

$^{230}\text{Th}/^{238}\text{U}$ -disequilibrium dating of ash layers in the climate record of the Wilson Creek Formation, Mono Basin; Eastern California

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Abstract: The lacustrine sediments of the Wilson Creek Formation on the shores of Mono Lake, Eastern California, provide an important climate record of at least the last glacial cycle for the intermontane basins east of the Sierra Nevada. Moreover, the lacustrine sediments contain an important geomagnetic excursion. Thus, an accurate timeframe for the Wilson Creek Formation is important for the global context of the climate record and the geomagnetic excursion to other localities. Volcanic ash layers from eruptions of the nearby Mono Craters are intercalated in the Wilson Creek Formation, and thus provide time markers in the sedimentary record although direct dating of the ashes has proved difficult. We propose to employ $^{230}\text{Th}/^{238}\text{U}$ disequilibrium dating of allanite phenocrysts in the rhyolitic ashes as an independent tool to complement existing age data.
