

Geological characteristics and genesis of Yinjiagou crystal graphite deposit in Xixia County, Henan Province

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Abstract: The Yinjiagou graphite mine in Xixia County, Henan Province is located in the eastern part of the Qinling Orogenic Belt, between the Mujiaya-Neixiang fault and the Xichuan fault. The geological structure in the area is complex, magmatic activity is frequent, and the mineralization conditions are favorable. In this paper, through comprehensive research on the geological characteristics and geological characteristics of the graphite deposit research area, the genesis of the deposit is preliminarily discussed. It is considered that the carbon in the graphite of the deposit mainly comes from organic carbon and a small amount comes from inorganic carbon. These results provide a scientific basis for the future research on the ore-forming rules of graphite deposits in the Xixia region and the next geological prospecting work.

Key words: crystal graphite deposit, sedimentary metamorphism, genesis of deposit, Yinjiagou, Henan Province

全球十大钼矿

1 Spence 铜钼矿

国家:智利;矿石资源量:2,661,400,000 t;金属量:Mo 2,759,000 t、Cu 12,723,000 t;品位:Mo 0.104%、Cu 0.478%。

2 安徽金寨钼矿

国家:中国;矿石资源量:1,500,000,000 t;金属量:Mo 2,270,000 t;品位:Mo 0.140%。

3 CUMO 铜钼矿

国家:美国;矿石资源量:5,980,000,000 t;金属量:Mo 2,153,000 t、Cu 4,186,000 t、Ag 415,284,000 oz、W 60,000 t

品位:Mo 0.036%、Cu 0.07%、Ag 2.16g/t、W 0.001%。

4 河南栾川三道庄钼矿

国家:中国;矿石资源量:2,100,000,000 t;金属量:Mo 2,058,000 t、W 672,000 t;品位:Mo 0.098%、W 0.032%。

5 Pebble 铜钼金矿

国家:美国;矿石资源量:7,978,300,000 t;金属量:Mo 1,995,000 t、Cu 32,392,000 t、Au 89,778,000 oz;品位:Mo 0.025%、Cu 0.406%、Au 0.35g/t。

6 Collahuasi 铜钼矿

国家:乌拉圭;矿石资源量:6,800,000,000 t;金属量:Mo 1,360,000 t、Cu 54,342,000 t;品位:Mo 0.02%、Cu 0.799%。

7 Quartz Hill 钼矿

国家:美国;矿石资源量:1,400,000,000 t;金属量:Mo 1,316,000 t;品位:Mo 0.094%。

8 LaCaridad 铜钼矿

国家:墨西哥;矿石资源量:5,550,712,000 t;金属量:Mo 1,277,000 t、Cu 12,378,000 t;品位:Mo 0.023%、Cu 0.223%。

9 Sierrita 铜钼矿

国家:美国;矿石资源量:4,379,000,000 t;金属量:Mo 1,047,000 t、Cu 9,271,000 t、Ag 179,708,000 oz;品位:Mo 0.024%、Cu 0.212%、Ag 1.276g/t。

10 Toquepala 铜钼矿

国家:秘鲁;矿石资源量:6,197,659,000 t;金属量:Mo 806,000 t、Cu 19,956,000 t;品位:Mo 0.013%、Cu 0.322%。

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