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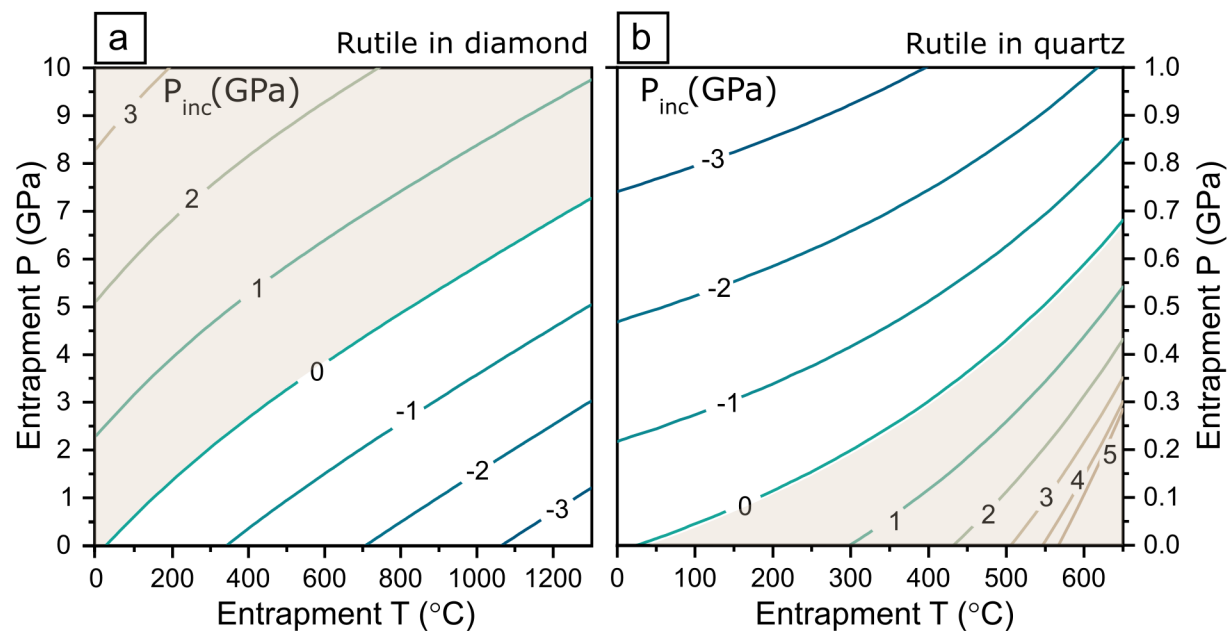
A GRÜNEISEN TENSOR FOR RUTILE AND ITS APPLICATION TO HOST-INCLUSION SYSTEMS

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Supplemental table S1. Amphibole composition

Analysis (wt%)		Structural positions and formula units	
SiO ₂	56.42	T	Si 7.75
TiO ₂	0.463		Al 0.25
Al ₂ O ₃	3.08		T subtotal 8
Cr ₂ O ₃	0.120	C	Ti 0.05
MnO	0.085		Al 0.25
FeO	9.02		Cr 0.01
MgO	26.65		Mg 4.69
CaO	1.139	B	C subtotal 5
K ₂ O	0.011		Mn ²⁺ 0.01
Total	96.99		Fe ²⁺ 1.04
			Mg 0.77
			Ca 0.17
		W	B subtotal 1.99
			K 0.002
			O (non-W) 22
			OH 1.90
			O 0.10
			W subtotal 2
Group	OH,F,Cl		
Subgroup of			
(OH,F,Cl)	Mg-Fe-Mn		
Species	cummingtonite		



Supplemental Figure S1. Entrapment isomekes showing the residual pressures P_{inc} (GPa) in a rutile inclusion measured at room conditions as a function of the P and T of entrapment. Shaded areas represent entrapment conditions leading to positive P_{inc} . Rutile EoS from (Zaffiro et al. 2019), diamond EoS from (Angel et al., 2015) quartz EoS from (Angel et al. 2017)