

**GREEN SYNTHESIS OF CATIONIC POLYACRYLAMIDE COMPOSITE
CATALYZED BY AN ECOLOGICALLY CATALYST CLAY CALLED
MAGHNITE-H⁺ (ALGERIAN MMT) UNDER MICROWAVE IRRADIATION**

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ABSTRACT

In this study, a novel green cationic hydrogel of cationic polyacrylamide composite have been prepared and investigate .The synthesis of green cationic polyacrylamide composite was evaluated for its solubility in water. The reactions were performed using the acrylamide monomer, solvent, catalyst (clay fin called maghnite) and solution of H₂SO₄ (0.25M), with the system under microwave irradiation (160°C) for 4 mn. Major factors affecting the polymerization reaction were studied with a view to discover appropriate conditions for preparation of the composite. The cationic polyacrylamide obtained is the subject of future studies of modification and transformation. Finally product are characterized by FTIR and ¹H NMR spectra.

KEYWORDS: Cationic Polyacrylamide, Hydrogel, Maghnite-H⁺, Green Chemistry, Microwave Irradiation

Received: Nov 14, 2015; **Accepted:** Nov 25, 2015; **Published:** Jan 29, 2016; **Paper Id.:** JAPBRJUN20161