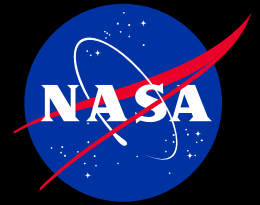


NASA'S ASTROMATERIALS ACQUISITION AND CURATION OFFICE AT THE JOHNSON SPACE CENTER

National Aeronautics and
Space Administration

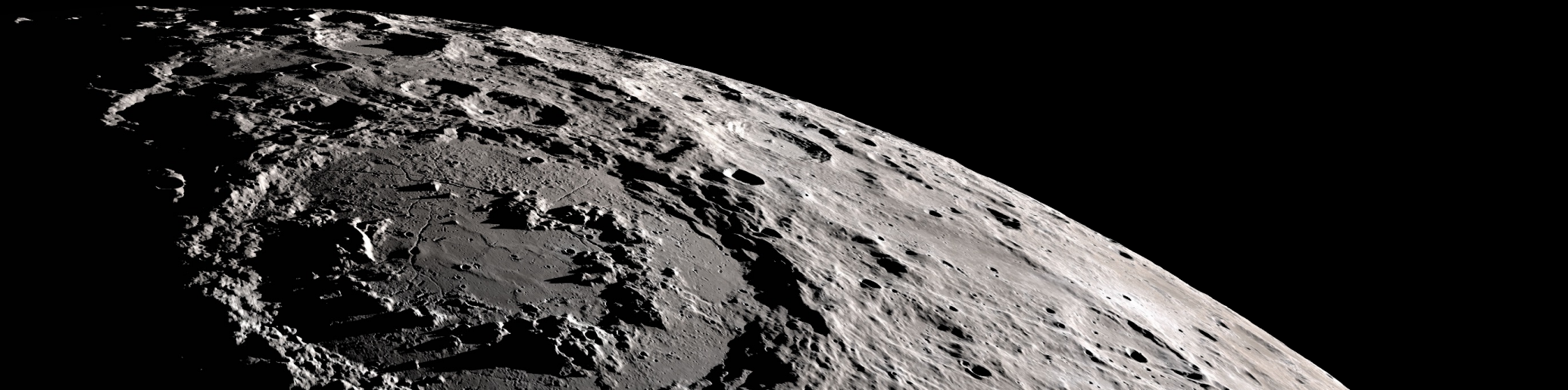


Dr. Jemma Davidson

XI2 Branch Chief, Astromaterials Curator

6th November 2024

How to Become Part of the NASA Planetary Sample Science Community



NASA'S ASTROMATERIALS ACQUISITION & CURATION OFFICE



- The Astromaterials Acquisition and Curation Office at NASA Johnson Space Center (JSC) is responsible for curating all of NASA's extraterrestrial samples.
- Under the governing documents, NASA Policy Directive (NPD) 7100.10F + derivative NASA Procedural Requirements (NPR) 7100.5 "Curation of Extraterrestrial Materials", JSC is charged with being "the NASA Center that manages all Astromaterials collections and curation facilities [at NASA]."
- This pertains to all current and future Astromaterials collections that NASA owns or that were collected using NASA funds, unless otherwise specified in a formal agreement with a non-NASA entity.

<https://nodis3.gsfc.nasa.gov/displayDir.cfm?t=NPR&c=7100&s=5>



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NASA'S ASTROMATERIALS ACQUISITION & CURATION OFFICE



NASA NATIONAL AERONAUTICS & SPACE ADMINISTRATION

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Astromaterials Acquisition & Curation Office

Astromaterials Newsletter



The newsletter grid features nine vertical panels, each with a representative image and a title at the bottom:

- GENESIS**: Close-up of the Sun.
- STARDUST**: Purple nebula.
- MICROPARTICLE IMPACT**: Spacecraft in space.
- ANTARCTIC METEORITES**: Antarctic landscape.
- LUNAR**: Lunar surface with a rover.
- COSMIC DUST**: Cosmic dust field.
- HAYABUSA**: Hayabusa spacecraft on an asteroid.
- HAYABUSA2**: Hayabusa2 spacecraft on an asteroid.
- OSIRIS-REX**: OSIRIS-REX spacecraft in space.

