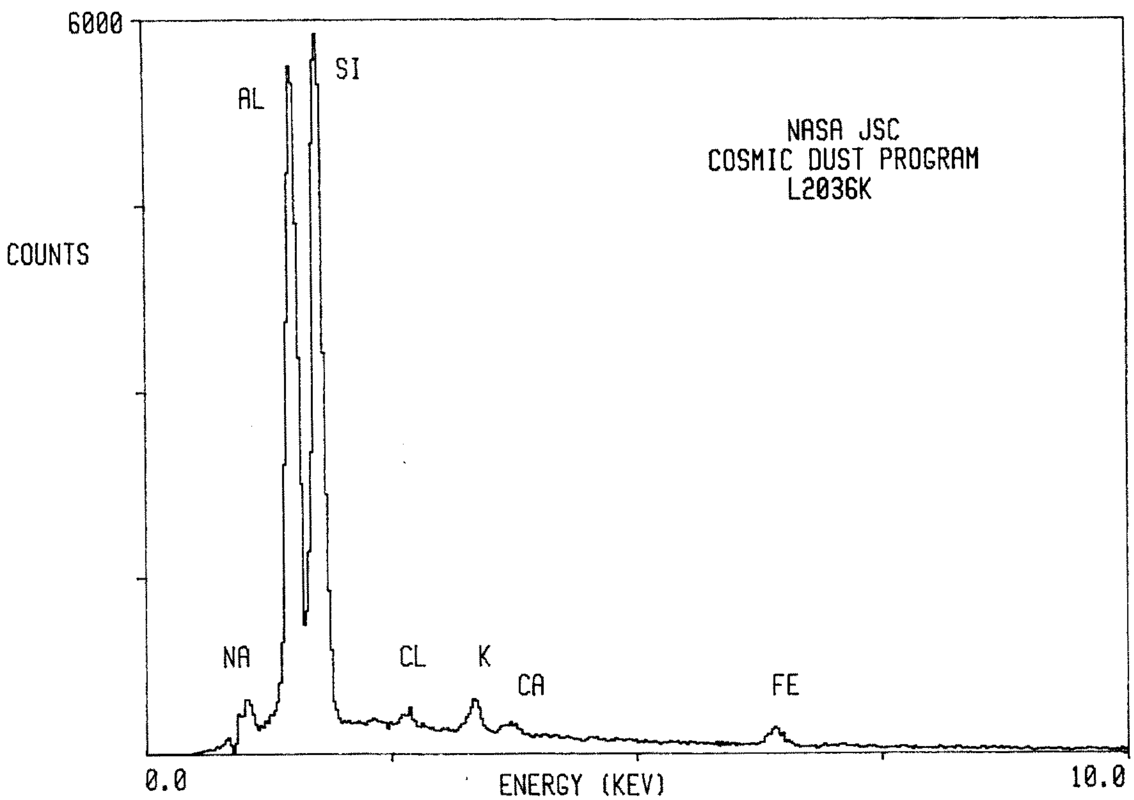


L2036K13

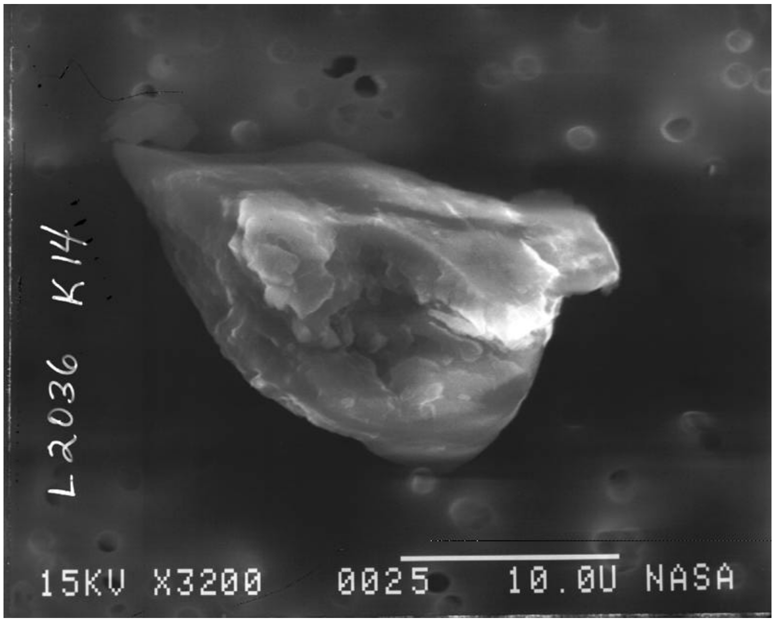


97E00204

Size: 18x12
Shape: I
Trans: TL
Color: White
Luster: SV
Type: TCA
Comments:



L2036K14



97E00205

Size: 22x12

Shape: I

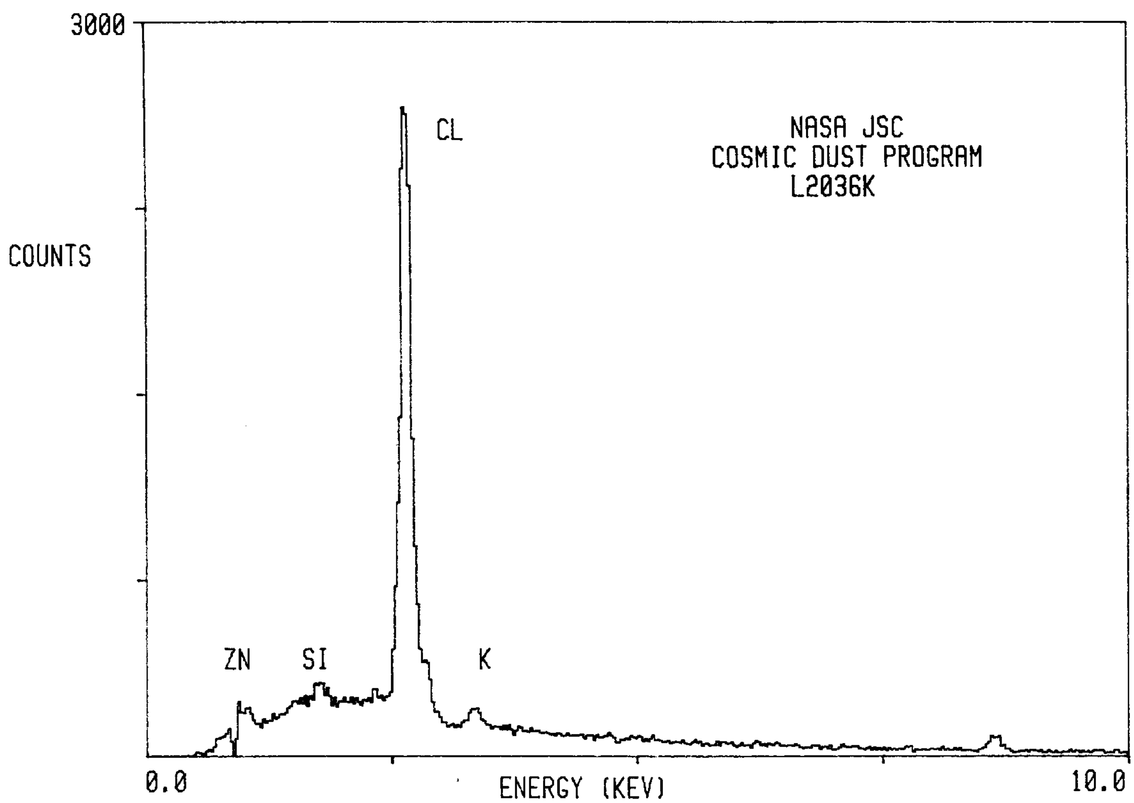
Trans: TL

Color: White

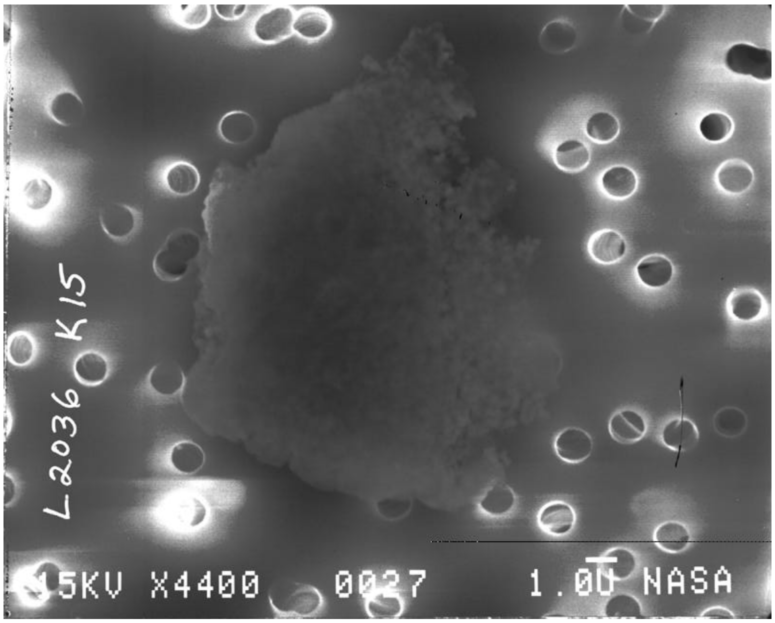
Luster: SV

Type: TCA

Comments:



L2036K15



97E00206

Size: 14x10

Shape: I

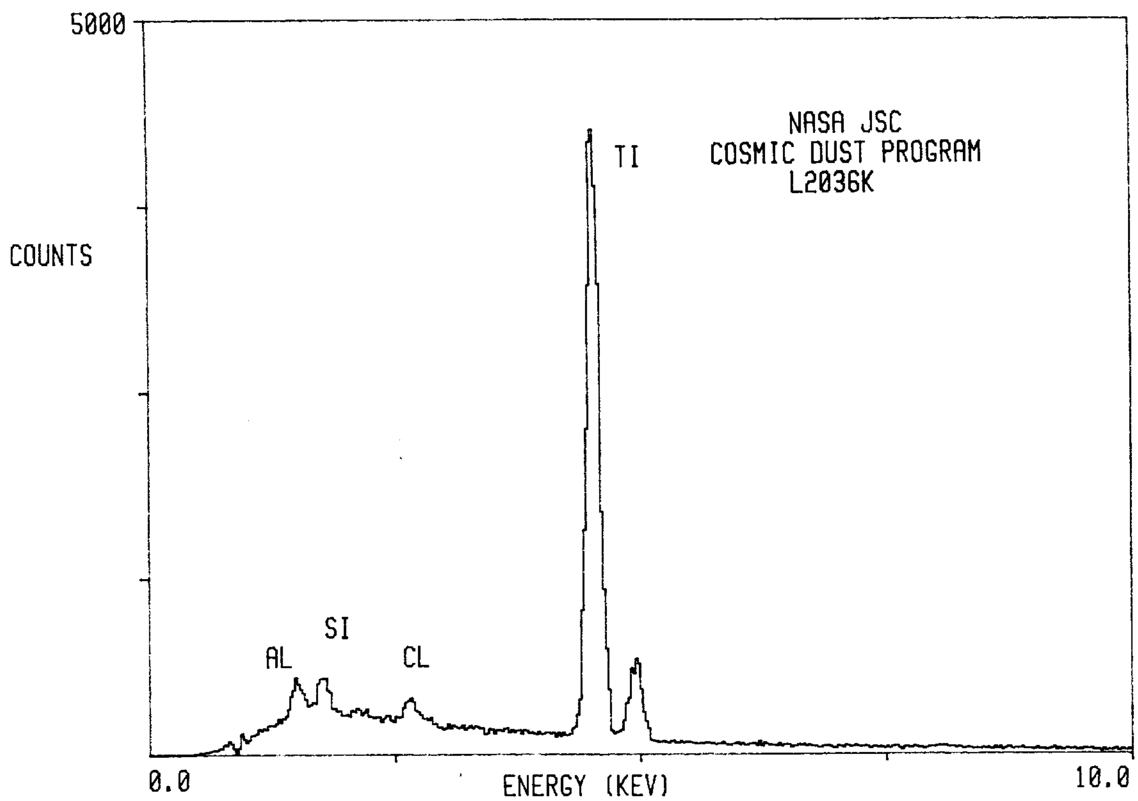
Trans: O

Color: Green

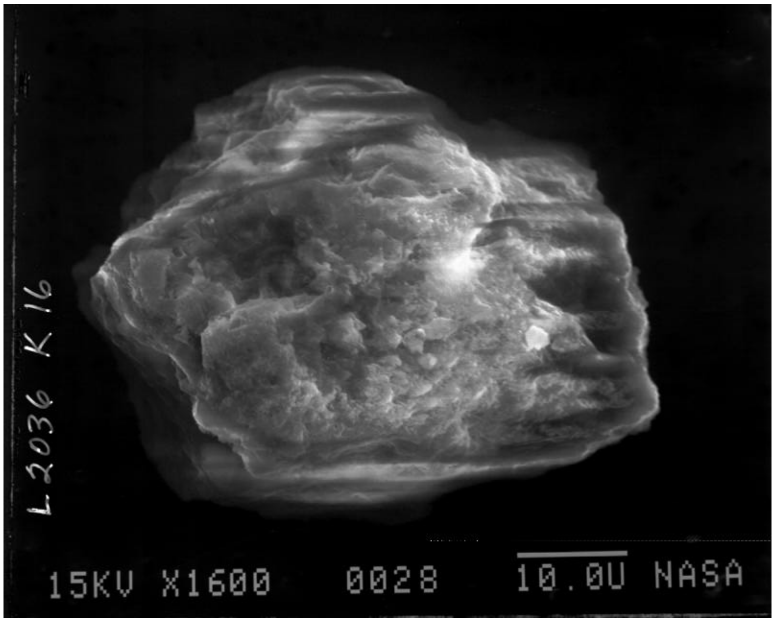
Luster: SV

Type: TCA

Comments:



L2036K16



97E00207

Size: 49x44

Shape: I

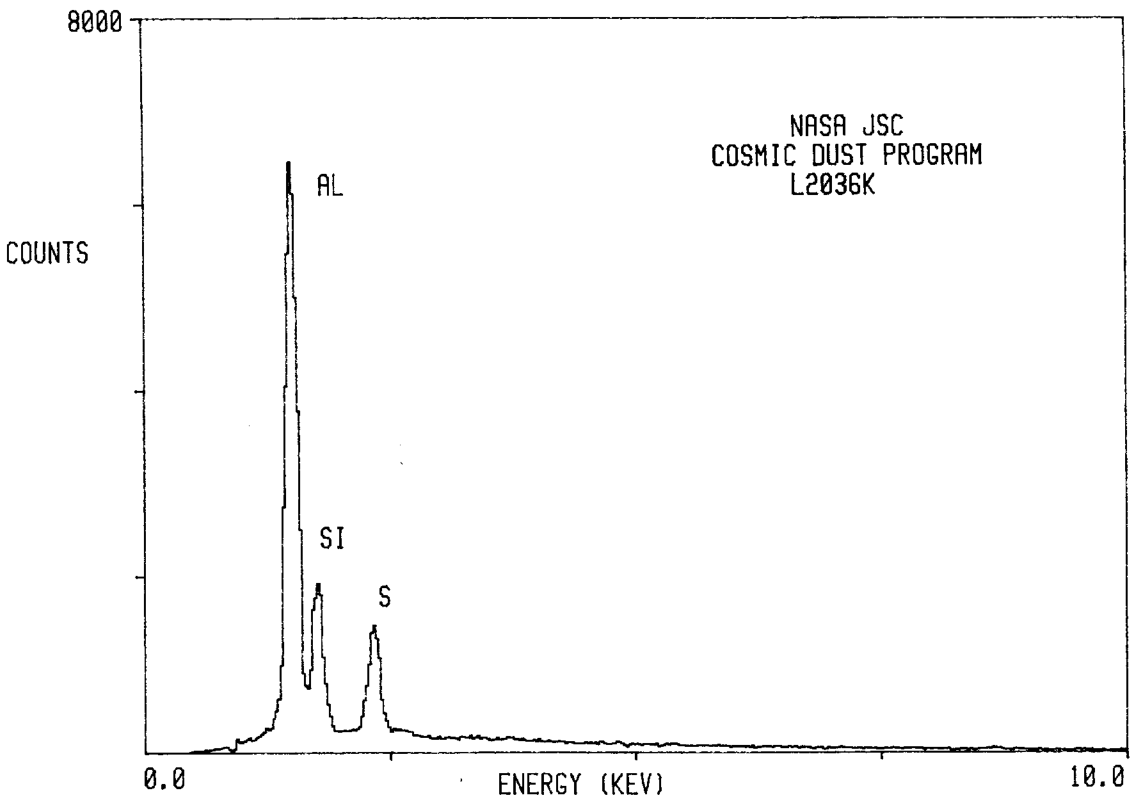
Trans: TL

Color: White

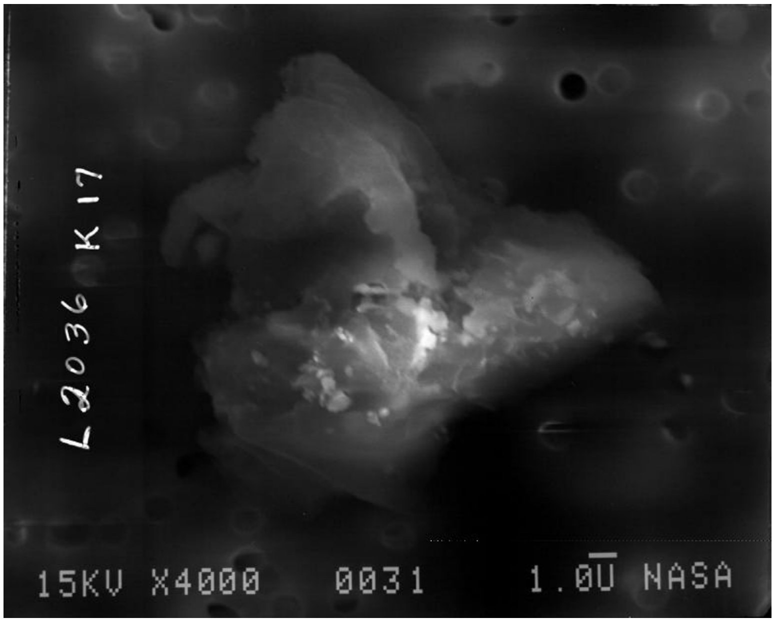
Luster: SV

Type: TCA

Comments:



L2036K17



97E00208

Size: 14x10

Shape: I

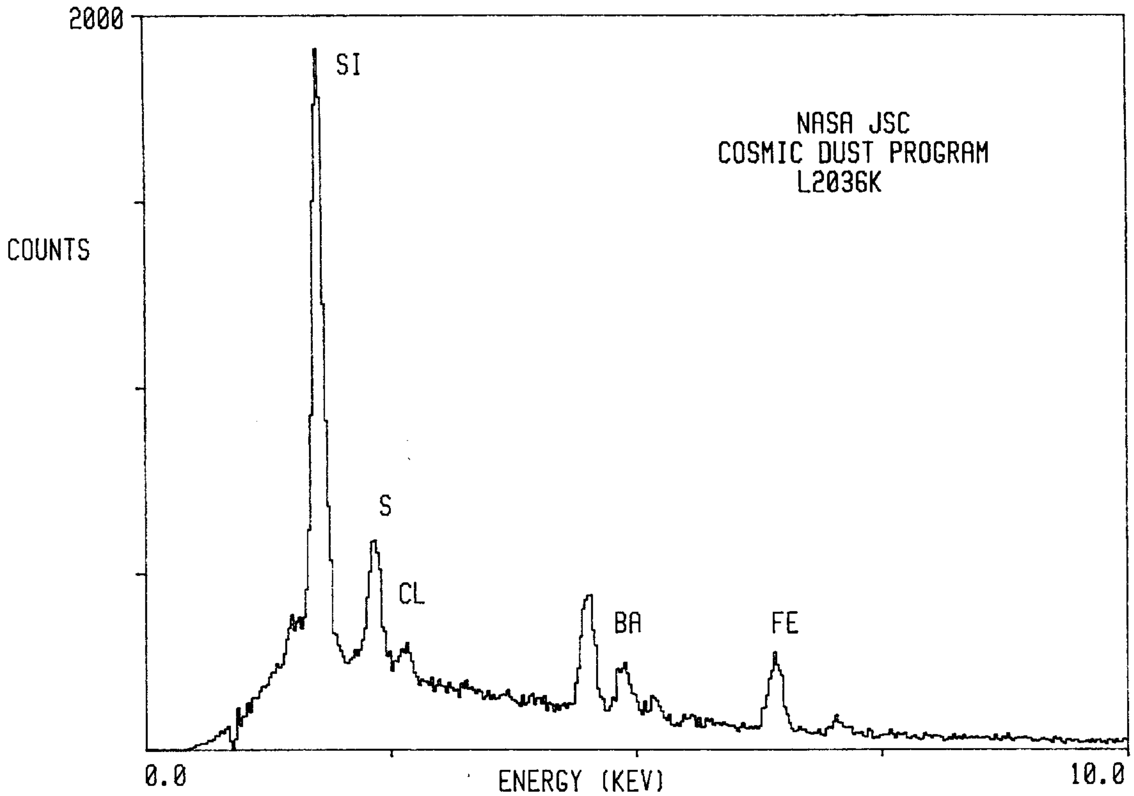
Trans: TL

Color: White

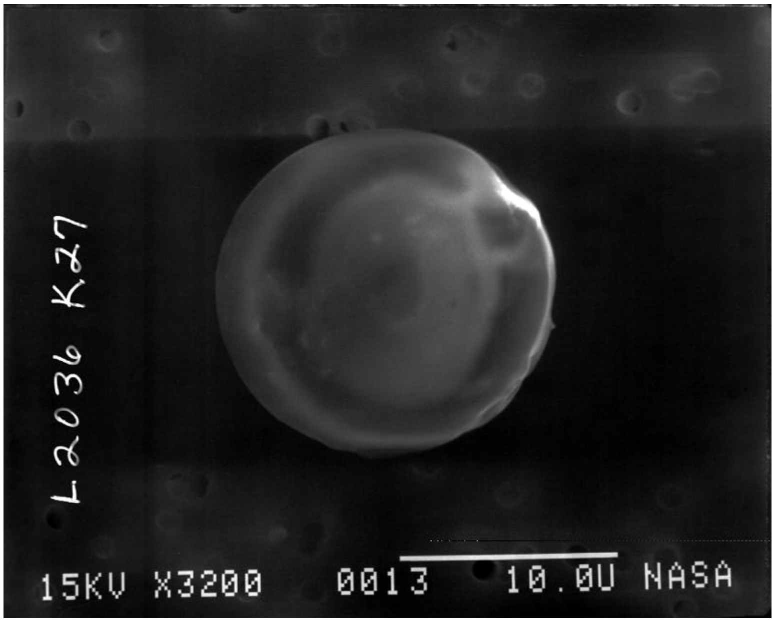
Luster: SV

Type: TCA

Comments:

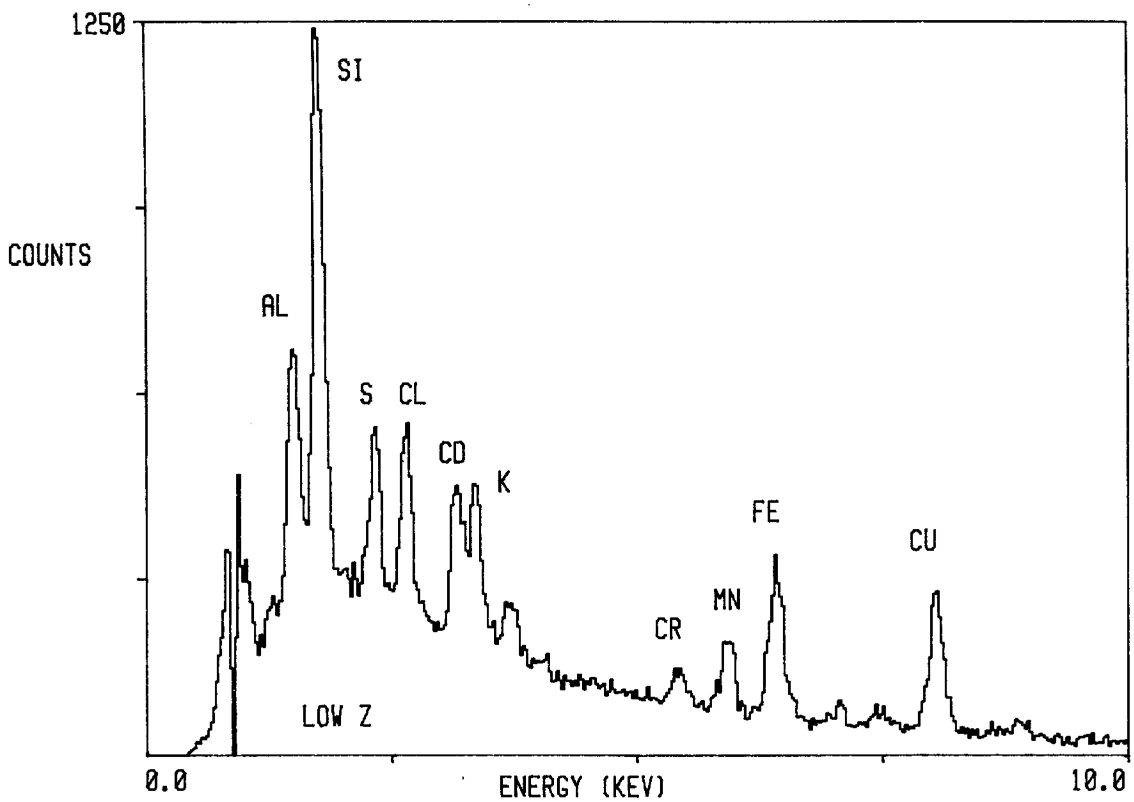


L2036K27

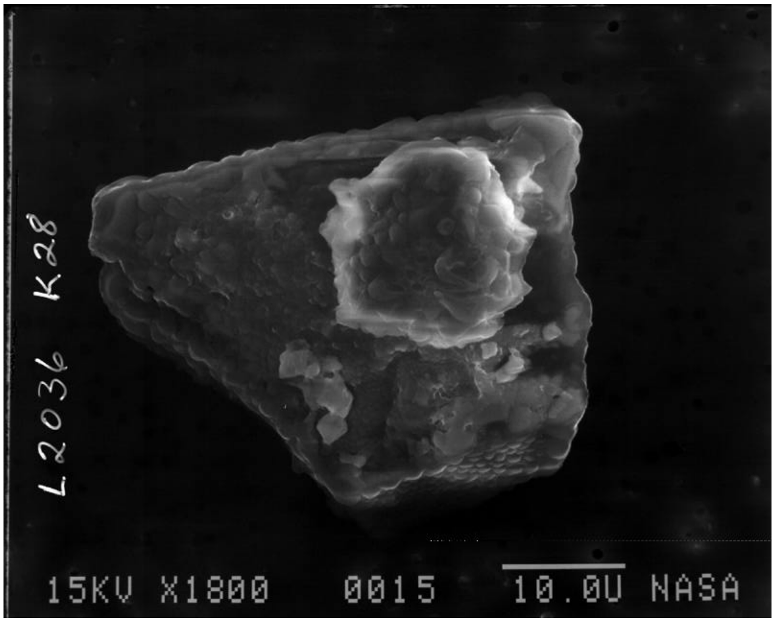


97E00218

Size:	14
Shape:	S
Trans:	TL
Color:	Colorless
Luster:	SV
Type:	TCA
Comments:	

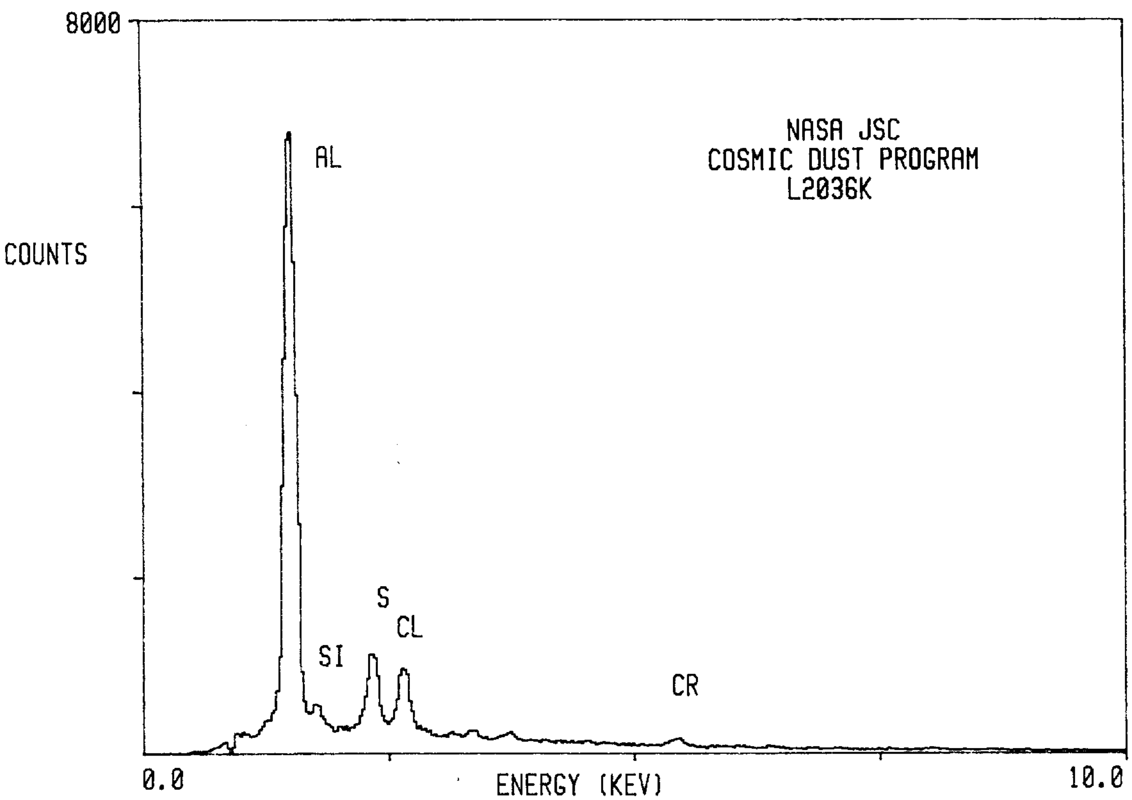


L2036K28

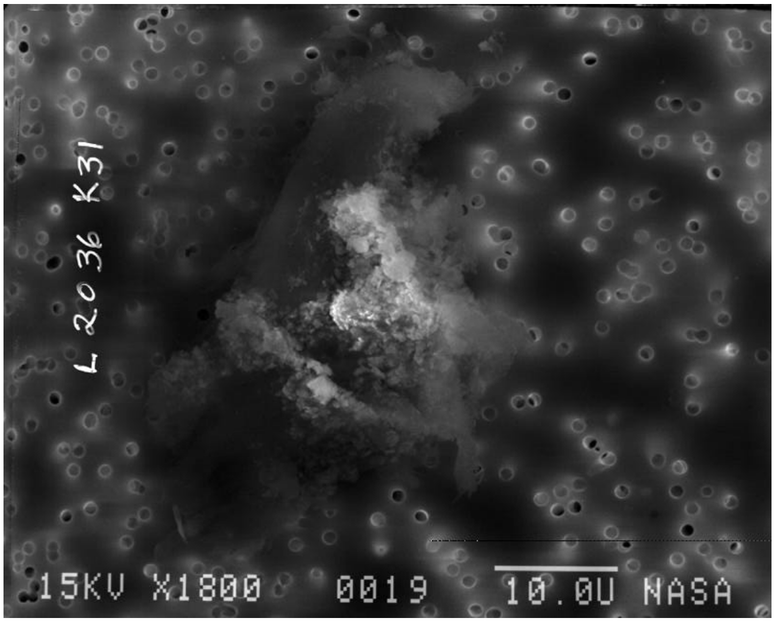


97E00219

Size: 40x30
Shape: I
Trans: TL
Color: White
Luster: SV
Type: TCA
Comments:

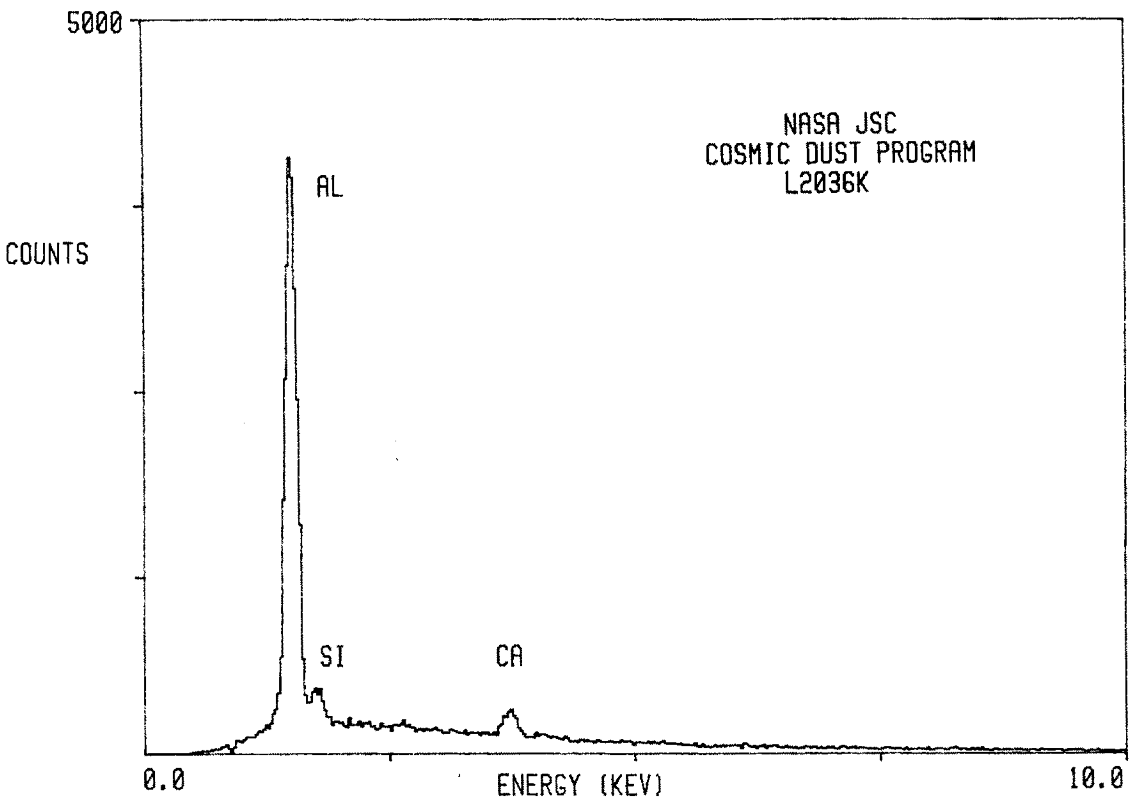


L2036K31

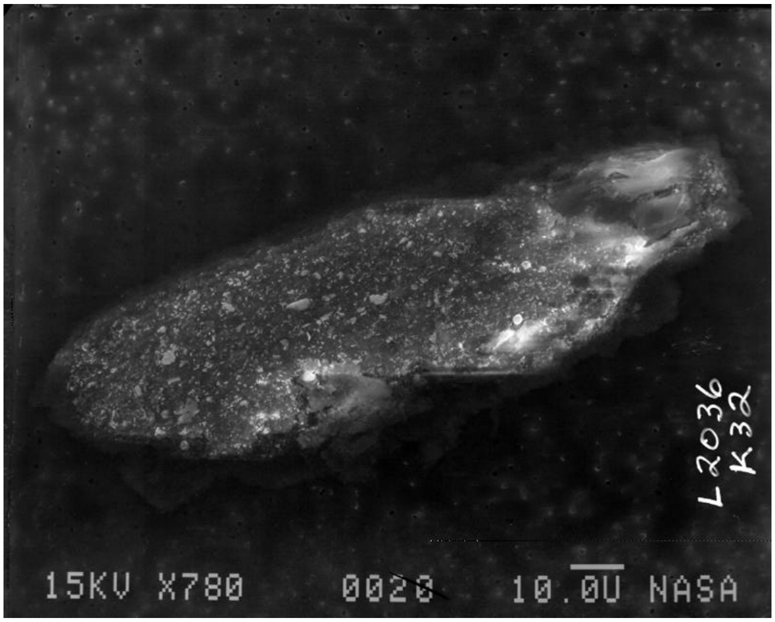


97E00222

Size: 42x22
Shape: I
Trans: TL
Color: White
Luster: SV
Type: TCA
Comments:

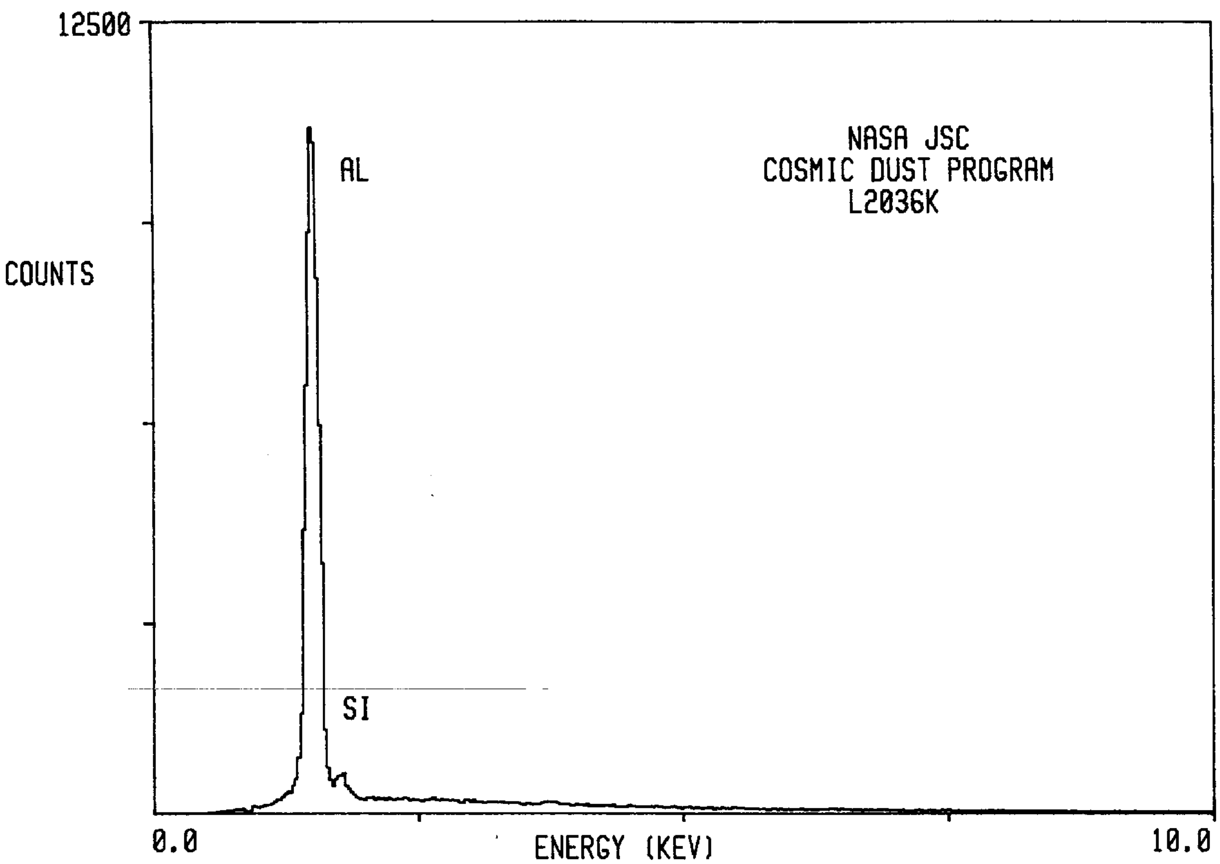


L2036K32

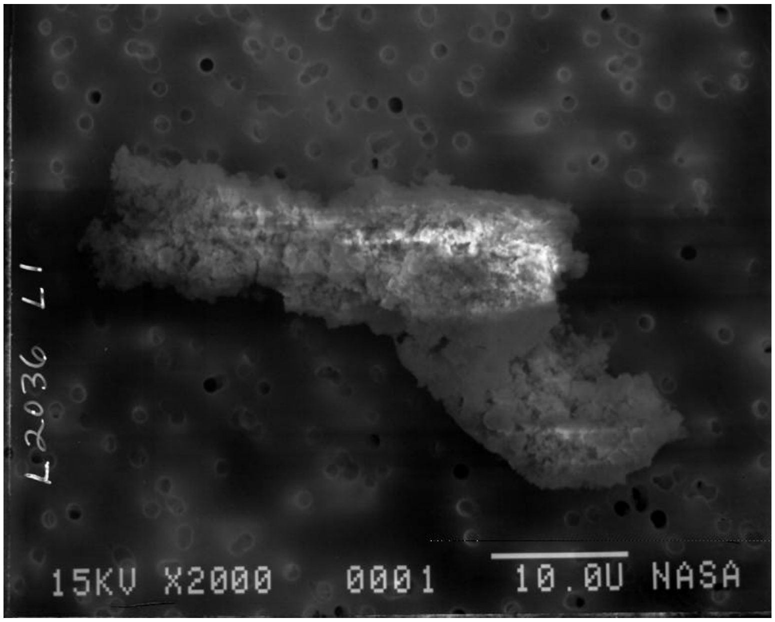


97E00223

Size: 130x48
Shape: I
Trans: TL
Color: White
Luster: SV
Type: TCA
Comments:

