

## **Texture Characterization and Mineralogical Composition of the 1982-1983 Second Phase Galunggung Eruption, West Java Regency, Indonesia**

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**Abstract :** Galunggung Mountain is an active volcano in Indonesia, precisely on the island of Java. This area is included in the Sunda Sunda arc formed by the tendency of the Australian oceanic plate to Eurasian continental plate. This research was conducted to determine the characteristics and document the mineralogical composition of the Galunggung eruption of the second phase 1982-1983. In fragment samples, petrographic analysis is carried out under a qualitative and quantitative polarizing microscope. This sample was obtained from the second phase eruption in the Cibanjang formation. Based on the analysis results obtained filter texture characteristics, olivine parallel growth, lamellar structure, glass inclusion, plagioclase zonation and obtained special texture in the gabbroic cumulate. The mineral composition consists of phenocryst plagioclase (41vol%), pyroxene (26vol%), olivin (4vol%) and mineral opaque (29vol%). Microlite minerals consist of plagioclase (31.95vol%), pyroxene (12.09vol%), opaque minerals (55.96vol%). This research is expected to be developed by further researchers to be able to explain in more detail related to Galunggung mountain with 3 phases of eruption that are so intense. Also, it is expected to explain the structural characteristics and mineralogical composition that can be used to determine the origin of all the results of the Galunggung eruption 1982-1983.

**Keywords :** Galunggung eruption, mineralogical composition, texture characterization, gabbroic cumulate

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