

Development of instruments for monitoring temperature and pore pressure in marine sediments

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We have been developing instruments for monitoring temperature profile and pore pressure in marine sediments in order to investigate temporal variations in pore water flow and to measure heat flow in shallow sea areas. As for systems for use with submersibles, we constructed an improved one with a higher temperature resolution and a larger memory capacity and deployed it in October, 1998. We have developed a pop-up type temperature monitoring instrument, which can be deployed from ordinary research vessels, and will start a long-term measurement with it in 1999. For pore pressure measurement, we have finished testing the pressure sensors and data logger, and will attempt measurements of pore pressure in marine sediments in 1999.