

## SCORE proposal off Shikoku, SW Japan: Reconstruction of the Kuroshio state for super interglacials during the Brunhes chron

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We propose to drill at site SKK-02 (32°26.48' N, 133°13.67' E, 2,877m) off Shikoku in the Northwest Pacific to reconstruct high-resolution variability of the Kuroshio Current (KC) for the past super interglacials. The KC is a strong western boundary current and supplies heat and water vapor to the subarctic from the tropical Pacific, influencing climate conditions over the East Asia including the Japanese Islands. The past “super interglacials” are thought to be important analogues for the future global warming climate. However, there are no reliable information on the heat transport and temperature of the KC during the super interglacials due to a lack of the suitable sediment cores from the Northwest Pacific. The Mid-Brunhes Event (MBE) is a climate shift in the Brunhes chron and correspond to the transition between MIS 12 and MIS 11. It is characterized by a clear increase in atmospheric CO<sub>2</sub> and polar ice volume. It is also important to understand the state of the KC for the MBE. In this proposal, we show the following scientific objective.

Main Objective: How does the Kuroshio respond to “super interglacials” compared to today and to Mid-Brunhes Event with different atmospheric CO<sub>2</sub> level?

In addition, we would like to investigate the detailed tephrostratigraphy from caldera volcano in Kyushu Island since the obtained sediment cores should have many volcanic ashes.

Keywords: Kuroshio, SCORE, super interglacial, tephrostratigraphy