Table 1: Numerical parameters

	Quartzite	Anorthite	Biotite
		Dislocation creep	
A_D ($Pa^{-n}\cdot s$)	$1.75\cdot10^{-36}$	$1.585\cdot10^{-18}$	$2.05\cdot10^{-134}$
n (-)	4	3	18
m (-)	0	0	0
Q (kJ/mol)	125	$345+3.8\cdot10^{-5}\cdot P$	51
r (-)	1	1	-
Reference	*Tokle et al. (2019)*	*Rybacki et al., (2006)*	*Shea and Kronenberg (1992)*
		Diffusion creep	
A_D ($Pa^{-n}\cdot m^{-m}\cdot s$)	$6.31\cdot10^{-19}$	$1.995\cdot10^{-25}$	-
n (-)	1	1	-
m (-)	2	3	-
Q (kJ/mol)	220	$159+3.8\cdot10^{-5}\cdot P$	-
r (-)	1	1	-
Reference	*Brodie and Rutter (2000)*	*Rybacki et al., (2006)*	-
		Frictional strength	
φ (°)	35	35	5
C (MPa)	25	25	130
Reference	*Schön (2015)*	*Schön (2015)*	*Shea and Kronenberg (1992)*
		Grain size reduction	
λ (-)	0.015	0.01	-
c (-)	3.142	3.142	-
γ (J/m^2)	1	1	-
Reference	*Tokle and Hirth (2021)*	*Austin and Evans (2007)*	-
		Grain growth	
A_g ($m^{-p}\cdot s^{-1}\cdot Pa^{-rg}$)	$2.61\cdot10^{-19}$	-	-
K_g ($m^{-p}\cdot s^{-1}$)	-	$2.59\cdot10^{-4}$	
Q_g (kJ/mol)	134	365	-
p (-)	3	2.6	-
r_g (-)	1.38	-	-
Reference	*Tokle and Hirth (2021)*	*Dresen et al. (1996)*	-