OSIRIS-REx asteroid sample return mission

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Keywords: Asteroid, Space Mission, Sampling, Analyses, Cathodoluminescence

The OSIRIS-REx spacecraft reached the primitive near-Earth asteroid (101955) Bennu in December 2018. After a year of operating in proximity, a primary site for sample collection was selected, and in October 2020, the spacecraft successfully collected a sample. It departed Bennu in May 2021 and returned the sample to Earth the 24th of September 2023.

The NASA OSIRIS-REx mission has successfully returned more than 200 grams of samples from asteroid Bennu (60 g planned), including bulk regolith, surface particles, witness coupons, and the Touch-and-Go Sample Acquisition Mechanism (TAGSAM) sampler head. Lagrange and CRHEA laboratories are members of the OSIRIS-REx Sample Analysis Team. In this talk, we will provide a brief overview of the OSIRIS-REx mission and present the first results of our characterization of the Bennu samples, including cathodoluminescence analyses.