EVALUATION OF ADAMANTANE INCORPORATION ON HYDROCARBON POLYMERS

Liezel Coetzee, Dr Albert J van Reenen and Prof Lon J Mathias University of Stellenbosch, University of Southern Mississippi

The allyladamantane monomer was synthesized in two ways and characterized by 13 C-NMR. Allyldamantane was homopolymerized and copolymerized with α -olefins.

Details of monomer synthesis: allyladamantane

Another monomer synthesis (4-adamantylstyrene) was started and has progressed quite well. Insight into the particular chemistry involved in the synthesis of the latter monomer was obtained and the individual stages of the monomer synthesis followed by NMR and other spectroscopic techniques, which should allow the final synthetic stages of this experiment to be completed shortly.

p-adamantylstyrene

Toluene at reflux