Visit the curation website at <https://curator.jsc.nasa.gov/>



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NASA'S ASTROMATERIALS ACQUISITION & CURATION OFFICE

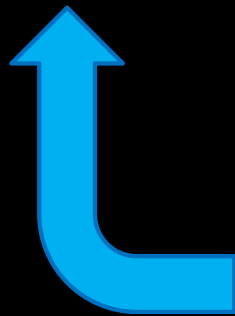


Current Collections

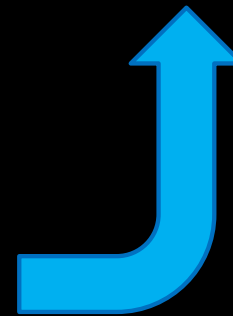


Emerging Collections

ARTEMIS



Advanced Curation



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THE CURRENT COLLECTIONS...



Lunar

(1969)

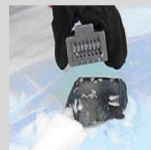
Apollo program lunar rocks and soils; Luna samples



Meteorite

(1977)

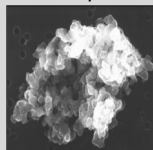
Antarctic Search for Meteorites (ANSMET) program



Cosmic Dust

(1981)

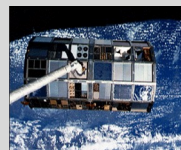
Cosmic dust grains from Earth's stratosphere



Microparticle Impacts

(1985)

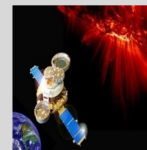
Space exposed hardware from spacecraft



Genesis

(2004)

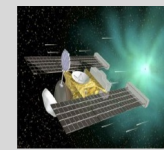
Genesis solar wind samples at Earth-Sun L1 point



Stardust

(2006)

Cometary and interstellar samples from Comet Wild 2



Hayabusa

(2012)

Subset of samples collected from JAXA asteroid mission to Itokawa



Hayabusa II

(2021)

Subset of samples collected from JAXA asteroid mission to Ryugu



OSIRIS-REx

(2023)

Asteroid sample return from Bennu



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NASA APOLLO: SAMPLE COLLECTION 1969–1972



- The collection that started Curation at JSC
- Six Apollo missions collected 382 kg of rock, soil, and cores
- 2200 separate samples from six collection sites
- Samples returned by three Soviet Luna missions
- Scientific investigations – revolutionized our understanding the Moon's origin and evolution, the relationship with Earth, the terrestrial planets and Solar System processes.



Lunar Sample Curator: Dr. Ryan Zeigler
<https://curator.jsc.nasa.gov/lunar/index.cfm>



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NASA APOLLO: SAMPLE COLLECTION 1969–1972



Sample request information

Sample catalog

Lunar sample compendium

Curator: Dr. Ryan Zeigler
<https://curator.jsc.nasa.gov/lunar/index.cfm>



ANTARCTIC METEORITES: SAMPLE COLLECTION 1977–DATE



- Recovered by the Antarctic Search for Meteorites (ANSMET):
<https://caslabs.case.edu/ansmet/>
- Unique collection: Three agency agreement (NASA, Smithsonian, NSF)
 - NASA curates non-irons
 - Smithsonian curates irons and pallasites and classifies all samples
 - NSF provides logistical support in Antarctica
- Continually growing collection
- Meteorites from the Moon, Mars, and asteroids
- Scientific investigations – broad scope!

Interim Meteorite Curator: Dr. Francis McCubbin
<https://curator.jsc.nasa.gov/antmet/index.cfm>



Francis McCubbin

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ANTARCTIC METEORITES: SAMPLE COLLECTION 1977–DATE



Background information about collection

Sample preparation information

Sample request information

Martian, lunar, and HED compendia

Home → Antarctic Meteorites

ANTARCTIC METEORITES

The US funded collection and curation of Antarctic meteorites, or the US Antarctic Meteorite program, is a cooperative effort among NASA, the National Science Foundation (NSF) and ANSMET, and the Smithsonian Institution (SI). The NSF has decades of experience exploring this harsh environment, and provides support for field research and collection. NASA and the Smithsonian Institution are experts in curation of lunar samples and geologic specimens, respectively, and provide for the classification, storage and distribution of Antarctic meteorites (Cassidy, 2003; Cassidy et al., 1992; Harvey, 2003; Graham and Annexstad, 1989; McCoy et al., 2008; Marvin and Mason, 1980; Allen et al., 2011; Righter et al. 2015; Corrigan et al., 2015; Harvey et al., 2015). As of 2016, the total number of samples recovered is ~22,000, and JSC curators have sent over 19,000 meteorite samples to roughly 600 scientists worldwide. The collection is among the largest in the world, and features samples from the Moon, Mars, and asteroids (Fig. 1).

