



## Zeolite-Encapsulated Zinc (II)-Amino Acid Complex: Synthesis and Spectroscopy

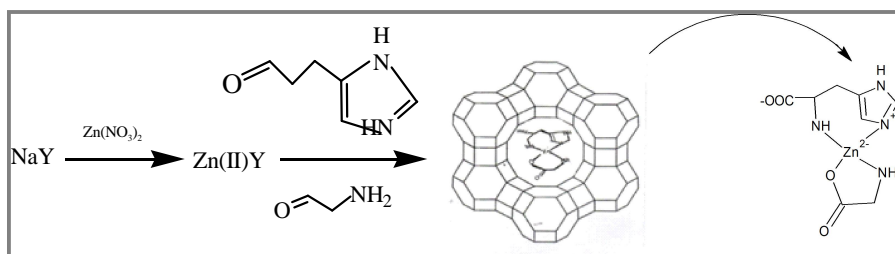
S. Siddappa, M. Radhika\* and P. Muralidhar Reddy

Department of Chemistry, Nizam College, Osmania University, Hyderabad, **INDIA**  
Email: [radhikamone@yahoo.com](mailto:radhikamone@yahoo.com)

### ABSTRACT

Nanocavity Zeolite Y encapsulated Zn(II) complexes of Histidine and Glycine is synthesized insitu in Na-Y-Zeolite by the reaction of ion exchanged metal ions, with the flexible ligand molecules that had diffused into the cavities. The encapsulated complex is characterized by SEM, XRD, FTIR spectroscopy with a view to confirm the encapsulation of the complex and to arrive at the composition, structure and geometry of encapsulated complex. Analysis of data indicates the formation of complexes in the cavities without effecting Zeolite frame work structure (XRD). The absence of any extraneous species is obtained from SEM.

### Graphical Abstract



Flexible ligand Synthesis

**Keywords:** Na-Y Zeolite, Glycine, L-Histidine, Ion-Exchange, Flexible ligand Synthesis.