



## **Insights into the ‘super’-interglacial MIS 11 from a Central European flowstone**

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Given the scenarios of the expected short- and medium-term future Earth climate under anthropogenic influence the climate of past interglacials is of particular interest. In the year 2100 the climate may resemble the conditions of MIS 11, one of the warmest interglacials of the past million years. However, so far information on MIS 11 is sparse, comes mostly from marine or polar ice cores and has little continental contribution.

In a cave system from southern Germany relatively large amounts of flowstone material from this interesting time period was discovered which may help to close parts of the knowledge gap. Preliminary results of this flowstone piece confirmed growth during most of MIS 11 (ca. 420-390 ka) with estimated rates of 1-10  $\mu\text{m}/\text{a}$  and showed successions of clear and brownish layers that may enable proxy measurements with up to annual resolution.  $\delta^{18}\text{O}$  and  $\delta^{13}\text{C}$  values obtained with coarse resolution (averaging of several 100 years) show variations of less than 0.5 ‰ and are almost identical to Holocene calcite precipitated in the same cave system. The large amount of available flowstone material of this time period and region together with a sufficiently precise chronology (ICPMS U-Th measurements and layer counting) could provide a better understanding of natural variability in future high-resolution and multi-proxy studies. First results will be presented and next steps discussed.