Reconstruction of variations in South Pacific westerly jet path during the last glacial

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We present results of XRF core scanner analysis on a marine sediment core (MR16-09 PC02) obtained from coastal southern Chile (46S, 76W, 2793 m depth). The study site is located near the boundary of present-day South Pacific summer and winter westerly jet path. Thus, the compositional change of studied core thought to record latitudinal changes of Southern westerly that influence rainfall patterns and water discharges of southern Chile. XRF core scanner (Cox, Itrax) were conducted at Center for Advanced Marine Core Research, Kochi University. Using method of Katsuta et al. (2019), water content-corrected X-ray fluorescence intensities of wet sediment cores were converted to elemental concentrations. Based on the obtained elemental composition, we reconstructed multi-millennial-scale variations in terrestrial detrital inputs, that likely record variations in westerly jet path during the last glacial.

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