National Aeronautics and Space Administration

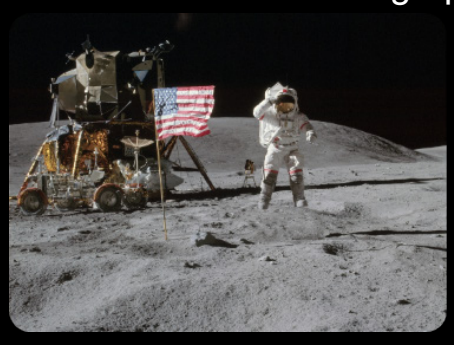
NASA'S ASTROMATERIALS COLLECTIONS

housed at the NASA Johnson Space Center (JSC) in Houston, TX

The Astromaterials Research and Exploration Science Division at JSC is responsible for the curation of extraterrestrial samples from NASA's past, present and future sample return missions. These samples provide data that help scientists better understand the history and evolution of our Solar System. Our mission is to preserve, protect, and distribute samples for research by the present and future scientific community.

LUNAR (1969)

382 kg (842 lbs) of lunar material collected by Apollo astronauts during Apollo Missions



ANTARCTIC METEORITES (1978)

>22,000 meteorites from asteroids, the Moon and Mars

COSMIC DUST (1981)

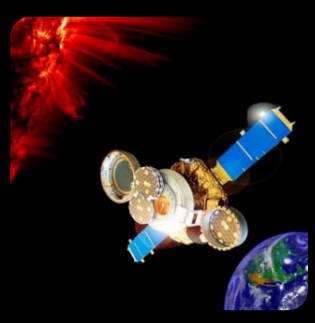
>1000 particles from comets and asteroids collected in the Earth's stratosphere

MICROPARTICLE IMPACTS (1985)

~12 spacecraft components impacted by space debris and interplanetary dust

GENESIS (2004)

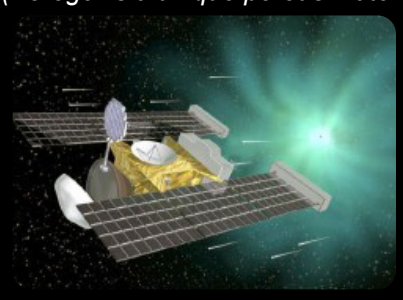
Solar wind atoms collected in wafers at Earth-Sun Lagrange point (L1)

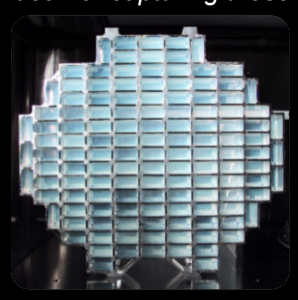


STARDUST (2006)

Cometary dust (comet Wild 2) and interstellar dust particles captured in aerogel

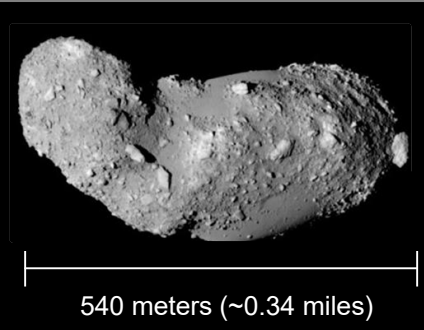
(Aerogel is a unique porous material ideal for capturing these fast moving particles)



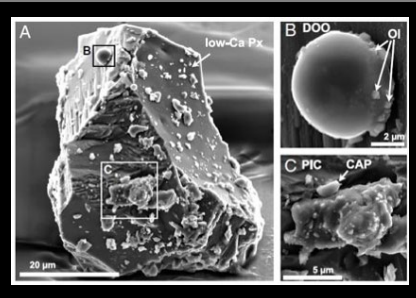


HAYABUSA (2010)

Subset of loose surface material (regolith) collected by the Japan Aerospace Exploration Agency (JAXA) from asteroid Itokawa



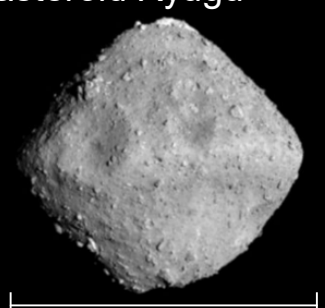
540 meters (~0.34 miles)



1µm (micron) = ~0.000039 inch

HAYABUSA2 (2020)

Subset of material collected by the Japan Aerospace Exploration Agency (JAXA) from asteroid Ryugu



980 meters (~0.6 miles)

OSIRIS-REX (2023)

>60g (0.13 lbs) of material collected from asteroid Bennu (returning to Earth in 2023)

500 meters (~0.3 miles)

Future Collections… Mars Sample Return and future sample return missions to other planets, moons, asteroids, and/or comets.