

Geokimia Tonalit Berangkat dan Leukogranit Kenerong sebagai petunjuk kepada pembentukan dan asalan magma Kompleks Stong, Kelantan

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Two main components of the Stong Complex in the order of decreasing age are Berangkat Tonalite and Kenerong Leucogranite. The concentration of 10 major elements and 9 trace elements of 14 representative samples from these two components were analyzed using X-Ray Fluorescence (XRF). The purpose of this study is to identify their genesis and the origin of the magma, whether it is from the Main Range Granite Batholith or from the Eastern Belt Granite. Analysis of major elements were carried out using Harker, AFM and A/CNK diagrams, while trace elements were divided into two groups, the LIL elements (large ion lithophile elements) and the trace transition metal. The Harker diagrams show both positive and negative correlation. The negative correlation shows that the Al_2O_3 , Fe_2O_3 , MnO , TiO_2 , MgO , P_2O_5 and CaO decrease in concentration with increasing SiO_2 . The positive correlation indicates that the Na_2O and K_2O increase in concentration with increasing SiO_2 . These suggest that the Berangkat Tonalite and Kenerong Leucogranite originated from the same magma that had undergone differentiation. The trend of magma differentiation from Berangkat Tonalite to Kenerong Leucogranite is indicated from major and trace element analysis. Both Berangkat Tonalite and Kenerong Leucogranite are more felsic in nature containing high alumina (peraluminous) and the magma

is of calc-alkaline series. The Stong Complex is from I-type granites suggesting that they are part of the Eastern Belt Granite.
