



Ain Shams University,  
Women's College for Arts,  
Science and Education,  
Cairo- Egypt.

## **Study the Influence of Chloride and Sulphate Ions on The Hydration Characteristics of Various Blended Cement Pastes Containing Nano Metakaolin**

### **A Thesis**

Submitted to the Chemistry Department,  
Women's College, Ain Shams University  
In Partial Fulfillment of the Requirements for  
The Degree of M. Sc. in Chemistry.

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وَقُلْ رَبِّ زِدْنِي عِلْمًا

سورة طه (١١٤)

**Study the Influence of Chloride and Sulphate ions on the  
Hydration Characteristics of various Blended Cement  
pastes containing Nano Metakaolin**

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**TO MY FAMILY**

**I AM Very Greatful  
To All Of Them  
For Their Support,  
Kindness  
And Love.**

**Sara**

## NOTE

Beside the work done in this thesis, the candidate has attended post- graduate courses for one year in inorganic and analytical chemistry including the following topics:

- Instrumental Analysis (CHEM 601)
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