

## Glacier history during the Last Glacial in the in the Terskey-Alatoo Range, Kyrgyz Republic, using OSL dating

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OSL dating was applied to glacial and loess deposits, located on the north flank of the Terskey-Alatoo Range, Kyrgyz Republic, to elucidate glacier chronology of central Asian mountains during the Last Glacial. The moraines in the study areas (Turasu, Alabash, Dengtala, Kek-Say, Temir-Kanat) were classified into four stages: Terskey Stages I-IV, using their geographical position, elevation, and moraine rock weathering within each area of five areas. The samples for OSL dating are taken in the oldest moraines (Terskey Stage I), located at 2,100-2,250m a.s.l and the second oldest stage (Terskey Stage II) at 2,400-2,700 m a.s.l. We used coarse grain and fine grain quartz samples for loess and moraine deposits. OSL age was checked with  $^{14}\text{C}$  ages of buried soil on the moraine deposits. In the Terskey Stage I, the OSL age estimates of loess deposits were 13 ka, while those of the glacial deposits were 68 ka. In the Terskey Stage II, the OSL age estimates of loess deposits were 8 to 20 ka, while those of the glacial deposits were 20 to 24 ka, indicating that there was a glacier advance during MIS 2. Maximum glacier extension occurred in MIS 4 cold interval, in the Terskey Stage I.