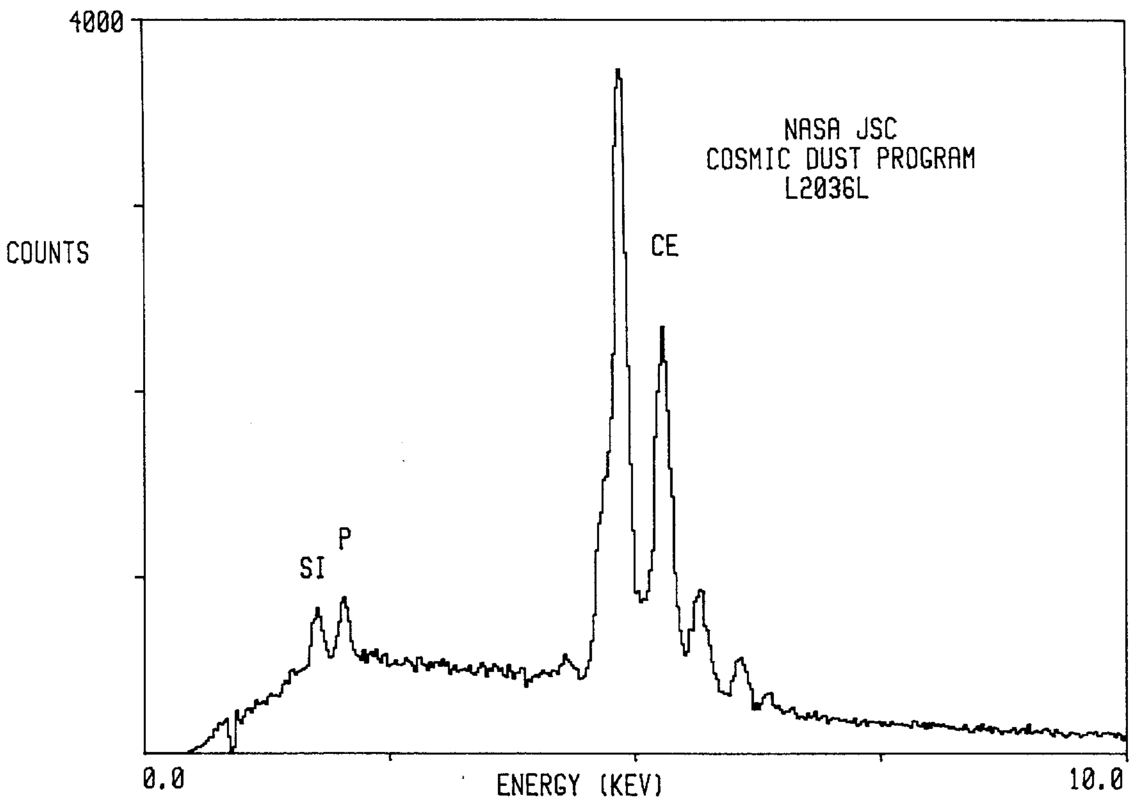


L2036L1

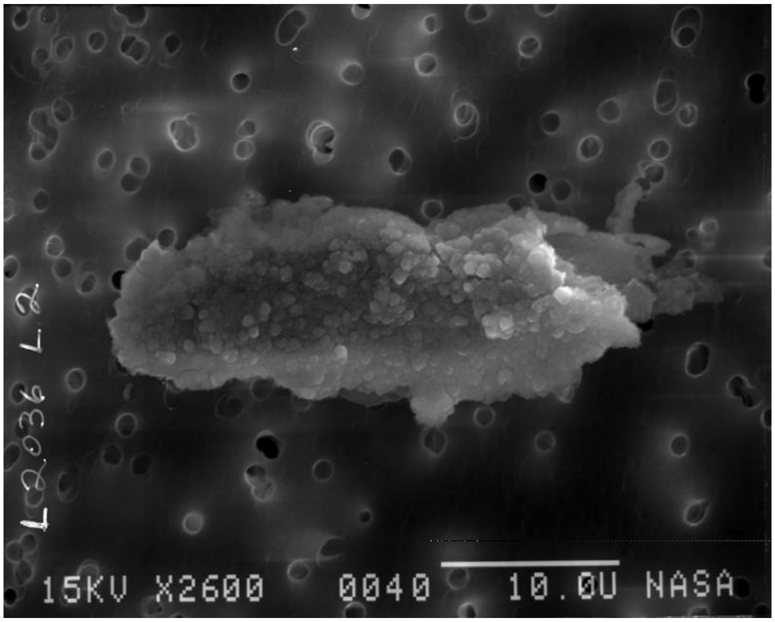


97E00224

Size:	40x18
Shape:	I
Trans:	TL
Color:	White
Luster:	SV
Type:	TCA
Comments:	



L2036L2



97E00225

Size: 30x10

Shape: I

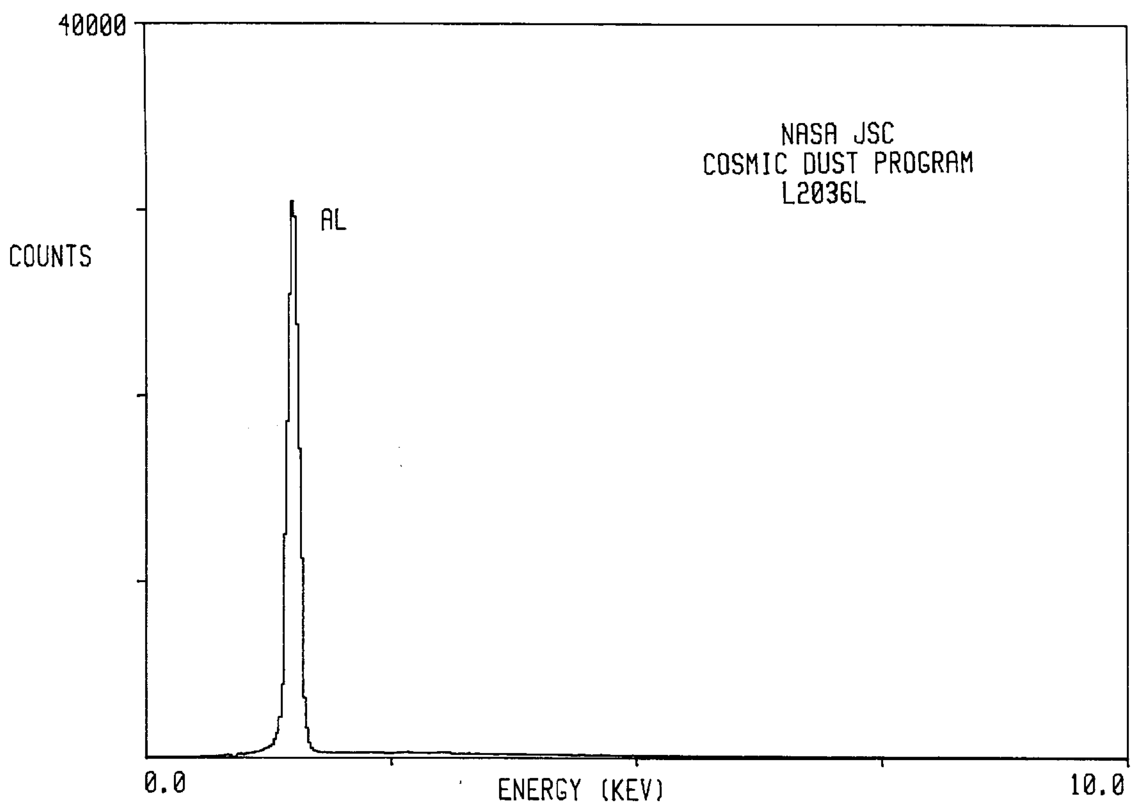
Trans: O

Color: Gray

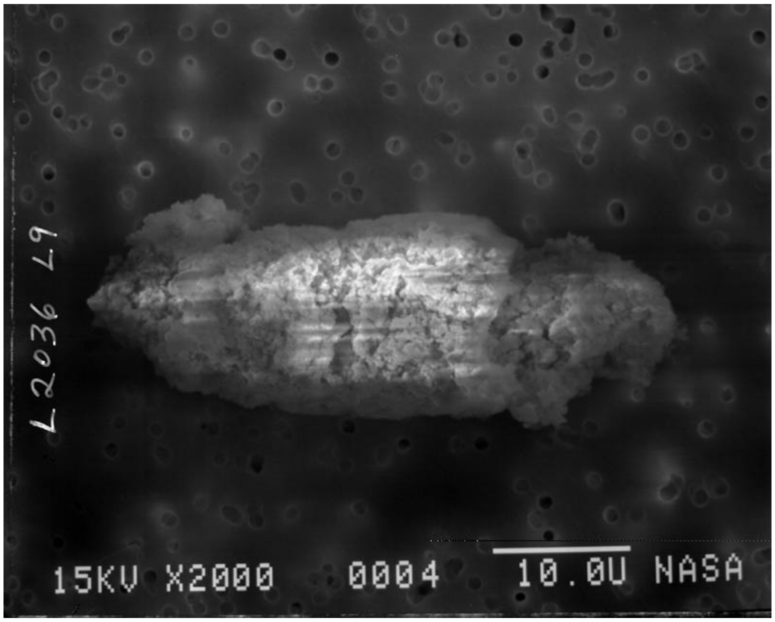
Luster: SV

Type: TCA

Comments:



L2036L9



97E00232

Size: 30x10

Shape: I

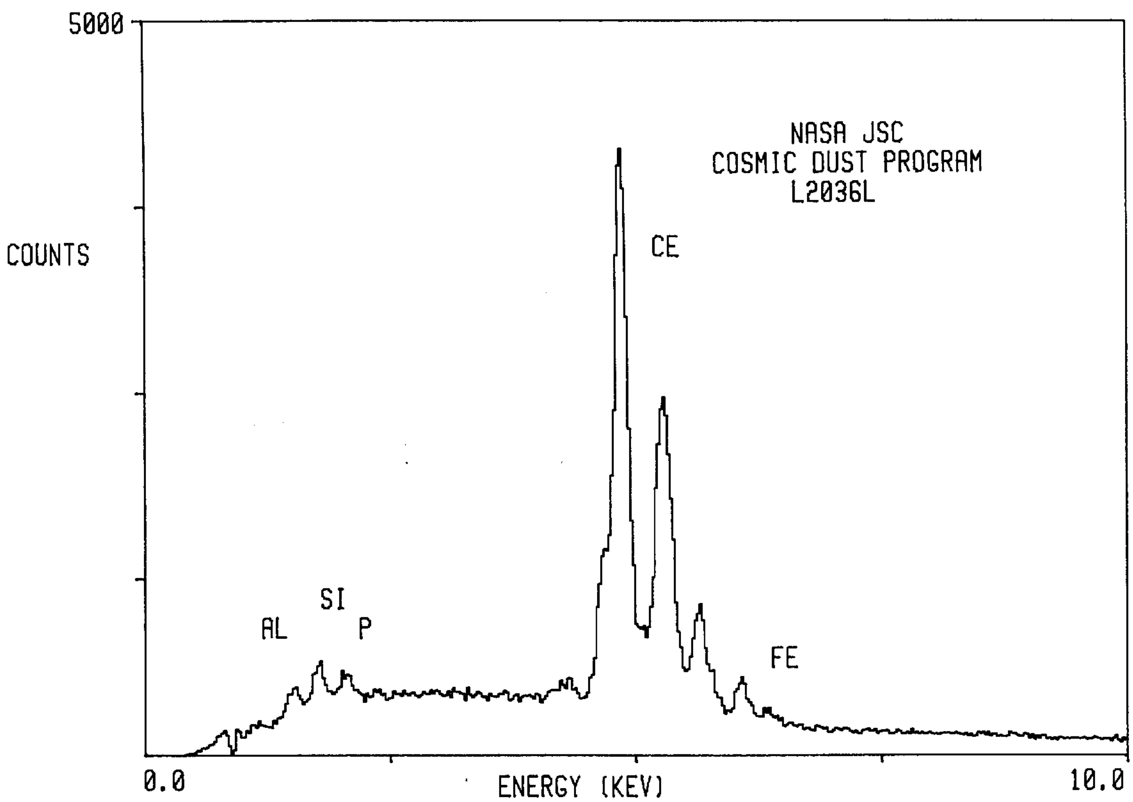
Trans: TL

Color: White

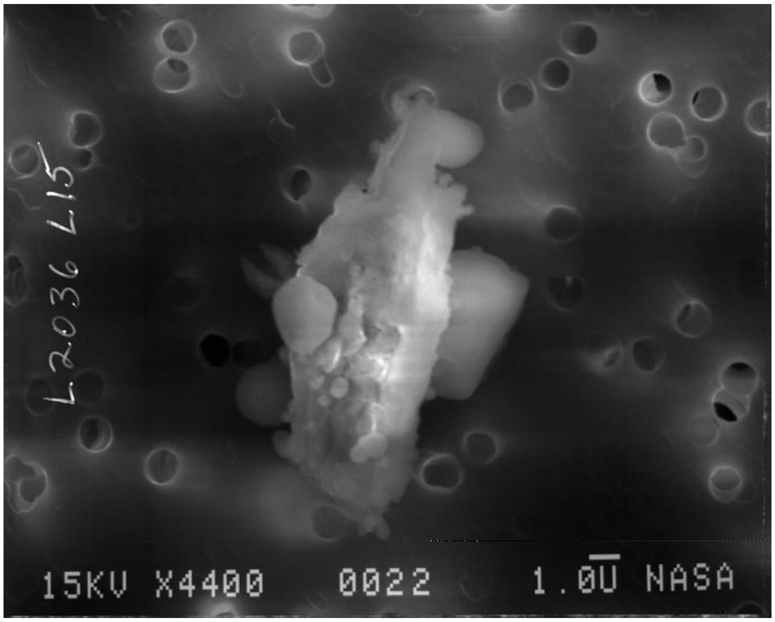
Luster: SV

Type: TCA

Comments:

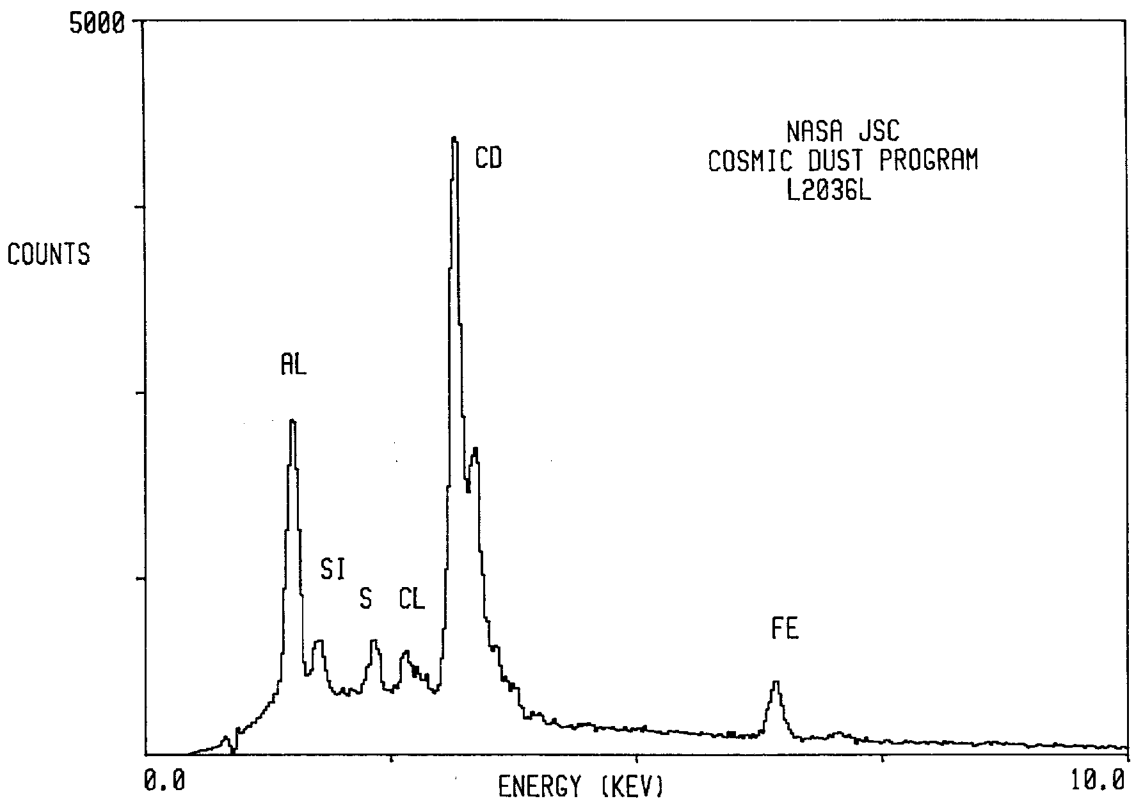


L2036L15

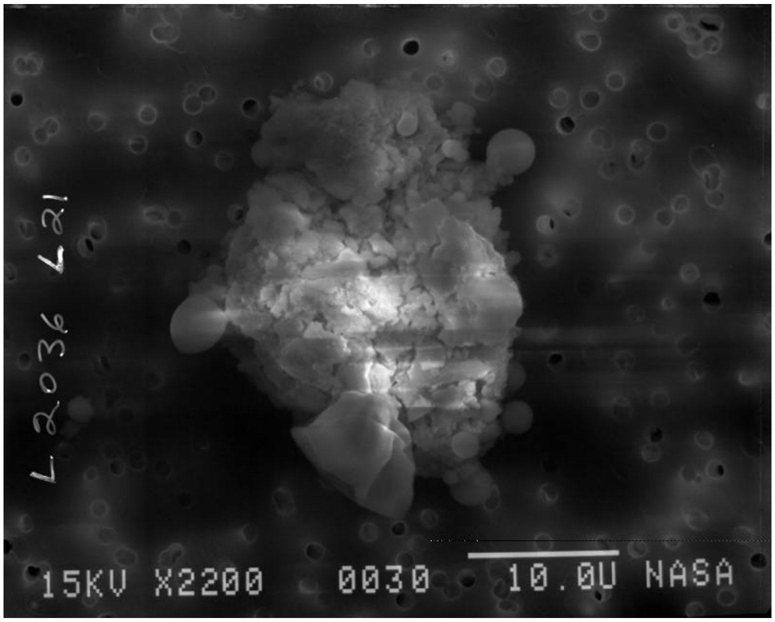


97E00238

Size:	12x7
Shape:	I
Trans:	TL
Color:	Colorless
Luster:	V
Type:	TCA
Comments:	



L2036L21



97E00244

Size: 33x25

Shape: I

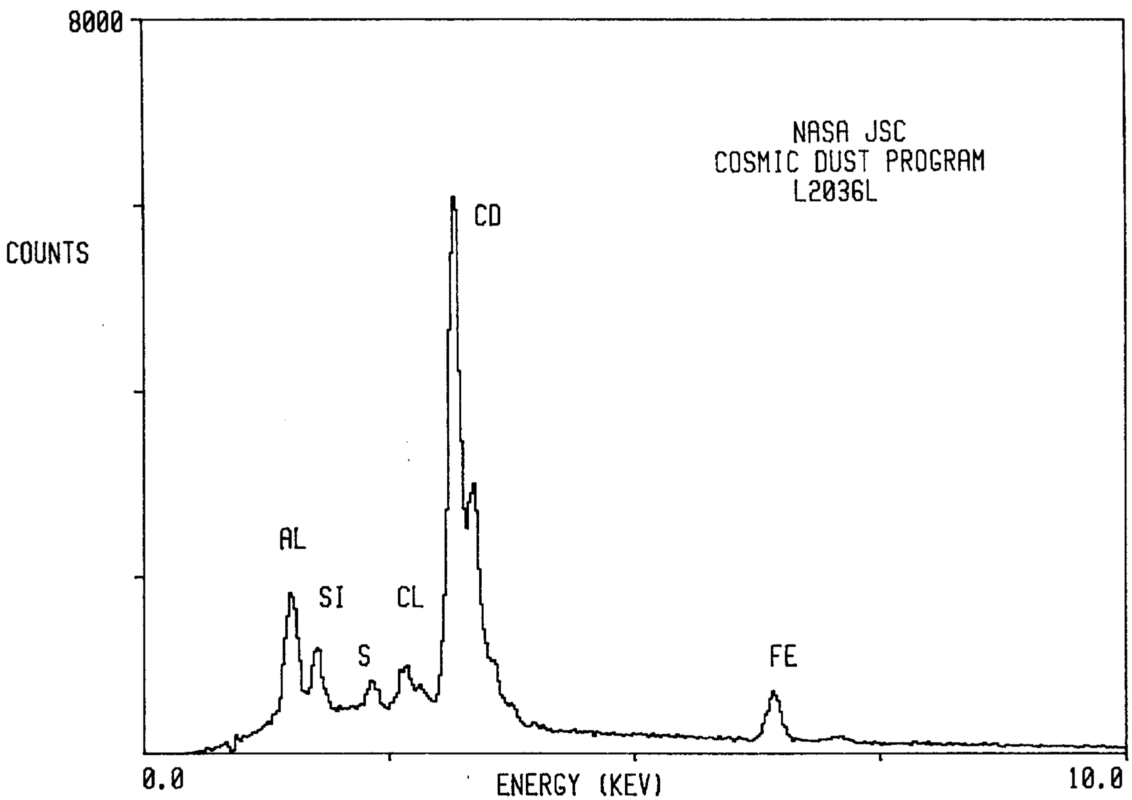
Trans: O/TL

Color: Colorless-Gray

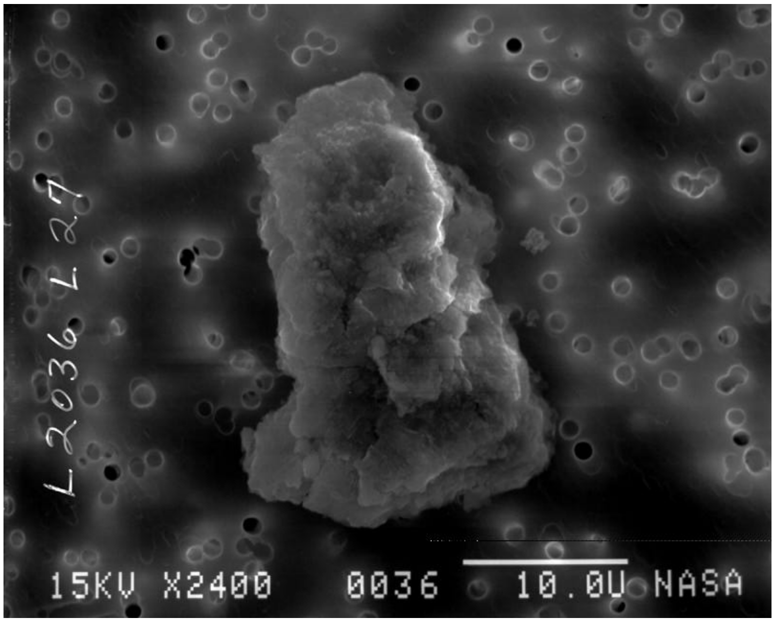
Luster: SV

Type: TCA

Comments:



L2036L27



97E00250

Size: 22x14

Shape: I

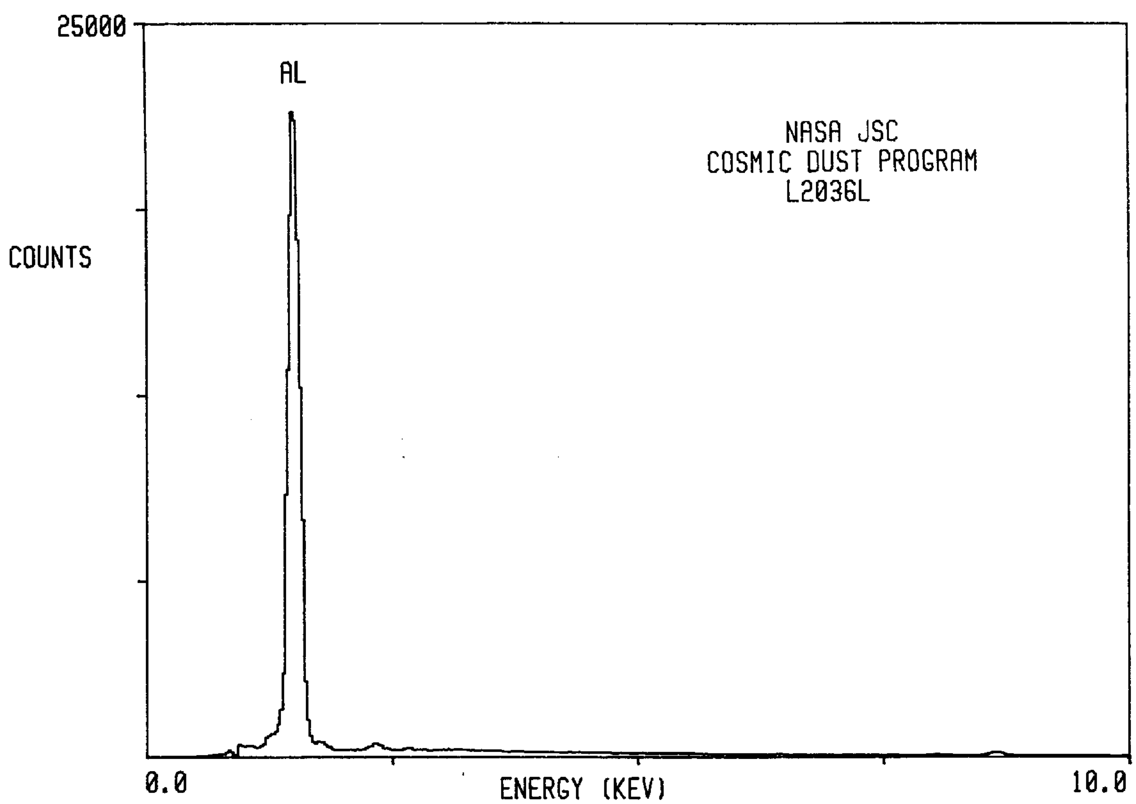
Trans: O

Color: Black

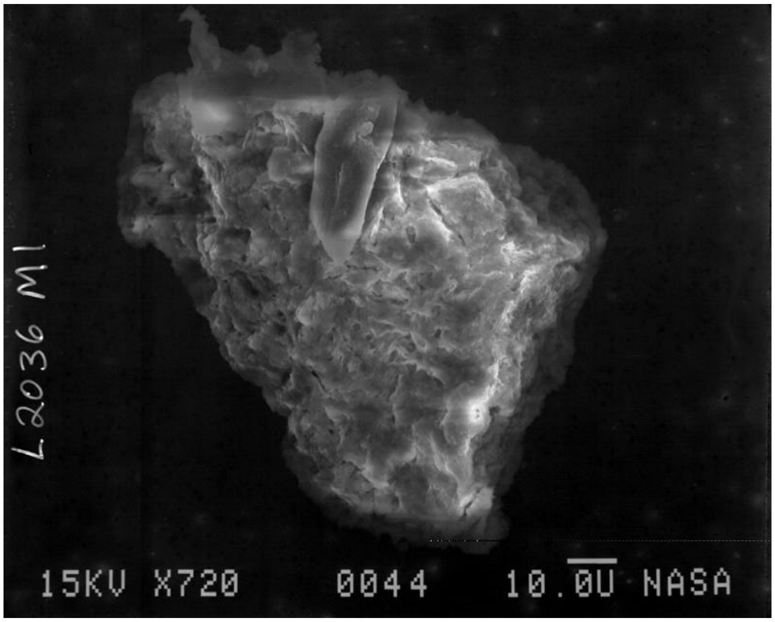
Luster: D

Type: TCA

Comments:



L2036M1



97E00252

Size: 111x80

Shape: I

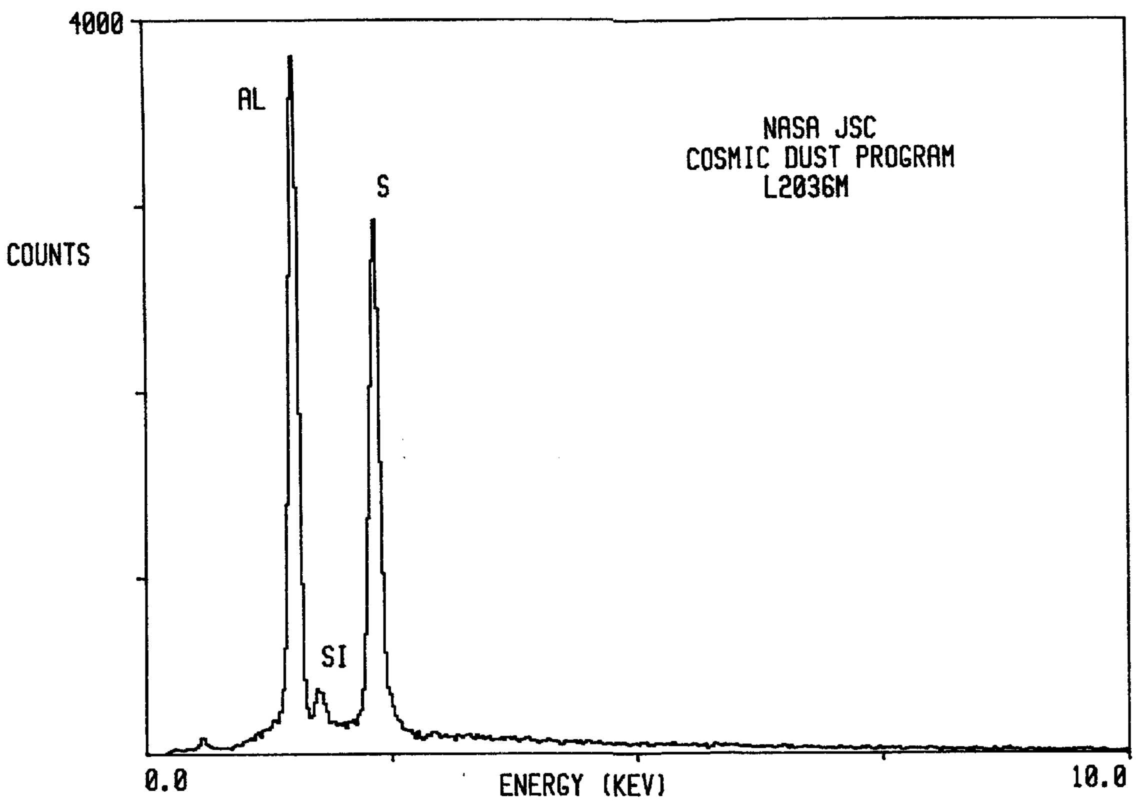
Trans: O

Color: White

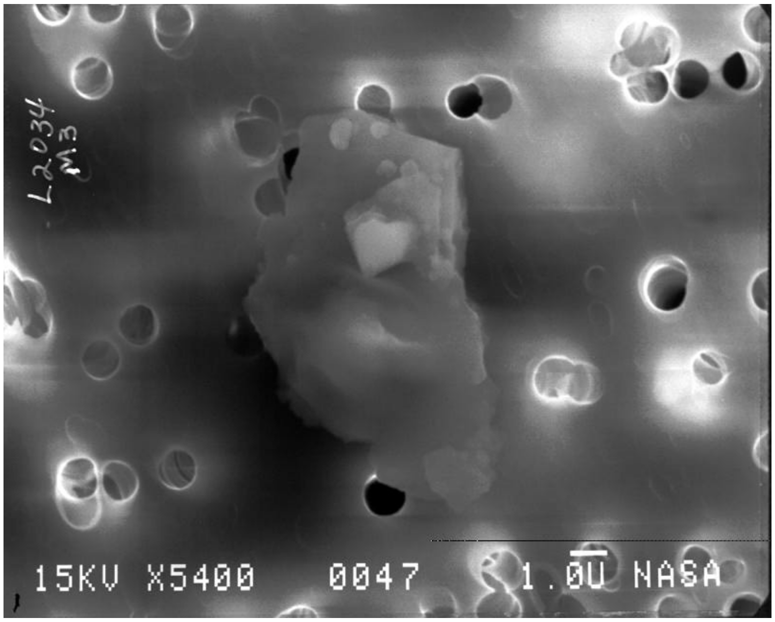
Luster: SV

Type: TCA

Comments:

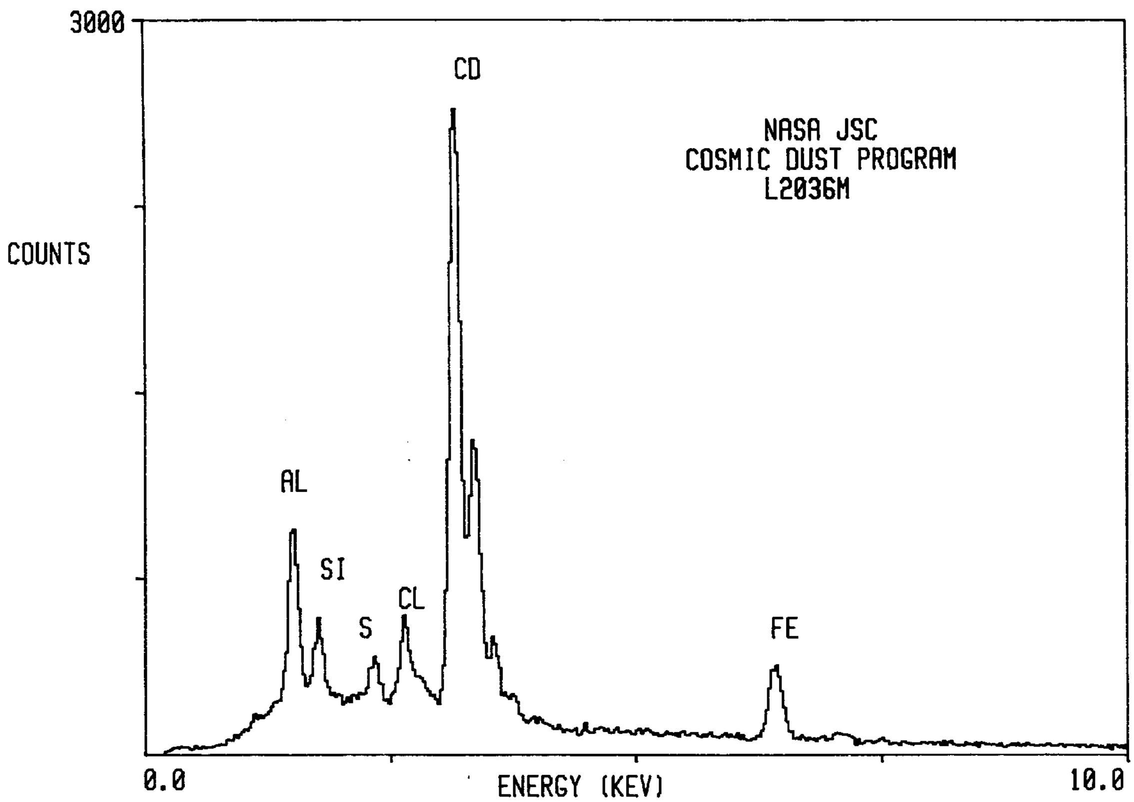


L2036M3

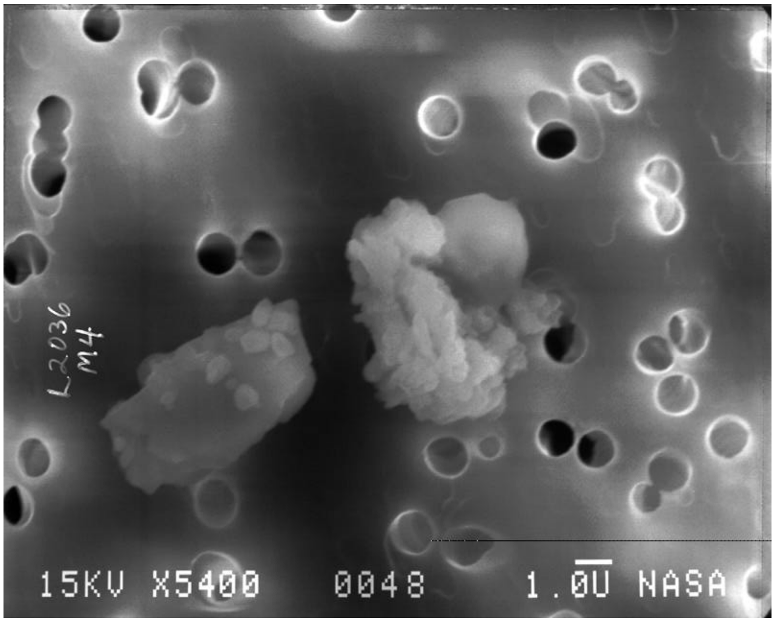


97E00254

Size:	12x8
Shape:	I
Trans:	T
Color:	Colorless
Luster:	V
Type:	TCA
Comments:	