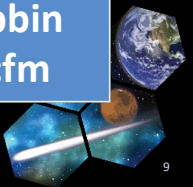
LAP 02205, a Lunar basalt collected from La Paz icefield.



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Interim Meteorite Curator: Dr. Francis McCubbin
<https://curator.jsc.nasa.gov/antmet/index.cfm>

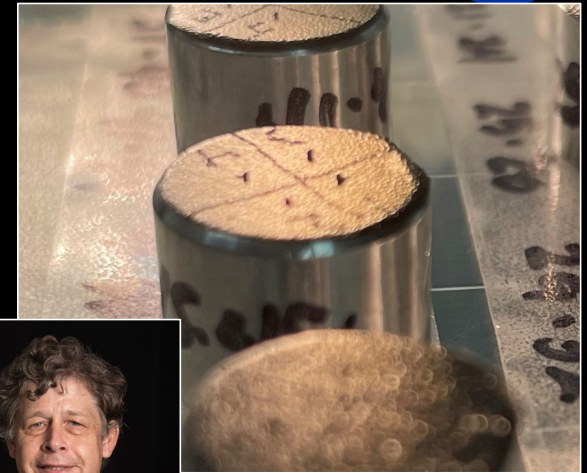
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COSMIC DUST: 1981–DATE



- Small particles originating from asteroids and comets
- Continually growing collection
- Started with cosmic dust collected in stratosphere by NASA aircraft
- Recently accessioned South Pole Water Well (SPWW) and South Pole Air Filter (SPAF) collections
- Continue to target stratospheric collections toward meteoroid showers
- Scientific investigations – understanding flux of extraterrestrial material to Earth, presolar grains studies, organic studies etc.



Michael Zolensky

Cosmic Dust Curator: Dr. Mike Zolensky
<https://curator.jsc.nasa.gov/dust/>



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COSMIC DUST: 1981–DATE



Home → Introduction To Cosmic Dust

COSMIC DUST SAMPLE INFORMATION

- Introduction
- ACP Collection Description
- SPWW Collection Description
- SPAA Collection Description
- Requesting Samples
- Forms Page
- Sample Containers for Shipment
- Research Compendium
- Sample Inventory - ACP
- Sample Inventory - SPWW
- Sample Catalogs
- Dust Courier Newsletters

THE NASA COSMIC DUST COLLECTIONS

The NASA Astromaterials Acquisition and Curation Office cares for collections of materials from across the Solar System, and as part of that suite of astromaterials the Cosmic Dust Collections curates the small material which naturally falls to Earth. Cosmic dust includes *interplanetary dust particles (IDPs)* which are particles from comets, asteroids, and other bodies that are generally smaller than 0.1mm in diameter. IDPs are small enough and decelerate quickly enough when falling into Earth's atmosphere that their heating from atmospheric drag may be limited. Slightly larger particles tend to completely melt, but may survive their high-speed entry into the atmosphere and fall to Earth as *micrometeorites*. IDPs and micrometeorites are collectively known as "cosmic dust", and even though these particles are tiny they make up the majority of the mass of astromaterials which fall to Earth each year.

The Cosmic Dust Collections are comprised of both IDPs and micrometeorites (MMs) (Figure 1). The collections also include terrestrial dust, aluminum oxide spheres produced by solid rocket motors, terrestrial biological debris such as pollen grains, and other tiny particles. The NASA Cosmic Dust Collections have been active since 1981 and include over 11,000 individual particles as well as whole collectors and archived collection hardware. The collections currently include the **Aircraft Collected Particle (ACP)** collection of IDPs collected using high-altitude aircraft and micrometeorites collected from the **South Pole Water Well (SPWW)**. NASA continues to collect new Cosmic Dust samples with high-altitude aircraft and Advanced Curation efforts are underway to expand collection strategies to include high-altitude balloons and other methods. To date, **over 500 scientific papers and meeting abstracts** have been produced from this effort, describing the scientific community's ongoing efforts to understand our Solar System through these tiny grains.

