

SARI

Ada dua jalur granit orogenik kapur di Kalimantan yaitu, jalur granit kordilera yang tersusun atas tonalit, granodiorit, sedikit granit yang berumur Kapur Awal – Kapur Akhir dan jalur granit kaledonia yang tersusun atas granit dan granodiorit yang berumur Kapur Akhir. Granit di Pulau Kalimantan terbagi menjadi dua bagian yaitu, utara Pulau Kalimantan termasuk kedalam sabuk granit dan bagian selatan termasuk kedalam batolit granit. Tujuan dari dilakukannya penelitian ini adalah untuk mengetahui karakteristik batuan granitoid, mengetahui perbedaan karakteristik batuan granitoid dengan daerah lain, dan mengetahui tatanan tektonik pembentuk batuan granitoid. Metode yang digunakan yaitu analisis petrografi, analisis *X-Ray Fluorescence* (XRF), dan analisis *Inductively Coupled Plasma Mass Spectrometry* (ICP-MS) dari 4 sampel batuan.

Hasil analisis petrografi diperoleh jenis batuan granitoid adalah granit kuarsa, syenogranit, monzogranit, granodiorite, diorit kuarsa. Hasil analisis geokimia yang didapatkan dari hasil analisis XRF berupa oksida mayor yaitu SiO_2 , TiO_2 , Al_2O_3 , Fe_2O_3 , FeO , MnO , MgO , CaO , Na_2O , K_2O , dan P_2O_5 . Afinitas magma diperoleh *calc-alkaline series* dengan komposisi aluminanya termasuk kedalam peralumina dengan tipe granitoid yaitu tipe S dan metalumina dengan tipe granitoid yaitu tipe I.

Dari hasil analisis ICP-MS didapatkan unsur jejak berupa Rubidium (Rb), Niobium (Nb), Itrium (Y), Tantalum (Ta), dan Yterbium (Yb) untuk mengetahui tatanan tektonik pembentuk granitoid berdasarkan data geokimia.

Kata kunci: Granitoid, geokimia, unsur mayor, unsur jejak

ABSTRACT

There are two orogenic granite belts in Kalimantan, namely, the Cordilleren granite which is composed of tonalite, granodiorite, a little granite of Early Cretaceous - Late Cretaceous age and the Caledonian granite types which is composed of granite and granodiorite of Late Cretaceous age. The granite on Kalimantan Island is divided into two parts is the north of Kalimantan Island is included in the granite belt and the southern part is included in the granite batholith. The aim of this research is to determine the characteristics of granitoid rocks, determine the differences between the characteristics of granitoid rocks and other areas, and determine the tectonic order that forms granitoid rocks. The methods used are petrographic analysis, X-Ray Fluorescence (XRF) analysis, and Inductively Coupled Plasma Mass Spectrometry (ICP-MS) analysis of 4 rock samples.

The results of petrographic analysis showed that the granitoid rock types were quartz granite, syenogranite, monzogranite, granodiorite, quartz diorite. The results of geochemical analysis obtained from the results of XRF analysis are major oxides is SiO_2 , TiO_2 , Al_2O_3 , Fe_2O_3 , FeO , MnO , MgO , CaO , Na_2O , K_2O , and P_2O_5 . The magma affinity obtained is calc-alkaline series with the alumina composition including peraluminous with granitoid type is S-type, and metaluminous with granitoid type is I-type.

From the results of the ICP-MS analysis, trace elements were obtained in the form of Rubidium (Rb), Niobium (Nb), Yttrium (Y), Tantalum (Ta), and Ytterbium (Yb) to determine the tectonic setting that formed the granitoids based on geochemical data.

Key words: Granitoids, geochemistry, major elements, trace elements