

Abstract

Geophagia is the deliberate consumption of soil and clay. The practice of geophagia is due to reasons of culture, medicinal, religious and mineral deficiency. Geophagy is widespread among pregnant and breast feeding women in sub-Saharan Africa and this is evidenced by the sale of geophagic materials in markets across Africa. This study is aimed at studying the geochemistry and mineralogy of geophagic samples sold in Kiambu County, Kenya. The geophagic samples were analyzed by atomic absorption spectrometry, X-ray fluorescence spectrometry, X-ray diffractometry, Fourier transform infrared spectrometry. The results obtained showed that the materials consist mainly of silica (SiO_2) and alumina (Al_2O_3). They also contain the elevated levels of iron oxides. The mineralogical analysis showed that quartz and kaolinite were the major phases.