



## **OSL Dating of Maar Lake Sediments (Eifel/Germany)**

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Sediment cores have been drilled by the ELSA project (Eifel Laminated Sediment Archive) in Eifel dry maar lakes to reconstruct the palaeoclimatic and palaeoenvironmental conditions as well as the history of the volcanism in the Eifel/Central Europe during the last glacial cycles (Sirocko et al. 2005). Lake sediments accumulating in relict volcanic craters have undergone continuous deposition since the eruption of the maar volcano, and hence contain unique continuous local records of climate change.

The aim of this study is to test the applicability of luminescence dating techniques for the temporal successions of dust storm events.

Luminescence dating has been significantly improved over recent years and is widely used to establish confident chronologies of glacial/interglacial cycles (Schmidt et al. submitted). Equivalent doses ( $D_e$ ) were determined applying the Single Aliquot Regenerative dose (SAR) protocol (Murray and Wintle 2000) using infra red light stimulation for feldspar and blue light stimulation for quartz. In further work other luminescence techniques like thermal transferred OSL (TT-OSL) and Infrared Radiofluorescence (IR-RF) will also be tested on the dust storm events of the maar lake sediments.

### References

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