► Cosmic Dust Curation Contacts

Background information about collection

Collection descriptions

Sample request information

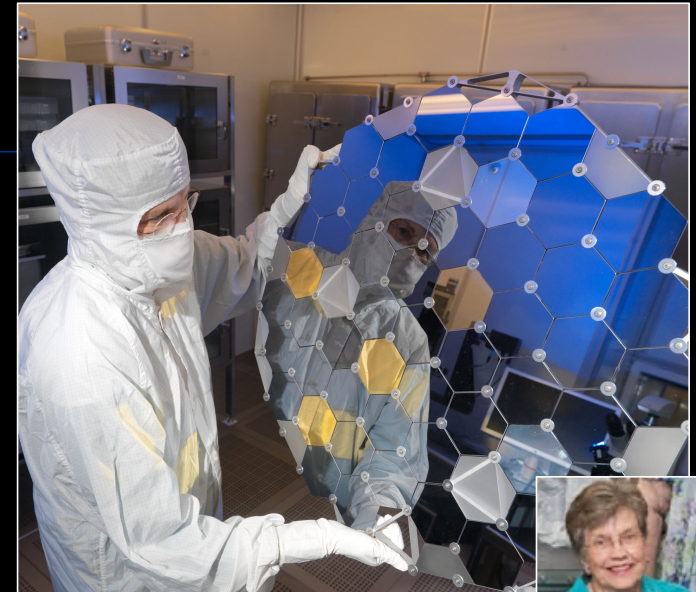
Sample catalogs

Cosmic Dust Curator: Dr. Mike Zolensky
<https://curator.jsc.nasa.gov/dust/>



NASA GENESIS: SOLAR WIND RETURN (2004)

- Collected solar wind at Earth-Sun L1 location for 28 months
- Landing was “off nominal”
- Fragmented samples, terrestrial contamination
- Ultimately, most science objectives were achieved
- **Led to significant development of cleaning methods**
- Scientific investigations – determine the composition of the Sun etc.



Judy Allton



Genesis Curator: Judy Allton

<https://curator.jsc.nasa.gov/genesis/index.cfm>

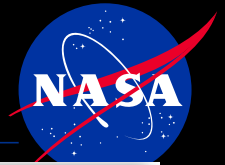


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NASA GENESIS: SOLAR WIND RETURN (2004)



Sample request information and forms

Collection information

Sample catalog and collector material info

The screenshot shows the 'CURATION | Genesis' website. The top navigation bar includes links for 'SAMPLE COLLECTIONS', 'SAMPLE REQUEST DEADLINES', 'CURATION NEWS', 'ASTROMATERIALS NEWSLETTER', 'EDUCATION SAMPLES', and 'NASA/ARES'. Below this is a secondary menu with 'LUNAR', 'METEORITE', 'STARDUST', 'GENESIS', 'COSMIC DUST', 'MICROPARTICLE IMPACTS', 'HAYABUSA', and 'HAYABUSA2'. The main content area is titled 'GENESIS SOLAR WIND SAMPLES' and features a sidebar with the following sections:

- SAMPLE REQUESTS/RETURNS**
 - Requesting Samples
 - Sample Request Documents & Forms
- OUR COLLECTION**
 - Sample Characterization
 - Facilities
- SAMPLE INFORMATION AND CATALOG**
 - Genesis Sample Catalog
 - Collector Materials Guest Commentary
 - Genesis References
- ABOUT THE GENESIS MISSION**
 - Genesis Curation Contacts
 - Genesis Document Library

The main content area contains two paragraphs of text. The first paragraph describes the Genesis mission, launched in August 2001, which collected solar wind at Earth-Sun L1 for 28 months and returned to Earth in September 2004. It mentions that the samples were analyzed by sophisticated laboratory instruments to determine the composition of the Sun. The second paragraph discusses the recovery of the Genesis samples after the capsule crashed on Earth, highlighting the scientific insights gained from the samples, including those from the Moon, asteroids, comets, and Mars. It notes that over 400 Genesis samples have been allocated to the science community. The third paragraph mentions that the Genesis mission included three separate collections: high speed solar wind, coronal mass ejection solar wind, and interstream low speed solar wind. It states that information from these different solar regimes is adding to the understanding of solar physics. A final paragraph notes that a catalog of the collector fragments is available, containing images, material dimensions, area, solar wind regime, and a qualitative assessment of surface condition. It also mentions that cataloging is an ongoing process with more than 1850 samples characterized.

Genesis Curator: Judy Allton

<https://curator.jsc.nasa.gov/genesis/index.cfm>

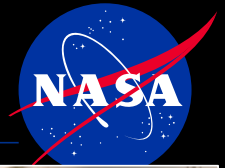


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NASA STARDUST: COMETARY AND INTERSTELLAR SAMPLES (2006)



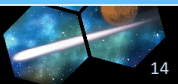
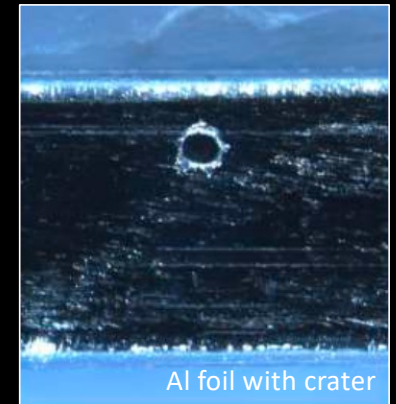
- Stardust spacecraft flew through the coma of Comet Wild2 and collected interstellar dust
- Collector medium was aerogel
- Curation undertaking removal of all tracks to mitigate potential degradation of aerogel
- Scientific investigations – formation and evolution of comets, early Solar System migration, presolar grains, etc.



