

Explanation of electronic supplementary material

Table 1 Analyse table of LA-ICP-MS data of detrital zircons from metagranodiorite of the sample 1 (Weichberg, East Odenwald, MGCZ). Spot size = 30µm depth of crater ~15µm. $^{206}\text{Pb}/^{238}\text{U}$ error is the quadratic additions of the within run precision (2 SE) and the external reproducibility (2 SD) of the reference zircon. $^{207}\text{Pb}/^{206}\text{Pb}$ error propagation (^{207}Pb signal dependent) following Gerdes and Zeh (2009). $^{207}\text{Pb}/^{235}\text{U}$ error is the quadratic addition of the $^{207}\text{Pb}/^{206}\text{Pb}$ and $^{206}\text{Pb}/^{238}\text{U}$ uncertainty.

^a Within run background-corrected mean ^{207}Pb signal in cps (counts per second)

^b U and Pb content and Th/U ratio were calculated relative to GJ-1 reference zircon

^c percentage of the common Pb on the ^{206}Pb . b.d. = below detection limit.

^d corrected for background, within-run Pb/U fractionation (in case of $^{206}\text{Pb}/^{238}\text{U}$) and common Pb using Stacy and Kramers (1975) model Pb composition and subsequently normalized to GJ-1 (ID-TIMS value/measured value); $^{207}\text{Pb}/^{235}\text{U}$ calculated using $^{207}\text{Pb}/^{206}\text{Pb}/(^{238}\text{U}/^{206}\text{Pb} * 1/137.88)$

^e rho is the $^{206}\text{Pb}/^{238}\text{U}/^{207}\text{Pb}/^{235}\text{U}$ error correlation coefficient.

^f degree of concordance = $^{206}\text{Pb}/^{238}\text{U}$ age / $^{207}\text{Pb}/^{206}\text{Pb}$ age x 100

Table 2 Analyse table of LA-ICP-MS data of detrital zircons from biotite gneiss of the sample 2 (Weichberg, East Odenwald, MGCZ). For further explanation see Table 1

Table 3 Analyse table of LA-ICP-MS data of the orthogneiss sample 3 (“Schmelzmühle”, East Odenwald). For further explanation see Table 1

Table 4 Analyse table of LA-ICP-MS data of the orthogneiss sample 4 (North Böllstein, East Odenwald). For further explanation see Table 1

Table 5 Analyse table of LA-ICP-MS data of detrital zircons from biotite gneiss of the sample 5 (“Schmelzmühle”, East Odenwald). For further explanation see Table 1

Table 6 Analyse table of LA-ICP-MS data of detrital zircons from biotite gneiss of the sample 6 (East Böllstein, East Odenwald). For further explanation see Table 1

Table 7 Analyse table of LA-ICP-MS data of detrital zircons from Upper Cambrian sandstone of the sample 6 (Lysogory, Holy Cross Mountain, Trans-European Suture Zone). For further explanation see Table 1

Table 8 Analyse table of LA-ICP-MS data of the orthogneiss sample 8 (“Wiebelsbach”, East Odenwald). For further explanation see Table 1

Table 9 Sample localities Odenwald and Holy Cross Mountains (Decimal grad)

ESM 1 Analytical techniques

ESM 2 Uranium – Thorium plot sample 1

ESM 3 Uranium – Thorium plot sample 2

ESM 4 Uranium – Thorium plot sample 3

ESM 5 Uranium – Thorium plot sample 4

ESM 6 Uranium – Thorium plot samples 5, 6 and 7

ESM 7 U–Pb concordia plots of ca 1.5 Ga age peaks of samples 5, 6 and 7

ESM 8 U–Pb concordia plot of in house standard Orlovica (TIMS /Laser)

ESM 9 Zircon Tuff age Orlovica

ESM 10 CL images sample 1

ESM 11 CL images sample 2

ESM 12 CL images sample 5

ESM 13 CL images sample 4

ESM 14 CL images sample 3

ESM 15 CL images sample 6