

Core flow and curation

Step.1 Nondestructive measurements

Before sampling and detailed analysis, nondestructive measurements are performed to examine the intact sediment-core structure and physical properties from core images and various downcore measurements that are useful for subsequent analysis and sampling.

Step.2 Collecting samples

After the nondestructive measurements, an intact core is split in half vertically by a core cutter or wire. One half of the core is the working half (for sampling) and the other half is the archive half (for the record). Both halves are subsequently refrigerated for preservation. Samples are collected according to each researcher's request.



Step.3 Analyses and measurements

Discrete samples collected are used for various analyzes and measurements, such as microfossil identification, rock-magnetism and other detailed physical-property measurements, isotope-ratio measurements, and biomarker and microbiological analyses.

Step.4 Storage

Samples and archive halves are either refrigerated or frozen at a set temperature according to a researcher's needs. In particular, sediment samples collected from the seafloor for microbiological analysis must be stored at cryogenic temperature to avoid temperature contrast and degradation by oxygen.