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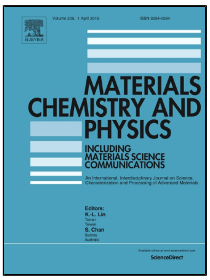

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Competitive Adsorption Analyses of a Pure Magadiite and a New Silylated Magadiite on Methylene Blue and Phenol from Related Aqueous Solution

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Abstract

Organic contaminants have a destructive influence on the environment. Industrial emissions are the main source of such contaminants and simultaneously contain numerous and diverse types. These contaminants interact and influence each other when eliminated by sorbents. The aim of this research study was to explore the competitive adsorption of methylene blue and phenol on magadiite. In this research work, competitive adsorption properties of a new silylated magadiite--which is Na-magadiiite–cetyltrimethylammonium-3-Aminopropyltriethoxysilane (Na-MAG-CTAB-KH550) -- on methylene blue and phenol, were investigated. The prepared pure Na-magadiite (Na-MAG) and Na-MAG-CTAB-KH550 adsorbents were