L2036M4



97E00255

Size: 12x6

Shape: I

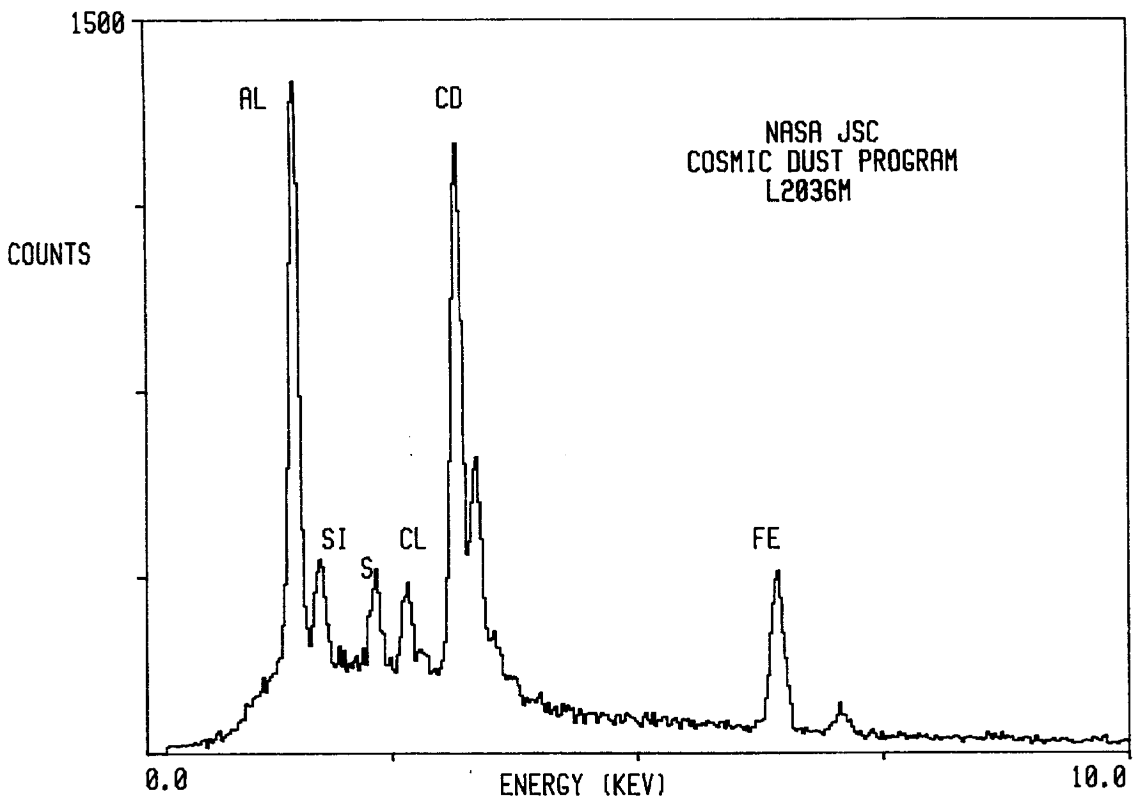
Trans: T

Color: Colorless

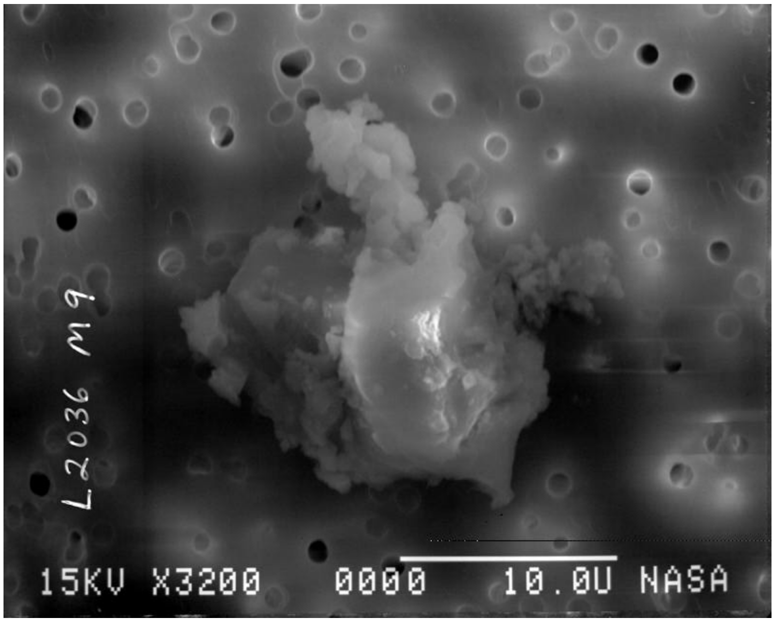
Luster: V

Type: TCA

Comments:



L2036M9



97E00260

Size: 15x12

Shape: I

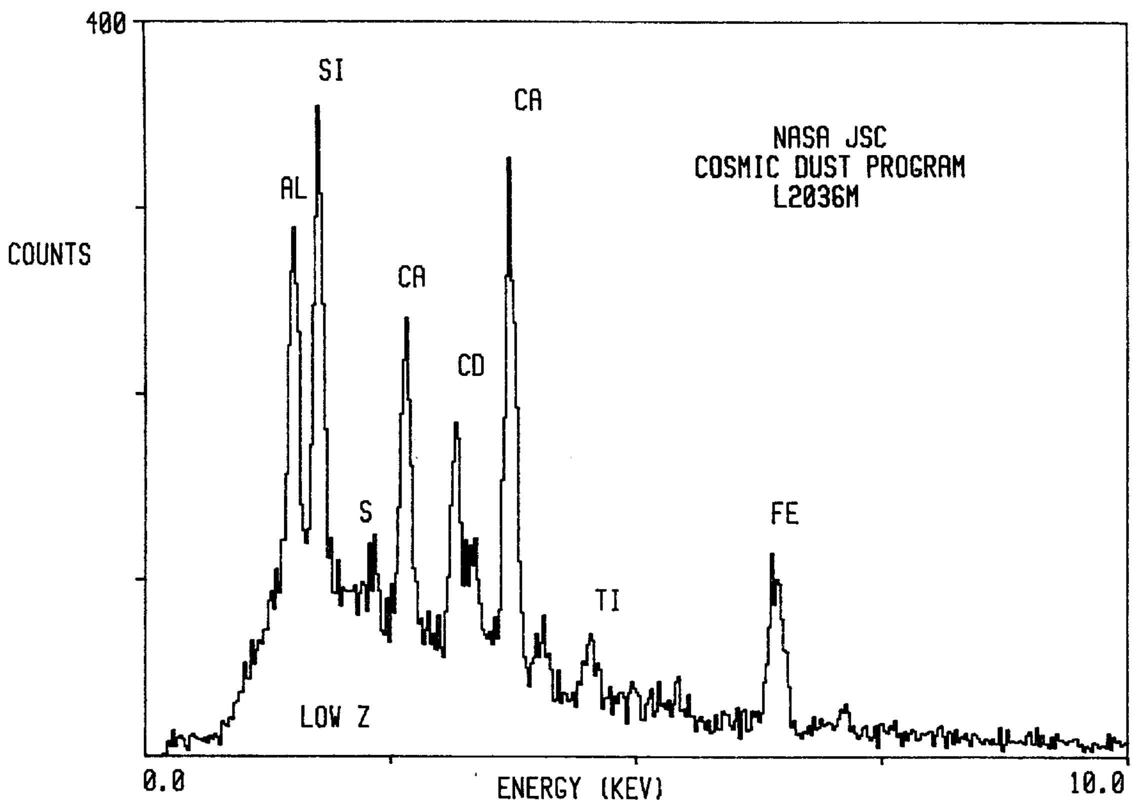
Trans: O

Color: White

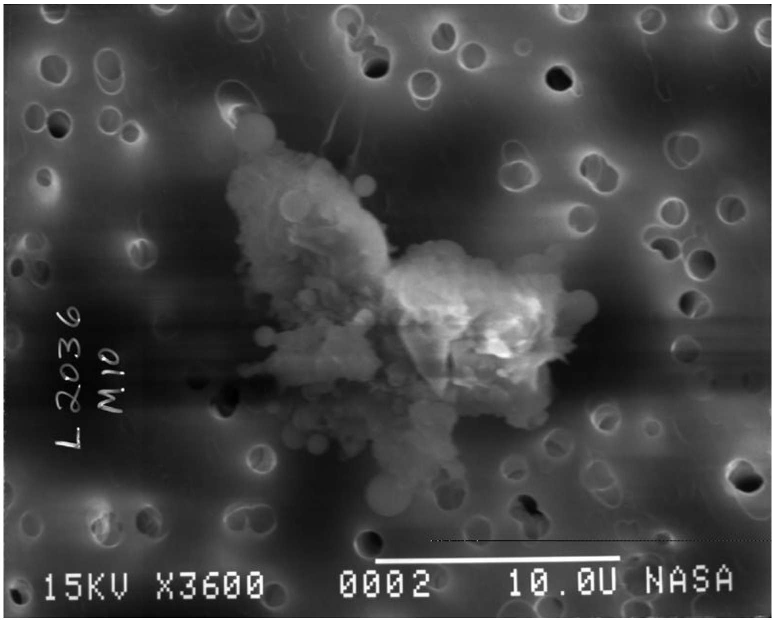
Luster: SV

Type: TCA

Comments:



L2036M10



97E00261

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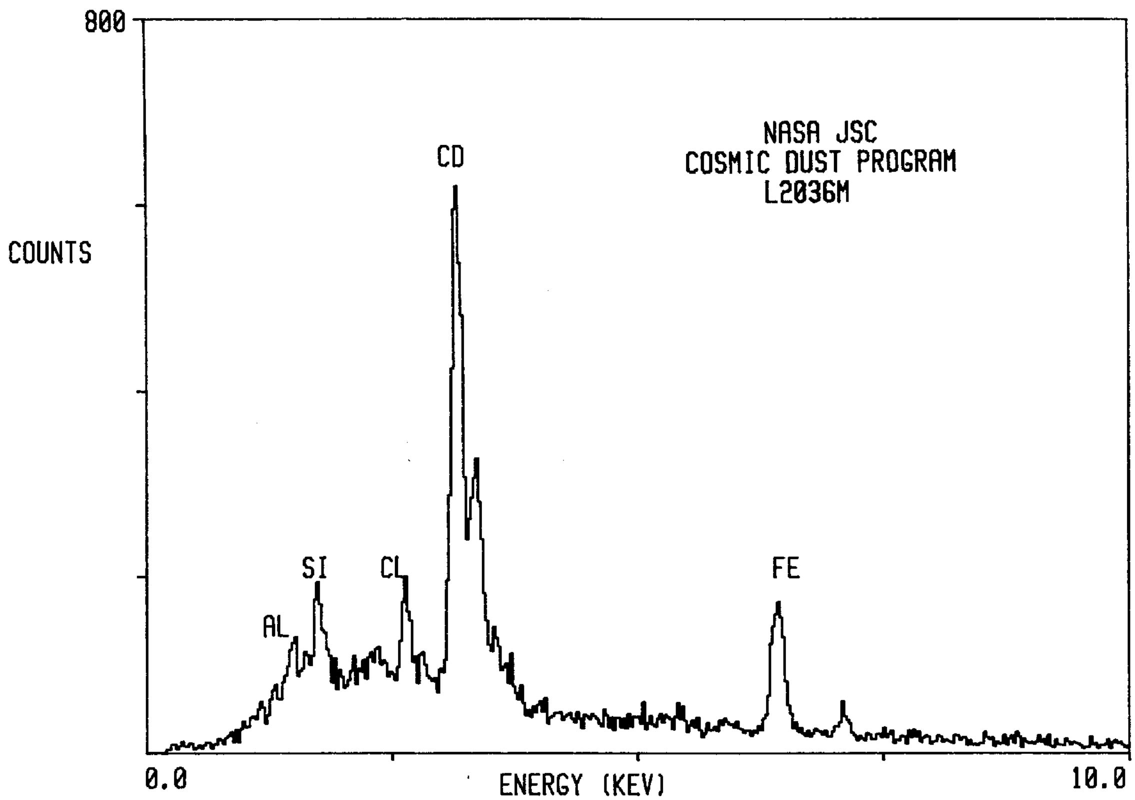
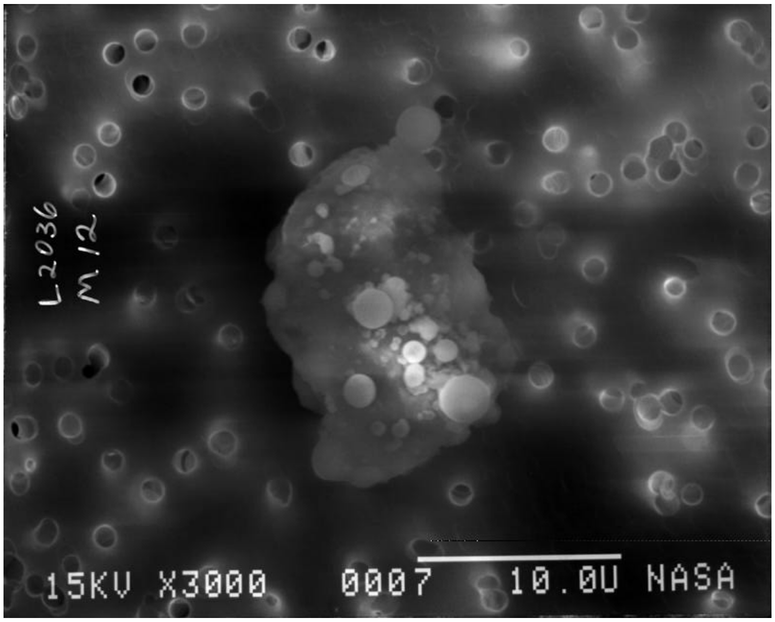
Shape:	I
Trans:	T
Color:	Colorless
Luster:	V
Type:	TCA
Comments:	



L2036M12



97E00263

Size: 15x10

Shape: I

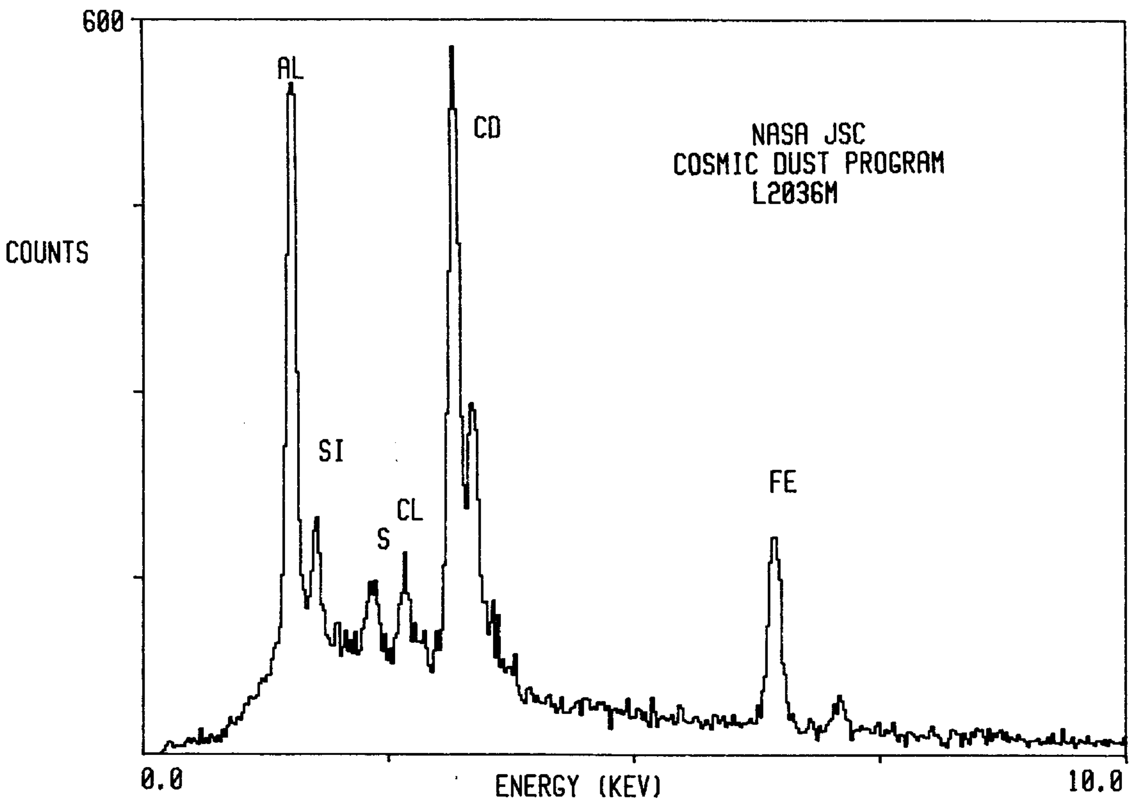
Trans: T

Color: Colorless

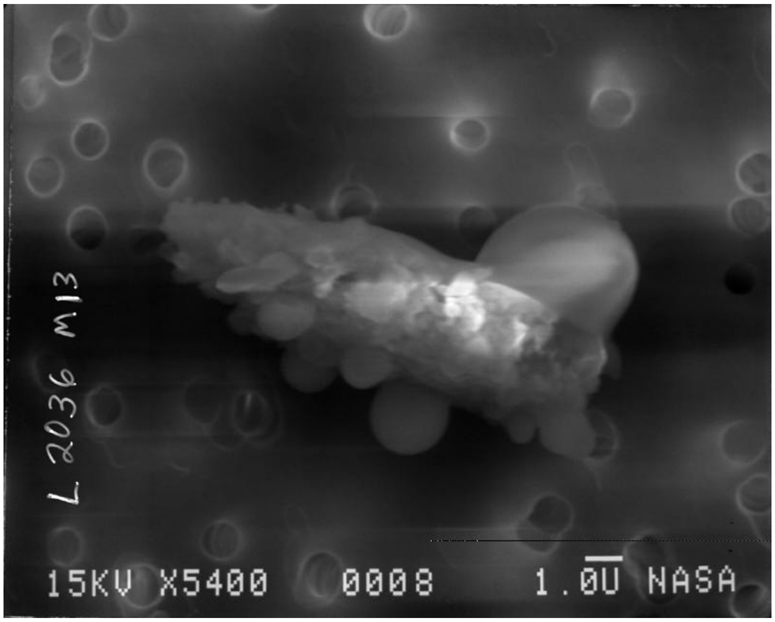
Luster: V

Type: TCA

Comments:

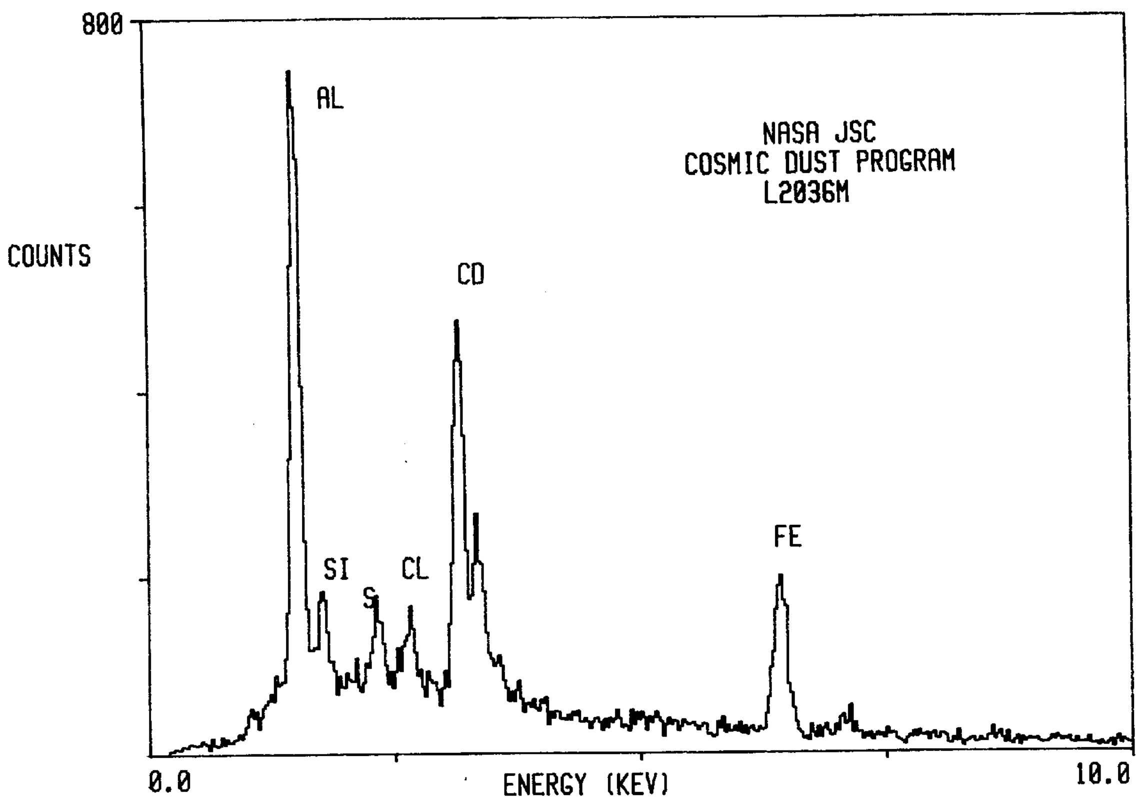


L2036M13

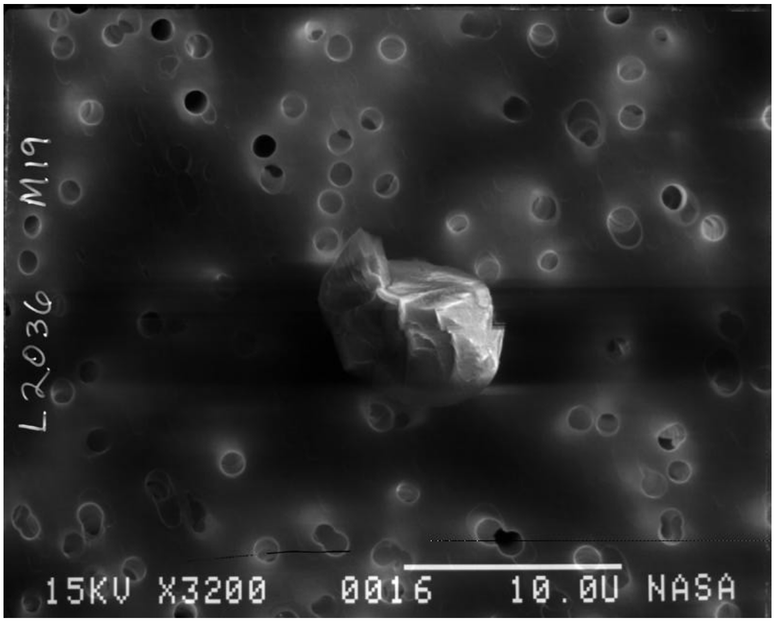


97E00264

Size:	12x5
Shape:	I
Trans:	T
Color:	Colorless
Luster:	V
Type:	TCA
Comments:	



L2036M19



97E00270

Size: 6x5

Shape: I

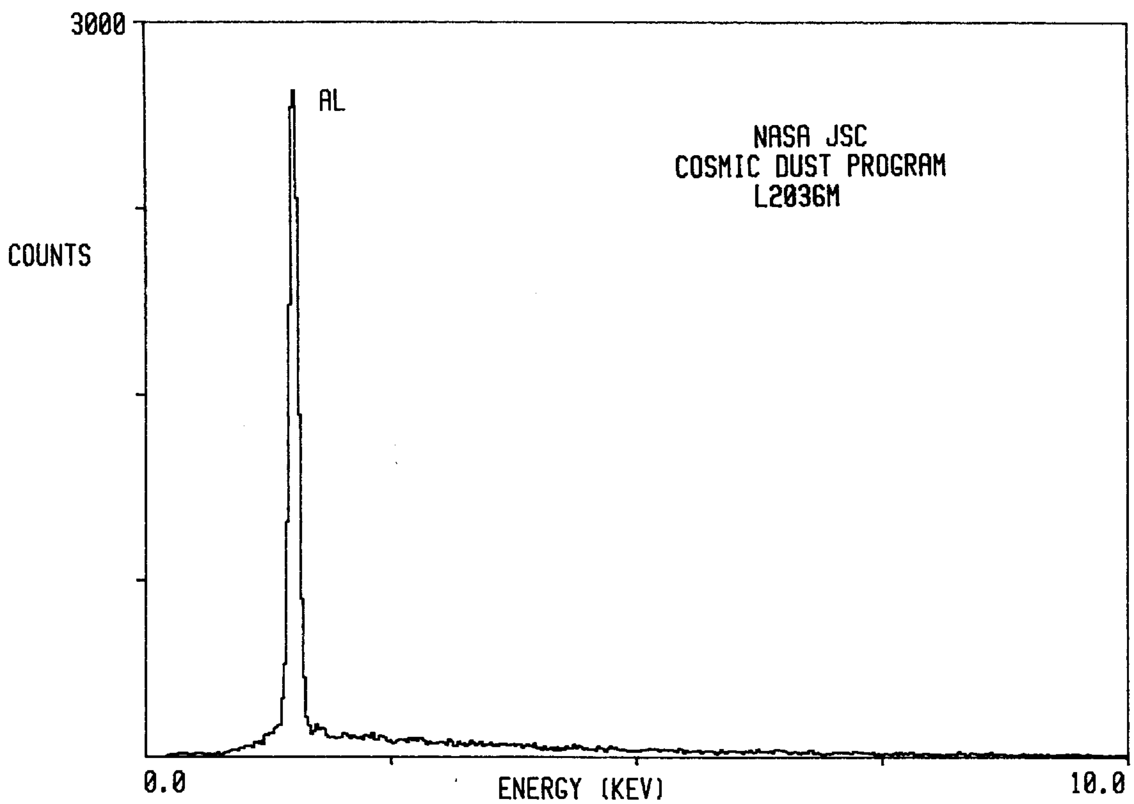
Trans: T

Color: Colorless

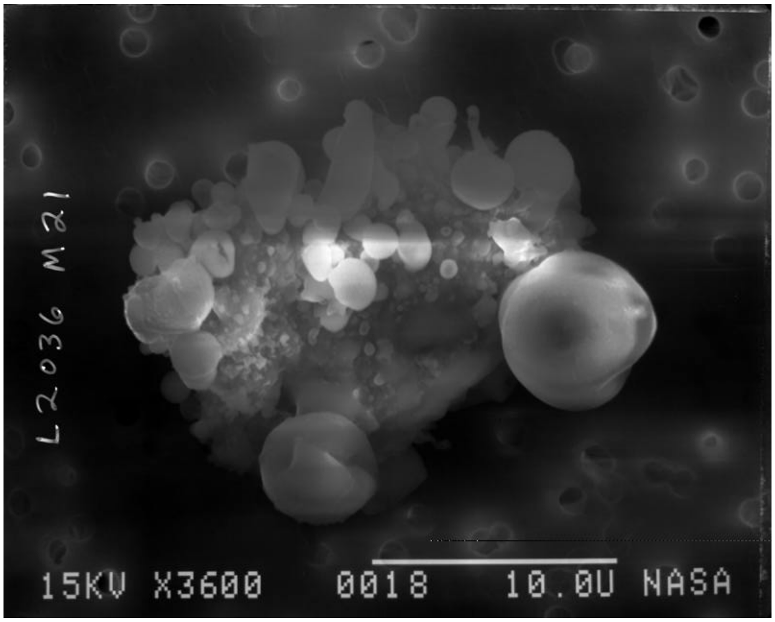
Luster: V

Type: TCA

Comments:

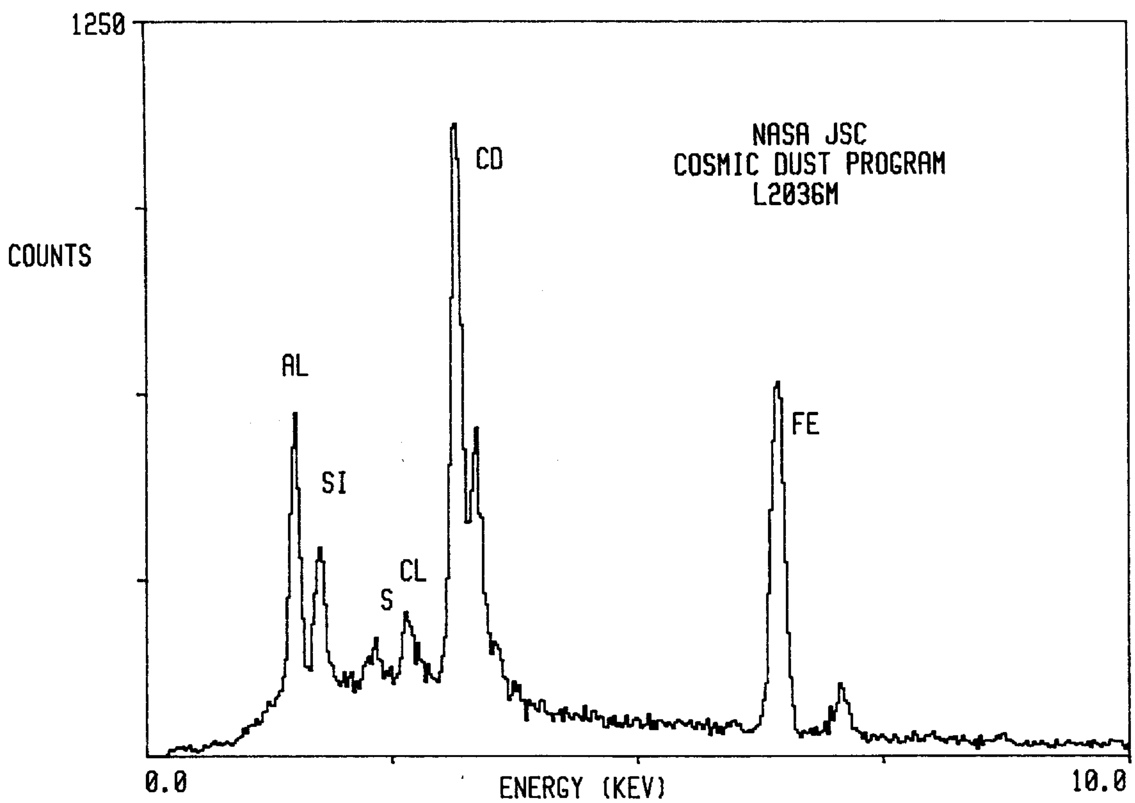


L2036M21

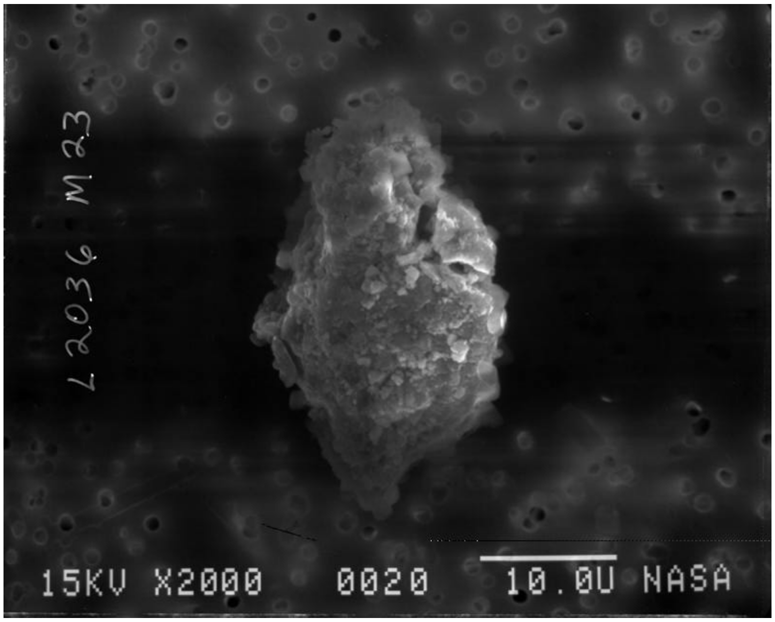


97E00272

Size: 20x16
Shape: I
Trans: TL/O
Color: Brown-Black
Luster: SV/D
Type: TCA
Comments:



L2036M23



97E00274

Size: 16

Shape: I

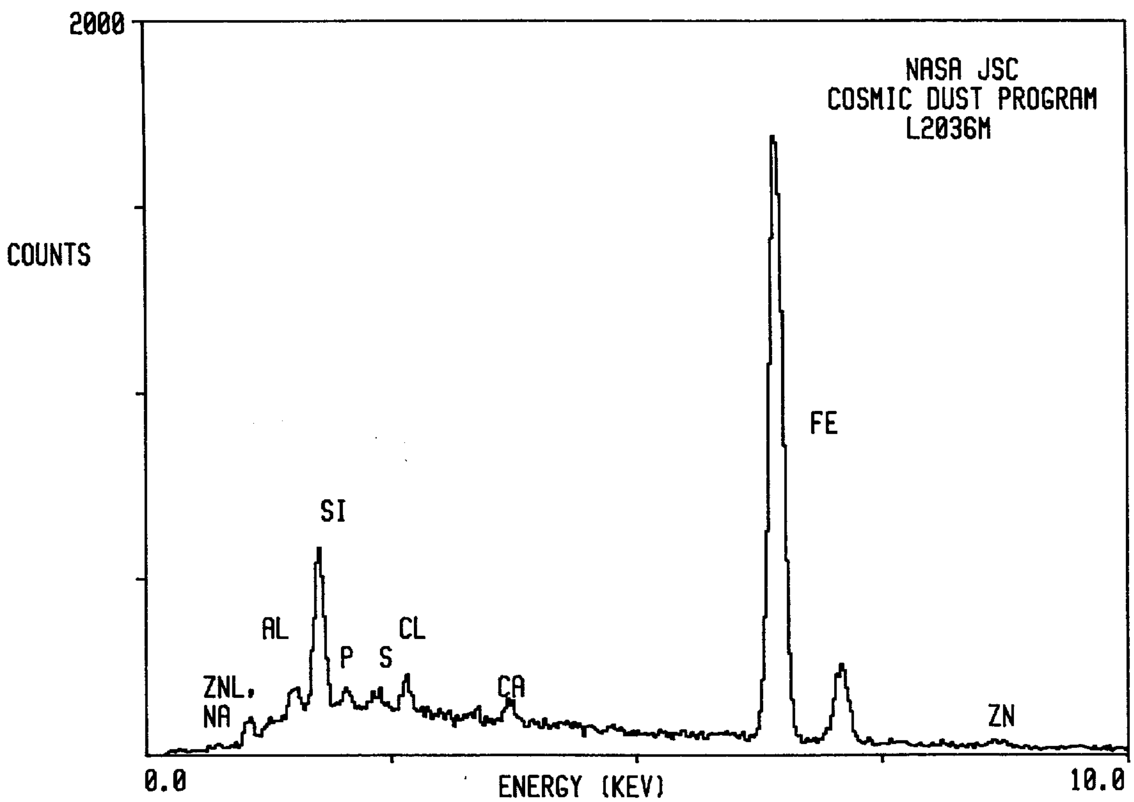
Trans: TL

Color: Brown-Red

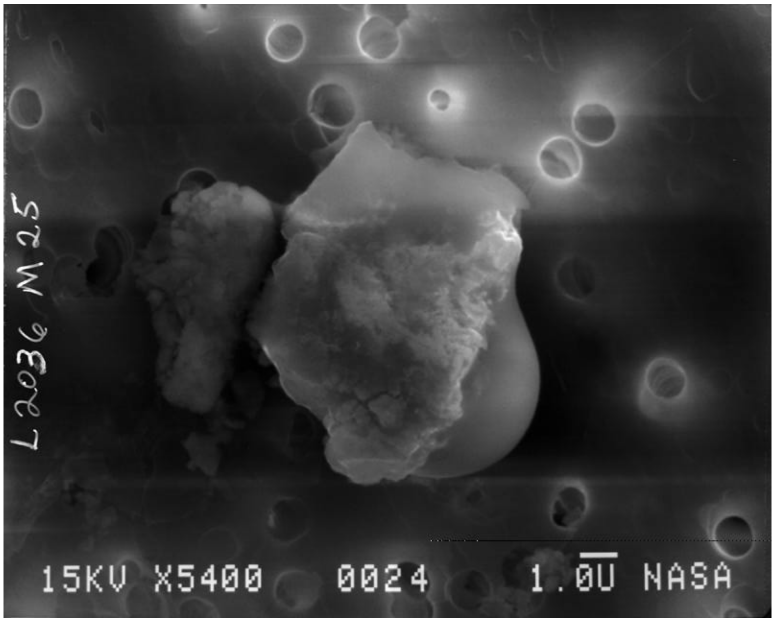
Luster: SV

Type: TCA

Comments:

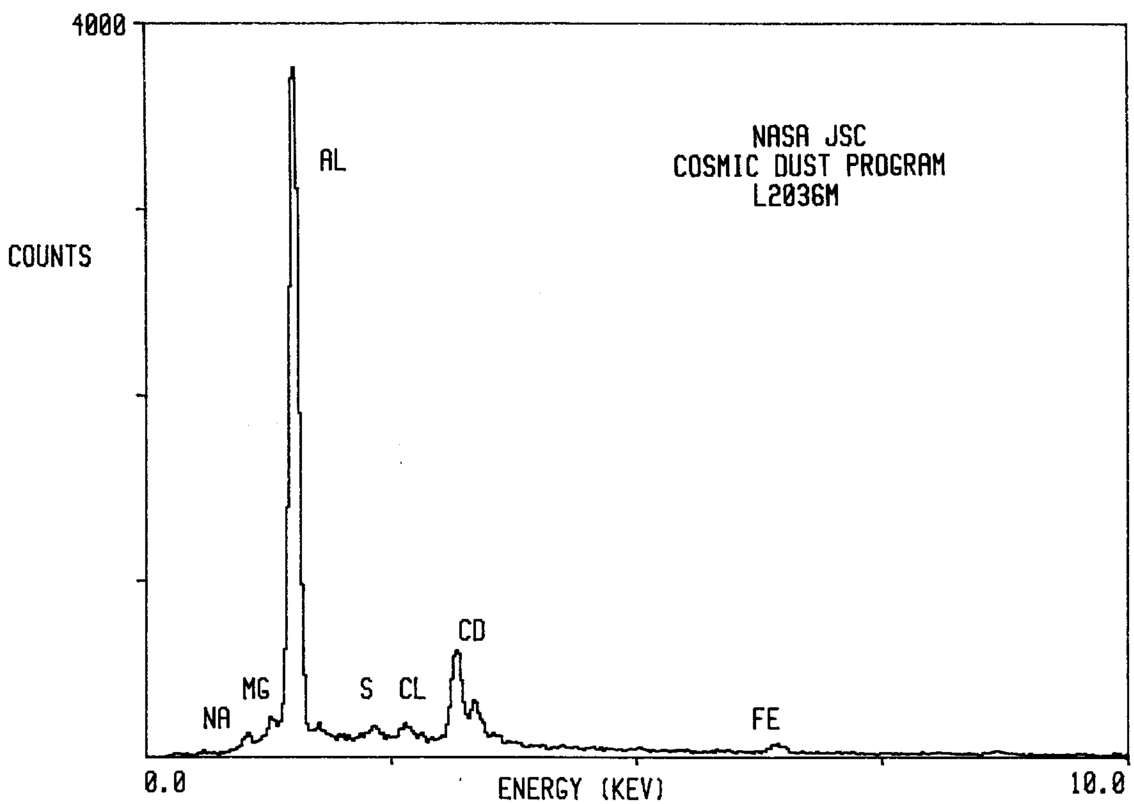


L2036M25

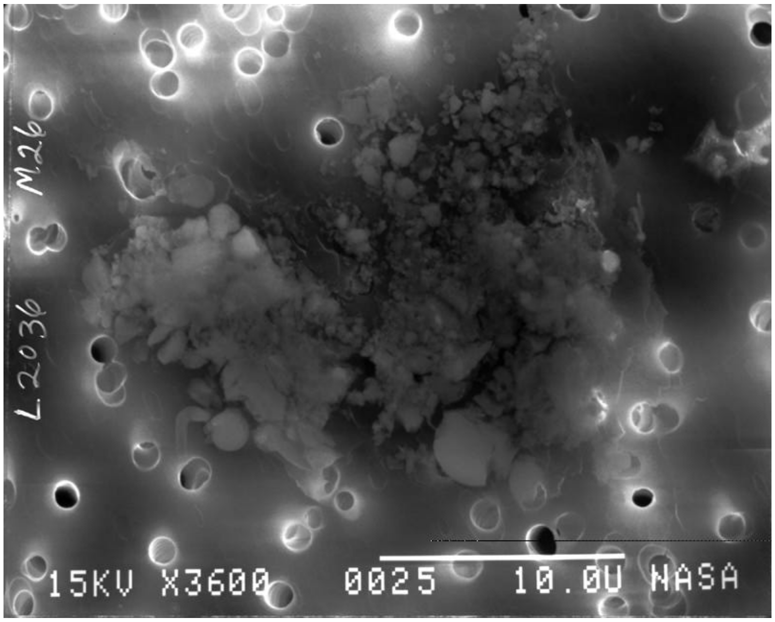


97E00276

Size: 7
Shape: S
Trans: O
Color: Black
Luster: M
Type: TCA
Comments:



