Magmatisme Tholeitik pada Active Continental Margin (ACM) di Serayu Bagian Utara dan Selatan Ãƒ Â¢Ã¢Â‚Â¬Ã¢Â€Âœ Banyumas, Jawa Tengah

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Abstract	Abstract - The significant amount of basaltic lava with geological age from Eocene to Miocene is found in Serayu Physiographic, Central Java. The basaltic lava has become a very interesting to observe due to its geological phenomenon and characteristics of the basaltic lava found in various tectonic positions. The objective of this research is to obtain the geological data in the form of petrological data and geochemical data from Ponjen (northern Serayu) and Kalisoka (southern Serayu) that spreading in the physiographic. The survey aimed to deduce the petrogenesis of basalt lava in the research area. The research method is using petrographic analysis and geochemical analysis by X-Ray Fluorescence (XRF), and Inductive Couple Plasma Mass Emission Spectrometry (ICP-MS). The data processing results of basalt lava by using geochemical major oxides for both zones indicating the tholeiitic origin magma and the type of plagioclase in form of labradorite. The magmatism of Ponjen-Kalisoka was formed from the tectonic setting of Active Continental Margin (ACM) with significant anomaly characteristic of Ta (Tantalum; Ta = 0,70 - 1,98 ppm) compares with basalt Gede volcanic (West Java; Ta = 0, 26 - 0.40 ppm) which is calc-alkaline which are both formed from ACM. The tholeiitic basalt of Ponjen-Kalisoka is proposed has contaminated with mantle magma which is possibly in form of intracontinental rifting resulted in Ponjen-Kalisoka's trace element becoming more into the transitional tholeiitic/calc-alkaline. The magmatism of Ponjen-Kalisoka's volcanic is a transitional magmatism (back arc volcanism) from southern volcanism (tholeiitic series) toward a calc-alkaline at northern part volcanism, such as the potassic calc-alkaline of Ungaran volcanic.Keyword: Serayu physiographic, Active Continental Margin (ACM), tholeiitic / transitional tholeiitic / calc-alkaline, magma contamination
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