**Table 1:** Sericitization value inducing a decrease of 1% and 5% for K/Ar ages (*AR* parameter) for different terrestrial volcanism events, assuming an age difference between alteration and volcanism = 10% and  $An_{70}$  for the chemistry of basaltic plagioclases. All these calculated values are hardly recognized during hand-picking, as well as in thin section study. Related stoichiometric indice y is also reported (see appendix for details).

Trap Volcanism	Age* (Ma)	Ran fres Ca/K min	ge of Ca h plagioo Ca/K max	/K of clase Mean value	Stoichio - metric indice y	%Sericitization required for 1% <i>AR</i>	%Sericitization required for 5% AR	References
Kalkarindji	505	25	50	45	0.016	0.18%	1.55%	Evins et al., 2009
Viluy	370	10	50	35	0.02	0.25%	1.95%	Courtillot et al., 2010
Siberia	250	20	25	22	0.032	0.32%	3.1%	Hofmann, 1997
CAMP	199	20	70	45	0.016	0.18%	1.55%	Marzoli et al., 1999, 2011 ; Hames et al., 2000 ; Verati et al., 2005, 2007
Karoo	180	30	60	45				LeGall et al., 2002 Jourdan et al., 2005, 2008
Deccan	65	10	30	20	0.036	0.35%	3.4%	<i>Courtillot et al., 2000 Hofmann et al., 2000</i>
Rajahmundry	65	100	300	200	0.0036	0.035%	0.35%	Knight et al., 2003
Ethiopian	30	40	165	100	0.007	0.08%	0.7%	Hofmann, 1997

\*These ages are based on the decay constant of Steiger and Jager, 1977 and are an approximate average of the age of the peak, not accounting for the duration of the magmatism. Note that a more recent calibration of the K decay constant exists (Renne et al., 2011) shifting these ages by about +1%, but that this does not affect the AR values reported in this table.