A Big Earth Data Platform for Three Poles

**Geochemical database of Mucheng pluton in southeastern China**

1、Description

Data includes excel and JPG format. Excel data includes: whole rock major and trace element analysis data, whole rock strontium and neodymium isotope analysis data, whole rock Pb isotope analysis data.  
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In Guizhou Tongwei Analytical Technology Co., Ltd. (Guiyang, China), the whole rock macro and trace elements were analyzed by using Axios pw4400 X-ray fluorescence spectrometer and thermal X Series 2. Strontium and neodymium isotopes were analyzed by MC-ICP-MS at the University of Queensland.  
This data can provide evidence for the genesis of alkaline A-type granites and the geodynamic background of Early Cretaceous in southeastern China.  
Data in JPG format include:  
1. Distribution of Mesozoic granitoids and volcanic rocks in South China 2. Simplified geological map of Mucheng pluton. 3. Microscopic specimens of granodiorite in Mucheng area. 4. Cathodoluminescence (CL) images of zircon crystals selected from typical Mucheng quartz monzonite and granite 5. Zircon U-Pb concordance of representative quartz monzonite and granite 6. Histogram of zircon HF values in representative rocks 7. Chemical classification of rocks in Muchen rock 9. Chondrite normalized REE 10.87sr/86sr and ε Nd (T) diagram of muchenyan. 11. Whole rock lead isotope analysis 12. Zircon saturation temperature and Ti histogram of Mucheng quartz monzonite 13. SiO2 and Ti and SiO2 and Zr of Mucheng quartz monzonite 15. Rb / Sr and BA / RB, Zr / HF and Nb / Ta, th / Yb and BA / La 16. Nd and Hf isotopic map of Mucheng pluton. 17. SiO2 and Mg diagram of Mucheng quartz monzonite and simulated magma

2、Keywords

Theme：magma,Rocks/Minerals,Geochemistry,igneous rocks,Geologic Hazard,Isotopic geochemistry  
Discipline：Solid earth  
Places：Muchen, eastern China  
Time：Cretaceous

3、Data details

1.Scale：None

2.Projection：

3.Filesize：5.12MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：29.0 | - |
| west：119.0 | - | east：119.2 |
| - | south：28.67 | - |

5、Time frame:None--None

6、Reference method

References to data:

WANG Fangyue. Geochemical database of Mucheng pluton in southeastern China. A Big Earth Data Platform for Three Poles, doi:10.3390/min100100802021

References to articles:

Yan, Wang, Gu, Sun, & Ge. (2020). Geochemical and sr-nd-pb-hf isotopic characteristics of muchen pluton in southeast china, constrain the petrogenesis of alkaline a-type magma. Minerals, 10(1), 80.

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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