Lingbaoite, AgTe₃, a new silver telluride from the Xiaoqinling gold district, central China

WEI JIAN¹,* JINGWEN MAO¹, BERND LEHMANN², YANHE LI¹, HUISHOU YE¹, JIANHUI CAI¹, AND ZONGYAN LI³

¹MNR Key Laboratory of Metallogeny and Mineral Assessment, Institute of Mineral Resources, Chinese Academy of Geological Sciences, Baitanzhuang Street 26, Beijing, 100037, China
²Mineral Resources, Technische Universität Clausthal, Adolph-Roemer-Strasse 2A, Clausthal-Zellerfeld, 38678, Germany
³Jinyuan Mining Industry Co., Ltd, Jincheng Street 20, Lingbao 472500, China

ABSTRACT

Lingbaoite, AgTe₃, is a new silver telluride discovered in the S60 gold-bearing quartz vein, Xiaoqinling gold district, central China. The new mineral is named after Lingbao city, which is about 30 km northeast of the mine where the new mineral was discovered. The municipality of Lingbao constitutes a major part of the Xiaoqinling gold district, which is the second-largest gold production area in China. Holotype material is deposited in the collections of the Geological Museum of China, Beijing, China, catalog number M13812.

The compound AgTe₃ was first recognized in nature as fine-grained mineral inclusions in pyrite from the S60 gold-bearing quartz vein, Xiaoqinling gold district, central China (Jian et al. 2014). Further investigation of the AgTe₃ grains from the same sample set confirms the structural identity of lingbaoite and synthetic AgTe₃ (Range et al. 1982). The mineral and the mineral name were approved by the Commission on New Minerals, Nomenclature and Classification of the International Mineralogical Association (Application 2018-138). The new mineral is named after Lingbao city, which is about 30 km northeast of the mine where the new mineral was discovered. The municipality of Lingbao constitutes a major part of the Xiaoqinling gold district, which is the second-largest gold production area in China. Holotype material is deposited in the collections of the Geological Museum of China, Beijing, China, catalog number M13812.

INTRODUCTION

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OCCURRENCE AND ASSOCIATED MINERALS

Lingbaoite was discovered as abundant micrometer-sized grains in gold ore samples collected underground from the S60 gold-bearing quartz vein (34°23′N, 110°34′E), which...