

Position and Timing of the Liangshan Formation in the Southeastern Chongqing, China

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Abstract: The bauxite deposits in the Southeastern Chongqing are important components of the Northern Guizhou – Southern Chongqing bauxite metallogenic belt. However, the timing of the aluminum-bearing Liangshan Formation is still debated. The Liangshan Formation are respectively considered to be the lower Carboniferous, the upper Carboniferous, the lower Permian, and the middle Permian. Through the stratigraphic correlation, it is found that the Liangshan Formation in the Southern Chongqing is actually consistent with the Dazhuyuan Formation in the Northern Guizhou, indicating they have same sedimentation age. The Rb–Sr isotopic dating ages of 270 ± 1.5 Ma and 271.4 ± 1.4 Ma for two samples collected from the aluminum-bearing Liangshan Formation in the Fengyanpin area of the Southeastern Chongqing show that the Liangshan Formation was deposited in the Roadian age of Guadalupian Epoch of Permian period.

Keywords: Southeastern Chongqing; liangshan Formation; age; profile correlation; Rb–Sr isotopic dating