L2036M26



97E00277

Size:	13x7
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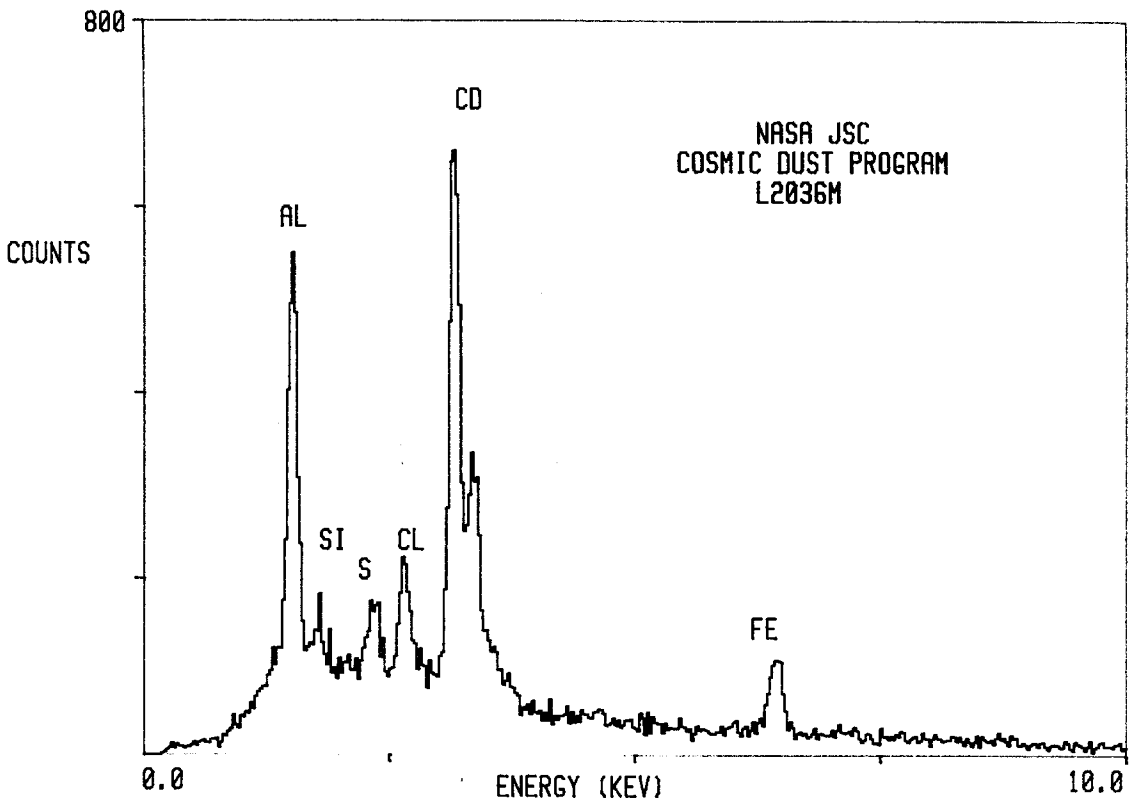
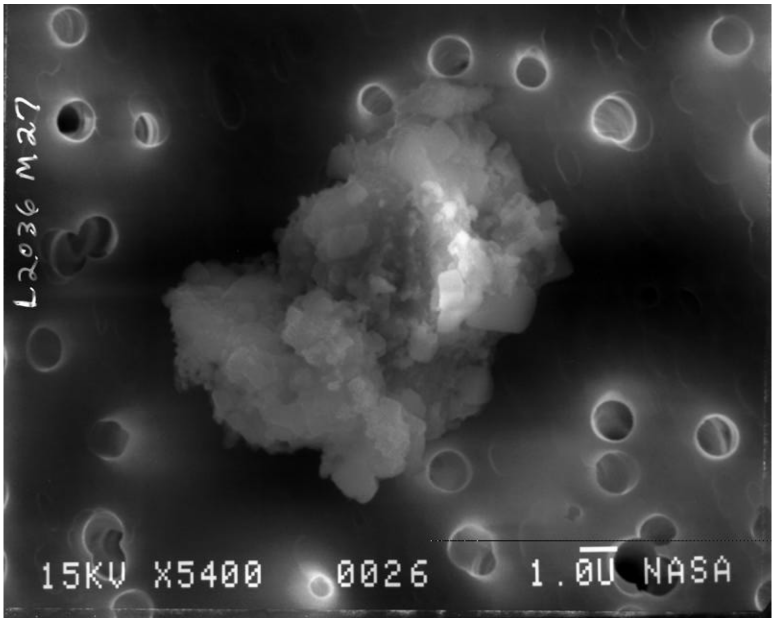
Trans:	T
Color:	Colorless
Luster:	V
Type:	TCA
Comments:	

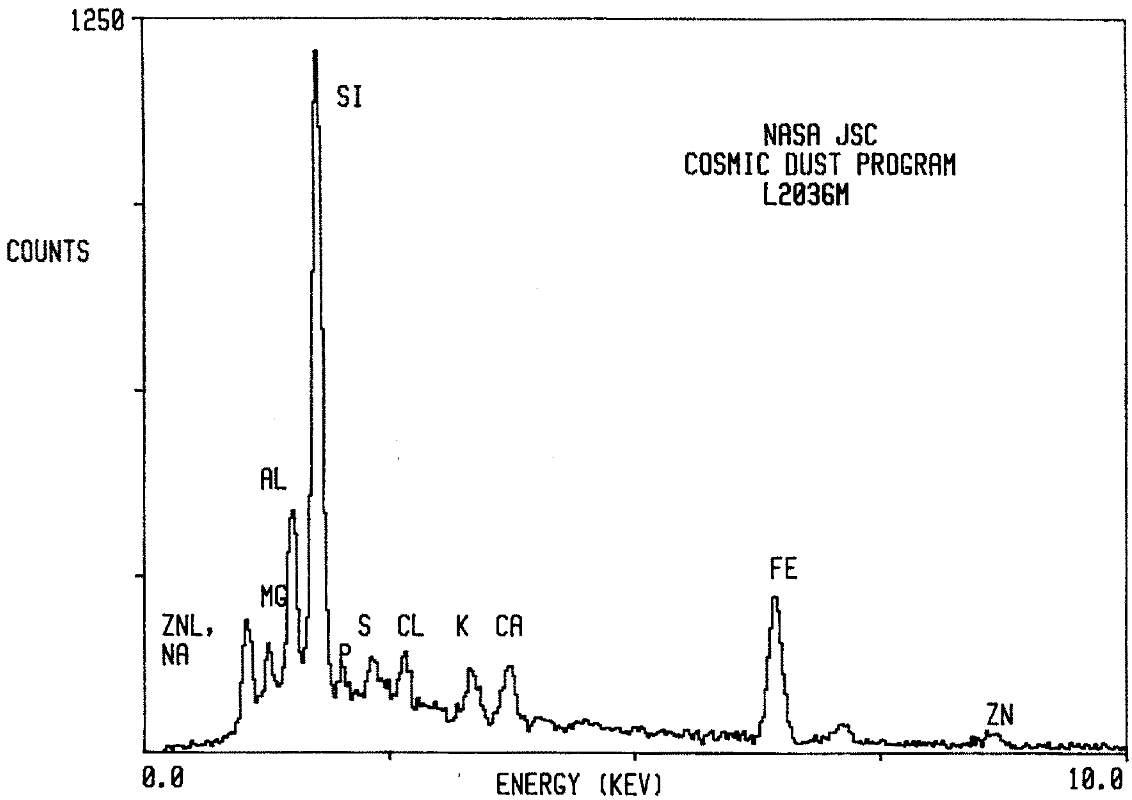


L2036M27

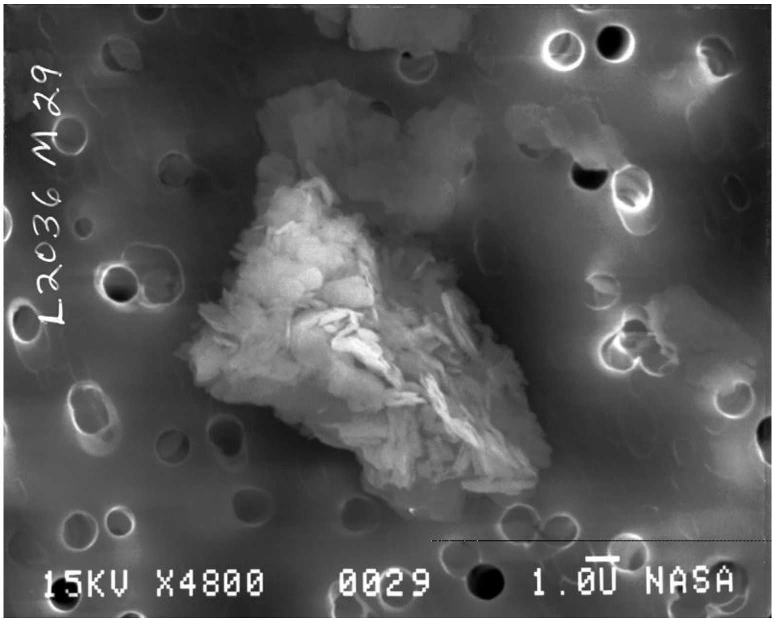


97E00278

Size:	9x6
Shape:	I
Trans:	O
Color:	White
Luster:	SV
Type:	TCA
Comments:	

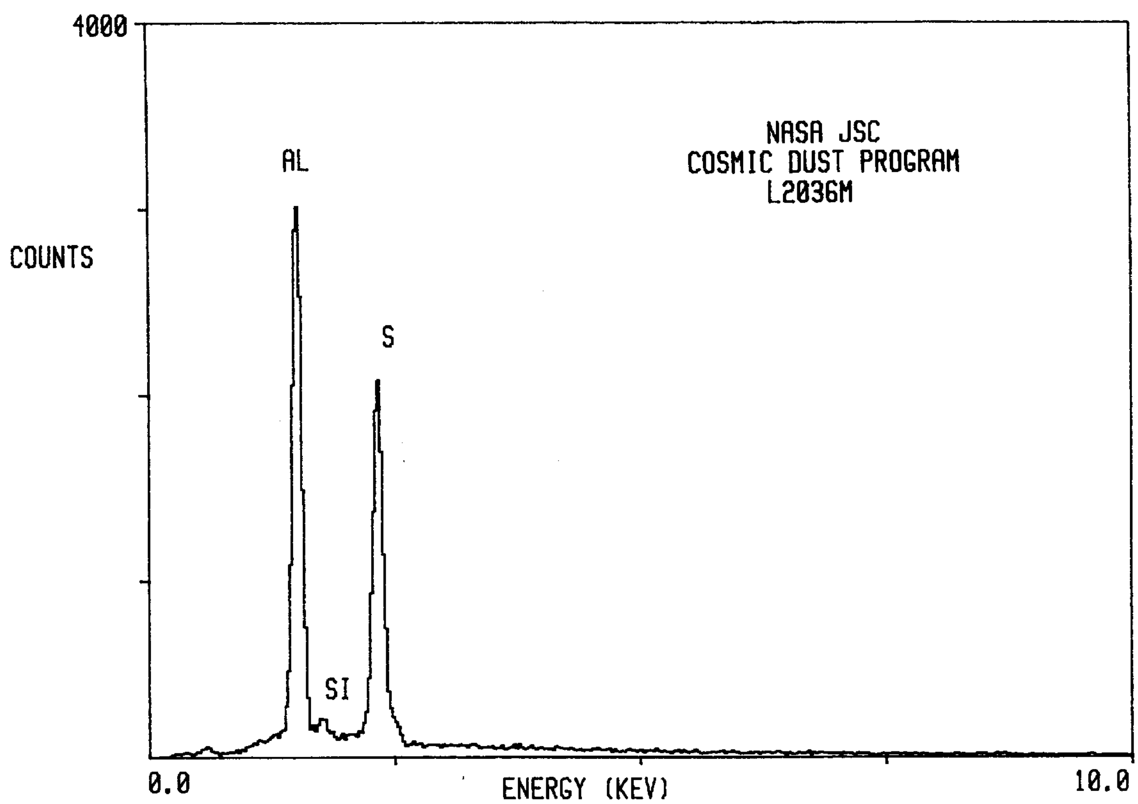


L2036M29

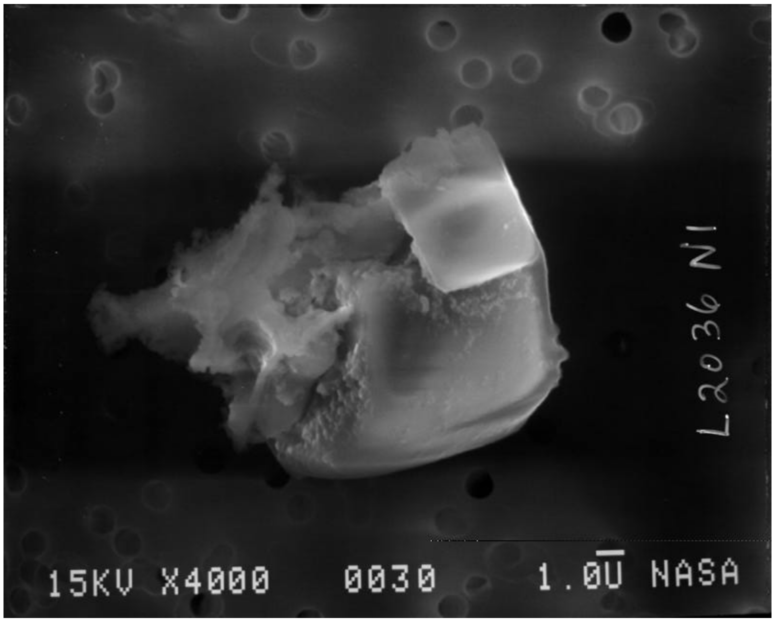


97E00280

Size:	12x8
Shape:	I
Trans:	TL
Color:	White
Luster:	SV
Type:	TCA
Comments:	



L2036N1



97E00281

Size:	55x33
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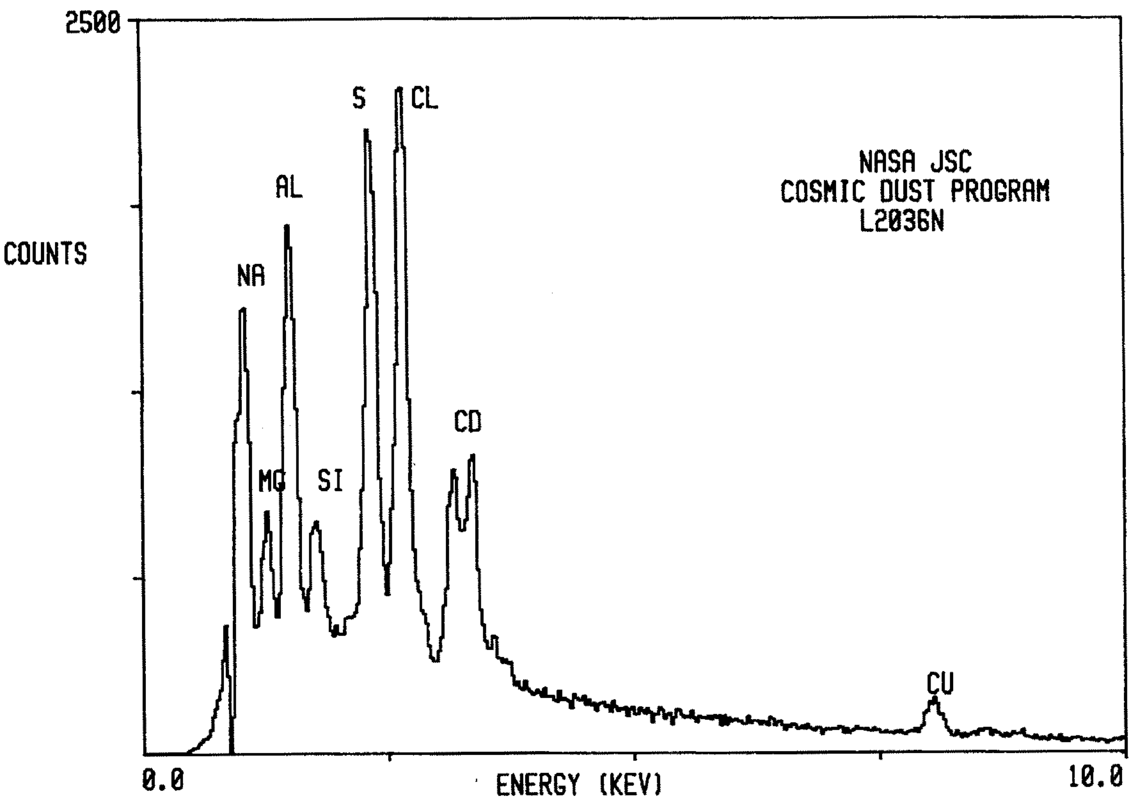
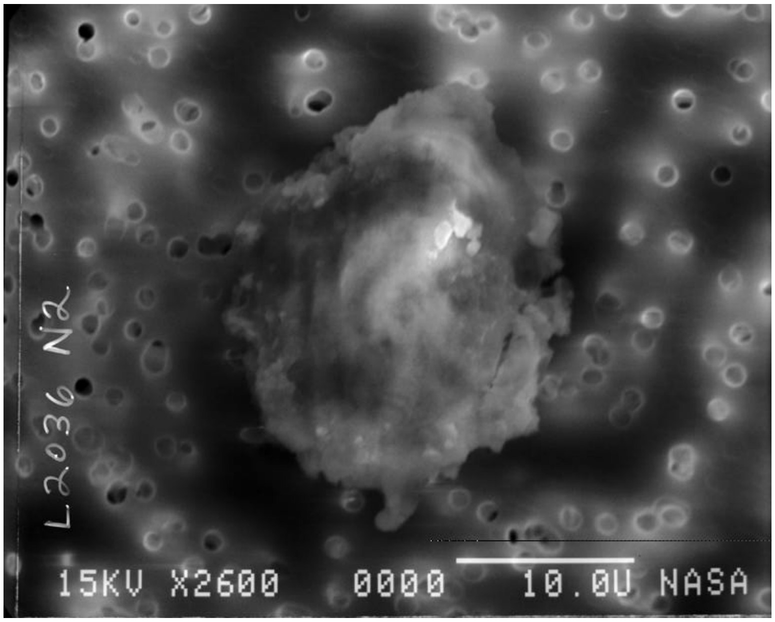
Color:	Colorless-White
Luster:	SV
Type:	TCA
Comments:	



L2036N2



97E00282

Size: 22

Shape: S

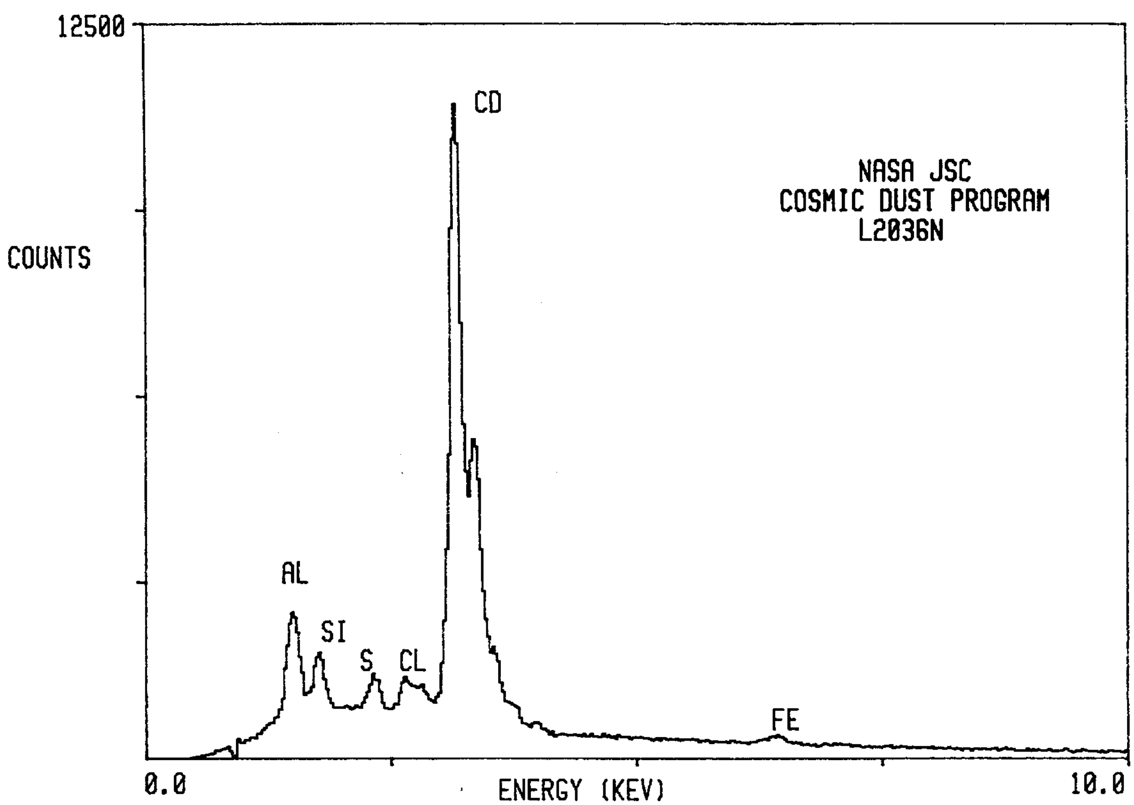
Trans: TL

Color: Colorless-Brown

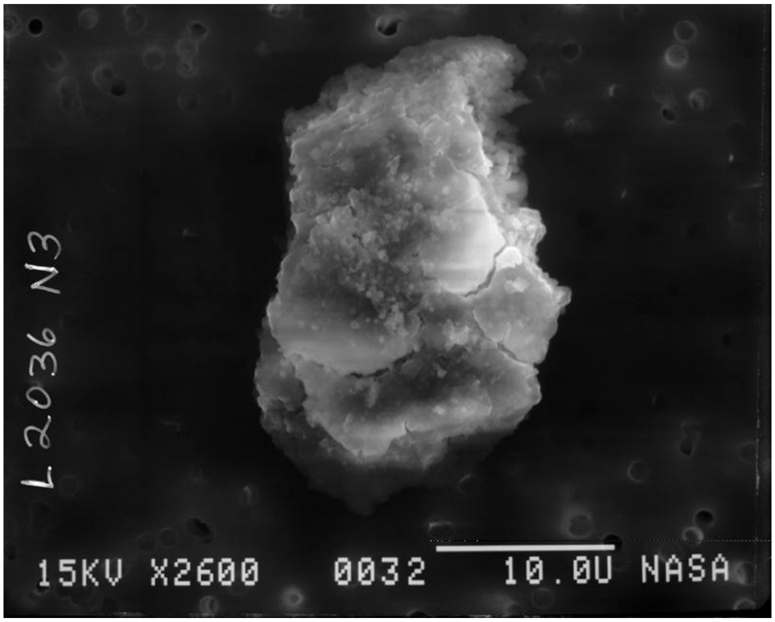
Luster: V

Type: TCA

Comments:



L2036N3



97E00283

Size: 24x15

Shape: I

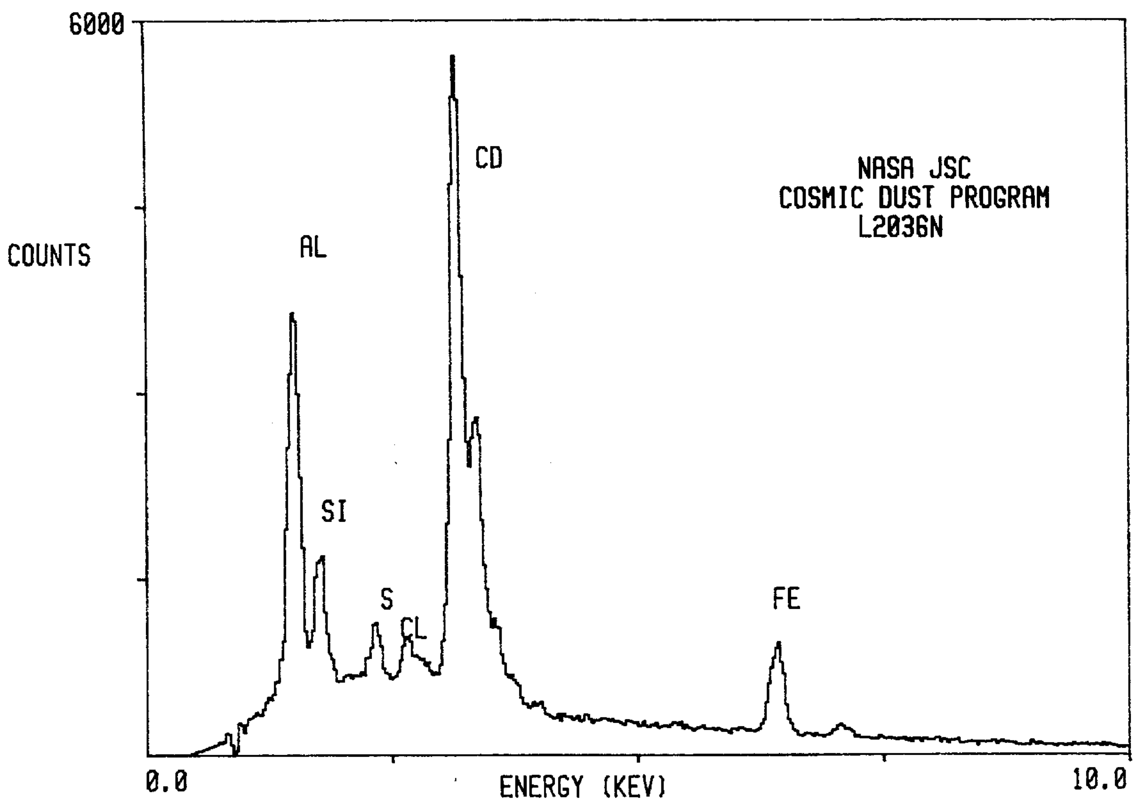
Trans: TL

Color: Colorless

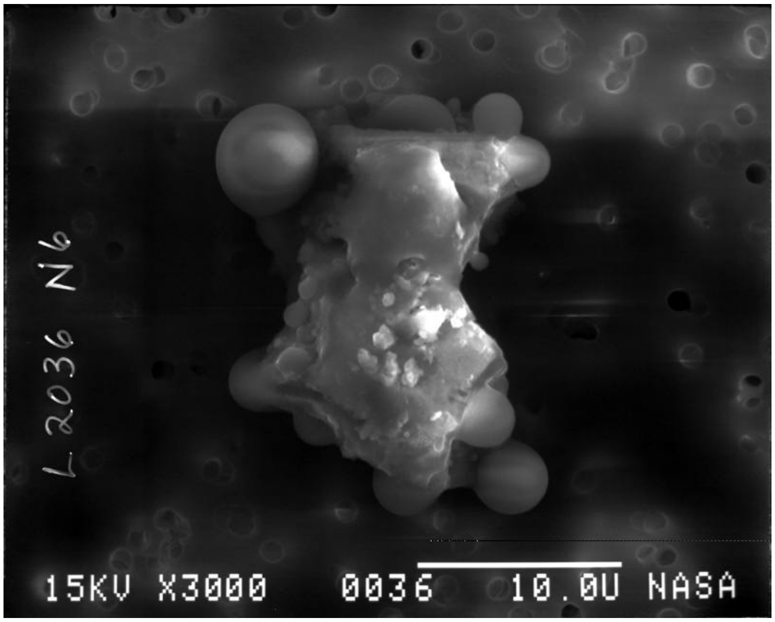
Luster: V

Type: TCA

Comments:



L2036N6



97E00286

Size: 16x14

Shape: I

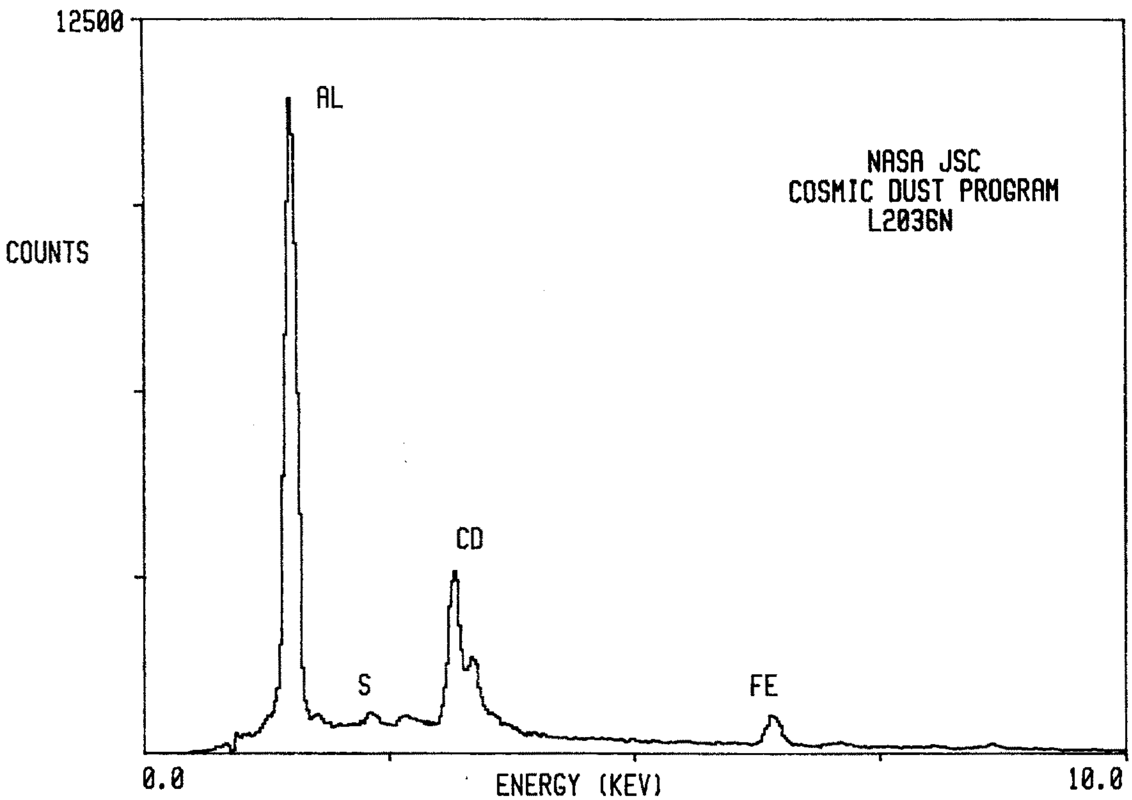
Trans: O

Color: Brown

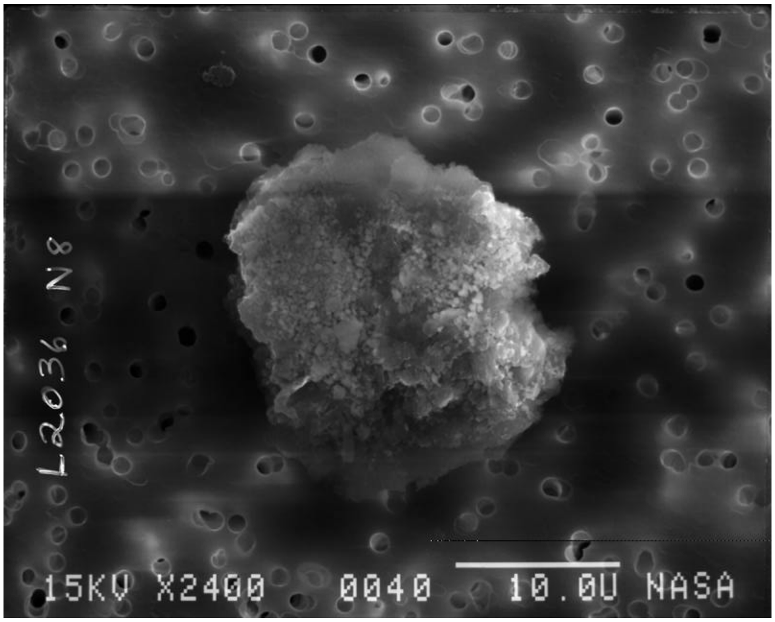
Luster: SV

Type: TCA

Comments:



L2036N8



97E00288

Size: 18
Shape: I
Trans: O
Color: Black
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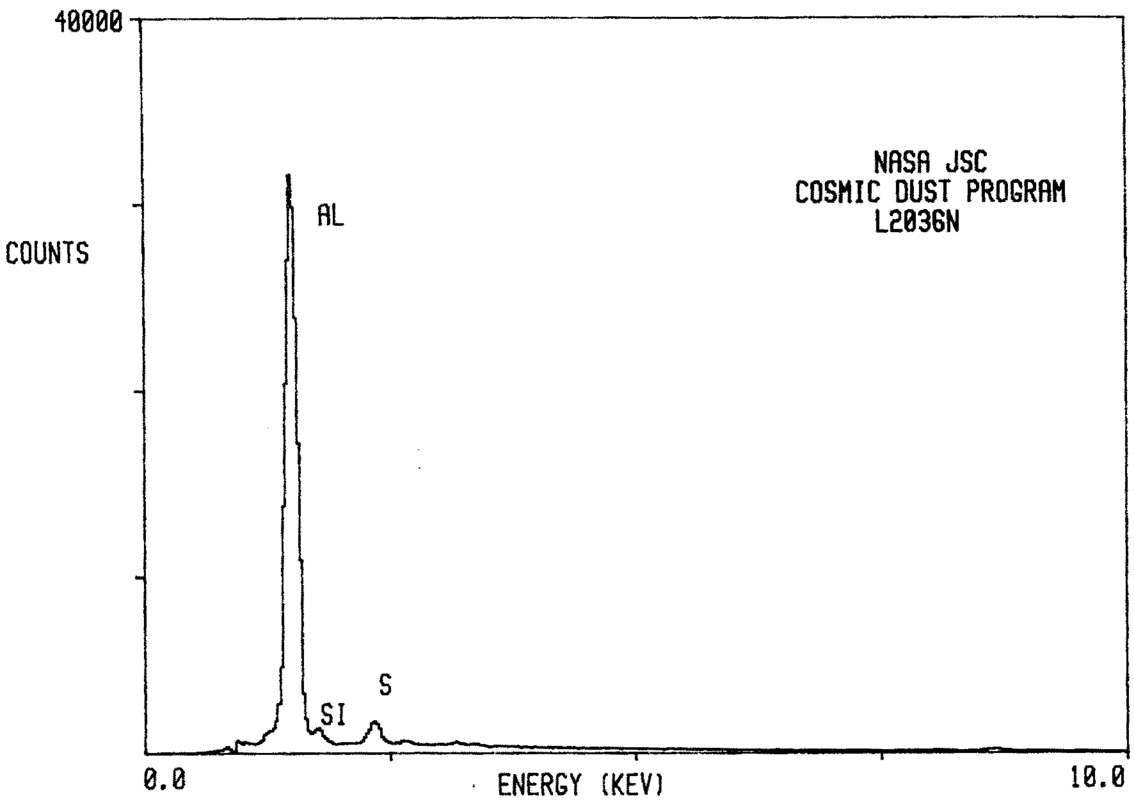
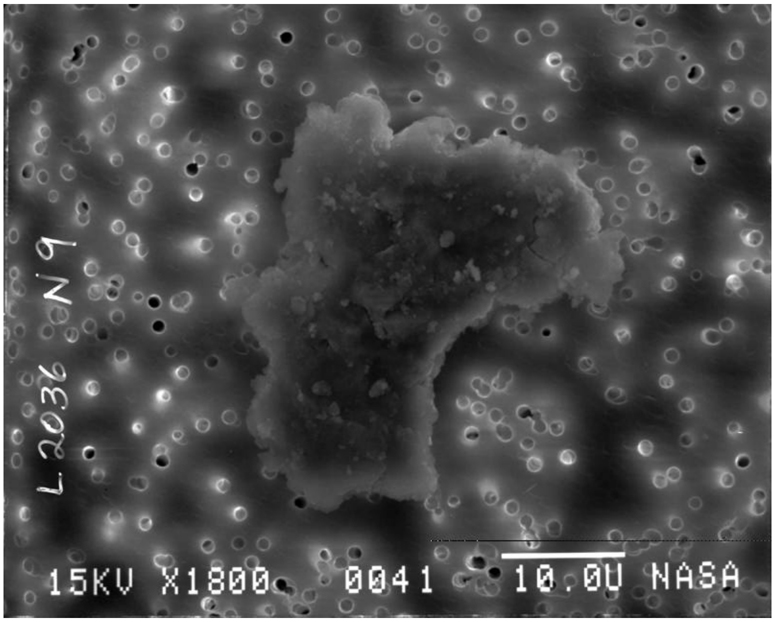
Type: TCA
Comments:



