

Table R1:

Updated values regarding Table 2. Noble gas data are used in combination with results from the pollen studies of Davis et al. (2003) and Guiot et al. (1989). We give now ranges of temperature estimates (T_{used}) instead of a mean value. The resulting drip-water $\delta^{18}\text{O}$ values are slightly changed in few cases due to asymmetrical uncertainty estimates in the original publications that are used for temperature estimation.

Sample	$\delta^{18}\text{O}_{\text{w, co-var}}$ (‰)	T_{used} (°C)
Stalagmite BU1		
BU1-1	-7.9±0.2	9.1-9.3 ^{a)}
BU1-2	-7.7±0.1	9.1-9.5 ^{a)}
BU1-3	-8.3±0.2	9.3-9.5 ^{a)}
BU1-4	-7.6±0.1	9.2-9.4 ^{a)}
BU1-5	-7.6±0.4	7.9-11 ^{b)}
BU1-6	-6.9±0.4	9.0-11.0 ^{c)}
BU1-7	-6.9±0.3	9.1-11.5 ^{c)}
BU1-8	-7.6±0.3	8.9-12.1 ^{b)}
BU1-9	-7.0±0.4	8.6-12.1 ^{b)}
BU1-10	-7.5±0.4	9.5-12 ^{d)}
Stalagmite BU4		
BU4-1	-7.6±0.2	9.5 ^{c)}
BU4-2	-7.0±0.1	9.1-9.4 ^{a)}
BU4-3	-7.8±0.2	8.9-9.5 ^{a)}
BU4-4	-8.2±0.2	9.3-9.4 ^{a)}
BU4-5	-7.8±0.3	9.2-9.5 ^{a)}
BU4-6	-7.5±0.3	9.1-11.5 ^{c)}
BU4-7	-7.3±0.3	9.1-11.5 ^{c)}
BU4-8	-7.4±0.3	9.1-11.0 ^{c)}
BU4-9	-7.4±0.3	8.4-10.5 ^{c)}
Stalagmite BU2		
BU2-1	-9.3±0.7	2.5-8.5 ^{b)}
BU2-2	-9.8±0.8	1-7 ^{b)}
BU2-3	-8.7±0.6	1-6 ^{f)}
BU2-4	-9.0±0.6	1-6 ^{f)}
Stalagmite BU-UWE		
BU-UWE-1	-9.6±0.7	1-6 ^{b)}
BU-UWE-2	-9.9±0.7	1-6 ^{b)}
BU-UWE-3	-9.7±0.6	1-6 ^{b)}
BU-UWE-4	-8.2±0.6	1-6 ^{f)}
BU-UWE-5	-7.8±0.4	9.5-12 ^{d)}
BU-UWE-6	-7.2±0.3	9.5-12 ^{d)}
BU-UWE-7	-7.7±0.4	9.5-12 ^{d)}

^{a)} Mann et al. (2008) ^{b)} NGTs, Davis et al. (2003), Guiot et al. (1989) ^{c)} Davis et al. (2003), Guiot et al. (1989) ^{d)} temperature range of Guiot et al. (1989), Zagwijn (1996), Klotz et al. (2003), Felis et al. (2004) and Otto-Bliesner et al. (2006) ^{e)} German Weather Service ^{f)} Guiot et al. (1989)