

THE SOUTHERN HEMISPHERE AT GLACIAL TERMINATIONS: INSIGHTS FROM THE DOME C ICE CORE BY REGINE RÖTHLISBERGER ET AL., CLIM. PAST, 2008.

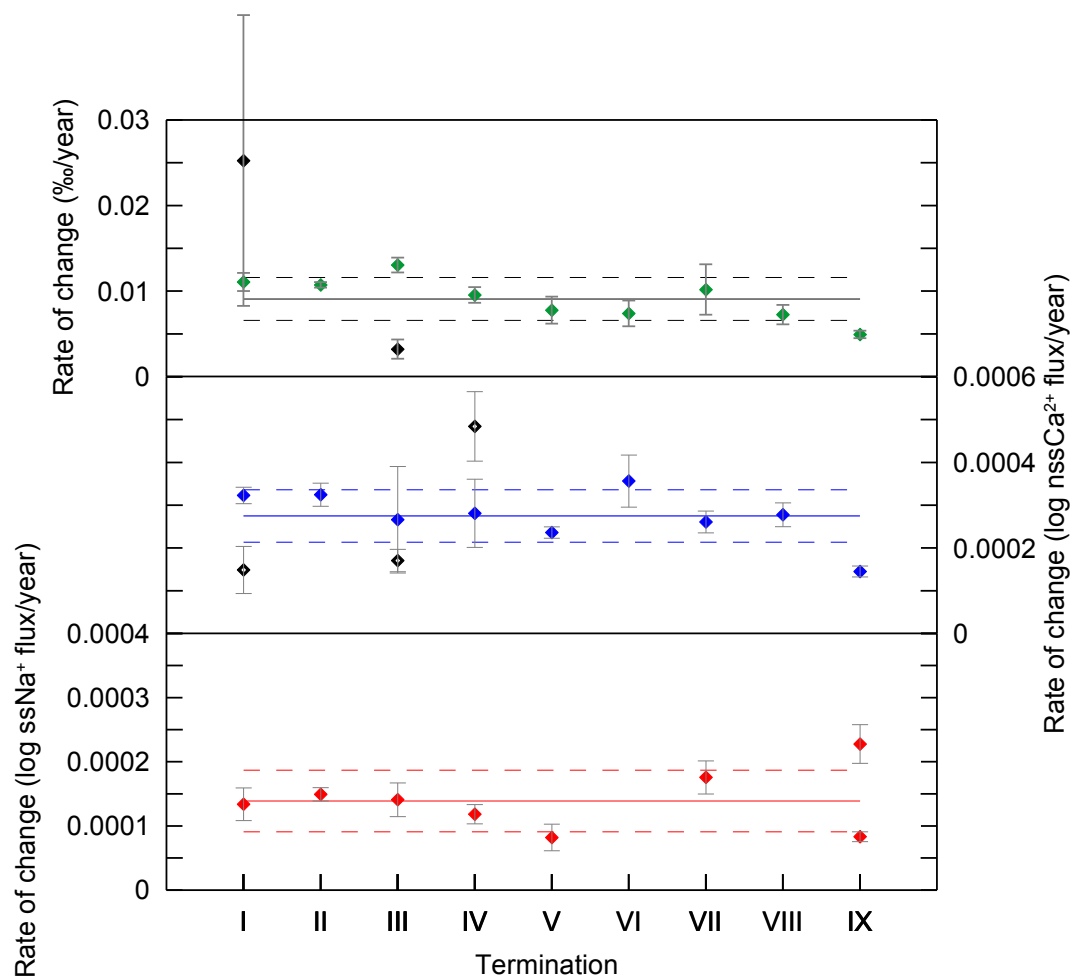


Figure S1. Rate of change calculated based on termination ramps in  $\delta D$ ,  $nssCa^{2+}$  flux and  $ssNa^+$  flux. For some terminations, two ramps were fitted to the data (see Fig. 4 and Table 1), and the rate of change has been calculated for each ramp separately. Error bars correspond to one standard error. The black diamonds at T I correspond to the younger part of T I. The early part of Termination III seems to be exceptionally slow (black diamond) compared to the other terminations (see also Fig. 4). Also, Termination IX seems to progress slower than average. The horizontal lines represent the average rate of change (solid) plus/minus one standard deviation (dashed), calculated from all data except the black data points.

