

## **Characterization and Comparison of Clay from Iraq and Iran for Bricks Production**

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**Abstract—** The clay composition from Kurdistan (Iraq) have not been investigated by researchers until today. The main aim of this research work was to investigate the clay samples obtained from various areas of Kurdistan and compare with clay imported from Iran. X-ray fluorescence (XRF) technique was used to analyse the chemical composition of the clays form both regions. The results reveals that the chemical composition of some selected elements ( $O$ ,  $Si$ ,  $Ca$ ,  $Al$ ,  $Fe(II)$ , and  $Mg$ ) of Koya clay sample (KoS)is very similar to that of clay imported from Iran. Other clay samples from Kurdistan can also be used for making bricks after the enrichment of their chemical composition. This novel research concludes that the clay samples obtained from Kurdistan, Iraq possess strong potential for making high strength bricks.

**Key words:** Clays, Bricks, XRF, Kurdistan, Chemical Composition