Stardust Curator: Dr. Mike Zolensky
<https://curator.jsc.nasa.gov/stardust/index.cfm>



Michael Zolensky



NASA STARDUST: COMETARY AND INTERSTELLAR SAMPLES (2006)



The screenshot shows the 'CURATION | Stardust' website. The top navigation bar includes links for 'SAMPLE COLLECTIONS', 'SAMPLE REQUEST DEADLINES', 'CURATION NEWS', 'ASTROMATERIALS NEWSLETTER', 'EDUCATION SAMPLES', and 'NASA/ARES'. Below this is a secondary menu with 'LUNAR', 'METEORITE', 'STARDUST', 'GENESIS', 'COSMIC DUST', 'MICROPARTICLE IMPACTS', 'HAYABUSA', and 'HAYABUSA2'. The main content area is titled 'STARDUST: DUST FROM COMETS AND INTERSTELLAR SPACE' and contains a detailed description of the mission and a photograph of scientists examining an aerogel tray.

Sample request information and forms

Collection information

Collector tray and aerogel info

Stardust Curator: Dr. Mike Zolensky
<https://curator.jsc.nasa.gov/stardust/index.cfm>

JAXA HAYABUSA: SILICEOUS ASTEROID ITOKAWA (2012)



- Japan Aerospace Exploration Agency (JAXA) mission
- First mission to return sample from an asteroid (also many asteroid-derived meteorites in Antarctic meteorite collection)
- Error with sampling mechanism during deployment – fine particles (require advanced handling)
- NASA's portion of samples include individual particles
- Scientific investigations – Understanding the origin and evolution of Si-rich bodies, etc.

Hayabusa Curator: Dr. Mike Zolensky
<https://curator.jsc.nasa.gov/hayabusa/>



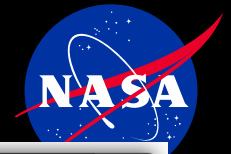
Sample return canister. Credit: JAXA



Michael Zolensky



JAXA HAYABUSA: SILICEOUS ASTEROID ITOKAWA (2012)



Sample request information and forms

Collection and sample preparation information

Available samples

Hayabusa Curator: Dr. Mike Zolensky
<https://curator.jsc.nasa.gov/hayabusa/>

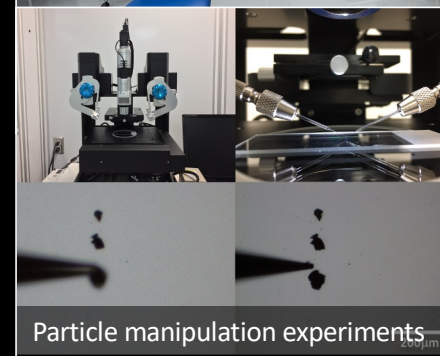
The screenshot shows the 'CURATION Hayabusa' website. At the top, there is a navigation bar with links for 'SAMPLE COLLECTIONS', 'SAMPLE REQUEST DEADLINES', 'CURATION NEWS', 'ASTROMATERIALS NEWSLETTER', 'EDUCATION SAMPLES', and 'NASA/ARES'. Below this is a secondary navigation bar with links for 'LUNAR', 'METEORITE', 'STARDUST', 'GENESIS', 'COSMIC DUST', 'MICROPARTICLE IMPACTS', 'HAYABUSA', and 'HAYABUSA2'. The main content area is titled 'OSIRIS-REx' and 'Home → Hayabusa Sample Collection'. On the left, there is a sidebar with several sections: 'SAMPLE REQUESTS' (containing 'Requesting Samples' and 'Sample Request Documents & Forms'), 'OUR COLLECTION' (containing 'State of Hayabusa Samples' and 'Sample Preparation'), 'HAYABUSA SAMPLE INFORMATION' (containing 'Available Hayabusa Samples'), and 'ABOUT THE HAYABUSA MISSION' (containing 'Hayabusa Curation Contacts'). The main content area is titled 'HAYABUSA ASTEROID ITOKAWA SAMPLES'. It contains a paragraph about the Hayabusa mission, a photo of the asteroid Itokawa, and another paragraph about the sampling mechanism. The photo is captioned 'Photo of near-Earth Asteroid Itokawa taken by the Hayabusa spacecraft in 2005. (Photo courtesy of JAXA)'. The text below the photo states: 'Although the sampling mechanism did not work, thousands of 10–100 μm particles were found in one of the sample containers, apparently introduced during the spacecraft impact into the surface of the asteroid. Many of these particles are shown to be asteroidal grains by their chemistry and mineralogy, but they are mixed with contaminant particles from the spacecraft. Thus, instead of returning several grams of sample, Hayabusa has returned less than a milligram of sample. Nevertheless, these are the first direct samples of an asteroid and their geological context is well'.

