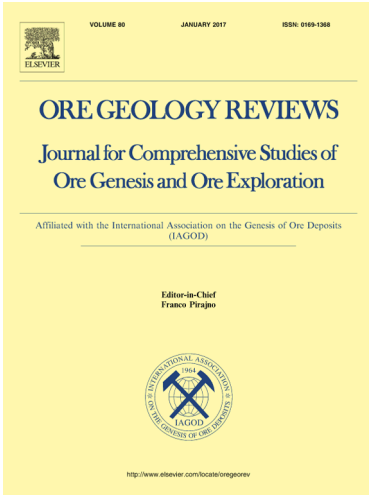

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Genesis of the Xianghualing Sn–Pb–Zn deposit, South China: A multi-method zircon study

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Abstract

The Xianghualing Sn–Pb–Zn deposit is situated near the center of the world-class Nanling W–Sn ore belt, associated with the highly evolved Laiziling granite of Jurassic age. Previous studies focused mainly on geochemical and geochronological features of the mineralization-related granite, whereas research on the source, evolution and geochronology of the ore-forming fluids has been limited. We carried out precise U–Pb dating, trace element, and Hf isotopic analyses on magmatic and hydrothermally-altered zircons from the skarn-stage and sulfide-stage ores in the Xianghualing deposit.