

## SARI

Kompleks kaldera Bromo - Tengger terletak di bagian timur dari busur gunung api berumur Kuartar di Pulau Jawa. Bentang alam tersebut terdiri dari beberapa morfologi kaldera dan gunung api monogenetik yang terletak di dalam maupun di bagian utara kompleks kaldera. Morfologi kaldera, kerucut poligenetik, kerucut sinder, maar dan produk erupsinya dikontrol kegiatan erupsi yang terjadi secara berulang – ulang. Produk erupsi primer yang berupa piroklastika, *ignimbrite* dan lava, bahkan produk sekunder yang berupa endapan fluviovulkanik terendapkan saling menutupi. Maksud penelitian adalah menganalisis vulkanostratigrafi kompleks kaldera Bromo – Tengger. Metode yang dipakai dalam kajian vulkanostratigrafi adalah studi geomorfologi dan geologi. Studi geomorfologi dilakukan dengan analisis citra DEM untuk mengetahui tingkatan morfologi vulkanik. Studi geologi dilakukan yang pertama dengan pengamatan geologi lapangan dan yang kedua dengan pengamatan laboratorium yaitu analisis petrografi dan geokimia. Hasil penelitian menunjukkan bahwa batuan berkomposisi basa sampai menengah berupa *basaltic*, *basaltic andesit*, dan *andesitic*. Secara kimia, batuan kompleks kaldera Bromo - Tengger menunjukkan seri batuan *medium K* dan *high K calc alkaline*. Periode erupsi katastropik di kompleks kaldera Bromo - Tengger ditandai oleh seri *high K calc alkaline*, *basaltic andesit* – *andesitic*.

**Kata Kunci:** Bromo - Tengger, Kaldera, Vulkanostratigrafi.

## **ABSTRACT**

*The Bromo - Tengger caldera complex is located in eastern part of a Quaternary volcanic arc in Java Island. The landscape consists of several caldera and monogenetic volcanic morphologies which are located inside and in the northern part. The morphology of the caldera, polygenetic cones, cinder cones, maar and the eruption products is controlled by repeatedly eruption activities. Primary eruption products such as pyroclastics, ignimbrite and lava, other hand secondary products such as fluvio-volcanics were deposited by covering each other. The object of the studies was to analyze the volcanostratigraphy of the Bromo - Tengger caldera complex. The method used in volcanostratigraphy studies is geomorphology and geology studies. Geomorphological studies were carried out by analyzing the DEM image to conduct the volcanic morphology levels. Geological studies are carried out firstly by field observing and secondly by laboratory observations were conducted by petrographic and geochemical analysis. The research results showed that the rocks composed basic to intermediate i.e basaltic, basaltic andesite and andesitic. The rocks of Bromo - Tengger caldera complexes chemically shows medium K to high K calc alkaline series. The catastrophics eruption period at Bromo - Tengger caldera complex was signed by high K calc alkaline series and basaltic andesite - andesitic rocks.*

**Keywords:** Bromo - Tengger, Caldera, Volcanostratigraphy.