

**STRUCTURAL INVESTIGATIONS AND CHARACTERIZATION OF HEXA
(DIETHANOLAMINO) CYCLOTRIPHOSPHAZENE INDUCED BY AN
ENVEREMENTLY CATALYST LAYERED CALLED MAGHNITE-H⁺ (ALGERIAN
MMT) UNDER SUITABLE CONDITION**

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ABSTRACT

Cyclotriphosphazenes are prominent inorganic N-heterocycles. They consist of six-membered ring structures of alternating phosphorus and nitrogen atoms. The tetravalent phosphorus atoms carry two exocyclic substituents, which can be widely varied enabling fine-tuning of the size and shape of the molecular periphery. This study involved the synthesis and characterization of hexa (diethanolamino) cyclotriphosphazene by an enveremently and friendly system catalyst consist of clay layered called Maghnite-H⁺ (Algerian MMT) and diethyl ether. The effect of different synthesis parameters such as amount of catalyst, effect of time, temperature and solvent are discussed.

KEYWORDS: *Phosphazene, 1H-NMR Spectroscopy, Maghnite-H⁺, Cyclotriphosphazene, Diethanolamine.*

Received: Nov 14, 2015; **Accepted:** Nov 21, 2015; **Published:** Nov 29, 2016; **Paper Id.:** JNADEC20151