

## **Geochemistry of rocks and vein minerals from Mawchi Sn-W polymetallic mineralization, Myanmar**

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Trace elements and REE have been determined for rocks and mineral separates, such as cassiterite and wolframite, from the Mawchi Sn-W polymetallic deposit in Myanmar. Current study seeks to determine the source of Sn and W mineralization. The granites are characterized by a slightly flat REE pattern, with pronounced Eu negative anomaly, whilst metasedimentary rocks exhibit a LREE enriched pattern with moderate  $La/Sm_N$  (3.09).  $La/Yb_N$  is 2.4 in metasedimentary rocks and 0.86 and 0.33 for biotite granite and tourmaline granite respectively. Rocks have relatively low Nb/Ta ratios (< 4) and Th/U ratios (1.1-2.3). Wolframite has a high abundance of REE, Y and low content of Nb, Ta (Nb/Ta ratio >18). The REE pattern of wolframite exhibits pronounced enrichment of HREE and  $La/Yb_N$  is  $\leq 0.01$ . The LREE-depleted and HREE-enriched pattern is quite different from the enclosing rocks, probably due to post-magmatic hydrothermal fluid that experienced prolonged interaction with the wall-rocks. Cassiterite is depleted in HREE and Y, and enriched in Ta and Nb (Nb/Ta ratio < 2.5). Cassiterite from the cassiterite vein shows an REE pattern similar to those of metasedimentary rocks. Cassiterite from the cassiterite-wolframite vein is characterized by an REE pattern which resembles those of wolframite and fluorite and partly to those of granitic rocks.