The age and significance of single - grain zircons in Jiehekou Gr. in the Yunzhong Mountain area

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Abstract: Mesozoic Jiehekou Gr. is mainly composed of terrigenous clastic rocky mafic volcanic rocks, which have undergone several superposition of deformation and metamorphism, and the degree of metamorphism reaches high amphibolite facies, and the deep melting effect is strong. The entire set of rocks has no bottom, no top, and is disorder, and it is in contact with the base gneiss (TTG) or deep melting transition, or in a ductile shear zone. Results show that the age of the three groups are 2751 ± 39 Ma, 2541 ± 21Ma and 2183 ± 16Ma, respectively. The former represents the source region of the leaf age, and the latter two represent the secondary deep melting deterioration age. The diagenetic age of 2493 ± 38 Ma was obtained by the U-Pb method of Yukou oval dolomitic gneiss with a single pellet of Yukou, which was invaded into the rock group, indicating the rock formation in the estuary Ancient times. Occurring with the 2541 ± 21Ma strong regional deep melting effect, the base gneiss activation or rebirth, most of the early information has disappeared. The Jiehekou Gr. is similar to the age of the five groups. It is inferred that the Jiehekou Gr. and the Wutai rock group are not vertical and horizontal relations, but the horizontal relationship is parallel. The different tectonic levels are arc-land collision Orogenic formation in the process of orogeny formation, Yukou gneiss formation in the post-collision environment, and the formation of the oval-shaped oval-shaped local oblique arc-land collision formed by the linear structure zone.

Keywords: Cloud mountain; Jiehekou Gr.; Yukou gneiss; the new Archean; zircon age