Appendix Table 1 Summary of the age data for the Triassic granitoids in the Eastern Tianshan

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| No | Location | Rock type | Diagenetic/metallogenic age | | | | Reference |
| Method | Age (Ma) | | |
| a | Shadong Wu-Rb deposit | Biotite monzonitic granite | LA–ICPMS Zircon U–Pb | 239 | ± | 2 | Chen et al., 2018 |
| b | Guobaoshan Rb deposit | Leucogranite | LA–ICPMS Zircon U–Pb | 240.3 | ± | 1.8 | Li T. G. et al., 2018 |
| c | Zhangbaoshan Rb deposit | Leucogranite | LA–ICPMS Zircon U–Pb | 250.5 | ± | 1.7 | This study |
| d | Yamansu granite1 | Monzogranite | LA–ICPMS Zircon U–Pb | 244.9 | ± | 1.4 | Zhang et al., 2017 |
|  |  | Monzogranite | LA–ICPMS Zircon U–Pb | 249.7 | ± | 1.2 | Zhang et al., 2017 |
| e | Weiya pluton | Gabbro | SHRIMP zircon U–Pb | 214.1 | ± | 1.6 | Li et al., 2005 |
|  |  | Gabbro | SHRIMP zircon U–Pb | 233.4 | ± | 8.6 | Li et al., 2005 |
|  |  | Pyroxene,Magnetite, Plagioclase and Gabbro | Whole-rock-mineral Sm-Nd isochron | 219 | ± | 45 | Li et al., 2005 |
|  |  | Pyroxene,Magnetite, Plagioclase and Vanadium-titanium magnetite ores | Whole-rock-mineral Sm-Nd isochron | 220 | ± | 30 | Li et al., 2005 |
|  |  | Granulite | SHRIMP zircon U–Pb | 237 | ± | 8 | Zhang Z. Z. et al., 2005 |
|  |  | Gabbro | SHRIMP zircon U–Pb | 236 | ± | 6 | Zhang Z. Z. et al., 2005 |
|  |  | Diorite porphyrite | SHRIMP zircon U–Pb | 233 | ± | 8 | Zhang Z. Z. et al., 2005 |
|  |  | Quartz syenite | SHRIMP zircon U–Pb | 246 | ± | 6 | Zhang Z. Z. et al., 2005 |
|  |  | Gabbro | LA–ICPMS Zircon U–Pb | 236 | ± | 3 | Wang et al., 2008 |
| f | Tianhu pluton | Granodiorite | LA–ICPMS Zircon U–Pb | 247.1 | ± | 1.8 | Lei et al., 2020 |
|  |  | Biotite adamellite | LA–ICPMS Zircon U–Pb | 242.2 | ± | 2.4 | Zhao et al, 2017 |
| g | Xingxingxia granite | Granite | LA–ICPMS Zircon U–Pb | 246.2 | ± | 1.3 | Zhang et al., 2017 |
| h | Xiaobaishitou W-(Mo) deposit | Quartz vein | Molybdenite Re–Os | 240.8 | ± | 2 | Deng et al., 2017 |
|  |  | biotite granite | LA–ICPMS Zircon U–Pb | 242 | ± | 1.7 | Deng et al., 2017 |
|  |  | Molybdenite | Re-Os isotopic | 244.9 | ± | 4.2 | Deng et al., 2017 |
|  |  | Mo-mineralized granite | LA–ICPMS Zircon U–Pb | 240.5 | ± | 2.1 | Deng et al., 2017 |
|  |  | Biotite granite | LA–ICPMS Zircon U–Pb | 246.4 | ± | 1.7 | Li et al., 2019 |
|  |  | Biotite granite | SHRIMP zircon U–Pb | 249 | ± | 3 | Li et al., 2005 |
|  |  | Biotite granite | Whole-rock Rb-Sr | 244 | ± | 5 | Li et al., 2005 |
|  |  | Tungsten-bearing quartz veins | Rb-Sr isochron | 248 | ± | 7 | Li et al., 2005 |
|  |  | biotite granite | Ar-Ar | 227 | ± | 4 | Chen and Wang, 1993 |
| i | Shanshancaishichang pluton | K-feldspar granite | SIMS zircon U–Pb | 252.7 | ± | 7 | Li et al., 2002 |
| j | Hongshanliang Cu deposit | (Monzonitic) granodiorite | LA–ICPMS Zircon U–Pb | 250.2 | ± | 3.5 | Zhao et al., 2019 |
|  |  | Monzogranite | LA–ICPMS Zircon U–Pb | 235.7 | ± | 2.4 | Zhao et al., 2019 |
| k | Hongshan Cu-Au deposit | Biotite granite | Biotite K-Ar | 232 | ± | 3.5 | Xu et al., 2008 |
|  |  | Monzogranite | Hornblende K-Ar | 217.1 | ± | 6.4 | Xu et al., 2008 |
| l | Donggebi Mo deposit | Porphyritic granite | LA–ICPMS Zircon U–Pb | 236 | ± | 2.2 | Wu et al., 2017 |
|  |  | Molybdenite | Re-Os isotopic | 231.9 | ± | 6.5 | Wu et al., 2013 |
|  |  | Granite porphyry | SIMS zircon U–Pb | 231.7 | ± | 2.6 | Zhang F. et al., 2015 |
|  |  | Porphyritic granite | SIMS zircon U–Pb | 233.8 | ± | 2.5 | Zhang F. et al., 2015 |
|  |  | Quartz vein | Molybdenite Re–Os | 236.1 | ± | 1.4 | Zhang F. et al., 2015 |
|  |  | Fine-grained granodiorite | LA–ICPMS Zircon U–Pb | 231.8 | ± | 2.4 | Sun et al., 2017 |
|  |  | Porphyritic granite | LA–ICPMS Zircon U–Pb | 234.6 | ± | 2.7 | Sun et al., 2017 |
|  |  | Quartz vein | Molybdenite Re–Os | 234 | ± | 2 | Sun et al., 2017 |
|  |  | Quartz vein | Molybdenite Re–Os | 234.2 | ± | 1.6 | Han et al., 2018 |
|  |  | Porphyritic granites | SIMS zircon U–Pb | 236 | ± | 3 | Han et al., 2018 |
|  |  | Quartz vein | Molybdenite Re–Os | 236.6 | ± | 1.9 | Wang Y.-h et al., 2018 |
|  |  | Quartz vein | Molybdenite Re–Os | 234.6 | ± | 1.6 | Han et al., 2014 |
| m | Yamansubei pluton | K-feldspar granite | LA–ICPMS Zircon U–Pb | 227.9 | ± | 0.47 | Lei et al., 2013 |
| n | Yamansu granite2 | Monzogranite | LA–ICPMS Zircon U–Pb | 222.6 | ± | 0.6 | Zhang et al., 2017 |
| o | Tudun pluton | K-feldspar granite | LA–ICPMS Zircon U–Pb | 246.2 | ± | 2.6 | Zhou et al., 2010 |
| p | Shuangchagou pluton | Granodiorite | LA–ICPMS Zircon U–Pb | 252.4 | ± | 2.9 | Zhou et al., 2010 |
| q | Jing’erquanbei (Li-Be-Rb) pegmatite | granitic pegmatite | Muscovite Ar-Ar | 243 | ± | 2 | Chen et al., 2006 |
|  |  | two-mica granite | LA–ICPMS Zircon U–Pb | 250.2 | ± | 3.5 | Muhtar et al., 2020a |
| r | Baishan Mo deposit | Granite porphyry | LA–ICPMS Zircon U–Pb | 229.8 | ± | 1.4 | Wang et al., 2019 |
|  |  | Quartz vein | Molybdenite Re–Os | 225 | ± | 1.2 | Wang et al., 2019 |
|  |  | Granite porphyry | SIMS Zircon U–Pb | 226.8 | ± | 3.2 | Wang et al., 2015 |
|  |  | Quartz vein | Molybdenite Re–Os | 224.8 | ± | 4.5 | Zhang L. et al., 2005 |
|  |  | Quartz vein | Pyrite Re-Os | 233 | ± | 14 | Zhang L. et al., 2005 |
|  |  | Molybdenite Re–Os | 227.7 | ± | 4.3 | Zhang et al., 2009 |
|  |  | Biotite plagiogranite | SHRIMP Zircon U-Pb | 239 | ± | 8 | Li et al., 2005 |
|  |  | Quartz vein | Molybdenite Re–Os | 229 | ± | 2 | Li et al., 2005 |
|  |  | Granite porphyry | LA–ICPMS Zircon U–Pb | 228.1 | ± | 8 | Zhang D. et al., 2015 |
|  |  | Granite porphyry | SIMS Zircon U–Pb | 227 | ± | 2 | Wang et al., 2016 |
|  |  | Granite porphyry | SIMS zircon U–Pb | 229 | ± | 3.2 | Liu and Wang, 2016 |

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