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Synthesis of green polymeric material under effect of maghnite-H+ (Algerian MMT)

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Abstract

Maghnite-H+ xM" were prepared by a method similar to that described by Belbachir et al. raw maghnite (20 g) was crushed for 20 min using a Prolabo ceramic ball grinder. It was then dried by baking at 105 °C for 2 h. The maghnite was then weighed and placed in an Erlenmeyer flask together with distilled water (500 mL) and magnetically stirred maghnite/water mixture was combined with sulfuric acid until saturation was achieved. After 2 days at room temperature the mineral was washed with water until it became sulfate free and then dried at 150 °C. Sulfuric acid solutions of 0.05M, 0.10M, 0.15M, 0.20M, 0.25M, 0.30M and 0.35M concentration were used to prepare "Maghnite-H+0.05M", "Maghnite-H+ 0.10M","Maghnite-H+ 0.15M", "Maghnite-H+ 0.20M", "Maghnite-H+ 0.25M", "Maghnite-H+ 0.30M" and "Maghnite-H+ 0.35M", respectively. The best yield was obtained using "Maghnite-H+ 0.25M", so for this reason this sample was used to study the effects of catalyst on polymerization. Acid treatment of "Raw-Maghnite" causes a reduction in octahedral content (Al2O3) and resulted in an increase in the proportion of silica (SiO2) observed.

Biography

Abdelkader Rahmouni was born on March 22, 1964 in Mecheria in the extreme west towards the south of Algeria; he had his baccalaureate in transitional science in 1985 in Mecheria, Algeria. He joined the University of Tlemcen, Algeria in the technology specialty, after in 1986 he joined the higher normal school of Saida, Algeria where he received his diploma of secondary education teacher in physical science in June 1990. After ten years in secondary education, he joined the University of Oran1 where he had his master's degree in polymer chemistry from the University of Oran1, Oran, Algeria, in 2010. He is also an examiner of more than 10 scientific journals in direct science (Elsevier). He still has 2 research projects selected by the DGRSDT of Algeria during the big event (National exhibition of research products in July 2018) in energy (industrial technology) and biotechnology. These efforts in the field of research have been rewarded with 2 chapters published by the house (Intech open-UK) and 2 patents.

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