L2036N9



97E00289

Size: 28x15
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Trans: O
Color: Black
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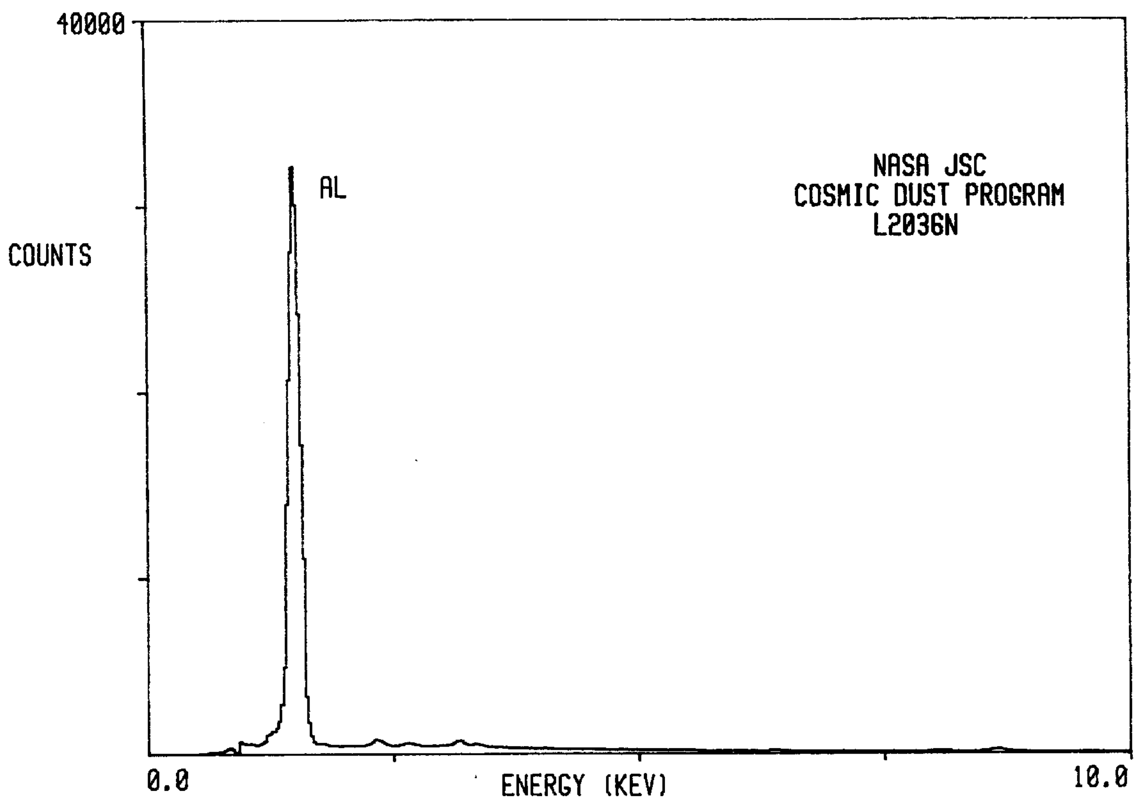
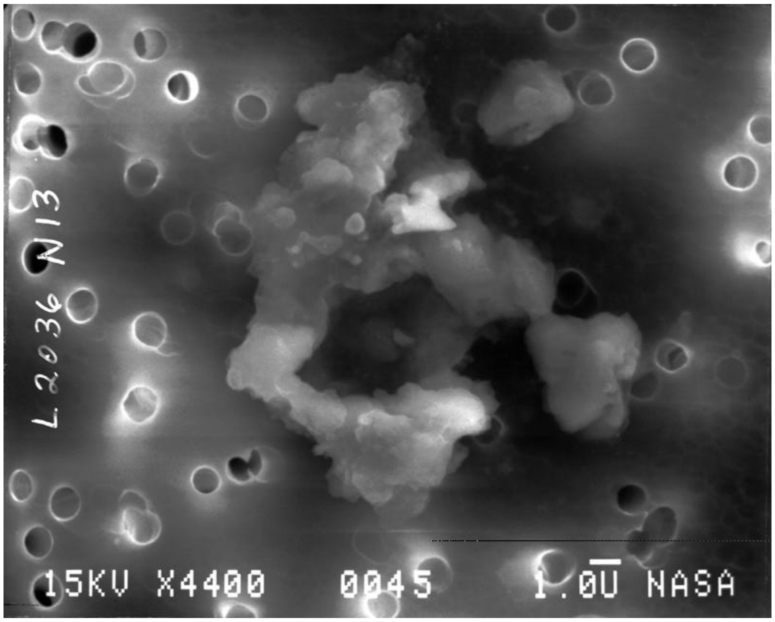
Type: TCA
Comments:



L2036N13



97E00293

Size: 5

Shape: E

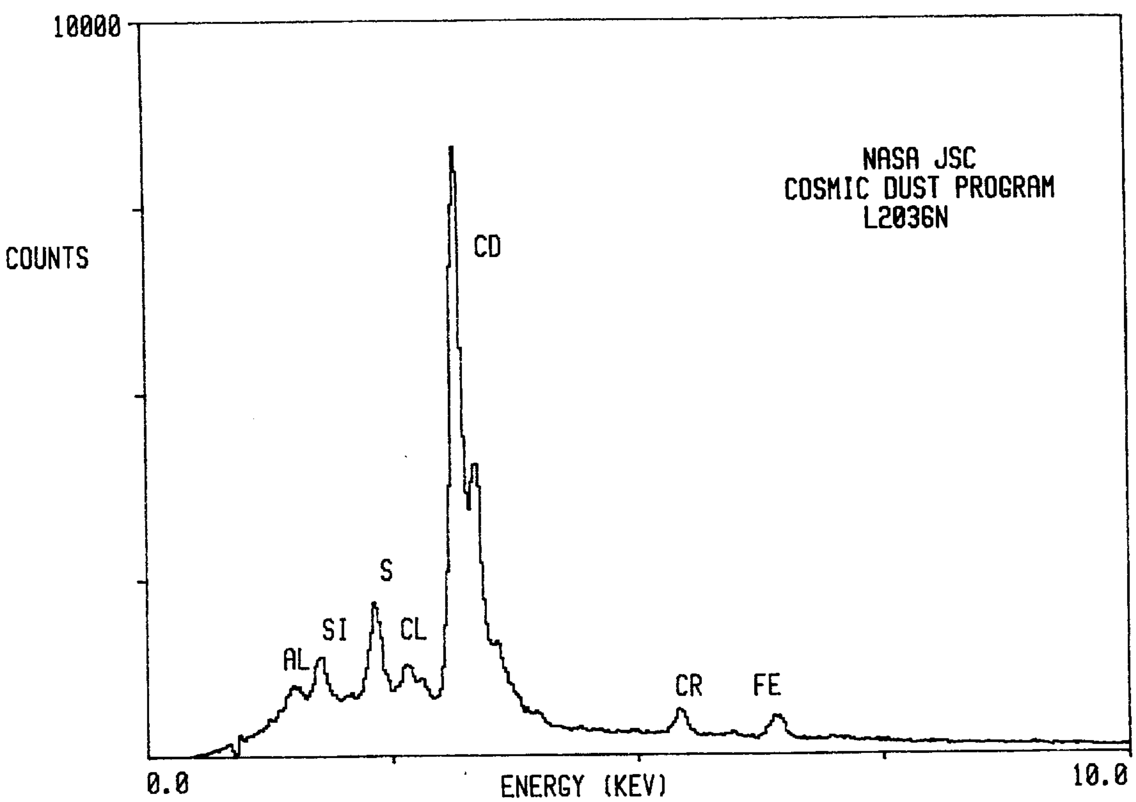
Trans: O

Color: Black

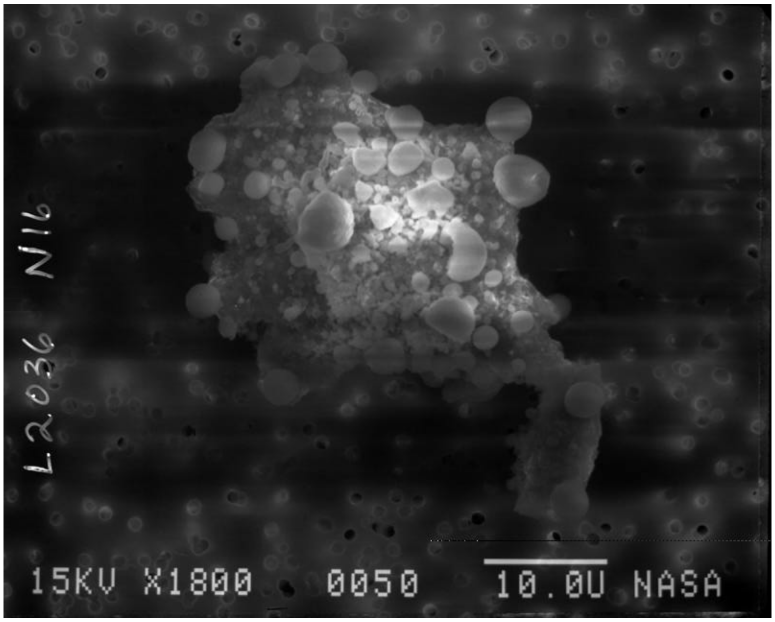
Luster: D

Type: TCA

Comments:



L2036N16



97E00296

Size: 37x33

Shape: I

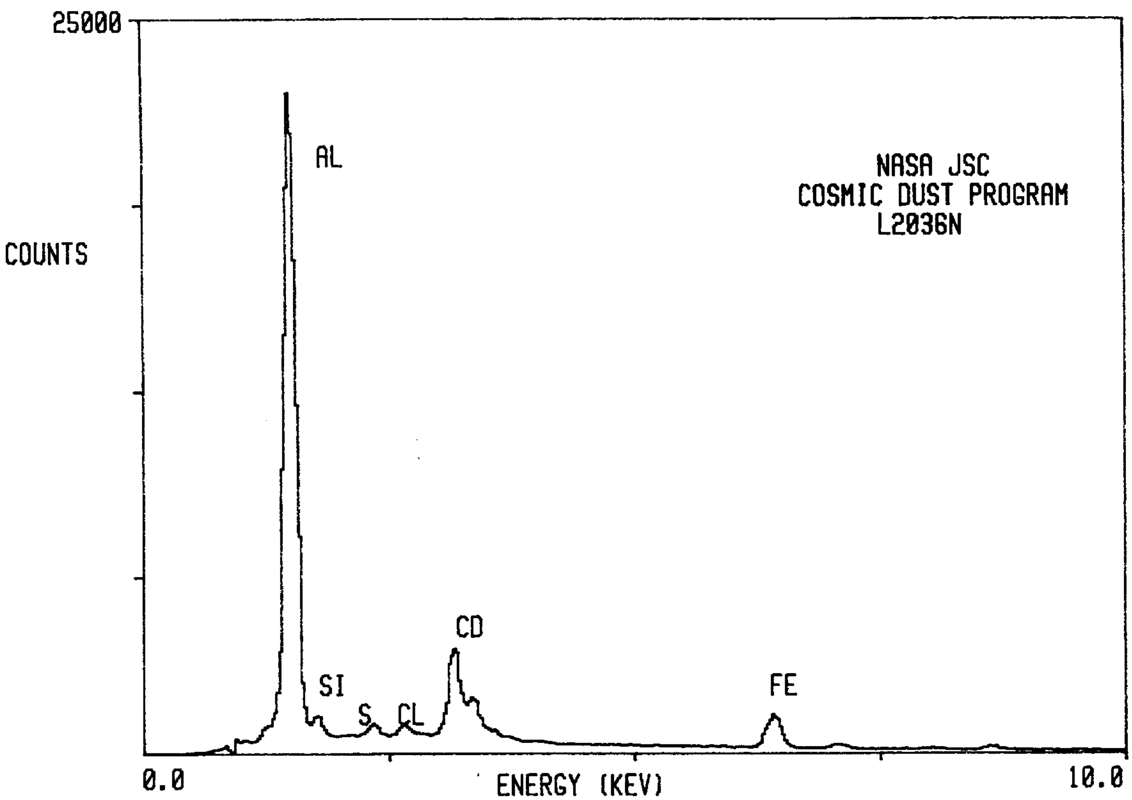
Trans: O

Color: Silver

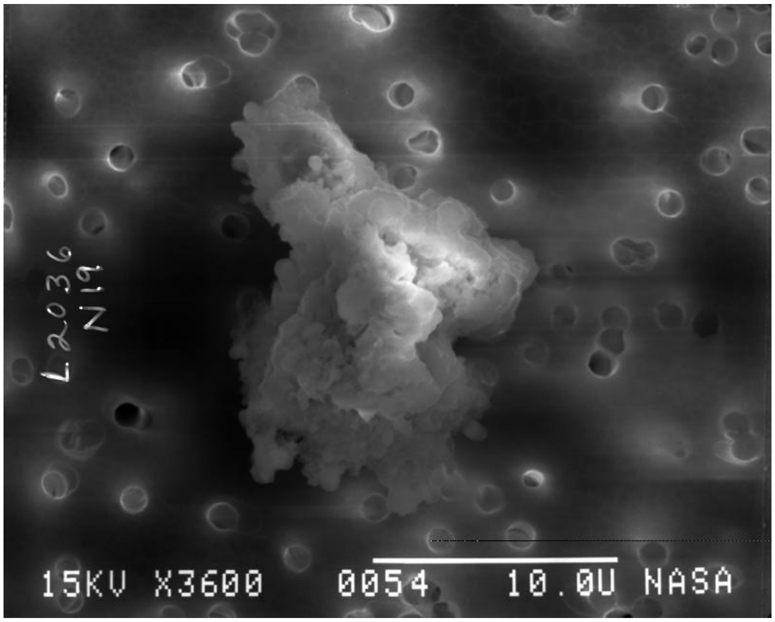
Luster: M

Type: TCA

Comments:



L2036N19



97E00299

Size: 15x12

Shape: I

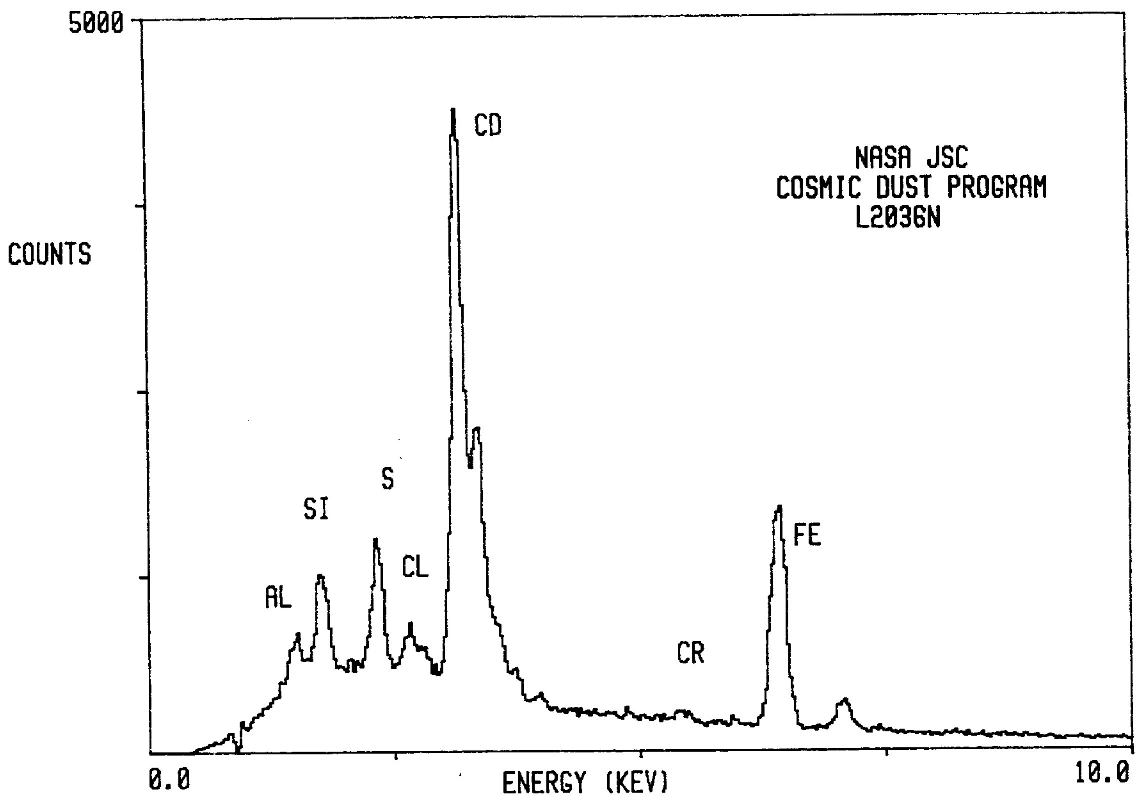
Trans: O

Color: Brown-Red

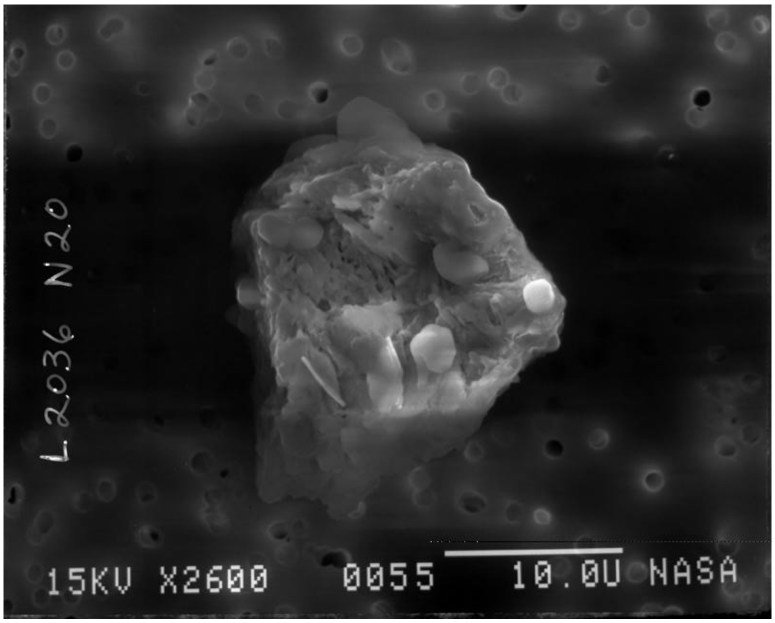
Luster: SV

Type: TCA

Comments:



L2036N20



97E00300

Size: 24x16

Shape: I

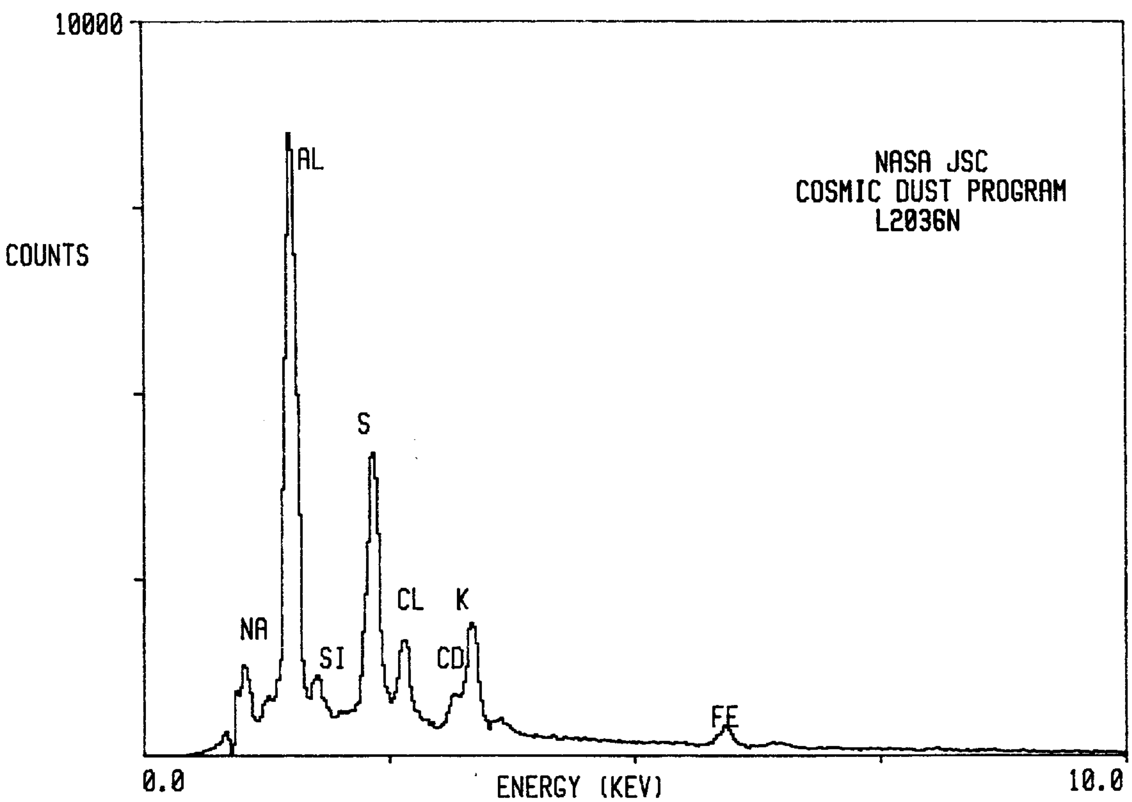
Trans: O

Color: White

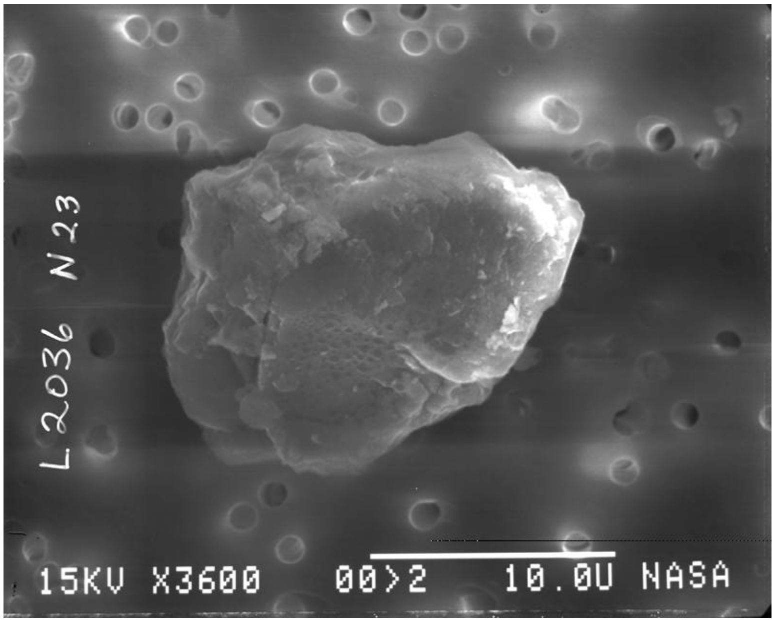
Luster: SV

Type: TCA

Comments:



L2036N23



97E00303

Size:	16x12
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Color:	Red
Luster:	SV
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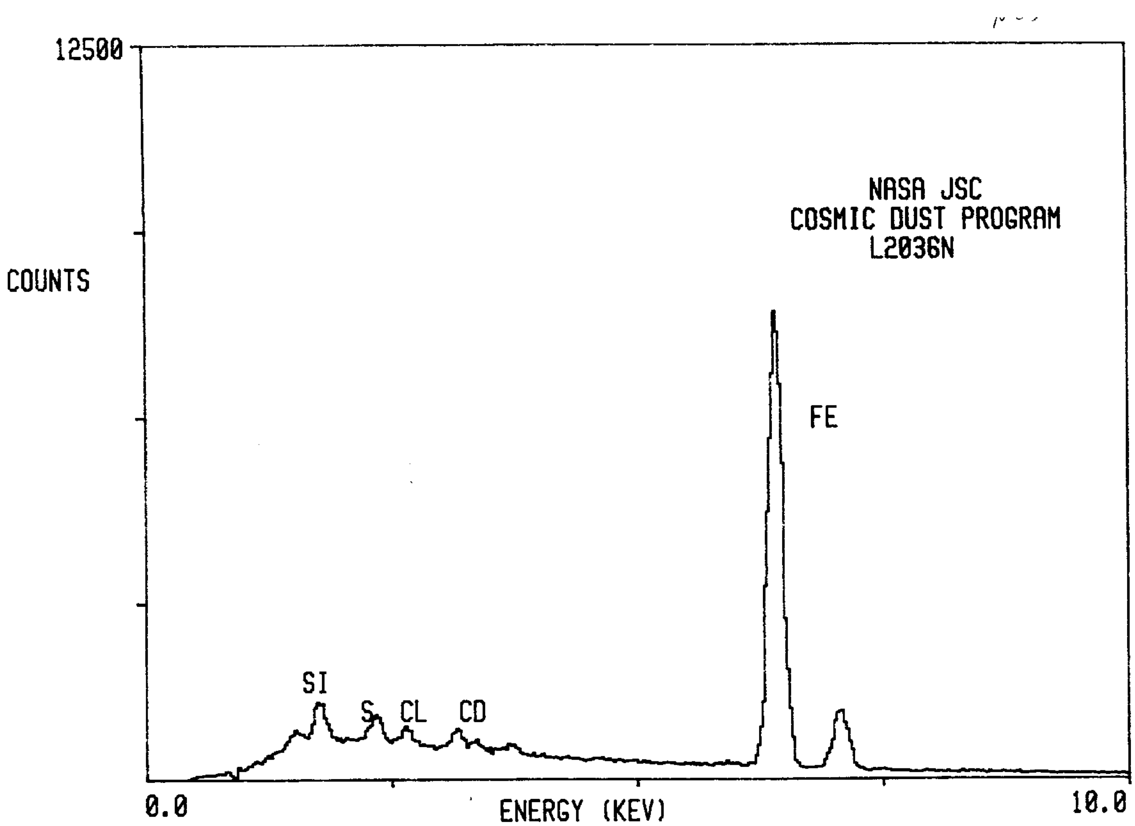
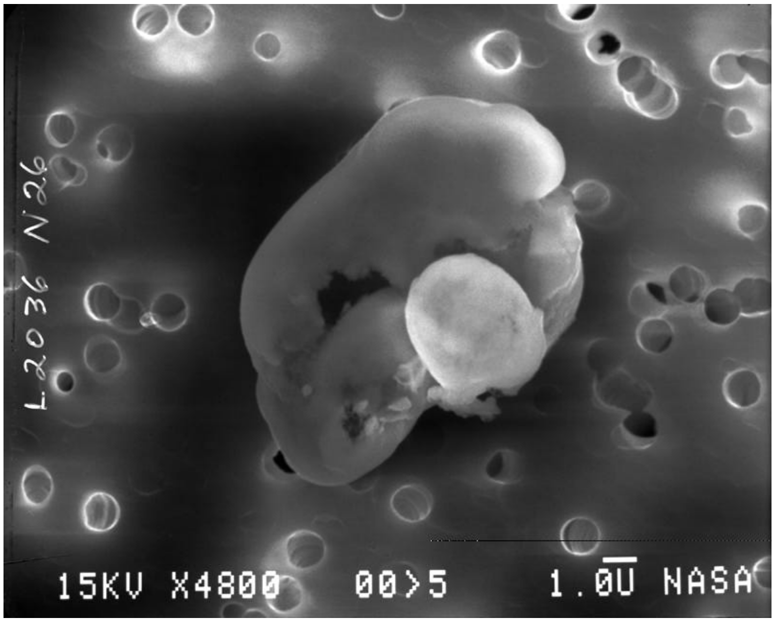


L2036N26



97E00306

Size: 11x9

Shape: I

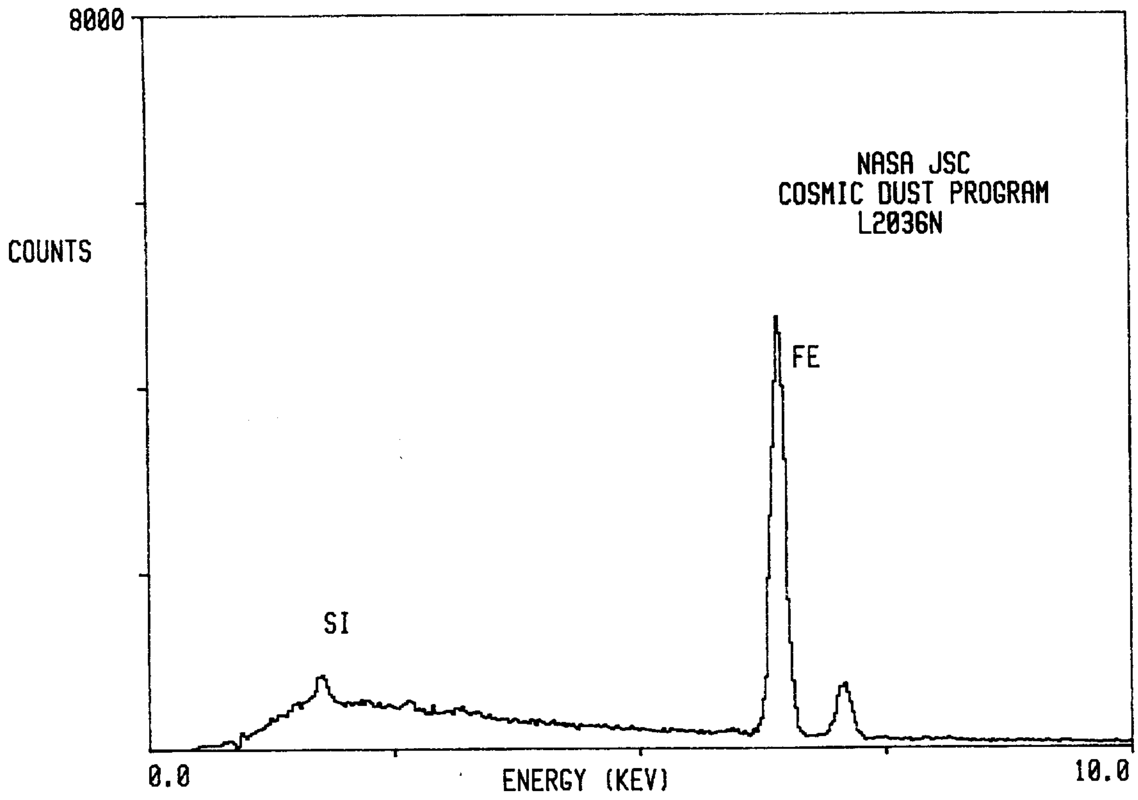
Trans: TL

Color: Brown

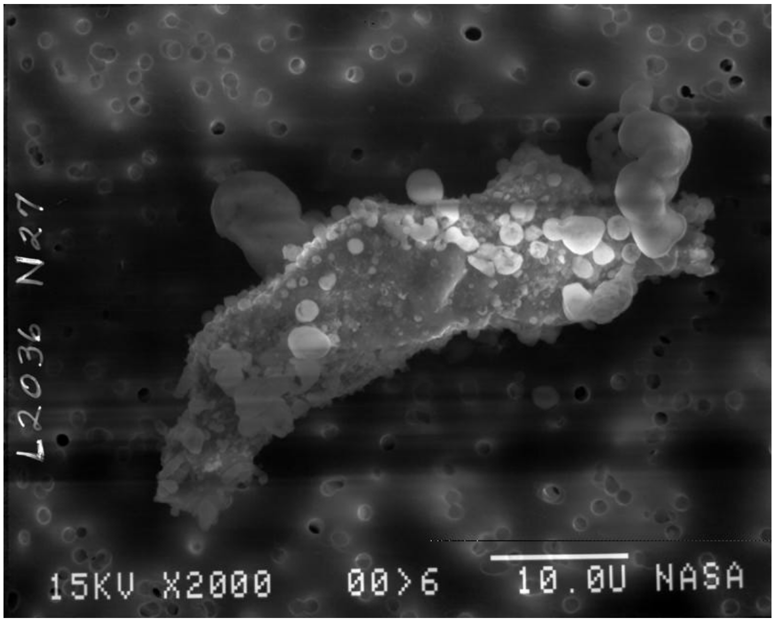
Luster: V

Type: TCA

Comments:



L2036N27



97E00307

Size: 44x12

Shape: I

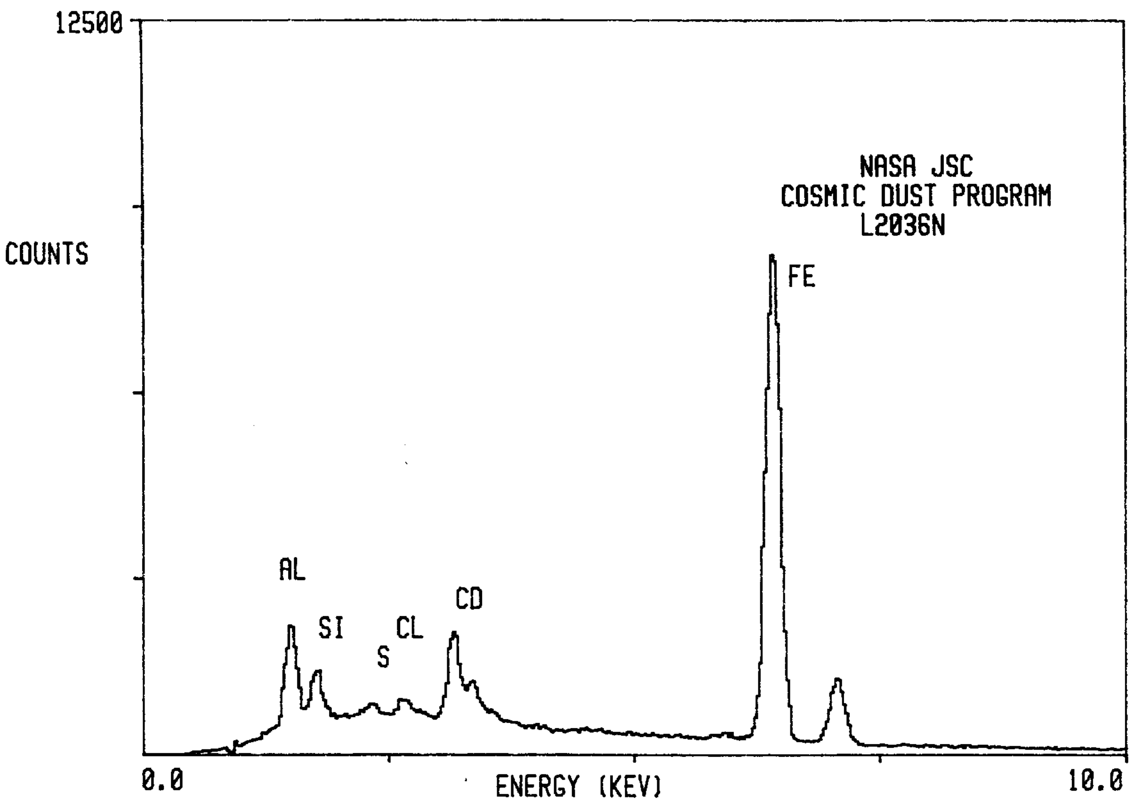
Trans: TL

Color: Brown-Colorless

Luster: V

Type: TCA

Comments:



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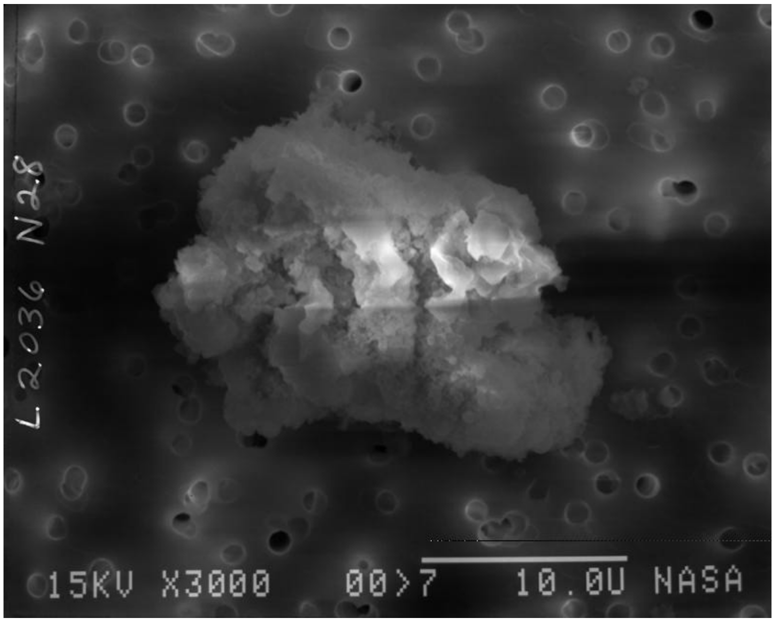


97E00308

Size: 22x14

Shape: I

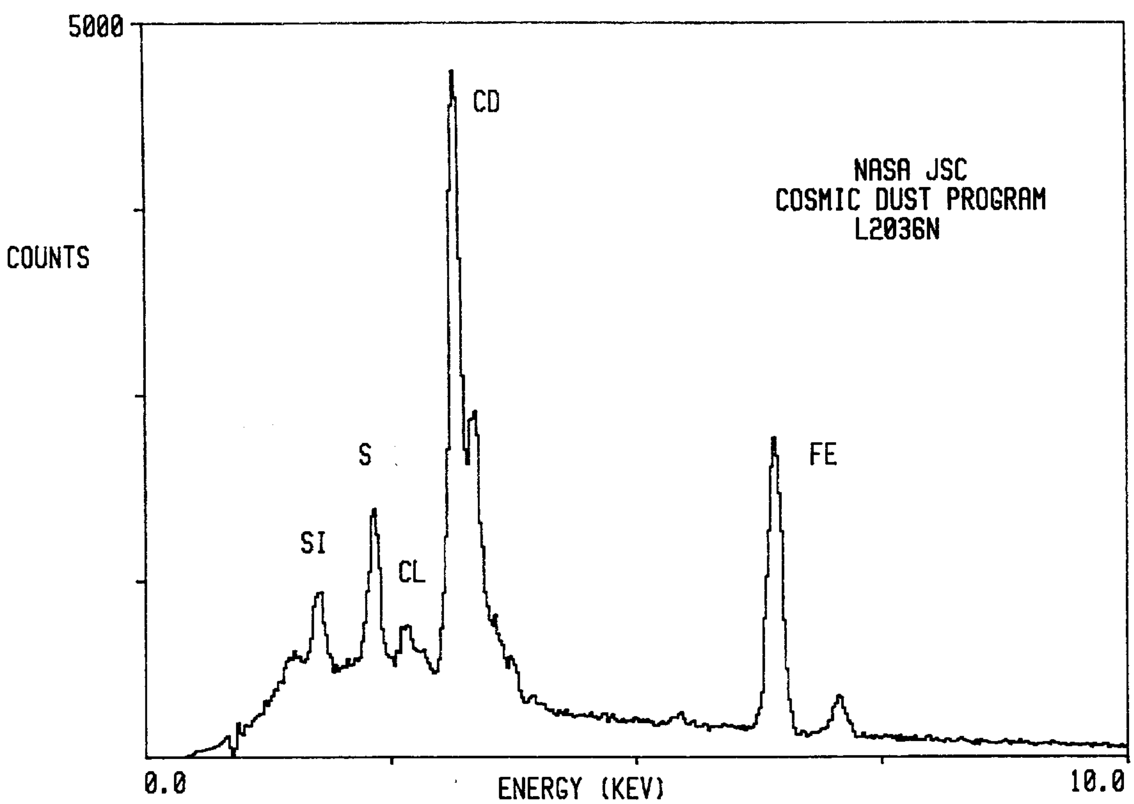
Trans: O

Color: Brown-Red

Luster: SV

Type: TCA

Comments:



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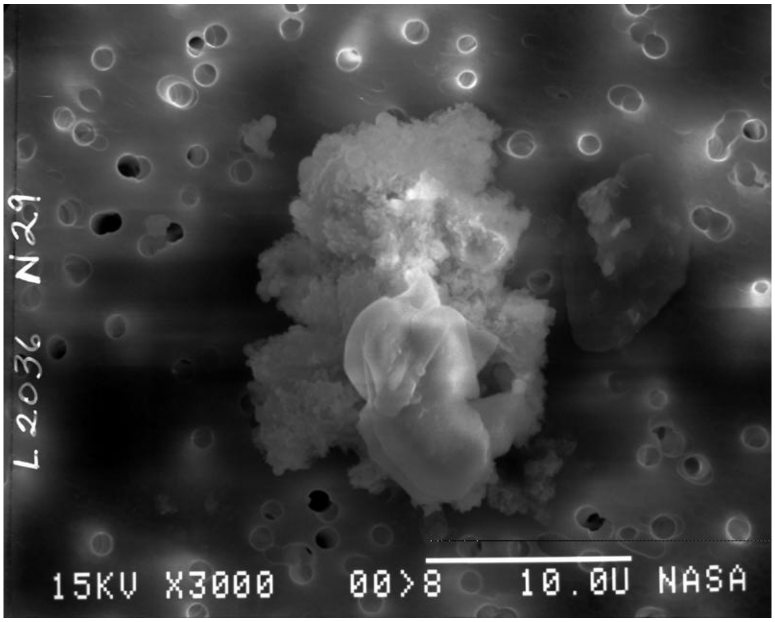

