## Discussion on gamma ray, temperature, and pressure downhole logging data at sea-floor hydrothermal deposit in Izena Hole off-shore Okinawa

\*Yoshinori Sanada<sup>1</sup>, Yasuhiro Yamada<sup>1</sup>, Kazuya Kitada<sup>1</sup>, Tatsuo Nozaki<sup>1</sup>, Hidenori Kumagai<sup>1</sup>, Jun-ichiro Ishibashi<sup>2</sup>, Rena Maeda<sup>1</sup>, CK16-05 on-board member

1. Japan Agency for Marine-Earth Science and Technology, 2. Kyushu University

CK16-05 cruise was carried out to understand origin and development process of the sea-floor hydrothermal deposit in Izena Hole off-shore Okinawa on November to December in 2016. It is one of the research cruise under an umbrella of Cross-ministerial Strategic Innovation Promotion Program (SIP), "Next-generation technology for ocean resources exploration (Zipangu in the Ocean)". Natural gamma ray and temperature downhole logging data was acquired at the five wells. It is difficult to take high quality and recovery cores in hydrothermal brittle formation. The continuous natural gamma ray logging data allows us to describe continuous vertical formation profile. The temperature logging indicates potential of hydrothermal deposit activity. The pressure data does not show significant features. We compile the gamma ray, temperature, and pressure data, and discuss its geological and geophysical features.

Keywords: Sea-floor hydrothermal deposit, downhole logging