## P-44: Study impact Libyan kaolin, treatment by sonochemical (bath method) on improving compressive strength in Cement Mortar

## \*Mohamed -A-Aboubakar, \*\*Eshmaiel Ganjian

\*PhD student civil engineering department, Coventry University UK. aboubakm@coventry.uni.ac.uk \*\*Reader In Civil Engineering Materials, Department of Civil Engineering, Architecture and Building, Faculty of Engineering & Coventry University, Direct: +44 24 76887625, CbX111@Coventry.uni.ac.uk

These may be naturally occurring materials, industrial wastes, or by products or the ones requiring less energy to manufacture. Some of the commonly used additional cementing materials

Sono-kaolin is obtained by treatment the sonochemical method, sonic by bath 40 kHz for 1/2 hour it is being used very commonly as pozzolanic material in mortar and concrete, and has exhibited considerable influence in enhancing the mechanical and fresh properties of mortar and concrete. The Scanning Electron Microscope (SEM) and particle size analysis and, change colour were used to better understand the mechanism of deterioration of each type of Libyan kaolin after treatment by sonochemical bath method

This paper presents an overview of the work carried out on the use product of sonc-Kaolin as partial replacement of cement in mortar and concrete.

In this paper are study the fresh mortar/concrete properties, the setting time , slump  $\,$  , were used to better understand mechanism , of reaction, of each type of , fresh mortar cement , using natural pozzolan after treatment by sonochemical bath method.