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Jiangxi Province Jiuling Ore Concentration Area Shimen Temple Tungsten Copper Polymetallic Metallogenic Environment and Ore Prospects

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The Shimensi mine area are hosted in the Jinning biotite granodiorite intruded by Yanshanian acid deep into shallow granitic pluton. The thick, flat attitude and stratiform-like tungsten (Cu Mo)orebodies are subparallel to the top of interface between Jinning biotite granodiorite and Yanshanian biotite granitic stock, particularly close to the external contact zone (such as the I 1 ore body). These bodies had an horizontal projection area of about 1.50km², the largest thickness of about 389.33m, an average thickness of about 143.67m, an average ore grade of about 0.193%, a coefficient of the thickness variation of about 63.7% and a coefficient of the grade variation of about 115.8%. The industrial minerals in this area are almost scheelite, wolframite, chalcopyrite and molybdenite. Ore textures are mainly crystallization texture and metasomatic texture. Ore structures are mainly veinlet and disseminated. The wall-rock alterations of ore body are

protolithionitization, greisenization and chloritization. The Shimensi deposit, a postmagmatic hydrothermal one with high and middle temperature, is belong to veinlet-disseminated scheelite. The discovery of the veinlet-disseminated tungsten deposit in Shimensi ore area has changed the prospecting idea which only focused on the thick quartz vein-type wolframite deposit in the past, and has indicated a new direction for the prospecting of the tungsten deposit in Shimensi ore area and Jiuling ore concentrated area.

Key words: Jiangnan land; Very large tungsten copper-molybdenum polymetallic deposit; Metallogenic environment; Continental collision; Intracontinental mineralization

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