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Size:	18x12
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Trans:	TL
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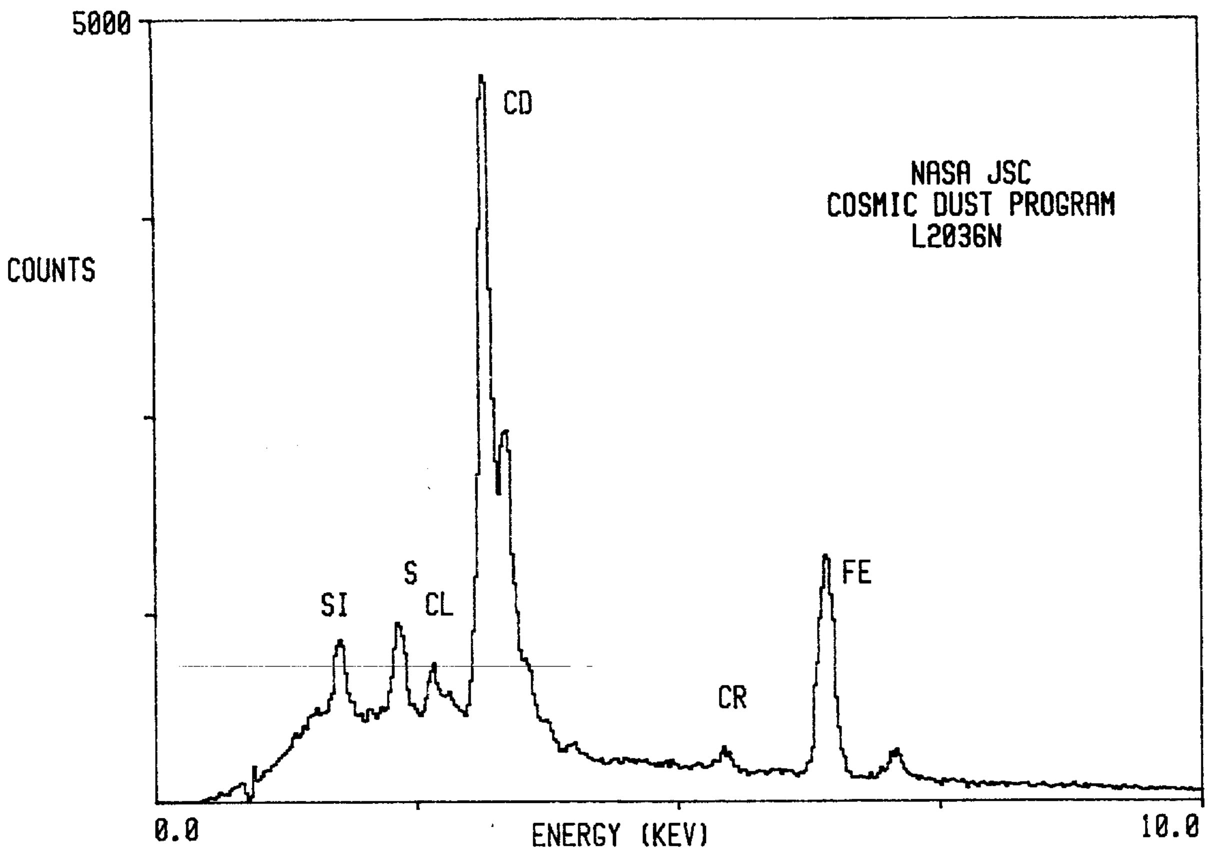
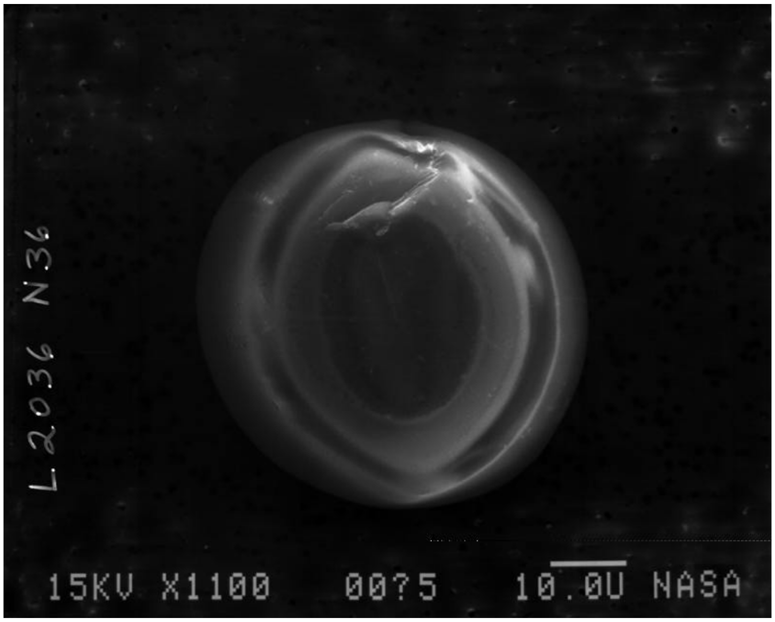
Luster:	SV
Type:	TCA
Comments:	

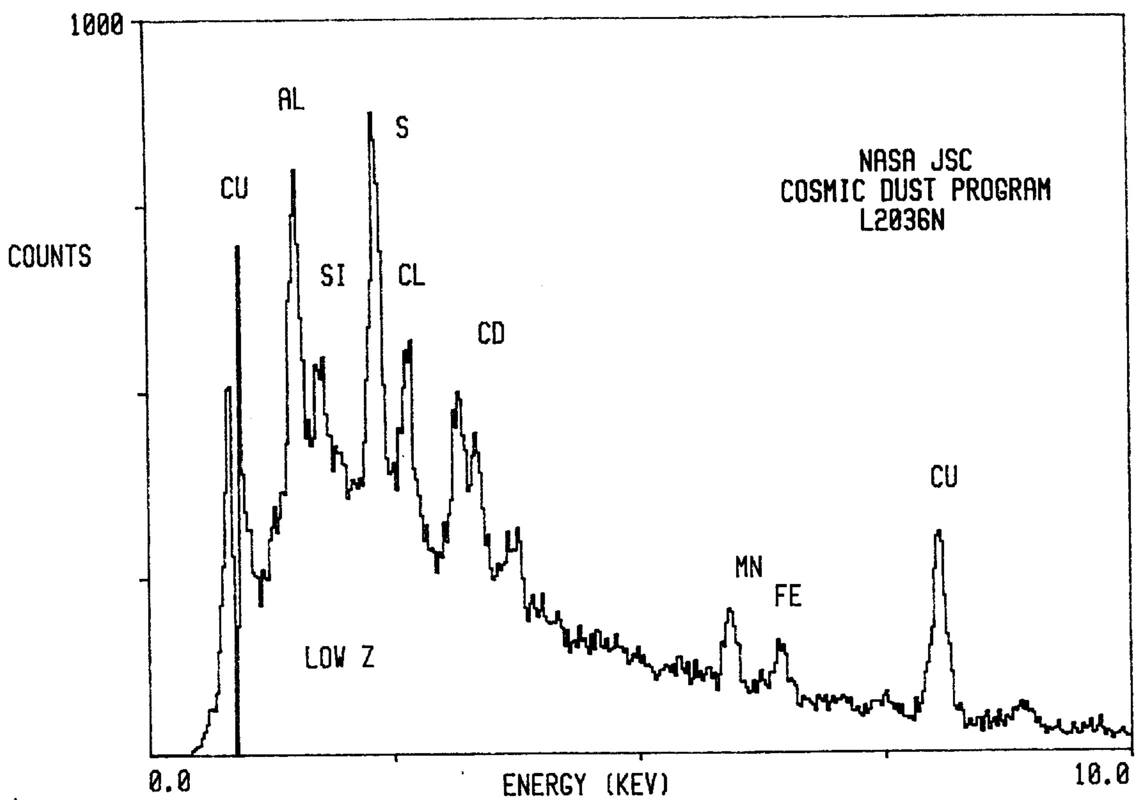


L2036N36

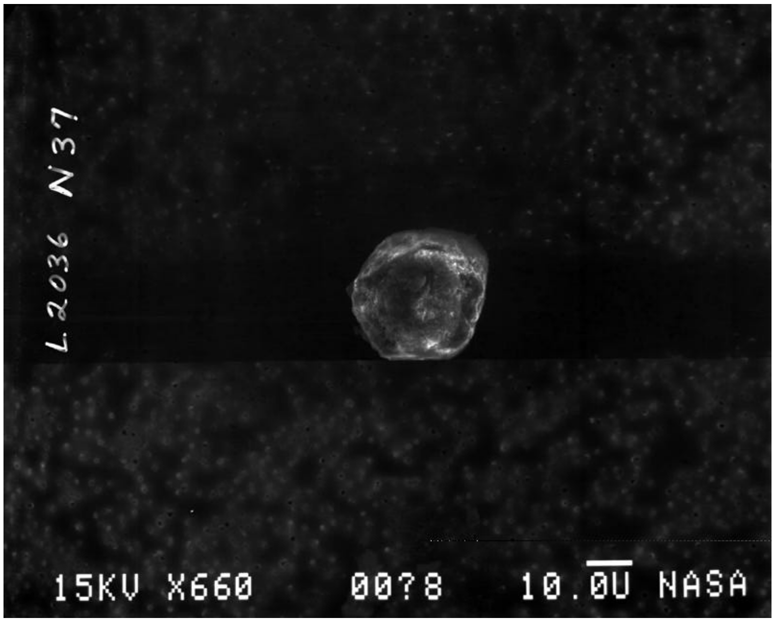


97E00316

Size: 50
Shape: S
Trans: TL
Color: Yellow
Luster: SV
Type: TCA
Comments:



L2036N37



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Size: 28

Shape: S

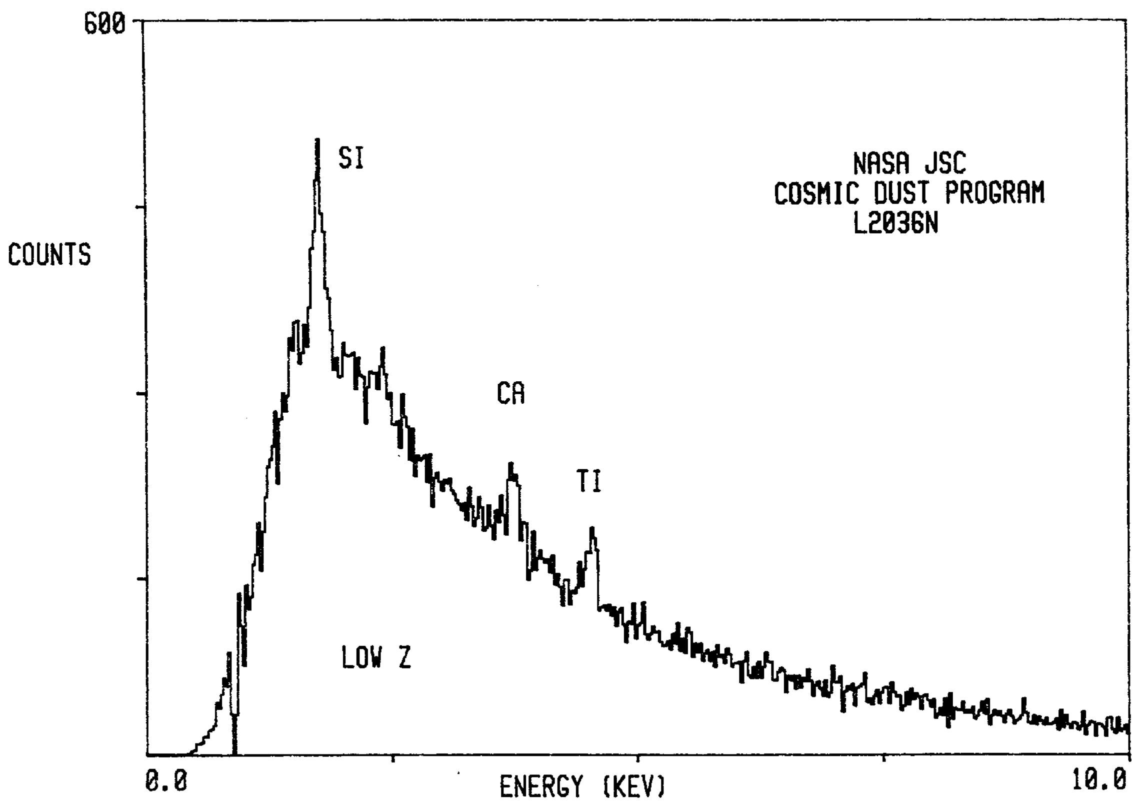
Trans: TL

Color: Green

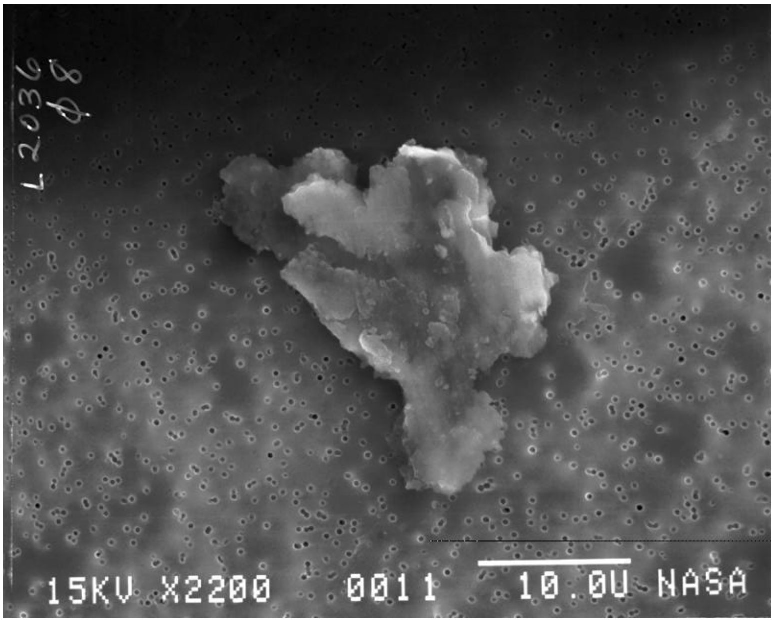
Luster: SV

Type: TCA

Comments:

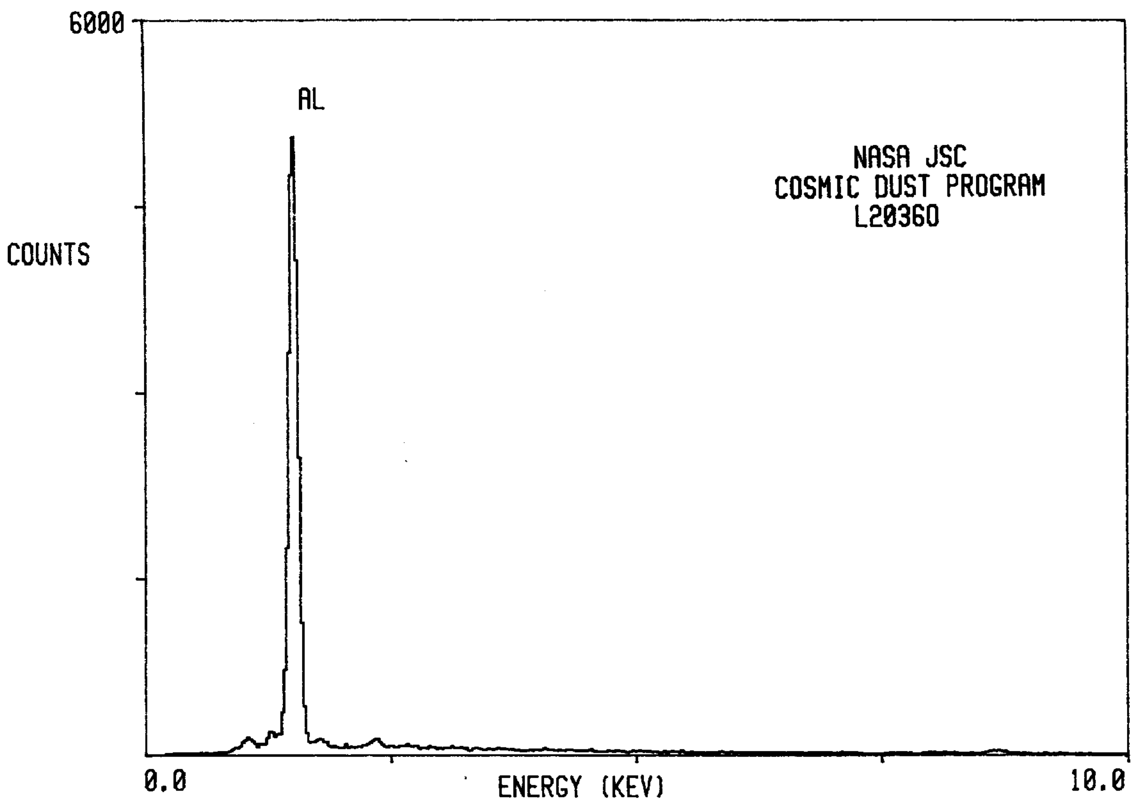


L2036O8



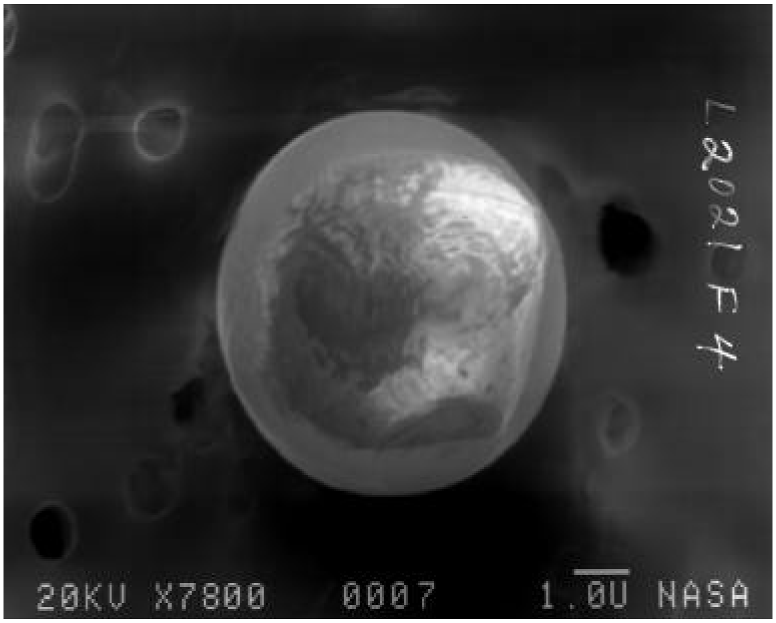
97E00325

Size:	22x16
Shape:	I
Trans:	O
Color:	Silver
Luster:	M
Type:	TCA
Comments:	Cluster 23



Particle Descriptions
AOS Type

L2021F4



97E00411

Size: 7

Shape: S

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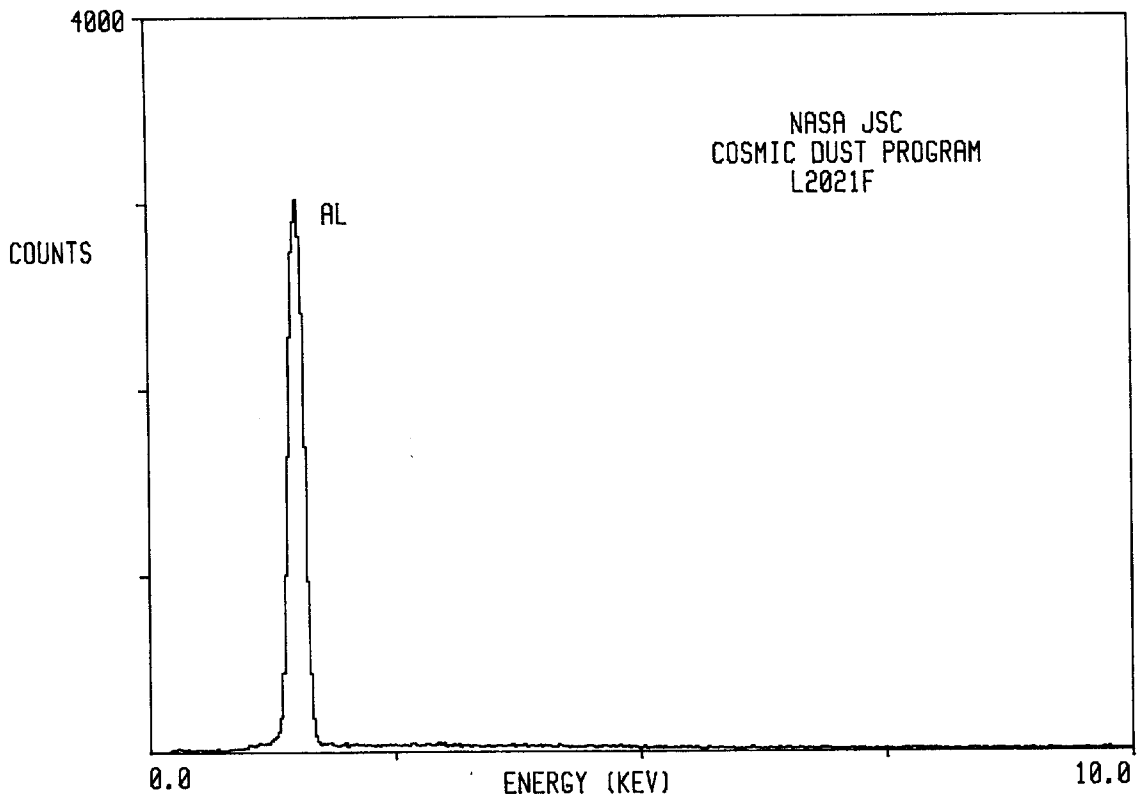
Color: Colorless

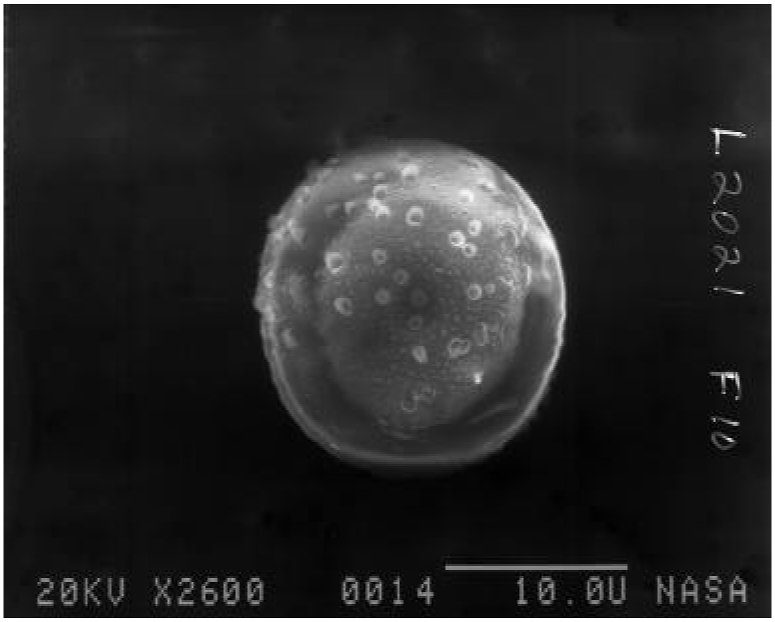
Luster: V

Type: AOS

Comments:



L2021F10



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Size: 18

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Color: Colorless

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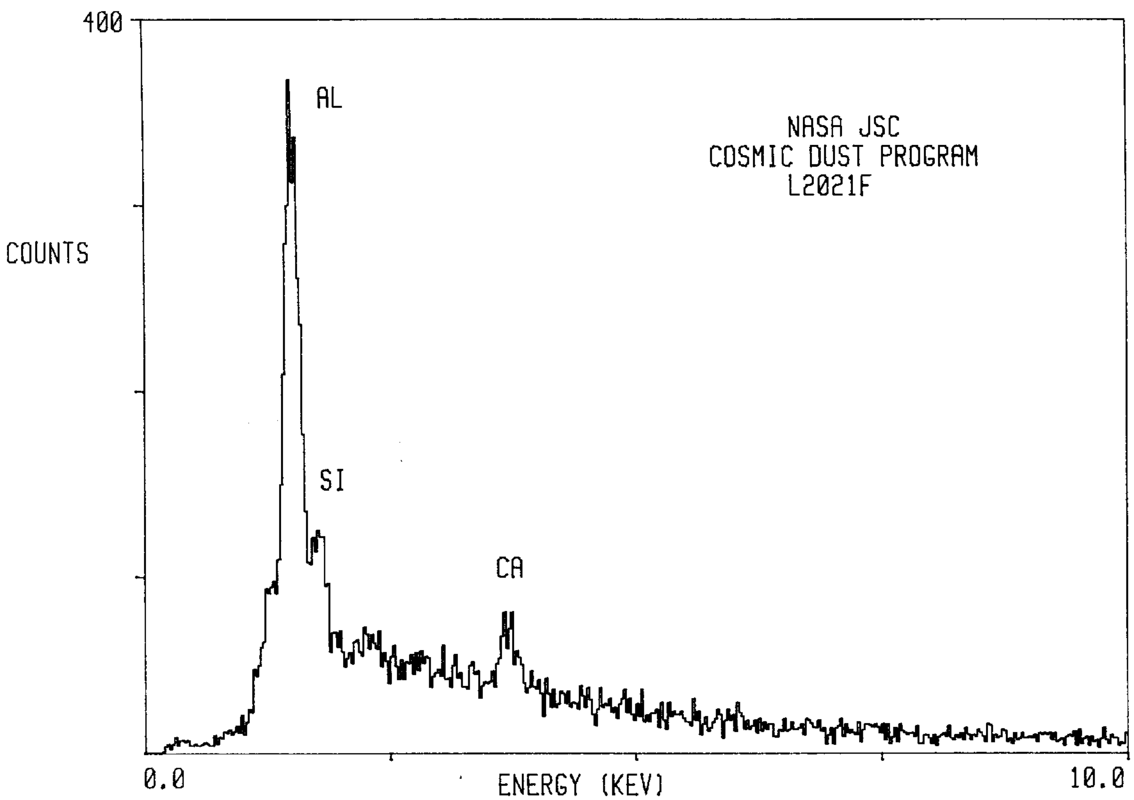
Type: AOS

Comments:



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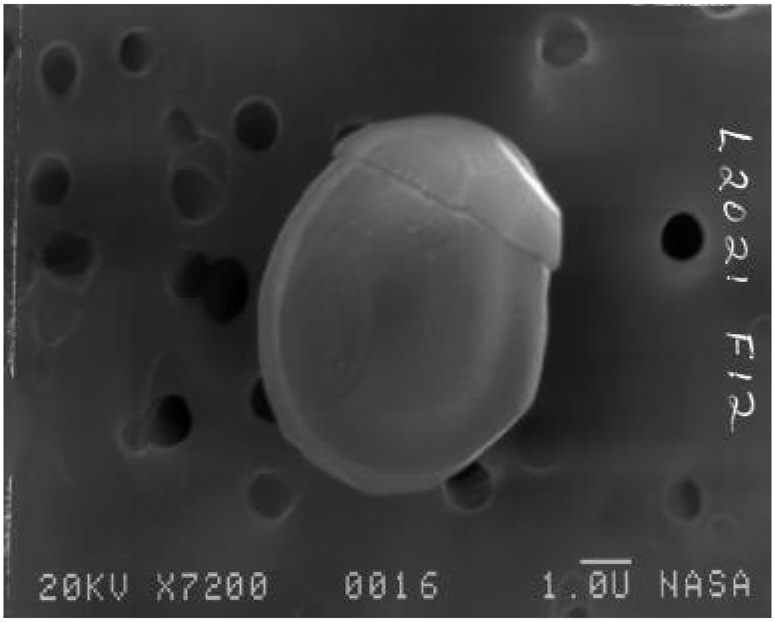


97E00419

Size: 8

Shape: S

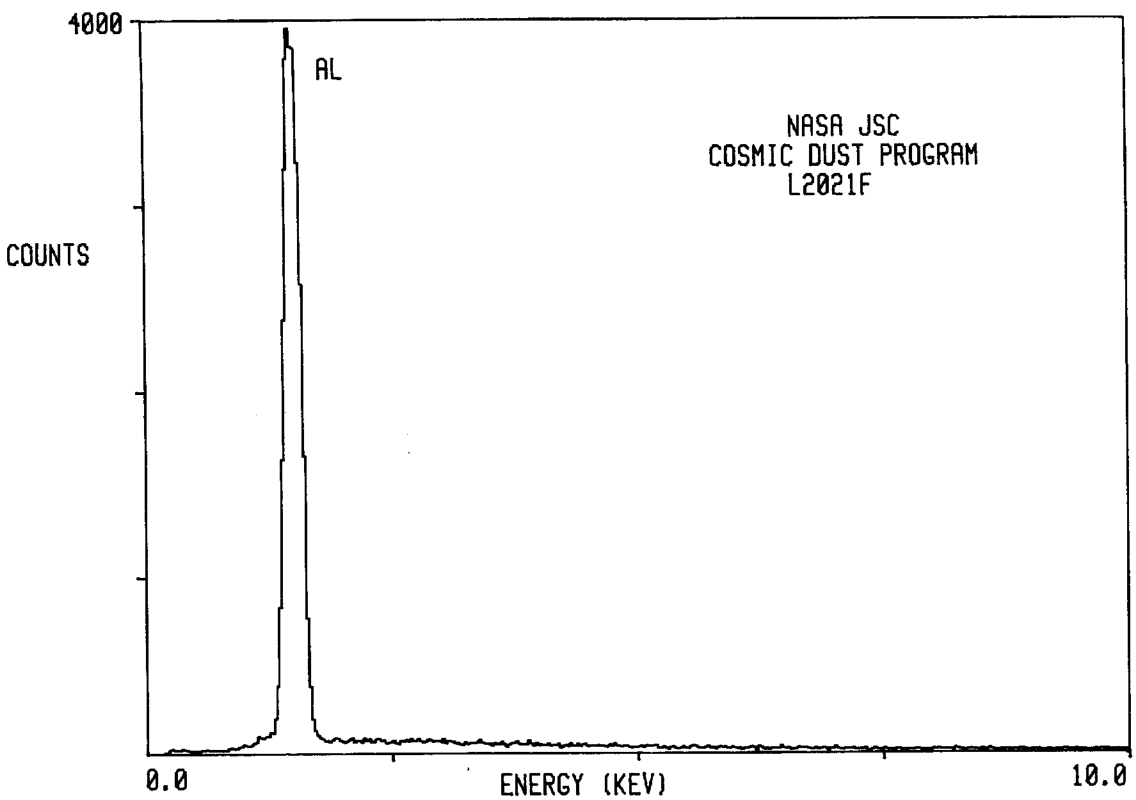
Trans: T

Color: Colorless

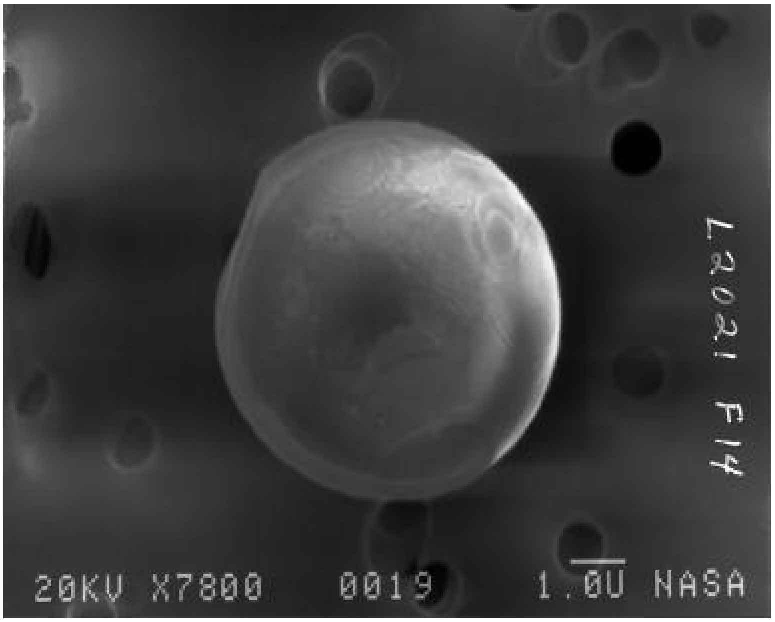
Luster: V

Type: AOS

Comments:



L2021F14



97E00421

Size: 14x6

Shape: I

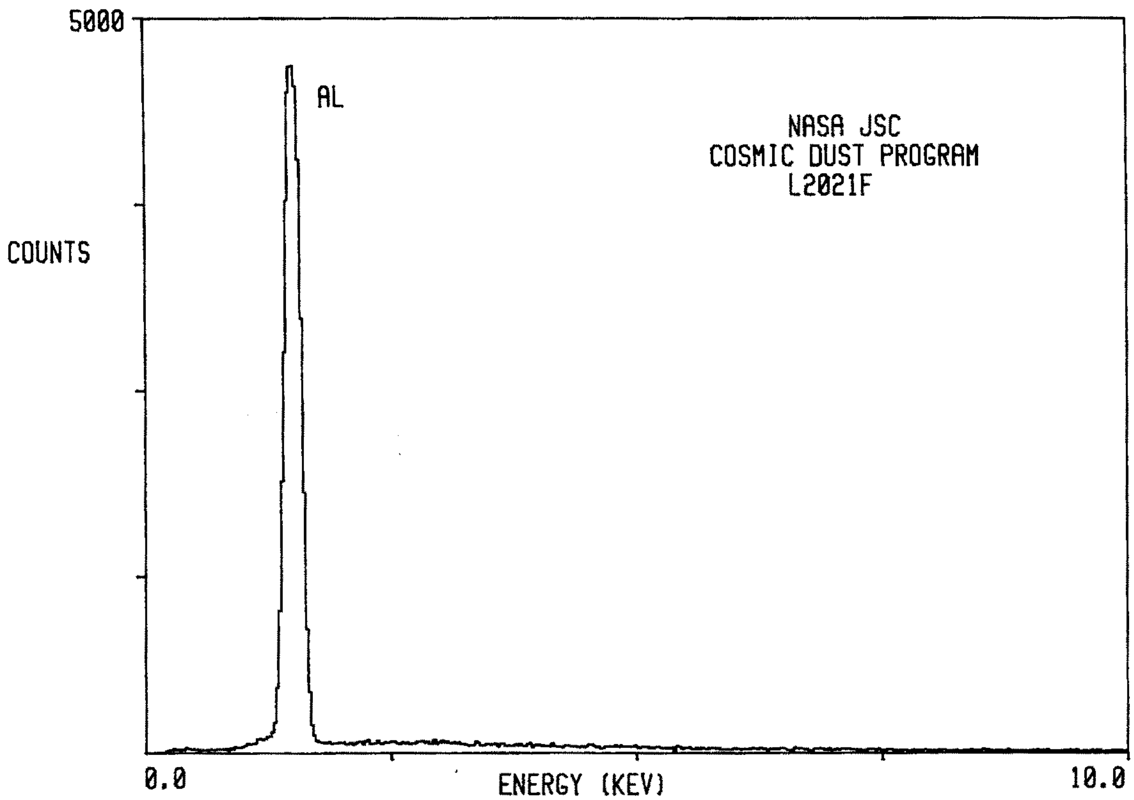
Trans: TL

Color: Brown

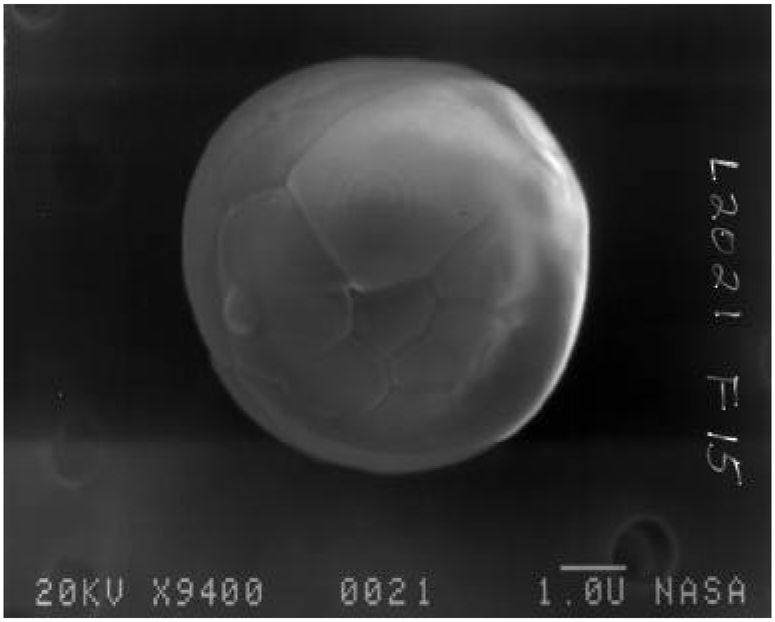
Luster: SV

Type: AOS

Comments:

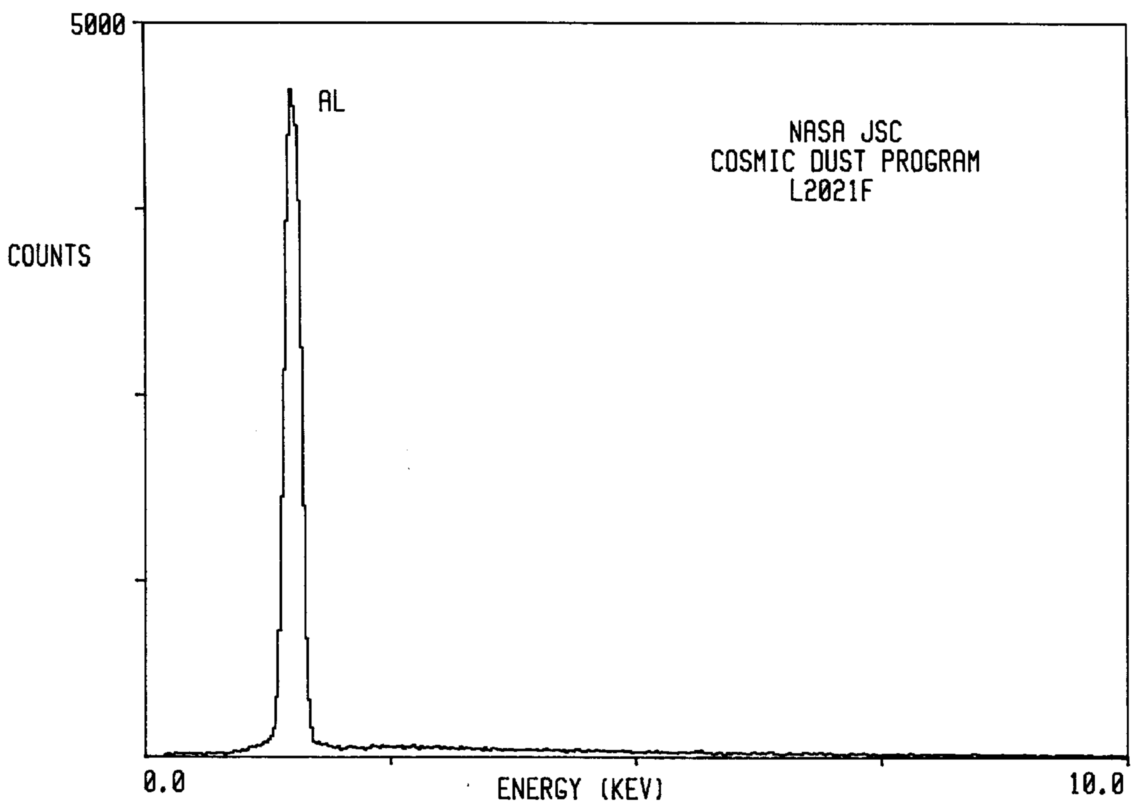


L2021F15



97E00422

Size:	6
Shape:	S
Trans:	T
Color:	Colorless
Luster:	V
Type:	AOS
Comments:	