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JAXA HAYABUSA2: CARBONACEOUS ASTEROID RYUGU (2020)



- First mission to return sample from a carbonaceous asteroid
- NASA's share is larger than the Hayabusa collection and requires sub-division of larger particles
- Leading to advances in small-particle handling
- Work done here has implications for all collections at JSC (e.g., cosmic dust, H1, H2, OREx) and outside collections
- Scientific investigations – Understanding the origin and evolution of C-rich bodies, etc.



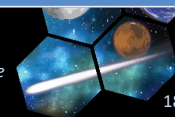
Christopher Snead

Hayabusa2 Curator: Dr. Christopher Snead
<https://curator.jsc.nasa.gov/hayabusa2/>

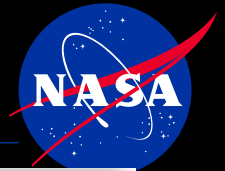


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JAXA HAYABUSA2: CARBONACEOUS ASTEROID RYUGU (2020)



Sample request information and forms

Collection information

Available samples

Home → Hayabusa2 Sample Collection

HAYABUSA2 ASTEROID RYUGU SAMPLES

The JAXA Hayabusa2 spacecraft returned 5 g of material from the surface of a primitive C-type asteroid, 162173 Ryugu on December 6, 2020. One of the sample collections targeted material exposed by the creation of an artificial crater that the Hayabusa2 spacecraft produced with a small 'carry-on impactor'. The spacecraft also deposited small landers onto Ryugu that returned remarkable images of the asteroid's surface. After an 18 month return journey from asteroid Ryugu, the sample return capsule parachuted to a soft landing on the Woomera Range Complex in the Australian outback. Preliminary examination of the samples is underway at the JAXA curation facility in Sagami-hara, Japan where they are stored in vacuum and ultra-pure nitrogen containers.

Photo of Asteroid Ryugu.
(Photo courtesy of JAXA)

Hayabusa2 Curator: Dr. Christopher Snead
<https://curator.jsc.nasa.gov/hayabusa2/>



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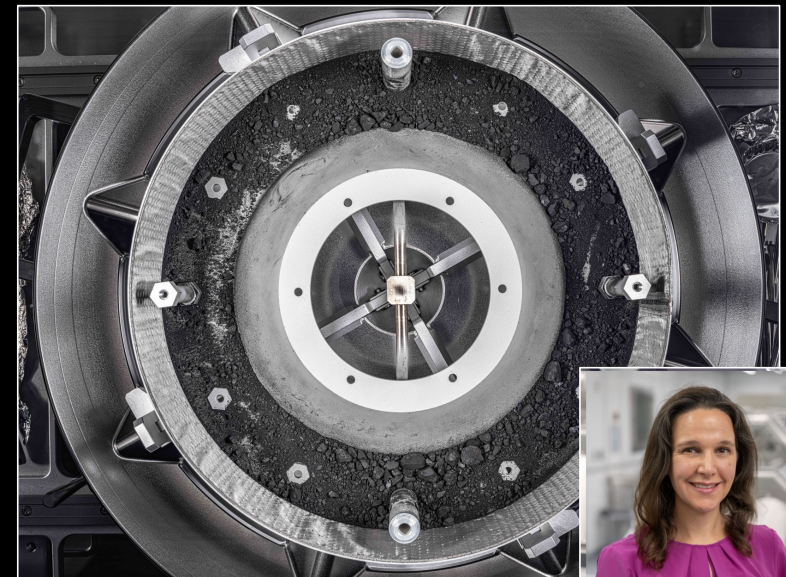
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NASA OSIRIS-REX: CARBONACEOUS ASTEROID BENNU (2023)



- NASA's first asteroid sample return mission
- Returned a significant amount of material (~120 g) from carbonaceous asteroid Bennu
- Newest collection at JSC
 - Still in mission analysis phase
 - Recently solicited first call for sample requests
 - Next call in Spring 2025 (sign up for the Astromaterials Newsletter)
- Scientific investigations – Understanding the origin and evolution of C-rich bodies, etc.



