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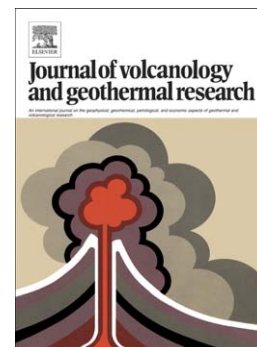
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The eruptive history and magmatic evolution of Aluto volcano: new insights into silicic peralkaline volcanism in the Ethiopian rift

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ABSTRACT

The silicic peralkaline volcanoes of the East African Rift are some of the least studied volcanoes on Earth. Here we bring together new constraints from fieldwork, remote sensing, geochronology and geochemistry to present the first detailed account of the eruptive history of Aluto, a restless silicic volcano located in a densely populated section of the Main Ethiopian Rift. Prior to the growth of the Aluto volcanic complex (before 500 ka) the region was characterized by a significant period of fault development and mafic fissure eruptions. The earliest volcanism at Aluto built up a trachytic complex over 8 km in diameter. Aluto then

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