

**CONTACT AUREOLE OF THE SRI SAWAT GRANITE, KANCHANABURI PROVINCE, WESTERN THAILAND**

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The Sri Sawat granite emplaced to a lower Paleozoic sedimentary succession ranging in the age from Cambrian, Ordovician to Silurian–Devonian ages. Age of emplacement of around 200 Ma and the geochemical characteristics suggest that the Sri Sawat granite is of S-type affinity and belongs to the Central granite belt in Thailand and Southeast Asia. The intrusion developed a contact aureole comprised of hornfels in Cambrian mudstone and metacarbonate in Ordovician argillaceous limestone. The metacarbonate comprises: Tr–Phl calcsilicate (Type I), Cal marble (Type II), Ves–Wo–Di–Grs–Qtz calc-skarn (Type III), and Dol–Cal–Phl±Chl marble (Type IV). *P–T* conditions of the contact metamorphism were estimated by pseudosections and mineral isopleths from hornfels samples and yield ~580 – 600 °C and 2 kbar. Based on the pressure of 2 kbar, the isobaric *T–XCO<sub>2</sub>* diagrams of representative samples from Types I, III and IV reveal that the peak equilibrium temperature is ~500 °C, ~660 °C and 420 °C, respectively. Stable C–O isotopes suggest that meteoric infiltration was the source of the fluid in Type I while magmatic infiltration was the source in Type II and IV. Whereas the calc–skarn (Type III) shows a strong influence of magmatic coupled with meteoric fluids.