

Mineralogical analysis of debris in ice cores drilled on the Western Cwm of Khumbu Glacier of Mt. Everest in Himalayas

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Two shallow ice cores have been drilled on the Western Cwm of Khumbu Glacier in winter of 1980 by the Japanese winter climbing expedition for Mt. Everest led by a famous climber, Naomi Uemura. The ice cores were drilled at 6100 m a.s.l. and 8.83 m in length (Core 1), and Core2 drilled at 6400 m a.s.l. and 4.06 m in length (Core 2). The upper core (Core 2) contained abundant debris, which may be derived from the rock cliffs around the drilling site. In this study, we reported the mineralogical characteristics of the debris and discuss their provenance and process to be transported to the lower ablation part of the glacier.

Keywords: Himalayas, debris covered glacier, Everest