

GEOCHEMISTRY OF THE GNEISSIC ROCKS OF THE BASEMENT COMPLEX AROUND KPATA, NORTH CENTRAL NIGERIA.

O.Odedede and F.C. Ugbe

Department of Geology, Delta State University, Abraka, Delta State, Nigeria.

E-mail: odededeo@yahoo.com

Abstract

The basement rocks around Kpata area of North Central Nigeria consist of gneiss and migmatite-gneiss intruded by the Pan-African granitoids. Foliation in the gneisses defined by parallel mineral banding and indicates evidence of deformation and migmatitic processes. Geochemical analysis shows that major oxides SiO₂ (68.42- 71.88 wt %) Al₂O₃ (14-18 wt %) Fe₂O₃ (2.40- 5.90 wt %) and K₂O ranges from 1.07-2.01 wt %. Linear plots of major oxides against SiO₂ exhibit both positive and negative linear trends. Petrogenetic plots of Na₂O+K₂O versus SiO₂ suggest an igneous origin.

Keywords: Deformation, Geochemistry, igneous origin, migmatite, petrogenetic.