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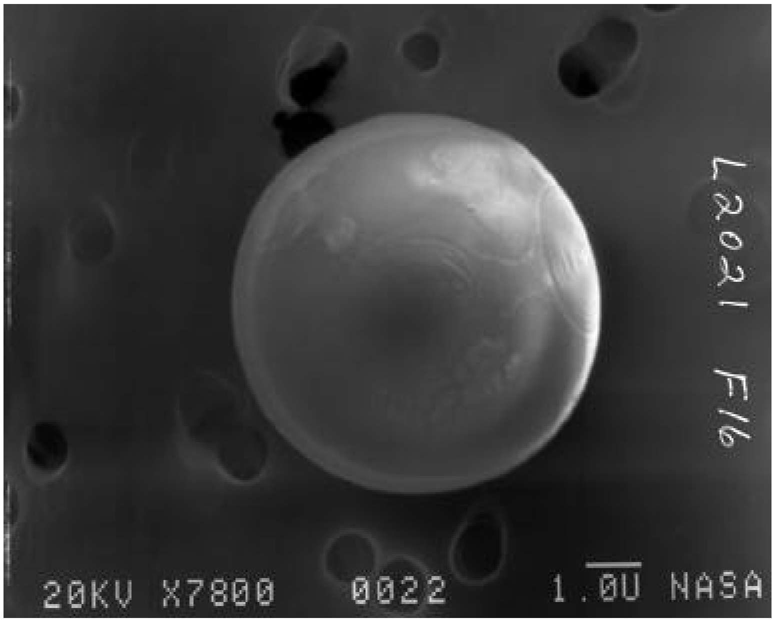
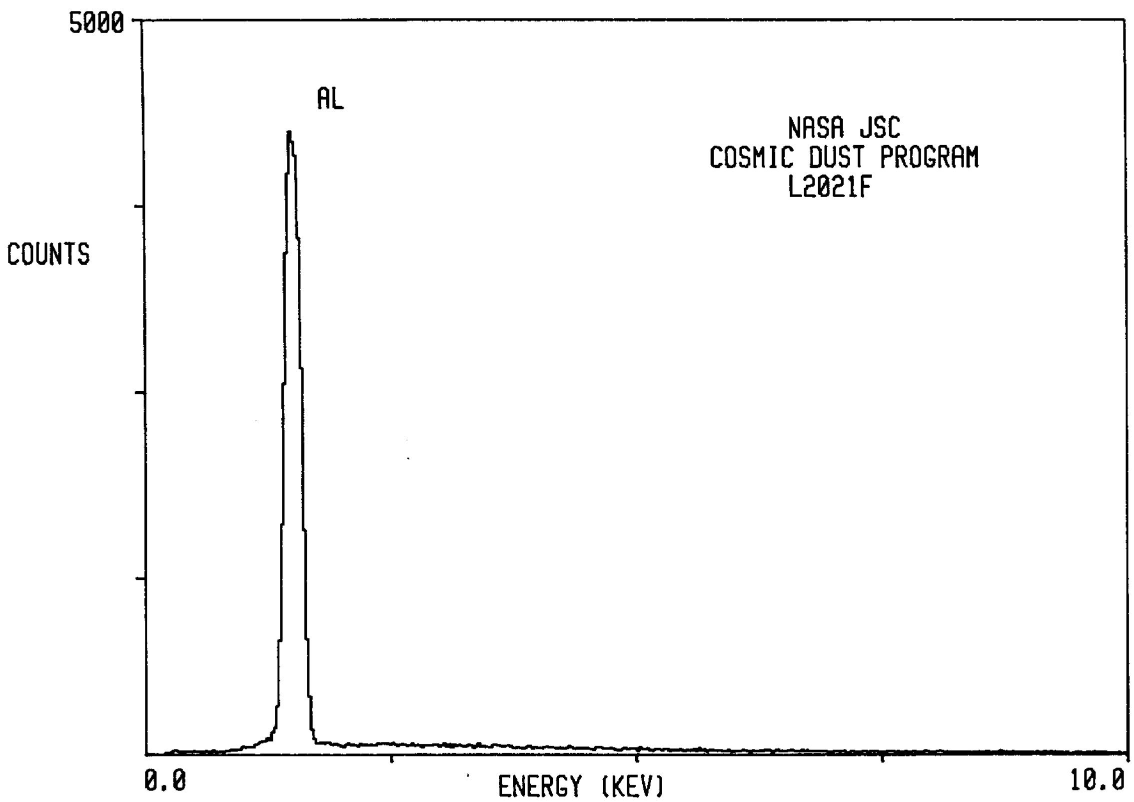
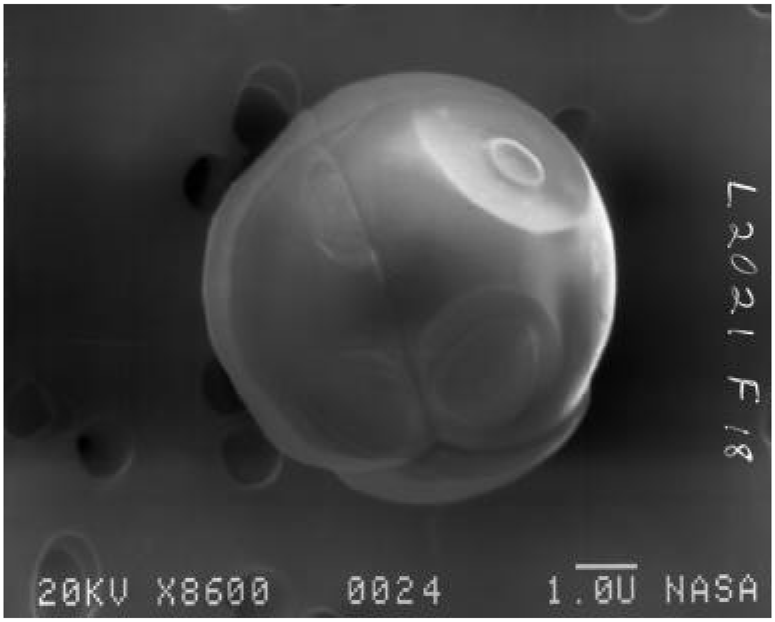


97E00423

Size: 7
Shape: S
Trans: T
Color: Colorless
Luster: V
Type: AOS
Comments:



L2021F18



97E00425

Size: 7
Shape: S
Trans: T
Color: Colorless
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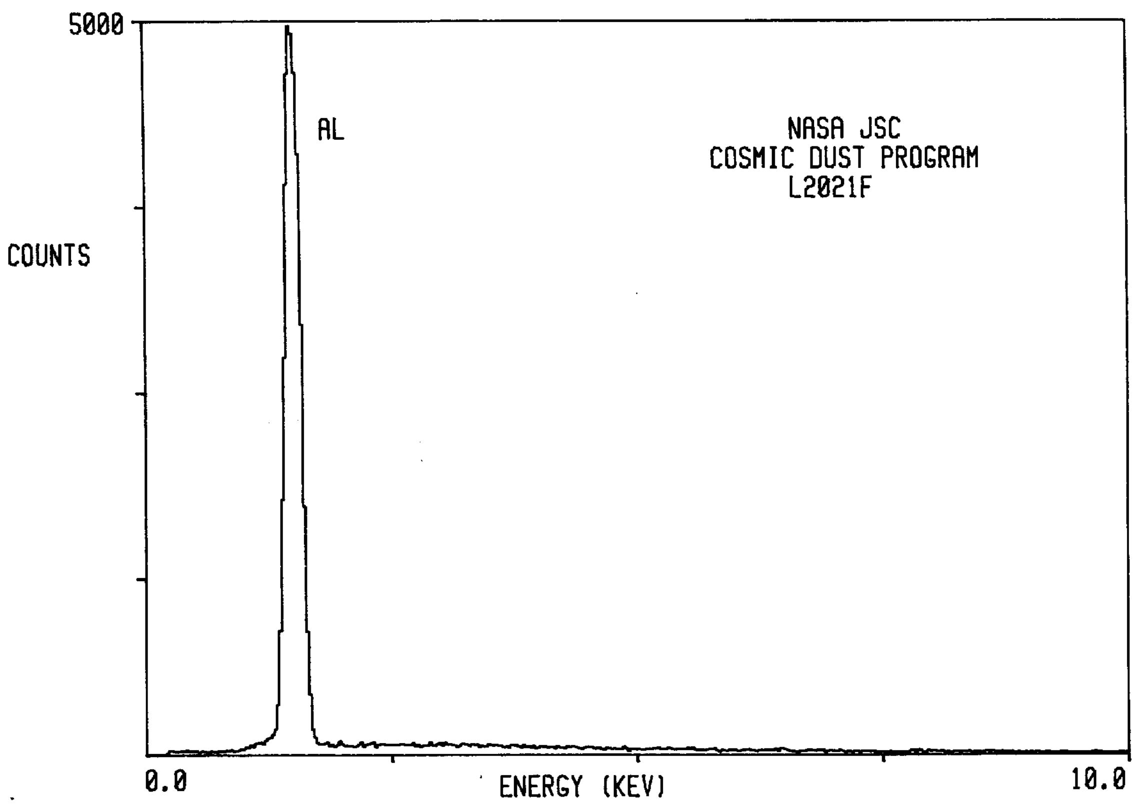
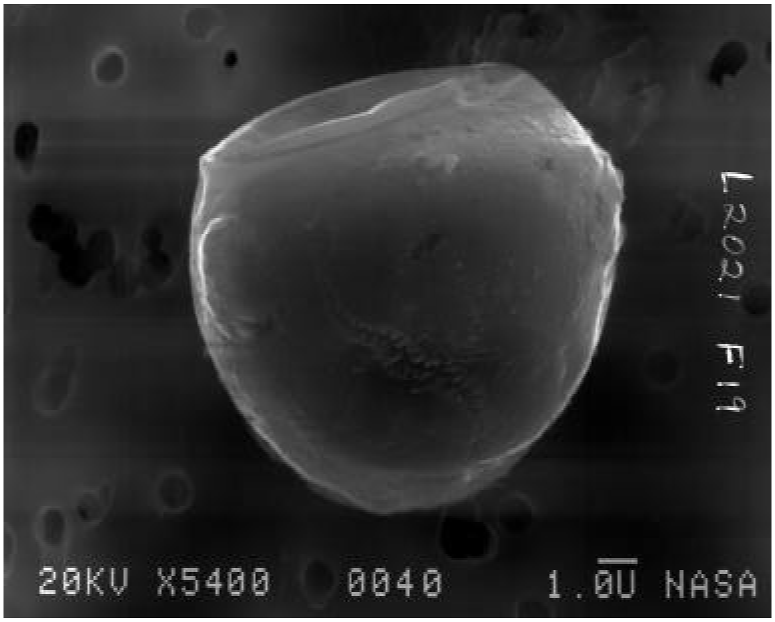
Type: AOS
Comments:



L2021F19



97E00426

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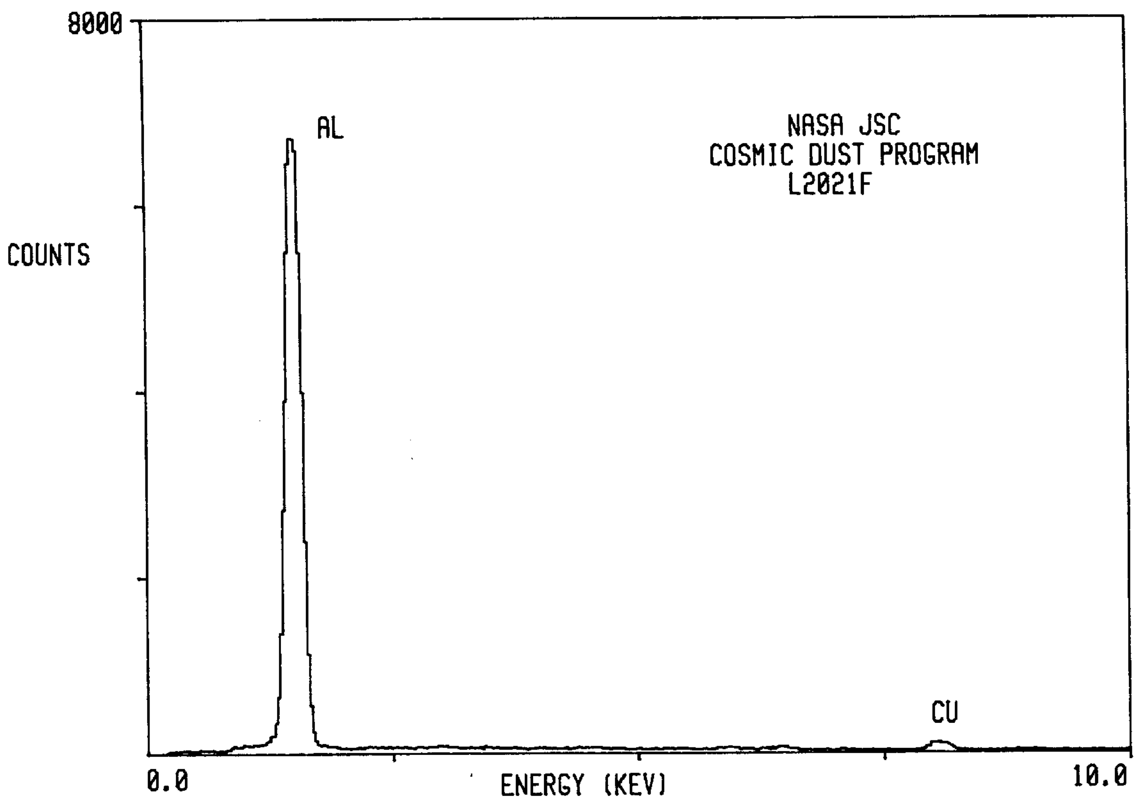
Trans: O

Color: Black

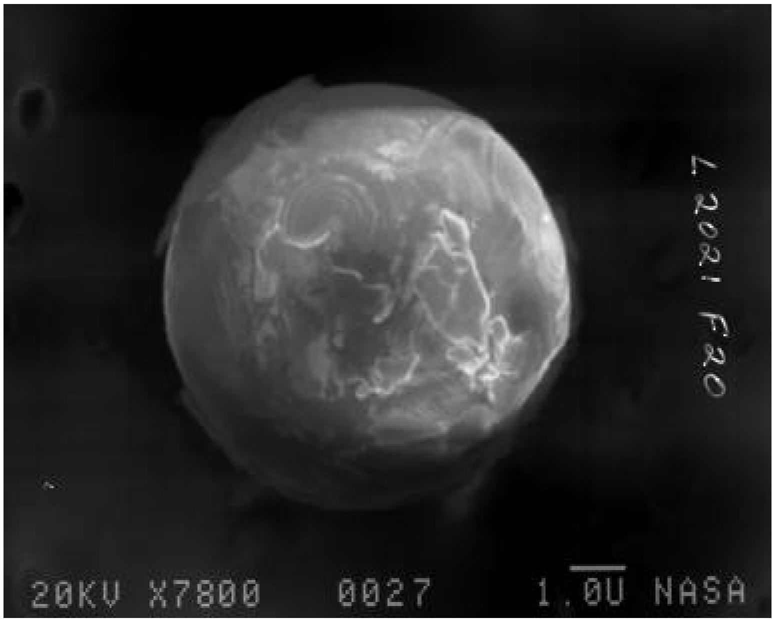
Luster: M

Type: AOS

Comments:



L2021F20



97E00427

Size: 10x4

Shape: S

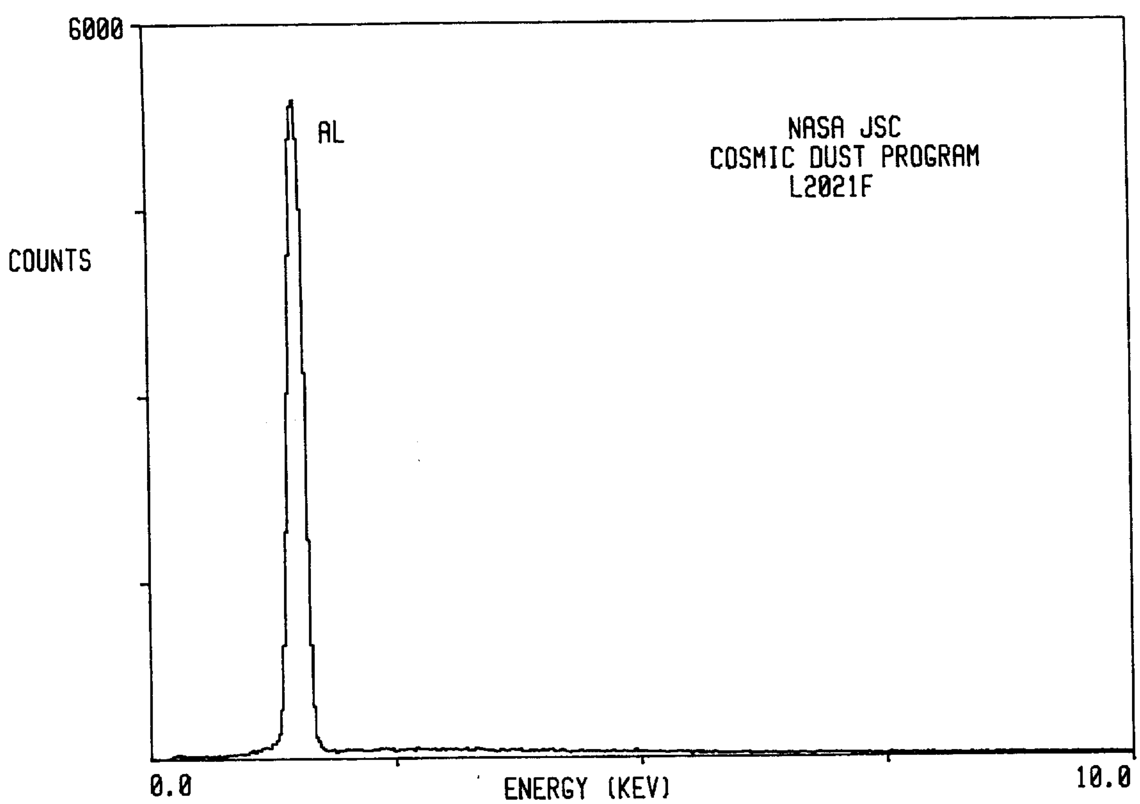
Trans: O

Color: Black

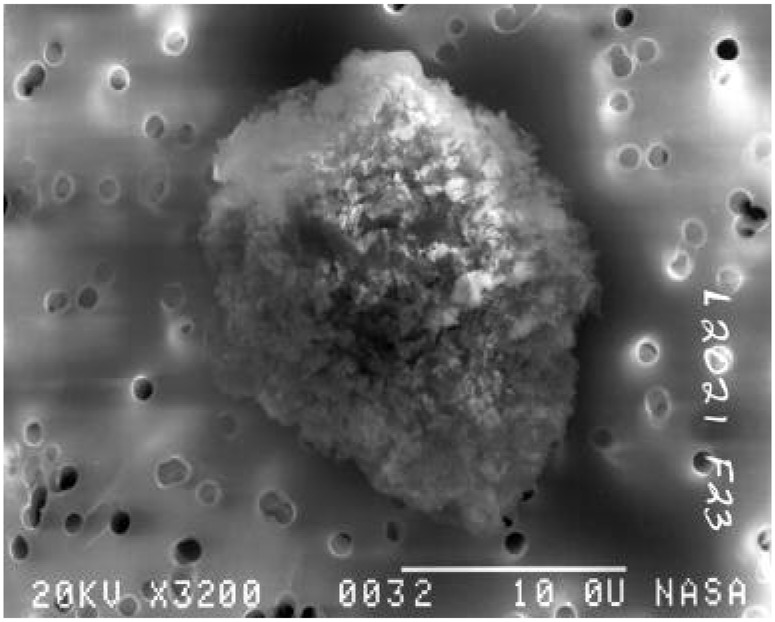
Luster: D

Type: AOS

Comments:



L2021F23



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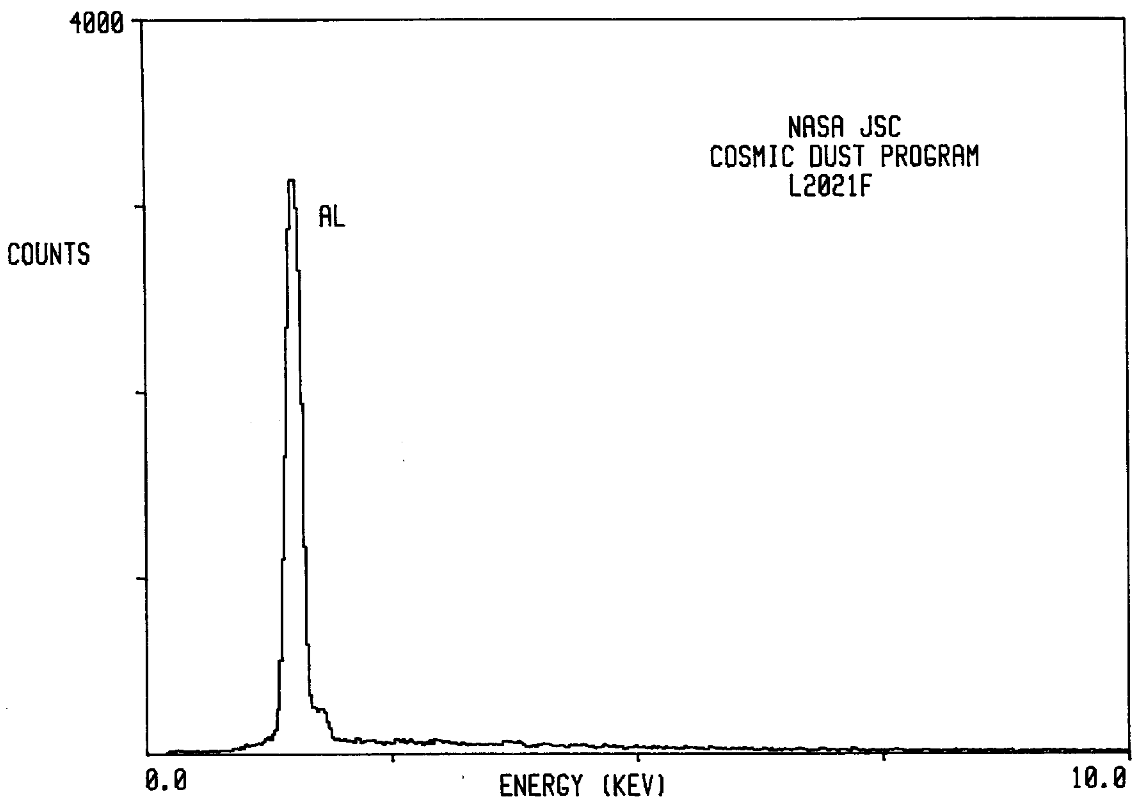
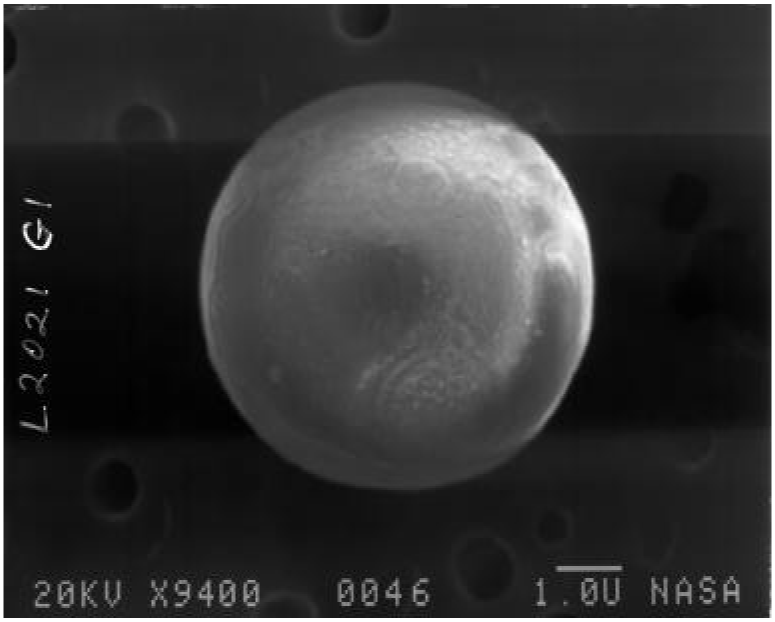


L2021G1



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Size: 8

Shape: S

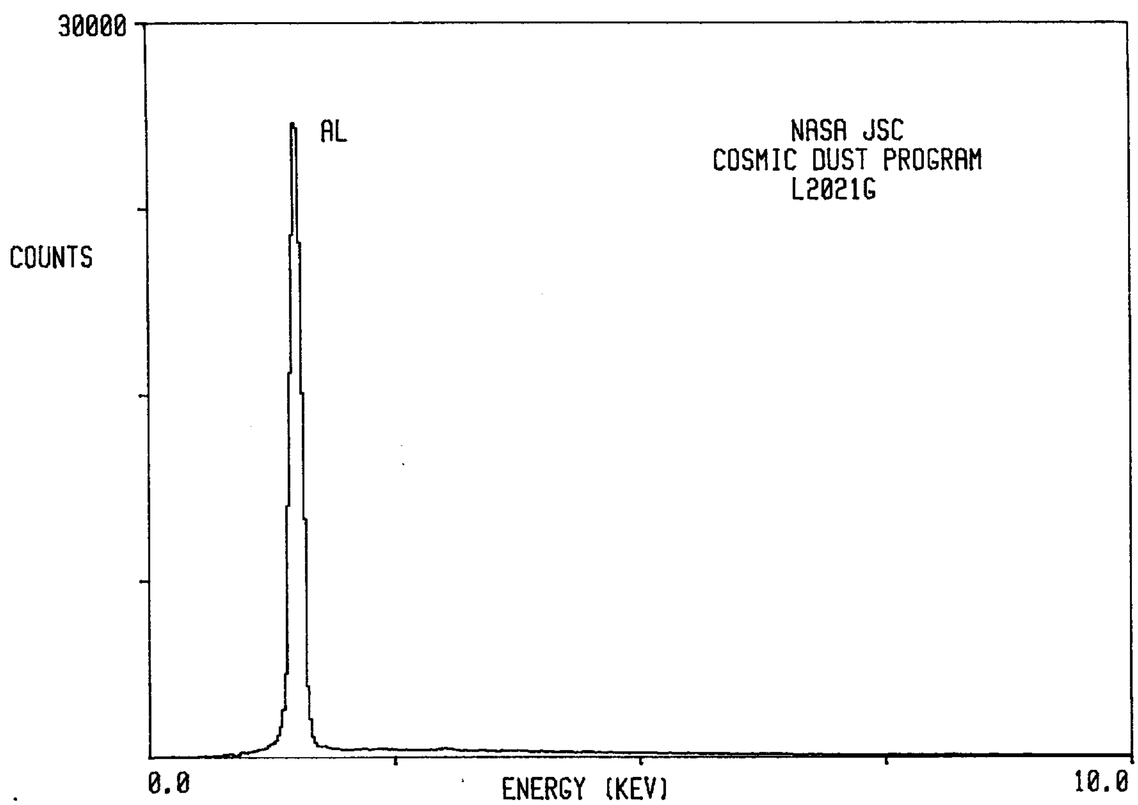
Trans: T

Color: Colorless

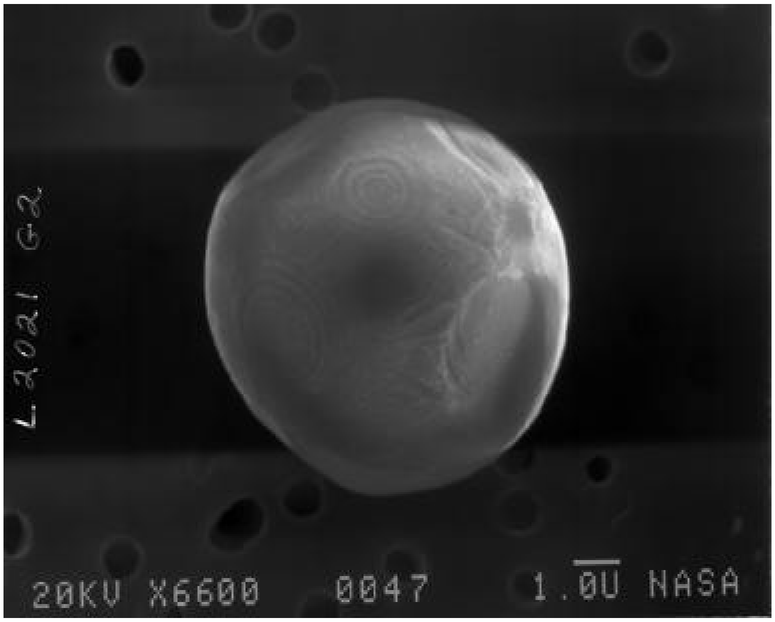
Luster: V

Type: AOS

Comments:



L2021G2



97E00438

Size: 9

Shape: S

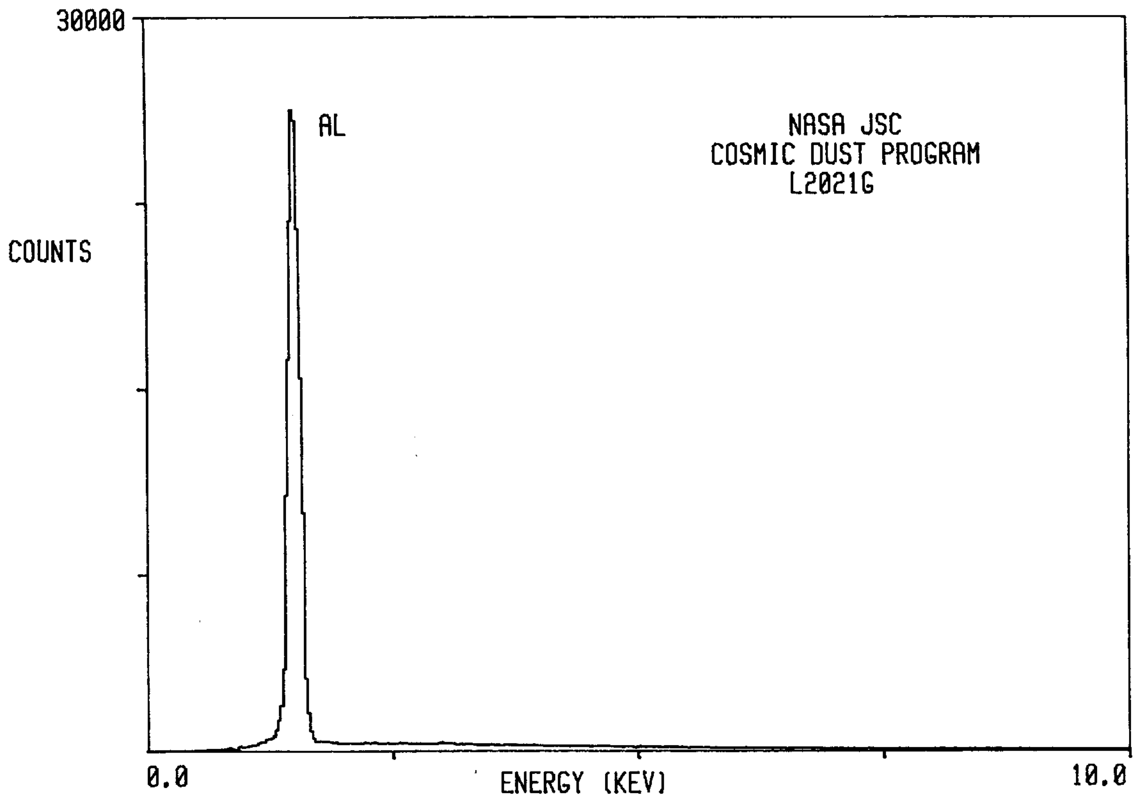
Trans: T

Color: Colorless

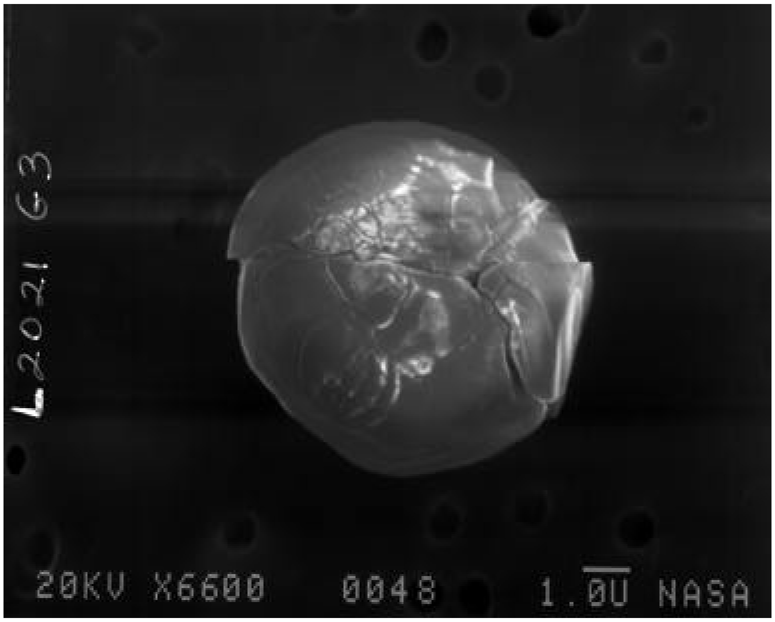
Luster: V

Type: AOS

Comments:



L2021G3



97E00439

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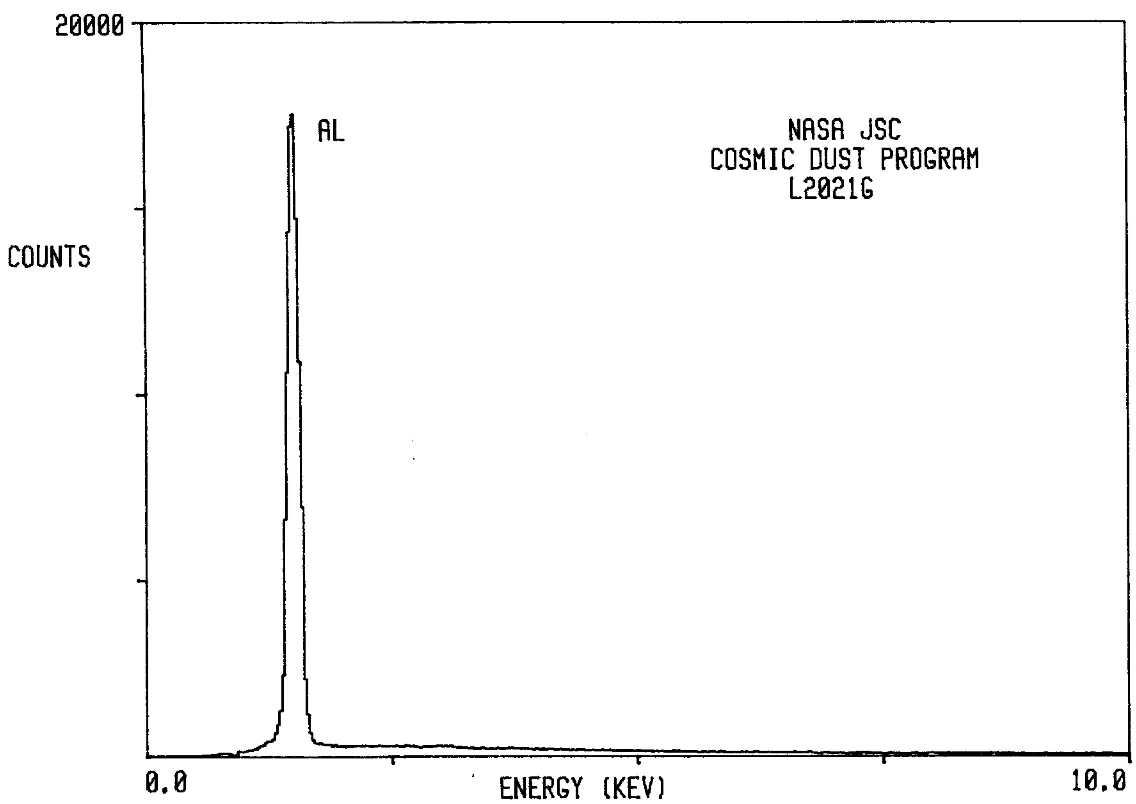
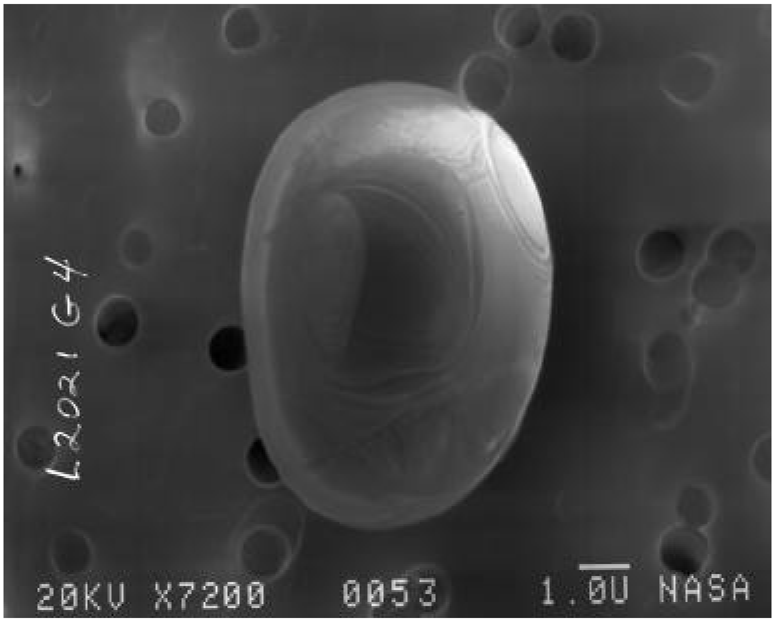


