

Name: Orno Afevhere David
Matric No: 18/ENG03/054
Dept: Civil Engineering

Assignment

1. Clay minerals are hydrous aluminium phyllosilicates, sometimes with variable amount of iron, magnesium, alkali metals, alkaline earths, and other cations found or near some planetary forces.

Clay minerals form in the presence of water and have been important to life, and many theories of abiogenesis involve them. They are important constituents of soils, and have been useful to humans since ancient times in agriculture and manufacturing.

Properties Clay minerals form flat hexagonal sheets similar to the mica. Clay minerals are common weathering products (including weathering of feldspar) and low-temperature hydrothermal products.

Clay minerals are usually (but not necessarily) ultrafine-grained (normally considered to be less than 2 micrometers in size on standard particle size classifications and so may require special analytical techniques for their identification and study).

2 The Geology of Nigeria formed beginning in the Archean and Proterozoic eons of the Precambrian. The country forms the Nigerian Province and more than half of its surface is igneous and metamorphic crystalline basement rock from the Precambrian. Between 2.9 billion and 500 million years ago, Nigeria was affected by three major orogenic mountain-building events and related igneous intrusions. Following the Pan-African orogeny, in the Cambrian at the time that multi-cellular life proliferated, Nigeria began to experience regional sedimentation and witnessed new igneous intrusions. By the Cretaceous period of the late Mesozoic, massive sedimentation was underway in different basins, due to a large marine transgression. By the Tertiary, in the Cenozoic, the region returned to terrestrial conditions.