Abstract Submitted
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Neutron Activation Analysis of Trace Elements in Lava[1] R.E. MEYER, J.L. SABELLA, K.J. THOMAS, E.B. NORMAN, Univ. of California at Berkeley, P.V. GUILLAMON, I.D. GOLDMAN, Univ. of Sao Paulo, Brazil, A.R. SMITH, Lawrence Berkeley National Lab. — The elemental compositions of lavas vary with the locations of the volcanoes from which they emerged. We have used neutron activation analysis to measure the abundances of approximately 32 different elements in lava samples collected from three different Hawaiian islands and from the summit of Mt. Kilimanjaro. Two different neutron irradiations were performed at the McClellan Nuclear Radiation Center to optimize our sensitivities to both short- and long-lived radioisotopes. Gamma-ray counting was done at McClellan, UC Berkeley, and LBNL using large-volume high-purity Ge detectors. Results from the measurements will be presented and comparisons will be made between the trace-element compositions of the lavas from these different sites.

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