

THE CANOAS AND PERAU SEDEX-TYPE ORE DEPOSITS IN RIBEIRA VALLEY REGION (BRAZIL)

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The Canoas and Perau ore deposits, located in Adrianópolis (Paraná State, Brazil), correspond to sedimentary-exhalative deposits, formed in the environment with volcanic influence and make up the major deposits of sedex type in the Ribeira Valley region. The main characteristics of the ore deposits include: lithostratigraphic positioning in the pelitic-carbonatic sequence of the Perau Complex (Mesoproterozoic age); stratiform or stratabound formation; association between the sulfide mineralizations (Pb-Zn-Ag) and barite-rich bodies; magnetite-rich beds on the hanging wall rocks; wallrocks including calcsilicate rocks, K-rich volcanic rocks, tuffaceous sericite-schist, cherts and conglomerates, suggesting sedimentation and volcanism operating in small tectonic basins; a metallic and mineralogical zoning; mineral bodies underwent the same tectonometamorphic events as the wallrocks, the sulfide material was remobilized mechanically and/or hydrothermally over the tectonic planes, cementing the fragments, resulting in brecciated or stringer ore. The mineral bodies show a lenticular geometry, and were heterogeneously deformed over three episodes of a low angle shearing, and by two latter episodes. The lead isotopic data suggest that the sources of this metal were crust rocks and the values of δS^{34} , near 0‰, indicate similarities with volcanogenic deposits. The δC^{13} and δO^{18} data in carbonate minerals differ from those present in regional carbonates, indicating the effects of hydrothermal systems, in submarine environments, as shown by Sr^{87}/Sr^{86} data in barite, similar to those in seawater from the Mesoproterozoic.