Nicole Lunning

OSIRIS-REx Curator: Dr. Nicole Lunning
<https://curator.jsc.nasa.gov/osirisrex/>



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NASA OSIRIS-REX: CARBONACEOUS ASTEROID BENNU (2023)



Sample request information and forms

Collection information

Sample catalog and high-resolution images

OSIRIS-REx Curator: Dr. Nicole Luning
<https://curator.jsc.nasa.gov/osirisrex/>

The screenshot shows the 'CURATION | OSIRIS-REx' website. The top navigation bar includes links for 'SAMPLE COLLECTIONS', 'SAMPLE REQUEST DEADLINES', 'CURATION NEWS', 'ASTROMATERIALS NEWSLETTER', 'EDUCATION SAMPLES', and 'NASA/ARES'. Below this is a secondary menu with categories like 'LUNAR', 'METEORITE', 'STARDUST', 'GENESIS', 'COSMIC DUST', 'MICROPARTICLE IMPACTS', 'HAYABUSA', and 'HAYABUSA2'. The 'OSIRIS-REx' category is selected. The main content area features a left-hand sidebar with a 'SAMPLE REQUESTS' section containing 'Requesting Samples' and 'Sample Request Documents & Forms', an 'OUR COLLECTION' section with 'OSIRIS-REx Mission and Sample Collection', an 'OSIRIS-REx SAMPLE INFORMATION' section with 'OSIRIS-REx Samples Database' and 'AIVA Images', and 'OSIRIS-REx Curation Contacts'. The main content area is titled 'BENNU ASTEROID SAMPLES AND RETURNED FLIGHT COLLECTION' and contains text describing the 120 grams of sample returned, the range of particle sizes, and the use of AIVA for high-resolution imaging. A large image of the asteroid Bennu is shown, with a caption: 'Near-Earth Asteroid Bennu, the target of the OSIRIS-REx mission. (Credit: NASA/Goddard/University of Arizona)'. A blue box at the bottom of the screenshot points to the 'AIVA Images' link in the sidebar.



SAMPLE REQUESTS FROM EXISTING COLLECTIONS



NASA NATIONAL AERONAUTICS & SPACE ADMINISTRATION

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Astromaterials Acquisition & Curation Office

Astromaterials Newsletter

GENESIS **STARDUST** **MICROPARTICLE IMPACT** **ANTARCTIC METEORITES** **LUNAR** **COSMIC DUST** **HAYABUSA** **HAYABUSA2** **OSIRIS-REX**

Visit the curation website at <https://curator.jsc.nasa.gov/>






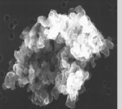

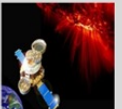
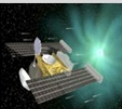


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SAMPLE REQUESTS FROM EXISTING COLLECTIONS



<p>Lunar (1969) Apollo program lunar rocks and soils; Luna samples</p> 	<p>Meteorite (1977) Antarctic Search for Meteorites (ANSMET) program</p> 	<p>OSIRIS-REx (2023) Asteroid sample return from Benu</p> 	<p>Cosmic Dust (1981) Cosmic dust grains from Earth's stratosphere</p> 	<p>Microparticle Impacts (1985) Space exposed hardware from spacecraft</p> 	<p>Genesis (2004) Genesis solar wind samples at Earth-Sun L1 point</p> 	<p>Stardust (2006) Cometary and interstellar samples from Comet Wild 2</p> 	<p>Hayabusa (2012) Samples collected from JAXA asteroid mission to Itokawa</p> 	<p>Hayabusa II (2021) Subset of samples collected from JAXA asteroid mission to Ryugu</p> 
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- Any scientist can request NASA Astromaterials for scientific study:
 - Sample requests are reviewed by the appropriate Astromaterials Allocation Review Board panel (i.e., by peer-review) and the collection's Curator
 - Lunar, meteorites, and OSIRIS-REx requests are reviewed twice a year, with request deadlines approximately 6 months apart
 - Deadlines are announced in the biannual Astromaterials Newsletter
 - Sample requests for other collections are rolling and can be submitted at any time



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ASTROMATERIALS NEWSLETTER VOL. 6 ISSUE 2

- Sign up for the Astromaterials Newsletter to learn more and stay informed!

