

**Title :** Petrography of Lepidolite-bearing Pegmatite at Ban Thung Chang, Si Mongkhon Subdistrict, Sri Yok District, Kanchanaburi Province.

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## ABSTRACT

This study investigates the lithology and petrography of lepidolite-bearing pegmatites from Ban Thung Chang, Sri Mongkhon Subdistrict, Sai Yok District, Kanchanaburi Province, based on 19 samples. The hand specimens are characterized by a distinct purple coloration due to the widespread distribution of lepidolite throughout the rock. Some samples exhibit contacts with granite, while others display mineral alignment within the rock fabric. The primary mineral constituents are quartz, plagioclase, and lepidolite. The rocks are predominantly coarse-grained, with locally fine-grained portions. Quartz ranges from 0.15–6.25 mm in size, with an average content of 46.43%. Lepidolite ranges from 0.025–3.25 mm, averaging 41.74% and plagioclase ranges from 0.125–2.75 mm, averaging 11.83%. Accessory minerals include alkali feldspar and tourmaline, while sericite is observed as an alteration mineral. Important textures include myrmekitic texture, characterized by worm-like quartz intergrowth within plagioclase, indicating the late stage of crystallization, and perthitic texture, characterized by lamellae within feldspar, indicating exsolution during temperature decrease. The alteration of feldspar to sericite indicates hydrothermal fluid infiltration along fractures, resulting in low-grade metamorphism. In addition, the preferred orientation of lepidolite indicates stress acting on the rock sample.

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