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SYNTHESIS, CHARACTERIZATION AND STUDY OF NOVEL ALKYNE POLYMERS

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ABSTRACT

A Novel acetylenic polymers were prepared through a polymerization of a new monomers using an ionic radical process of the transition complex.

Oxidative Coupling process has been used forpolydiacetylene (PDA) synthesis, while a free radical polymerization methods under atmospheric N_2 gas, has been used, for polyacetylene syntheses (PA). The synthesized polymers were characterized by FT-IR, H^1NMR spectra, viscosity and Mwtaverage. The new acetylene polymers were used as composites on polystyrene to improve the Electrical Conductivity of the semi- conductor materials. During this work, $PdCl_2$, CuClwere used as catalyst, THF and DMF as solvent.

KEYWORDS: Alkynic Polymers, Poly Diacetylene, Composites, Conductivity