

## **Geochronology and Geochemistry of the Intrusions in Dayaoshan Uplift, Guangxi, South China**

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The Dayaoshan uplift is located in the middle-eastern part of Guangxi Province. The medium-acid rocks are widely exposed and have received extensive attention because of their close relationship with gold and polymetallic mineralization. The previous studies consider that the Dayaoshan uplift has undergone several stages of magmatism in different eras, which can be divided into the Caledonian Period (432-482 Ma), the Hercynian-Indosinian Period (243-266 Ma) and the Yanshanian Period (91-169 Ma). In this paper, we conducted a systematic geochronological and geochemistry studies of the Lingzu, Puquan, Dajin, Guluo-Wangqiangchong, Dacun and Huliunao granitic plutons.

The zircon U-Pb dating results show that the Lingzu, Puquan, Dajin, Dacun, and Huliunao granitic plutons are formed in the Caledonian Period (441-471 Ma), whereas the Guluo-Wangqiangchong is formed in the Yanshanian Period (~150 Ma). On the other hand, geochemical analysis shows that the Caledonian granitic plutons in Dayaoshan uplift are formed in the tectonic background of collision and compression, which are characterized by crust-mantle mixing. The Yanshanian granitic plutons also have crust-mantle mixing characteristics but formed in the local extensional tectonic setting during the west-northward subduction of the Paleo-Pacific Ocean.

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