

**CONDICIONES Y TIEMPO DE FORMACIÓN DE LOS ÓXIDOS DE HIERRO EN LAS
VOLCANITAS ALCALINAS CRETÁICAS DE LA SIERRA CHICA DE CÓRDOBA,
DETERMINADAS A PARTIR DE SUS PROPIEDADES MAGNÉTICAS**

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Abstract

The oxide mineralogy and magnetic properties were examined in a suite of 21 lava flows and dike samples from Sierra de los Córdobas Group in an attempt to elucidate their magnetic petrology. Unless the characteristic remanence is carried by fine-grained oxidized (titano)magnetite, we found that most of the studied rocks show a significant proportion of hematite as a magnetic carrier too. The natural remanent magnetization (NRM) unblocked below 590°C during thermal demagnetization was assigned to magnetite and that unblocked above 610°C to hematite. Magnetite and hematite appeared to retain different directions of magnetization, and field tests proved that: 1) magnetite component of magnetization was primary in origin, probably related to high-temperature oxidation process and cooling of lava flows, and 2) hematite component of magnetization was secondary in origin; we interpret this component related to magnetization process, product of weathering or hydrothermal alteration around intrusive bodies or near top flows.