Table S1. Input parameters required to run RAMPFIT. n: number of data points, t(1): start of interval, t(n): end of interval, STD fit: standard deviation of data, either constant or a ramp (first level until the time given, then second level from time given), k: number of points used for running averages, t1-t2 search: intervals within which t1/t2 were chosen from. Of major importance for the resulting estimates are t(1) and t(n), the limits of the section of data that is approximated by a ramp. The standard deviation is used for the weighted regression, but resulting change points are only minimally influenced by choices of STD fit.

Variable	Termination	n	t(1)	t(n)	STD fit	k	t1-t2 search
logssNafl	Ia	319	8000	14500	0.06 const	25	10000-13500/ 12000-14500
lognssCafl	Ia	319	8000	14500	0.1 const	15	full
lognssCafl	Ib	332	13000	20000	0.12-14500/ 0.08-16000	25	13000-16000/ 16000-20000
$\delta D$	Ia	305	8000	14500	5 const	5	8000-12500/ 11000-14500
$\delta D$	Ib	202	13000	20000	4.5 const	5	full
logssNafl	II	491	128000	138000	0.12-130000/ 0.05-134000	25	128000-132000/ 132000-136000
lognssCafl	II	491	128000	138000	0.2-132000/ 0.08-135000	25	130000-134000/ 134000-138000
$\delta D$	II	182	128000	138000	4.5 const	5	full
logssNafl	IIIa	298	241700	248000	0.1-243000/ 0.05-245000	25	241000-245000/ 245000-248000
lognssCafl	IIIa	298	241700	248000	0.3-243000/ 0.1-246000	25	244000-247000/ 246000-248000
lognssCafl	IIIb	344	247000	254000	0.1 const	25	full
$\delta D$	IIIa	61	241700	248000	4 const.	5	full
$\delta D$	IIIb	40	247000	254000	4 const.	5	full
logssNafl	IV	362	334300	342000	0.05 const	25	full
lognssCafl	IVa	381	332000	340000	0.2-336000/ 0.1-337000	25	full
lognssCafl	IVb	237	338000	343000	0.08 const	25	full
$\delta D$	IV	64	332000	343000	4 const.	5	full
logssNafl	V	378	425500	434000	0.03 const	25	425000-430000/ 427000-432000
lognssCafl	V	668	420000	435000	0.15-422000/ 0.07-430000	25	424000-427000/ 429000-433000
$\delta D$	V	41	420000	435000	4 const.	5	full
lognssCafl	VI	977	524000	533000	0.125-529000/ 0.075-530000	25	527000-530000/ 530000-533000
$\delta D$	VI	25	524000	534000	4 const.	3	full
logssNafl	VII	360	625000	631000	0.015 const	15	625000-627000/ 627000-631000
lognssCafl	VII	506	624000	633000	0.06-629000/ 0.04-630000	15	624000-628000/ 629000-633000
$\delta D$	VII	21	620000	640000	4 const.	3	full
lognssCafl	VIII	1034	734000	745000	0.08 const	15	736000-740000/ 740000-743000
$\delta D$	VIII	20	734000	745000	4 const.	3	full
logssNafl	IXa	240	786800	789500	0.015 const	15	full
logssNafl	IXb	445	788300	794000	0.015 const	15	788300-791000/ 791000-794000
lognssCafl	IX	758	788000	799000	0.075 const	15	full
$\delta D$	IX	21	786000	802000	4 const.	3	full