



Double-layer mode of acid intrusive rocks from Xiuwacu Porphyry Mo deposit, Northwestern Yunnan SW China: U-Pb geochronology evidence

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Recent research infer that, the south-north extension of the Xiuwacu-Tongchanggou acidic intrusive belt along the Geza island arc have been developed of intense molybdenum-mutimetallic mineralization(Li *et al.*, 2012, 2013; Yu *et al.*, 2015). The northern section of this intrusive belt exposed widely and occur much monzonitic granite, biotite-granite, granodiorite, biotite-monzogranite; while in southern section, intrusions are cocealed. The Tongchanggou district in south section have been obtained large breakthrough of porphyry-skarn type molybdenum-multimetallic deposits exploration recent years(Yu *et al.*, 2014), the Mo-W mineral resources also increased year after year in north section of the belt. The Mo-mineral resouree potential of porphyry-skarn type Mo-mutimetallic deposits in whole area are tremendous.

Xiuwacu Porphyry molybdenum deposit was explored in Geza island arc, and widespread Biotite granite and monzonitic granite that is closely related to mineralization. We have understood poorly about this ore deposit for the harsh geographical circumstance, through, some referential result in chronology have accumulated, it still lack of systematic lithogeochemical study and reliable chronology data about intrusions. We yield biotite granite and monzonitic zircons U-Pb ages($200.93\pm 0.65\text{Ma}$, $83.57\pm 0.32\text{Ma}$, respectively) of Xiuwacu. There are two periods of intermediate-acid intrusive rocks of Xiuwacu area. Indosinian Biotite granite and Yanshanian monzonitic granite were formed as superposition phenomenon.