

# **A Phenomenological Study of Cobalt and Copper from the African Copperbelt Deposits**

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## **Abstract**

The African copperbelt is located in the sub-Saharan part, 450 km spanning from the Katanga province of the Democratic Republic of Congo to Luanshya in Zambia. The copper belt is associated with mining and industrial development dependent thus it forms the greatest concentration of mineral industries in sub-Saharan Africa. The copper belt contains more than a tenth of the world's copper deposits. In this paper a qualitative research methodology was used as the phenomenological research design, to bring together the documented reports on cobalt and copper complex ores in the African Copperbelt. As the paper used an updated literature, backward ten years span from 2010, and discusses the original geology of the area but adding the presence and types of the ore complexity, minerals found in the deposit include malachite ( $\text{Cu}_2\text{CO}_3(\text{OH})_2$ ) chrysocolla ( $\text{Cu}_2\text{H}_2\text{Si}_2\text{O}_5(\text{OH})_4$ ), pseudomalachite ( $\text{Cu}_5(\text{PO}_4)_2(\text{OH})_4$ ), and Heterogenite ( $\text{CoO}\cdot\text{OH}$ ), the mineralogical complexity of cobalt and copper materials found in the Copperbelt deposits is here elevated. Phenomenological approach employed in the study relate the socio environmental strains of the areas.

## **Keywords**

Copperbelt, Copper, Cobalt, Complex ores, and Phenomenological study