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ACCEPTED MANUSCRIPT

Iron-substituted cubic silsesquioxane pillared clays: Synthesis, characterization and acid catalytic activity

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Abstract. Novel pillared structures were developed from the intercalation of iron-substituted cubic silsesquioxanes in a sodium and an acid-activated montmorillonite nanoclay and evaluated as acid catalysts. Octameric cubic oligosiloxanes were formed upon controlled hydrolytic polycondensation of the corresponding monomer (a diamino-alkoxysilane) and reacted with iron cations to form complexes that were intercalated within the layered nanoclay matrices. Upon calcination iron oxide

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