

# GALLIUM AND REE IN RED MUD OF EAST COAST BAUXITE, INDIA.

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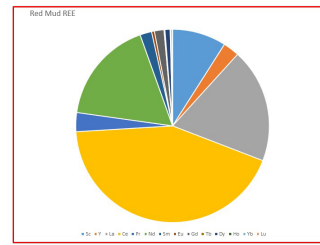


Fig 2 REE analysis in Red Mud

For metals like Gallium and Germanium China has already imposed a ban on its exports to US., It means that India too is under great threat. Gallium and germanium are used in small but often necessary amounts in certain types of high-end fibre optics, solar cells and most critically, in microchips used for quantum computing, telecommunications, electric vehicles, defence, and an array of other mission-critical applications. Both metals are by-products from processing other commodities such as coal and bauxite, the base for aluminium production. Other countries that produce gallium include Japan, South Korea, Russia and Ukraine, according to the CRU Group, a metals industry intelligence provider. Gallium is typically produced as a by-product of aluminium mining. Gallium is almost exclusively extracted from bauxite and clays though minor amounts can be extracted from zinc-bearing ores or fly ash generated from burning coal. The Laterite and Bauxite tracts of the Eastern Ghats of India and Laterites in Orissa are the most favourable geological tracts for carrying out research for exploration and exploitation. The Gallium may be also obtained as a by-product from the aluminium extraction process from Red Mud dumps can be preserved to test for Gallium. The preliminary red mud analysis showing enriched Gallium oxide in ppm (Fig 1) and REE analysis in pie diagram (Fig 2) out research for exploration and exploitation. The Gallium may be also obtained as a by-product from the aluminium extraction process from Red Mud dumps can be preserved to test for Gallium. Germanium is also present in the coal ash around power plants. The waste mining dumps of Zawar Zinc mines may also be tested for Germanium. The preliminary red mud analysis showing enriched Gallium oxide in ppm (Fig 1) and REE analysis in pie diagram (Fig 2)

