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Study on Factor Affecting to Graft Copolymerization of Acrylamide Onto 'Patanwadi' Wool

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ABSTRACT

The "Patanwadi" Wool was chemically modified by grafting polyacrylamide in a homogeneous aqueous phase by using ceric ammonium nitrate as the initiator.The graft copolymerization of acrylamide onto wool was investigated using ceric ammonium nitrate as the initiator. The effect of initiator concentration, monomer concentration, time and temperature on % G and % GE were studied. The grafted samples were characterized using FTIR, TGA, SEM,WRV and XRD methods. From the FTIR data it was ascertained that grafting has occurred considerably. The morphology of the grafted polymer was observed from the SEM picture. The thermal analysis indicated the different stages of degradation of the grafted copolymer.Grafted products improved considerably the physical properties.