APPENDIX TABLE 1. VARIABLES USED FOR THERMAL AND ISOSTATIC MODELING

Symbol	Definition	Value	Units
t	Time		s
λ	Conductivity *	$1.18 + [474/(350 + T)]$	$W \cdot m^{-1} \cdot °C^{-1}$
ρ	Density		$kg \cdot m^{-3}$
C^*	Effective heat capacity		$J \cdot kg^{-1} \cdot °C^{-1}$
C_p	Specific heat capacity ?	1.7×10^3	$J \cdot kg^{-1} \cdot °C^{-1}$
L_h	Latent heat capacity ?	7.0×10^5	$J \cdot kg^{-1}$
Basalt or gabbro			
T_i	Initial temperature	1350	°C
T_l	Liquidus temperature	1350	°C
T_s	Solidus temperature §	950	°C
Country rock (dry metabasalt)			
T_l	Liquidus temperature #	1350	°C
T_s	Solidus temperature #	1000	°C
Rock densities			
ρ_c	Crust **		$Mg \cdot m^{-3}$
ρ_l	Melt ??	2.72	$Mg \cdot m^{-3}$
ρ_g	Gabbro §§		$Mg \cdot m^{-3}$
ρ_m	Mantle ##		$Mg \cdot m^{-3}$
Mineral densities ***			
ρ	Density	$\rho_0/a(T)$	$Mg \cdot m^{-3}$
$a(T)$		$\exp(a_0(T - T_0) + a_1[(T + 25)^2 - (T_0 + 25)^2])$	
Olivine			
ρ_0		3.22	$Mg \cdot m^{-3}$
a_0		0.2635×10^{-4}	$°C^{-1}$
a_1		1.4036×10^{-8}	$°C^{-2}$
Plagioclase			
ρ_0		2.76	$Mg \cdot m^{-3}$
a_0		0.1394×10^{-4}	$°C^{-1}$
a_1		0.0597×10^{-8}	$°C^{-2}$
Clinopyroxene			
ρ_0		3.2	$Mg \cdot m^{-3}$
a_0		0.3330×10^{-4}	$°C^{-1}$
a_1		0	$°C^{-2}$
Orthopyroxene			
ρ_0		3.29	$Mg \cdot m^{-3}$
a_0		0.2947×10^{-4}	$°C^{-1}$
a_1		0.2694×10^{-8}	$°C^{-2}$

* Clauser and Hughes (1995).
? Calculated for Mull primitive composition by using method of Lange et al. (1994).
§ Lange et al. (1994).
# Springer and Seck (1997).
** Mode = 100% plg.
?? Calculated by using Mull primitive composition and method of Lange and Carmichael (1990).
§§ Mode = 50% plg, 40% cpx, 10% ol.
Mode = 80% ol, 20% opx.
*** At T = 25 °C, $P = 1 \times 10^5$ Pa and thermal-expansion coefficients from Fei (1995).

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