Flow temperature, depositional mode, and origin of the Fuji-Sagamigawa mudflow deposits, central Japan

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This study revised our presentation in 2004 Meeting of Japan Association for Quaternary Research. The 14 to 17 Ka volcanigenic Fuji-Sagamigawa mudflow run along the Katsura and Sagami Rivers, and 2.9 Ka collapse-originated Gotemba mudflow crops out along the Sakawa Rivers, in southwestern Kanto area, central Japan. Core samples for demagnetization experiments were taken from clasts in both mudflows. Stepwise thermal demagnetization experiments result in the facts that the Fuji-Sagamigawa mudflow samples held several components, while the Gotemba mudflow samples only one component, above 200 degrees steps. They strongly suggest that the Fuji-Sagamigawa and Gotemba mudflows were hot and cold lahars, respectively. The depositional mode of Fuji-Sagamigawa mudflow deposits supports a previous paleoenvironmental view that the ice cap developed over the Fuji Volcano in the Last Glacial period.