

## **Physicochemical Analysis of soaps produced from different locally sourced alkali and oil**

**Ajai, A. I.**

Department of Chemistry, Federal University of Technology, Minna

Correspondence Author Email: [talk2alex2005@yahoo.com](mailto:talk2alex2005@yahoo.com)

Received: October, 28<sup>th</sup> 2009

Accepted: December, 12<sup>th</sup> 2009

### **Abstract:**

The Physicochemical properties of soaps produced from some locally sourced alkali extracts from the ash of cocoa pod husks, maize cobs, banana stems and groundnut shells ash were studied. The  $K^+$  and  $Na^+$  concentration of the extracts were 13% and 0.57% for cocoa pod husks, 3.22% and 0.32% for groundnut shells, 9.977% and 0.74% for maize cobs, while banana stems extract had a concentration of 10% and 2.73%, respectively. The amount of KOH in a given volume of each extracts were 13.40g for cocoa pods husks, 1.38g for groundnut, 9.61g and 9.59g for maize cobs and banana stems, respectively. The PKO gave saponification value of 253 mgKOH and 3.9% free fatty acid. The produced soap had very good leathering characteristics which were comparable with their commercial analogue and gave a net free alkali of 0.25% which does not exceed the recommended standard of 0.5% for soap.

Keywords: Concentration, KOH, PKO, Extracts, Saponification, Leathering,

**International Journal of Applied Biological Research, Vol. 1, No. 2, 17 – 24, December, 2009. A publication of the Department of Biological Sciences, Federal university of Technology, Minna , Niger State**