Regions where Vs and Qs anomalies suggest mantle temperatures higher than assumed (alternative and preferred explanation is a presence of partial melts/fluids)

Regions and T at z=100 km	$\delta V_s = V_s - V_s^T$ (% PREM); for V_s^T with account for anelasticity [a]	δT (deg C) required to explain δVs		Regions and T at z=100 km	$\delta Q_s = Q_s - Q_s^T$ (% PREM)	δT (°C) required to explain δQs
		For δV_s with account for anelasticity [a]	For δV_s from linear Vs-T relationship [b]			
Tien Shan, Altai, Sayans, and Inner Mongolia (^) (1100° C)	-3-4 %	+250° C	+300° C	Tien Shan, Altai, Sayans, and Tarim (^) (1100° C)	-50-100	Non-defined, in excess of +600° C
Western N. America (*)(^) (1300 °C)	-2-3 %	+150° +180° C	+300° C	Western N. America (**) (^) (1300° C)	-50-100	Already above adiabat
S. Greenland (900° C)	-4-5 %	+250° +300° C	+500° C	Abitibi province (Canadian Shield) and Central part of Grenville province (800°-1000° C)	-50	Non-defined, in excess of +600° C
Cameroon volcanic line (W. Africa) (800° C) (^^)	-3-4 %	+180° +250° C	+500° C	South Africa (***) (800°-1100° C)	-150	Non-defined, in excess of +600° C
Arabian Shield and Nubian Shield (900°-1100° C)	-3 %	+180° C	+300° +400° C	Indian shield (***) (800°-900° C)	-150	Non-defined, in excess of +600° C
S. part of the Russian Far East (1100° C) (^^)	-4-5 %	+250° +300° C	+500° C	Western part of the Siberian craton (500°-700° C)	-50	+200° +400° C
				Trans European Suture Zone (900°-1100° C)	-50	Non-defined, in excess of +600° C

(a) For V_s^T, δVs, and δT calculated after Deschamps *et al*. (2002)
(b) For V_s^T, δVs, and δT calculated from $\partial Vs/\partial T$=0.35 m/s/K
^ T taken from published petrological and non-steady state constraints on the thermal regime
^^ No heat flow data, T at the maps is interpolation artifact
* Vs-to-T conversion used to constrain Fig. 9 can be invalid for this region because of high homologous T
** Eq. (6) used to constrain Fig. 8 can be invalid for this region because of high homologous T
*** The anomaly most likely is an extension of a strong off-shore Q_s anomaly