<https://ares.jsc.nasa.gov/astromaterials-newsletter/>

- The Astromaterials Newsletter announces:
 - New samples
 - Reclassifications
 - Request dates
 - Changes in Curator duties and new Curation personnel announcements
 - Other updates

Both subscribe and unsubscribe options



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ASTROMATERIALS NEWSLETTER

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Astromaterials News

Francis McCubbin, Astromaterials Curator

Volume 6 No. 2 • October 2024

Changing of the Guard:

This issue of the Astromaterials Newsletter will be my last as the Astromaterials Curator. I will be moving into a new role within the Astromaterials Research and Exploration Science Division at JSC, specifically within the Research Office. It has been my honor to serve the Agency and the sample science community as the Astromaterials Curator over the last (almost) 10 years. These collections are a critical resource to the planetary sample science community, and they continue to enable scientists from around the world to make important discoveries about our solar system and beyond. Dr. Jemma Davidson will take the helm as the combined Curation Branch Chief and Astromaterials Curator starting November 1, 2024. This consolidation of roles will empower the Astromaterials Curator to execute their responsibilities as outlined and described in the Curation of Astromaterials NASA Procedural Requirement NPR 7100.5. I have no doubt that Jemma will be a wonderful Astromaterials Curator, and I couldn't be more excited to pass the torch and start my new role in the Research Office.

A Note from the Incoming Astromaterials Curator:

It has been almost eight months since I joined the Astromaterials Acquisition and Curation Office as the new Branch Chief. In that time, I have had the pleasure of working closely with the whole of Curation, particularly the current Astromaterials Curator, Dr. Francis McCubbin. Over the last decade, Francis has made countless contributions to the Curation Office, including the genesis of this newsletter, that have significantly benefited both Curation and the broader science community. We thank Francis for his service to the Astromaterials community and look forward to seeing him flourish in the Research Office. I am both excited and honored to be following in his steps and look forward to serving the global community in this new role.

Jemma Davidson, Curation Branch Chief

About the Astromaterials Newsletter:

Welcome to the twelfth issue of the Astromaterials Newsletter! The Astromaterials Newsletter is a bi-annual publication produced by the Astromaterials Acquisition and Curation Office at NASA Johnson Space Center to inform the sample science community about updates to our policies, collections, and available samples. In particular, the Astromaterials Newsletter will be our exclusive mechanism for announcing new samples or new sample opportunities available to the community across all of our collections, and we publish the Astromaterials Newsletter on the same cadence as the Antarctic Meteorite Newsletter.

The primary aim of the Astromaterials Newsletter is to maximize the science returns from our existing collections through better communication and advertisement of sample availability to the scientific community. A big part of that improved communication is to provide updates to the sample analysis community about what is going on in our labs and at JSC that could impact the collections or the timing of sample allocations. Most importantly, the Astromaterials Newsletter was established to provide a fair and transparent process by which the community receives information about available samples across all our collections. As always, details about all of NASA's Astromaterials samples that are available for request can be found within each respective collection's sample catalog, which are available on our website (<https://curator.jsc.nasa.gov/>). Any new samples announced in this issue will also appear within the appropriate sample catalog on our website.

Astromaterials Data Archiving Announcement from the Astromaterials Data System

The Astromaterials Data System (Astromat) is the primary NASA-sponsored archive for laboratory analyses of returned samples (see NASA's Planetary Science Division's Information and Data Management Policy Supplement to SPD-41A). Astromat supports the extraterrestrial samples community with services that enable sharing, discovery, access, and reuse of data generated by laboratory analysis of astromaterials samples.

The Astromaterials Data Archive (ADA) curates, publishes, and preserves laboratory analytical data acquired as part of NASA's sample return missions and research projects. The ADA accepts data that describe the chemical, physical, petrological, mineralogical, and textural properties of a wide range of other components, such as chondrules and presolar grains.

The Astromaterials Data Synthesis provides access to over 2 million analytical values acquired over the past 50+ years on lunar samples, meteorites, and other astromaterials samples curated at ARES.

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Astromaterials Research and Exploration Science

SUMMARY



- JSC is home to NASA's nine current astromaterials collections.
- We provide samples to support the scientific study of astromaterials to qualified researchers across the globe.
- We preserve the scientific integrity of the samples for study by future generations with future analytical technologies.
- Our website should always be your first port of call for information.
- Sign up for the Astromaterials Newsletter to stay up-to-date with changes.
- Still have questions? Contact the collection curator.



THANK YOU!

