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## Preparation, characterization and utilization of (Ni:Cu) bimetallic system loaded on zeolites

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### ABSTRACT

Preparation and characterization of bimetallic system (Ni:Cu) loaded on zeolites were performed and examined in hydrogenation process for *p*-nitrophenol into *p*-aminophenol. Two types of zeolites were used as supports for bimetallic system namely LTA and FAU originally prepared from Egyptian kaolin ore. Several techniques were employed for the characterization of prepared catalysts including XRD, ESR, TEM and measurements of catalytic activity. The bimetallic catalyst showed superior catalytic activity in a system used hydrazine hydrate as hydrogen donor. The results showed that catalyst supported on LTA zeolite is being more effective than that supported on FAU. The reaction proceeds to 100% conversions through only few seconds.

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