L2021G4



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Size: 8

Shape: S

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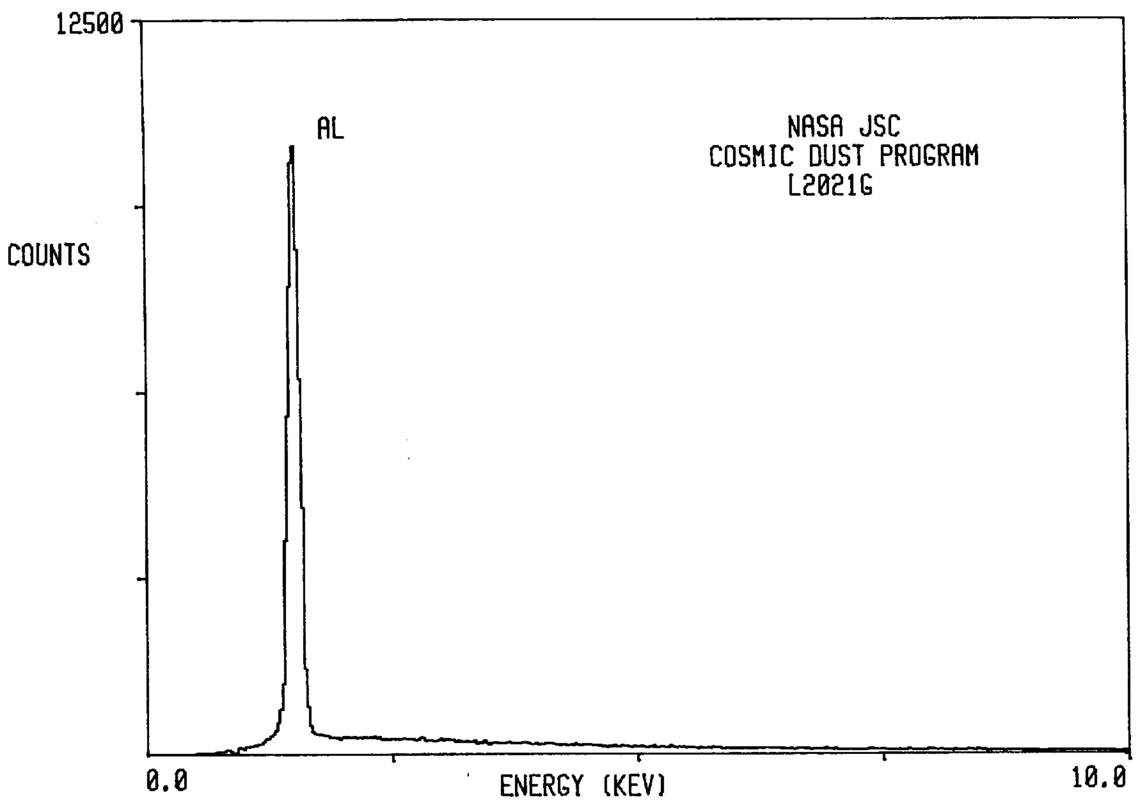
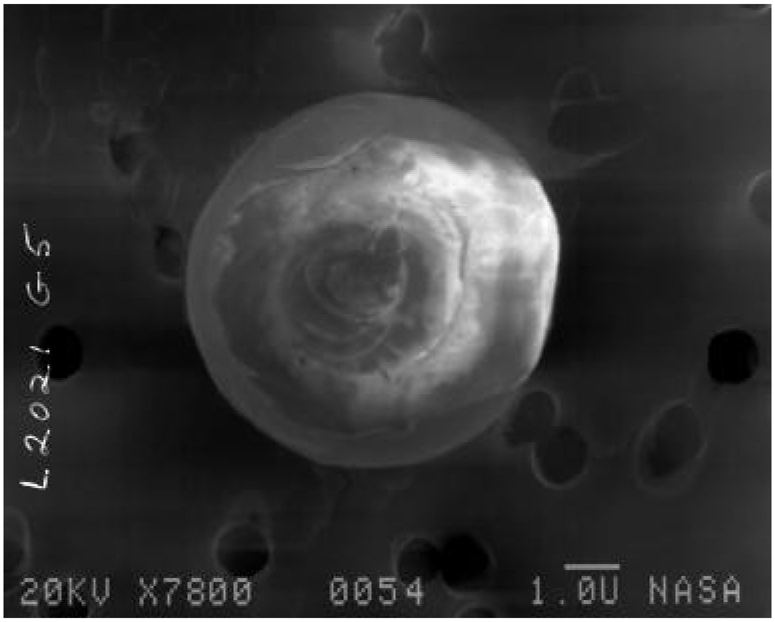


L2021G5



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Size: 7

Shape: S

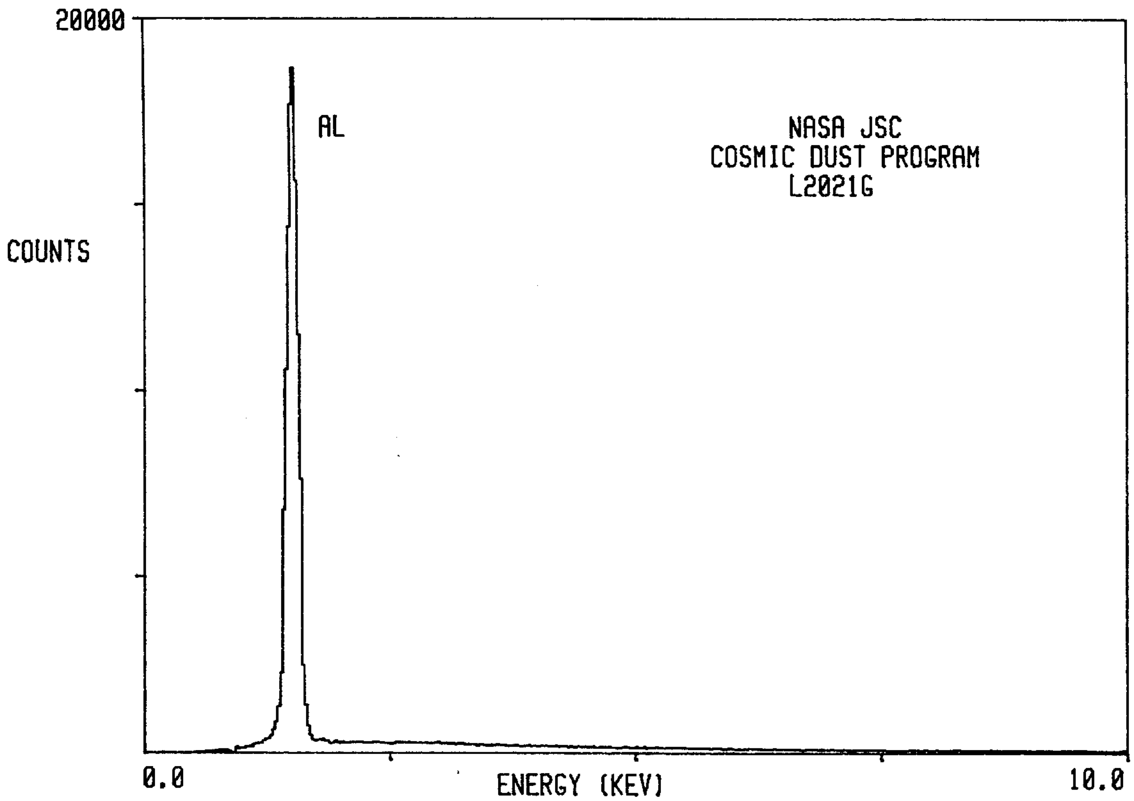
Trans: T

Color: Colorless

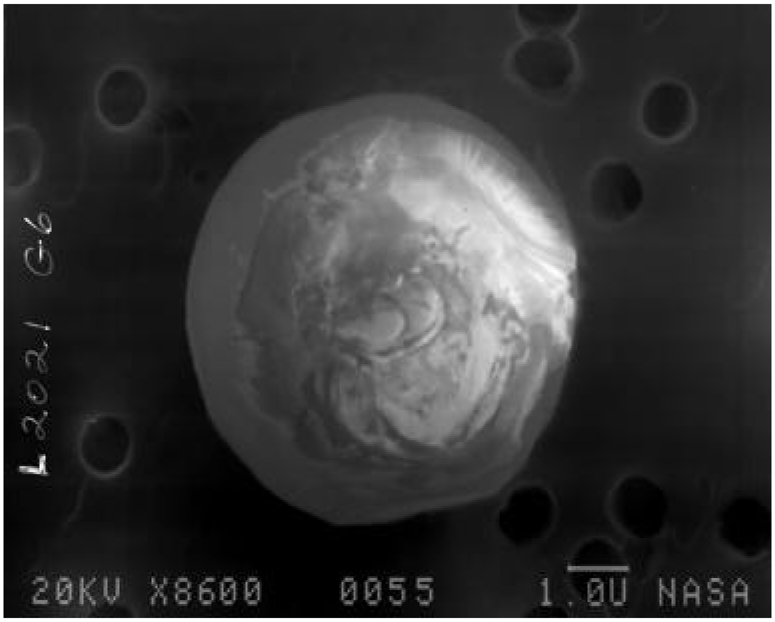
Luster: V

Type: AOS

Comments:



L2021G6



97E00442

Size: 6

Shape: S

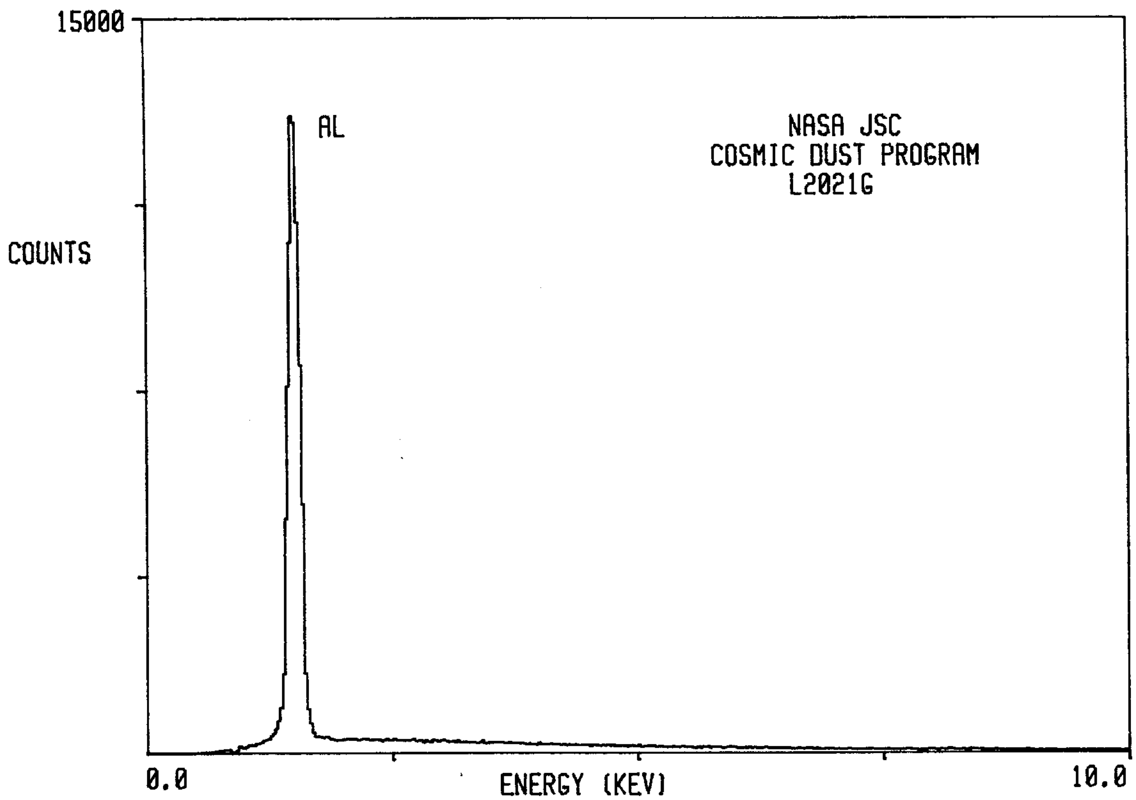
Trans: T

Color: Colorless

Luster: V

Type: AOS

Comments:



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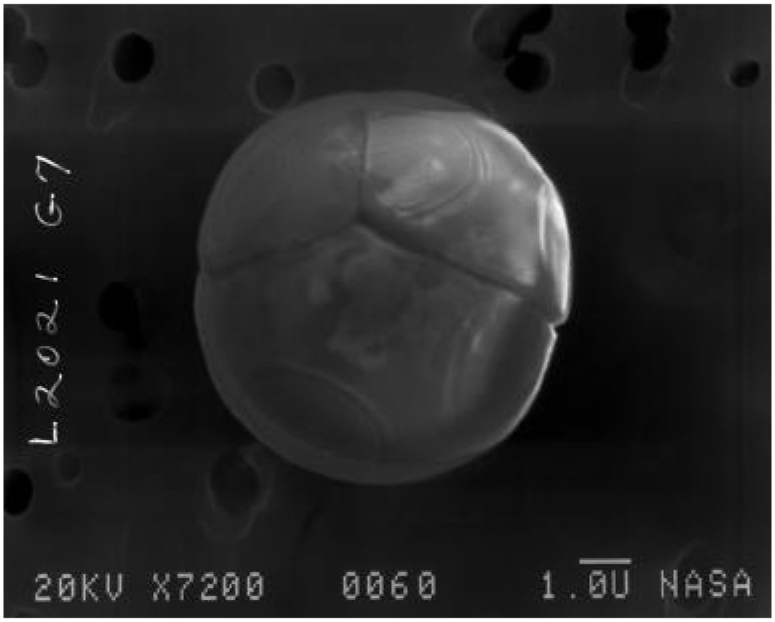

97E00443

Size: 8

Shape: S

Trans: T

Color: Colorless

Luster: V

Type: AOS

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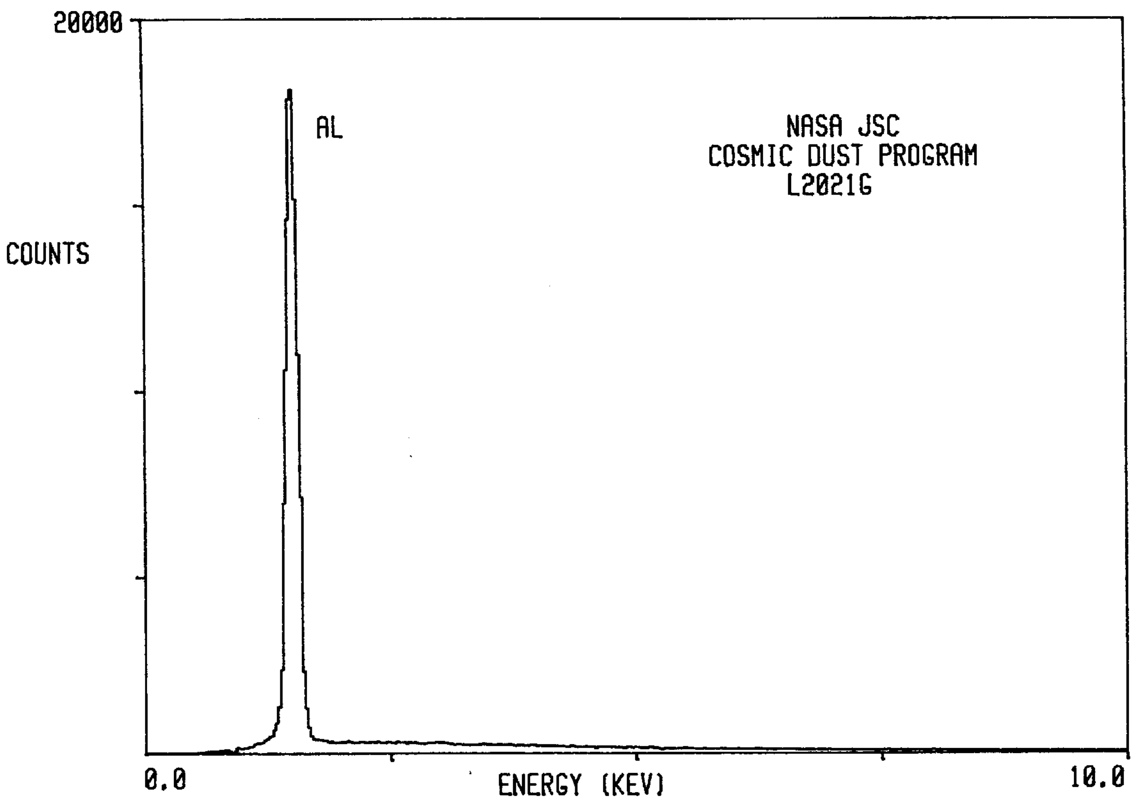

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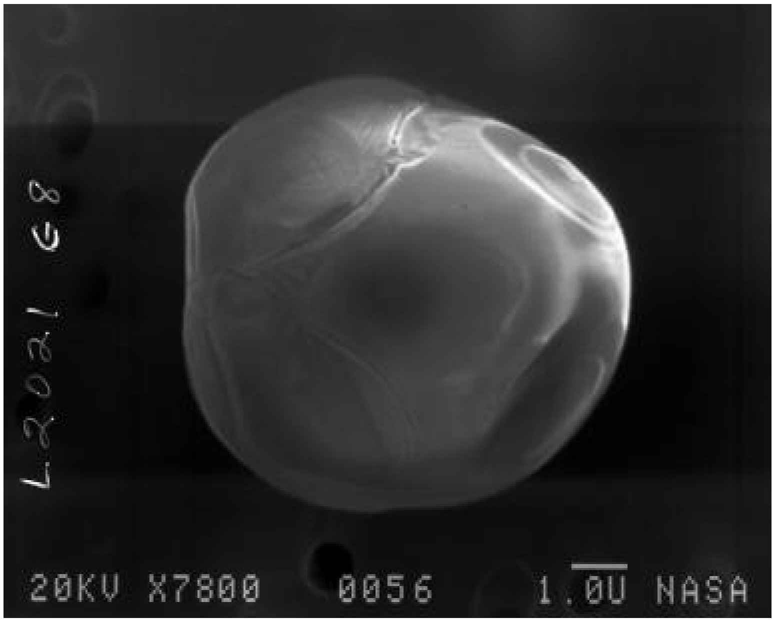
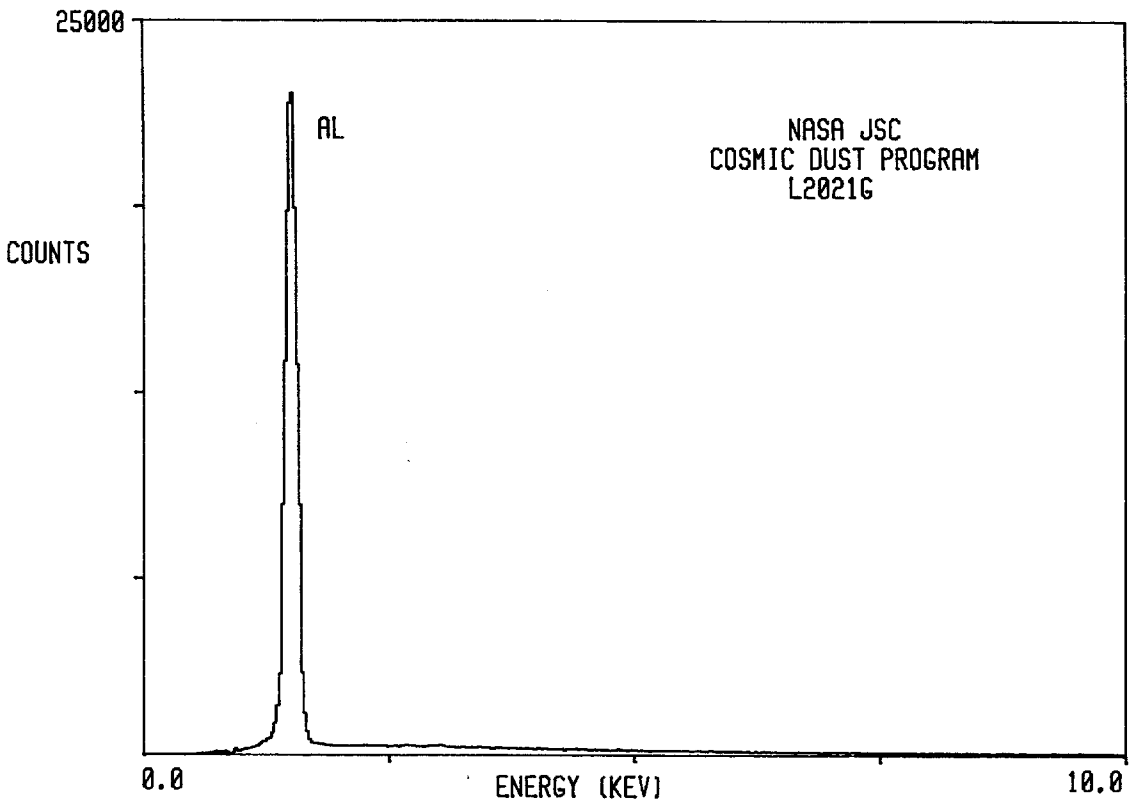
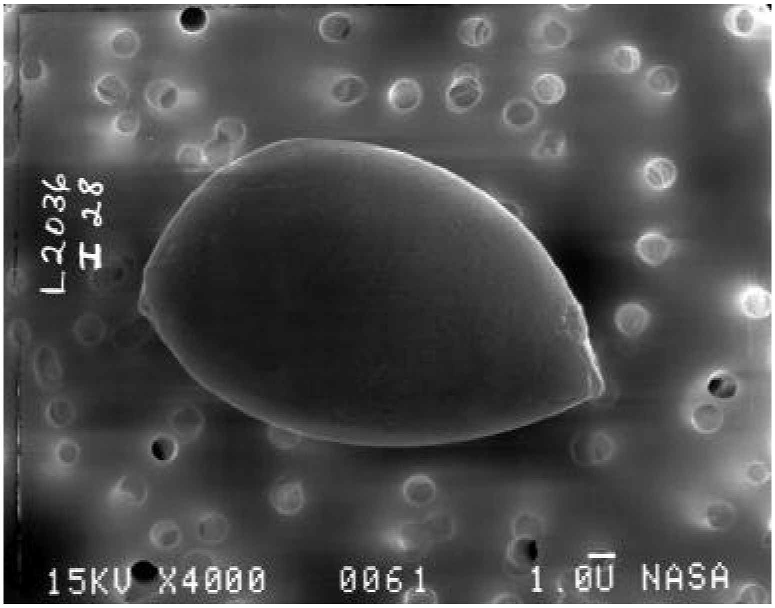


97E00444

Size:	8
Shape:	S
Trans:	T
Color:	Colorless
Luster:	V
Type:	AOS
Comments:	



L2036I28



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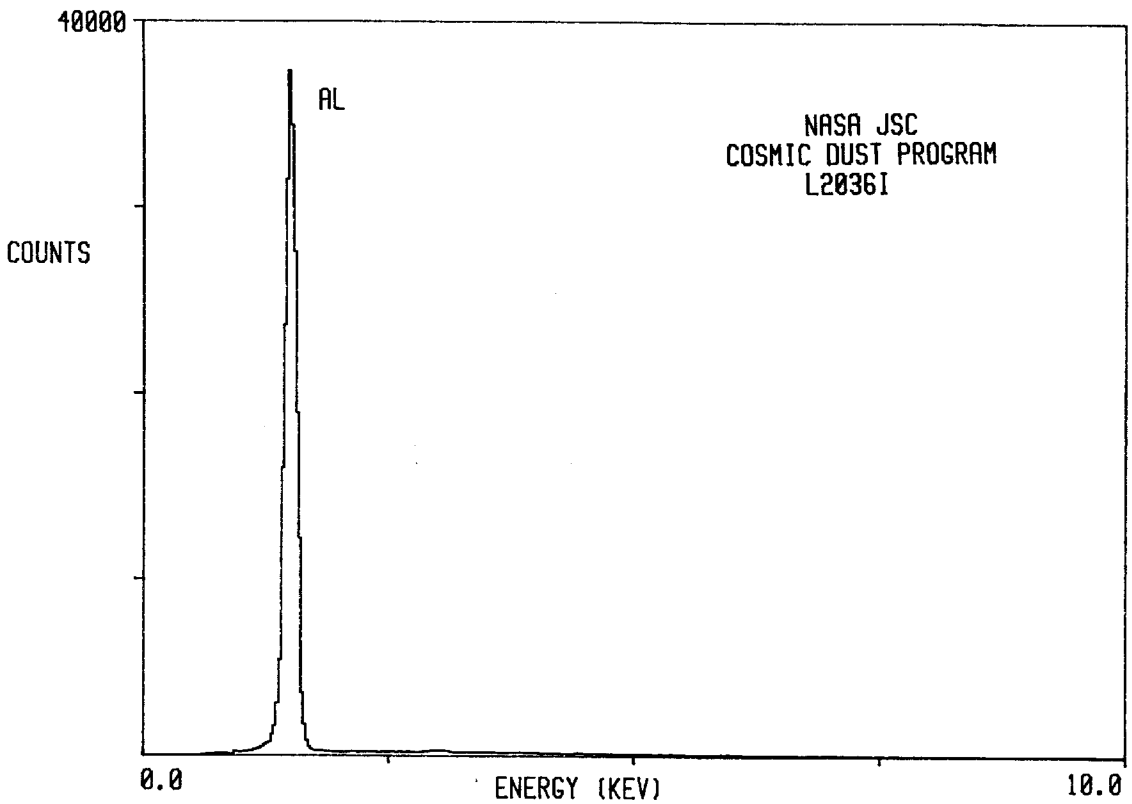
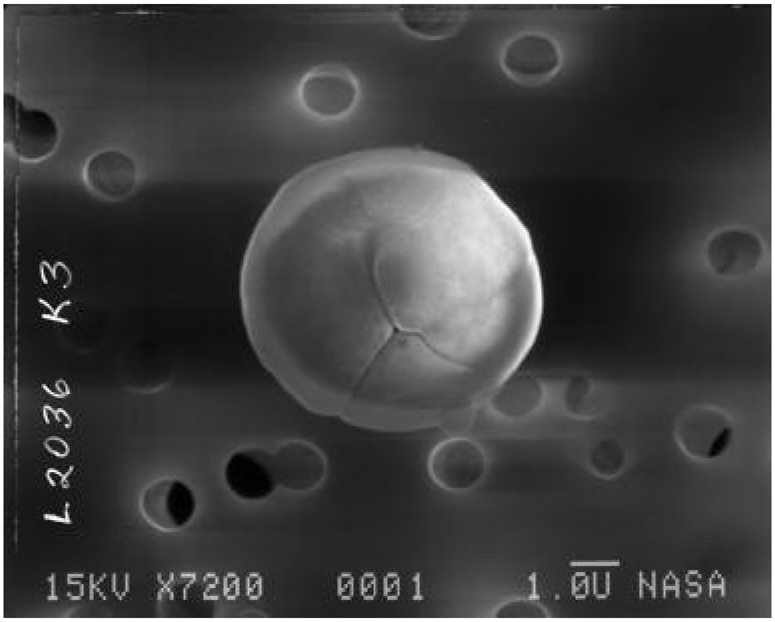
Size: 15x11
Shape: S
Trans: O
Color: Black
Luster: P
Type: AOS
Comments:



L2036K3



97E00194

Size: 6

Shape: S

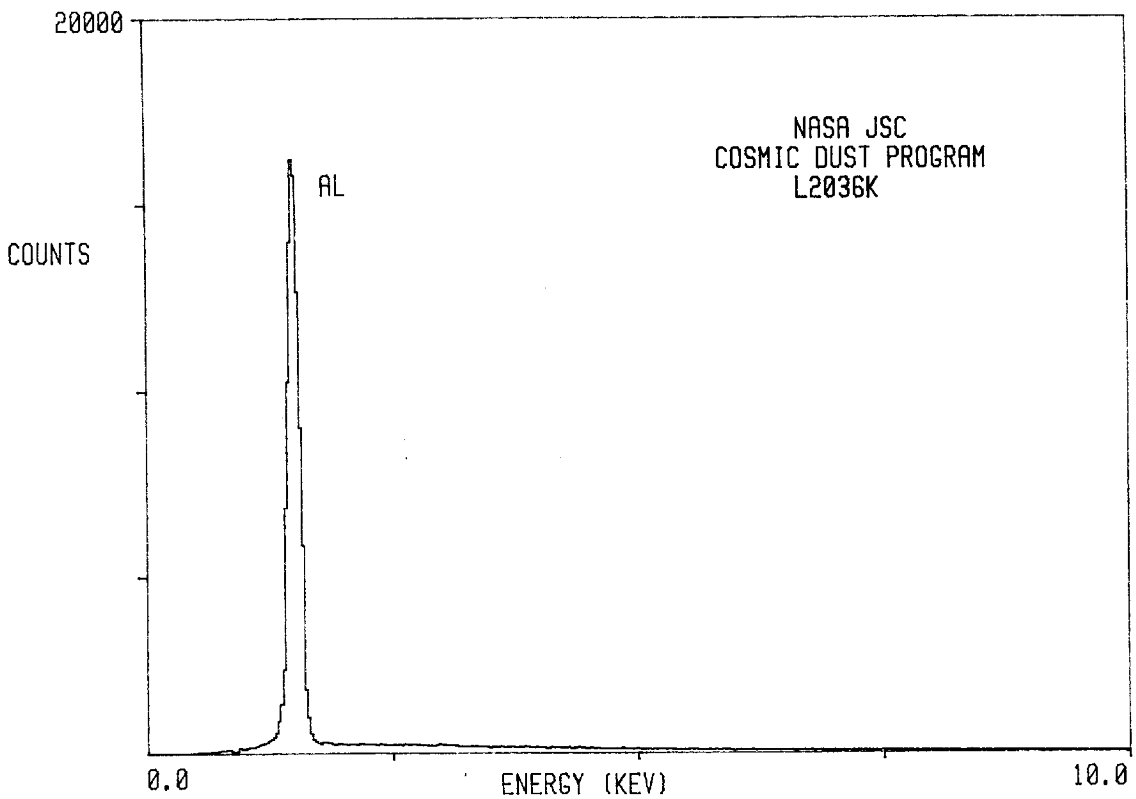
Trans: T

Color: Colorless

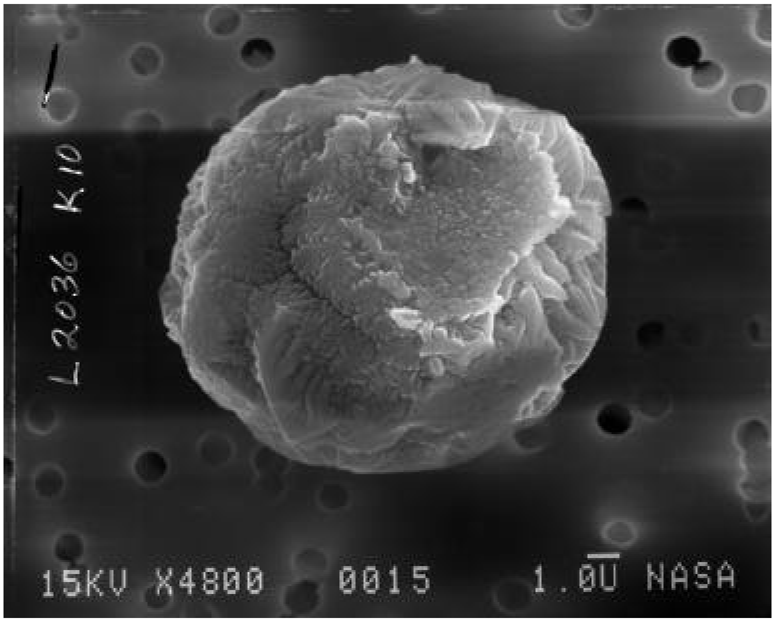
Luster: V

Type: AOS

Comments:

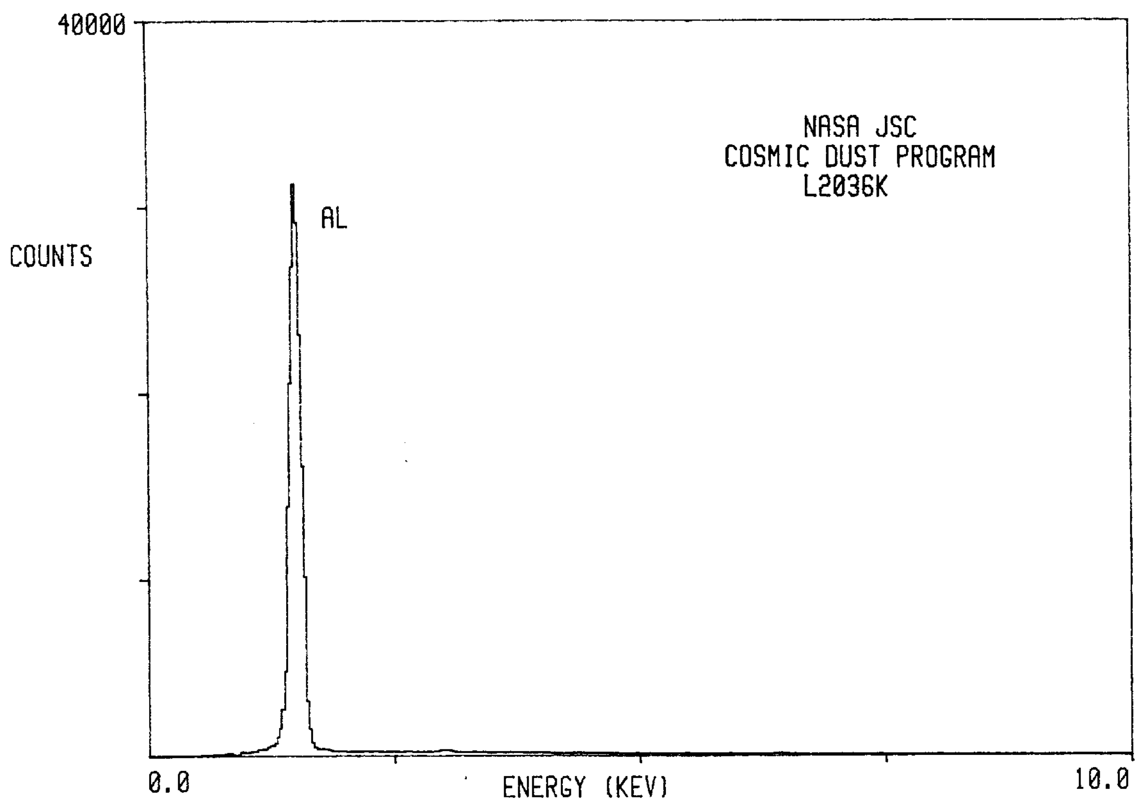


L2036K10

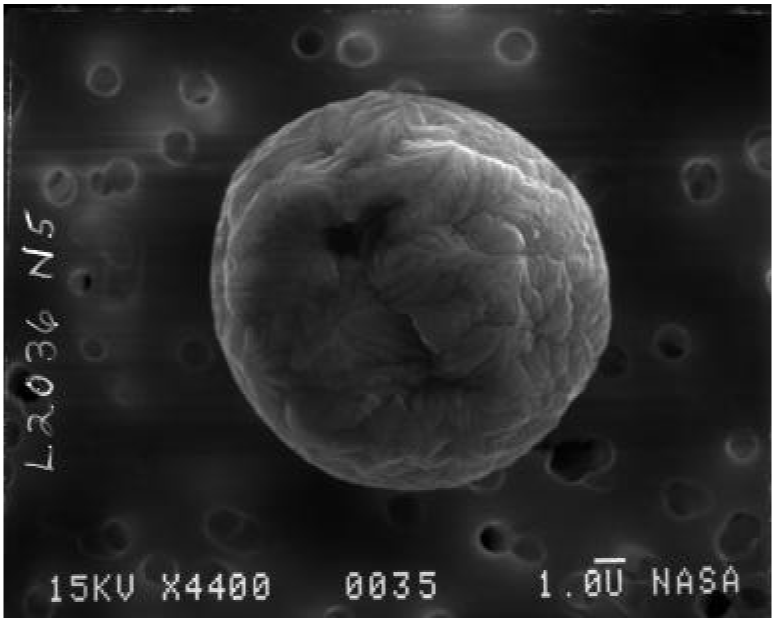


97E00201

Size: 11
Shape: S
Trans: O
Color: Silver
Luster: M
Type: AOS
Comments:

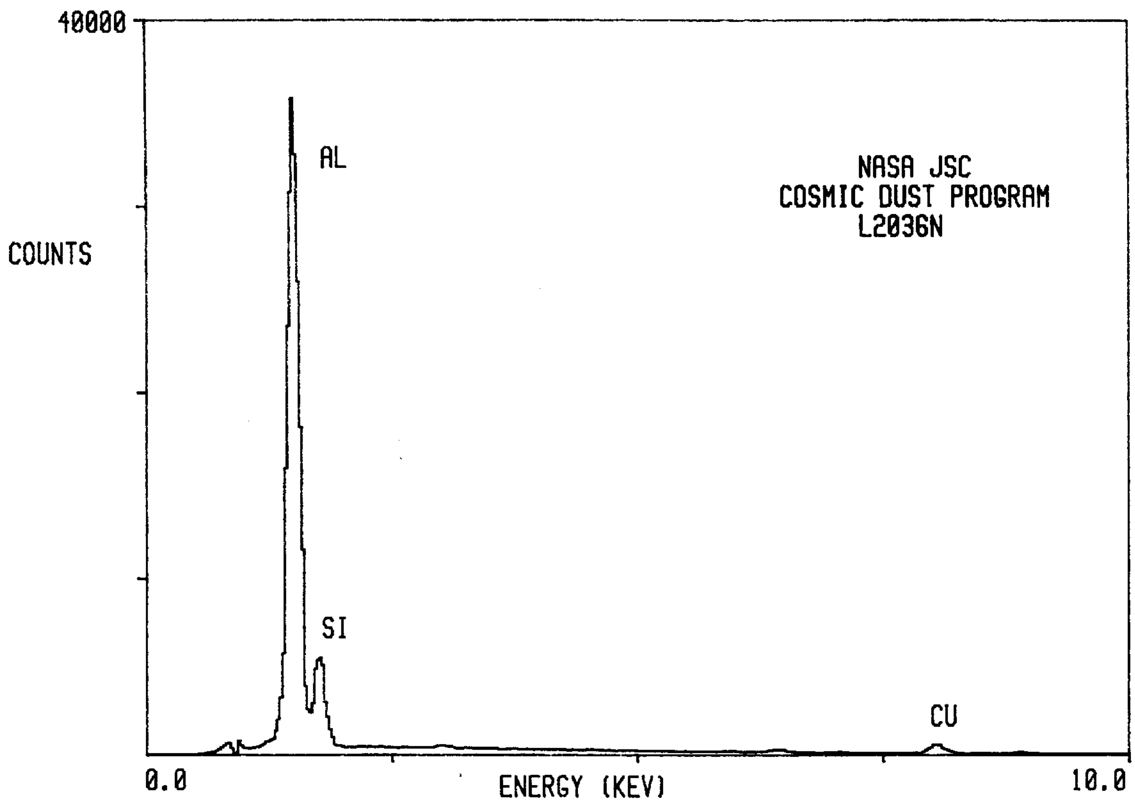


L2036N5

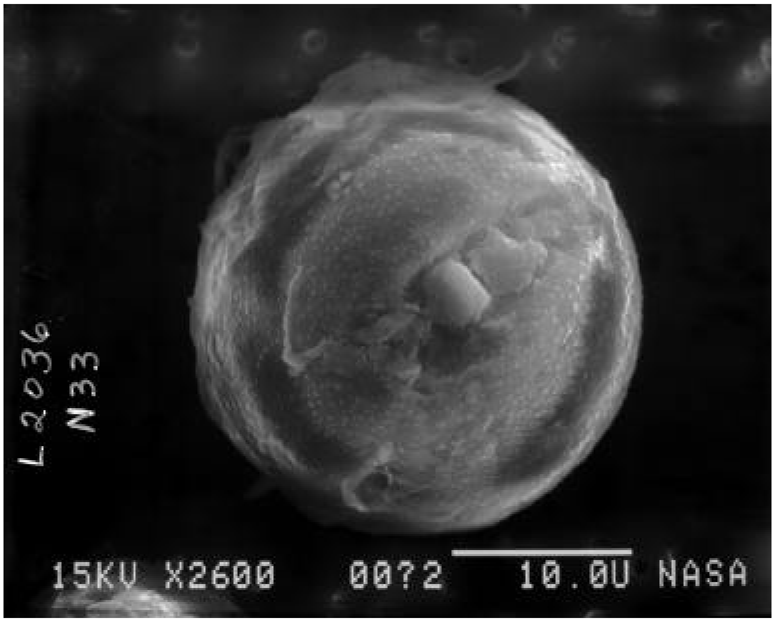


97E00285

Size: 10
Shape: S
Trans: O
Color: Silver
Luster: M
Type: AOS
Comments:



L2036N33



97E00313

Size: 27

Shape: S

Trans: T

Color: Colorless

Luster: V

Type: AOS

Comments: