A Big Earth Data Platform for Three Poles

**Database Atlas of genetic constraints and Metallogenic Significance of Early Cretaceous adakites in Anqing area**

1、Description

The data are in the form of pictures, including: (1) micrographs of quartz monzodiorite in Anqing area, showing mineral composition. Among them, pl. plagioclase, KFS. Potash feldspar, HBL. Amphibole, Bi. Biotite, QTZ. Quartz
(2) Typical cathodoluminescence photos and U-Pb concordance maps of zircons from Yueshan pluton in Anqing. In the cathodoluminescence image, the small solid line circle represents the LA-ICPMS analysis point, and the large dotted line circle represents the la-mc-icpms Hf isotope analysis point. The formation age of the Yueshan pluton is 138.2 ± 1.7 Ma
(3) The geochemical diagrams of zircons from adakitic rocks in Anqing are used to explain the REE distribution characteristics of zircons, to distinguish the classification of zircons, the correlation between Zi HF and Ti in zircon temperature
(4) Classification map of petrochemical composition of adakitic rocks in Anqing. The adakitic rocks in Anqing are quartz monzodiorite, which are of paraaluminous high-k calc alkaline series
(5) The HAAKE diagram of adakitic rocks in Anqing is used to study the correlation between major and trace elements
(6) Chondrite normalized REE partition diagram and n-morb normalized trace element spider diagram of Anqing adakitic rock samples
(7) The nd Sr isotopic composition of the adakitic rocks in Anqing falls in the range of Nd Sr isotopic composition of the adakitic rocks in the middle and lower reaches of the Yangtze River metallogenic belt, with mixed characteristics
(8) The adakitic rocks in Anqing have high radioactive lead isotopic compositions, which are consistent with those of MORB and early Cretaceous basic rocks in the middle and lower reaches of the Yangtze River
(9) Zircon of Anqing intrusion ε HF (T) value and U-Pb age map
(10) The diagrams of (a) Sr / Y and y, (b) Sr / Y and (LA / Yb) n, (c) K2O / Na2O and Al2O3 show that the adakitic rocks in Anqing were formed by partial melting of subducted oceanic crust
(11) The adakitic rocks in Anqing are (a) La / Yb and La, (b) V and Rb, (c) (87Sr / 86Sr) I and 1 / Sr（ × 104)， (d) ε Nd (T) and 1 / Nd（ × 103), showing partial melting and magma mixing
(12) The (a) BA and Nb / y diagrams and (b) Rb / Y and Nb / y diagrams of Anqing adakitic rocks show obvious subduction marks
(13) Zircon lgfio2 and t of adakitic rocks in Anqing（ º C) Fig. The adakitic rocks in Anqing have high oxygen fugacity and high temperature. Among them, MH: magnetite hematite buffer, FMQ: forsterite magnet quartz buffer, IW: iron pyrite buffer
(14) Genetic model of Anqing Copper Gold adakitic rocks. The Anqing adakites are mainly derived from partial melting of subducted oceanic crust, addition of mantle derived magma and assimilation of Neoproterozoic crustal materials during emplacement.

2、Keywords

Theme：adakite,magma,Rocks/Minerals,Geochemistry,Geologic Hazard,Isotopic geochemistry
Discipline：Solid earth
Places：Anqing, Lower Yangtze River Belt
Time：Cretaceous

3、Data details

1.Scale：None

2.Projection：None

3.Filesize：8.81MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：30.8 | - |
| west：116.75 | - | east：116.9 |
| - | south：30.4 | - |

5、Time frame:None--None

6、Reference method

References to data:

XIE Jiancheng. Database Atlas of genetic constraints and Metallogenic Significance of Early Cretaceous adakites in Anqing area. A Big Earth Data Platform for Three Poles, doi:10.1080/00206814.2017.13626722021

References to articles:

Xie, J., Wang, Y., Li, Q., Liu, J., & Sun, W. (2018). Early cretaceous adakitic rocks in the anqing region, southeastern china: constraints on petrogenesis and metallogenic significance. International Geology Review, 60(11-14), 1435-1452.

7、Supporting project information

The deep process and resource effect of major geological events in Yanshan period

8、Data resource provider

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