

U-channel sampling for magnetics

U-channels are long plastic boxes that are used to sample the center of a split core for magnetic analysis. Sampling in the center avoids the coring- or drilling-deformed material near the outside of the core, and the magnetometer loop is close to the diameter of the u-channel, both of which can provide higher resolution data than whole-core measurements. U-channels, however, also demand a large amount of sediment (2x2 cm for the length of the core), and where possible (i.e., when u-channels do not need to be saved in perpetuity) it is desirable to subsample the u-channel for other analyses after it has been studied for magnetic properties.

To sample, the u-channel (cut to length) is uncapped and inserted perpendicularly into the split core. Fishing line is run under the open side of the u-channel to free it from the sediment.

The University of Minnesota's Institute for Rock Magnetism (IRM) was recently (January 2007) awarded NSF funding to acquire a u-channel magnetometer. You may contact the IRM (irm@umn.edu) for information on the anticipated timing of arrival of this instrument, and on other institutions that currently have u-channel analysis capabilities.

LacCore buys its u-channels from Coastal Plastics in Rhode Island. The current price (as of March 15, 2006) is \$7.05/set (base and cover) for a 1.5m-long u-channel.

Contact information is as follows:

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