Abstract Submitted
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Synthesis and Characterization of Double Metal Hydroxide Nanoparticles GARY BEALL, SERGIO CROSBY, YELENA VECHERKINA, Texas State University — A series of double metal hydroxide nanoparticles have been synthesized under hydrothermal conditions with varying charge density. The effect on dispersibility and catalytic behavior have been studied for these particles as a function of charge density. Several of the samples have been converted to organophobic forms by ion exchanging the chloride with various carboxylic acids. The stability studies of dispersion of these organophillic nanoparticle in a number of organic solvents has also been conducted. All of the samples have been characterized by TGA. SEM, XRD, and DSC and data from all of these techniques will be reported. The catalytic decomposition of these materials will also be report.

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