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摘要:

在长江中下游地区,与白垩纪陆相火山-侵入岩有关的铁多金属矿床在空间上绝大多数发育于白垩纪火山盆地,仅程潮和金山店出现于隆起区;成矿时间上分为两个时代,即133~130Ma和127~125Ma。按照成矿物质来源和成矿过程,鉴别出4个成矿系统:即在隆起区与石英闪长岩有关的矽卡岩铁矿(系统1);在火山盆地内,与大王山(或砖桥)旋回火山-次火山活动有关的铁多金属矿床(包括,磷灰石-磁铁矿型铁矿、类矽卡岩型铁矿、矿浆型铁矿、热液型硫铜金矿、热液型铅锌矿)(系统2)和与二长-正长岩有关的矽卡岩型铁矿(系统3);与娘娘山(或浮山)旋回火山-次火山活动有关的铜(金)矿和金铀矿(系统4)。盆地内和隆起区的矽卡岩型铁矿形成时间基本一致,略晚于与辉石闪长玢岩有关的铁多金属矿床(系统2),但早于铜金铀为主的成矿系统4。前人以系统2中的磷灰石-磁铁矿型铁矿、类矽卡岩型铁矿和矿浆型铁矿为主,结合其他一些少见或不具工业意义的铁矿类型,提出一个具有广泛影响的玢岩铁矿成矿模式。此文以玢岩铁矿成矿模式为基础,结合4个成矿系统的基本特点,提出了白垩纪陆相火山-侵入岩有关的铁多金属矿床模型。以上这些具有成因联系的矿床系统和类型及其分带互为找矿标志。

英文摘要:

Most terrestrial volcanic-intrusion related-Cretaceous iron deposits along the Middle-Lower Yangtze River Valley developed in Cretaceous basins whereas a few, such as the Chengchao and Jinshandian skarn iron deposits, occur in uplift area. The mineralization spatially can be divided into two episodes with age ranges of 133~130Ma and 127~125Ma. In light of substance sources and mineralization processes, it can be recognized as four ore systems, i.e. skarn iron deposits in the uplift area (system 1); volcanic-subvolcanism of the Dawangshan (or Zhuanqiao) cycle-related polymetallic iron deposits, comprising apatite-magnetite iron deposit, skarn-like iron deposit, magmatic iron deposit, hydrothermal S-Cu deposit and hydrothermal Pb-Zn deposit (system 2); monzonite and syenite-related skarn iron deposits (system 3); volcanic-subvolcanism of Niangniangshan cycle-related Cu (Au) and Au-U deposits (system 4). Late three systems merely occurred in the Cretaceous volcanic basins. The skarn iron deposits in both basins and uplift areas have the same mineralization age and are temporally a little later than the polymetallic iron deposits associated with pyroxene diorite porphyry, and earlier than system 4 of Cu-Au-U mineralization. Based on the apatite-magnetite iron deposit, skarn-like iron deposit and magmatic iron deposit of system 2 and the other types of non-industrial value iron mineralizations, previous researchers proposed a mineral model entitled in "porphyry iron deposit model" with extensive impact in China. In this study based on the porphyry iron mineral model we suggest a polymetallic iron deposit model comprising the major characteristics of the four ore systems. The varied ore systems and ore types are indicators each other for prospecting.

关键词: [磷灰石-磁铁矿矿床](#) [矿浆型铁矿](#) [热液型硫铜金矿](#) [玢岩铁矿模式](#) [陆相火山岩盆地](#) [白垩纪](#) [长江中下游地区](#)

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