

Development of a controlled source EM system for the ocean bottom (1)

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We have developed a controlled source EM system for the ocean bottom in order to map overall images of hydrothermal systems where sub-bottom biosphere exists. The system is designed to estimate conductivity structure of the top oceanic crust. Since the conductivity structure is a function of water temperature and crustal porosity, we may derive temperature distribution of the hydrothermal system. The system contains a controlled source transmitter, receivers (OBEMs), and an acoustic positioning system. We will introduce all the system, some parts we have made, and future targets.