

Crystallization and Metallization of Brannerite in Marine Phosphorite of the lower Cambrian Niutitang Formation in Zhangjiajie Area, China

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Abstract: Microcrystalline brannerite was discovered in marine phosphorite of the lower Cambrian Niutitang formation in Zhangjiajie Area, China, and the occurrence and crystallization of the brannerite were studied by using backscattered electron image, scanning electron microscope microanalysis, element surface scanning and crystal structure analysis. Results show that synsedimentary substances alteration, brannerite dissolution and recrystallization are strongly affected by sea bottom hydrothermally process.

Keywords: Marine phosphorite; Brannerite; crystallization; submarine exhalative