

Microwave-assisted Degradation of Polyvinyl Chloride Induced by Complexes of Transition Elements

In this work, the presence of variable metals complex of [N,NBis(Salicylidene)1,2-[diaminoethane] Nickel(II), (Ni-BSEDA). And the PVC film were studied under the microwave radiation. The samples and complex metals salt were prepared using a hand molding casting with percentage (0.0 ,0.025 , 0.03, 0.04, 0.05, 0.1) % . Degradation studies were carried out using commercial microwave oven at constant power of 400W for all experimental. The specimens were exposed to microwave radiation with multiple time(0.0 ,15, 30, 60) minutes , A degradation were followed via the decrease in average of molecular weights (Mw- ,Mn-) and increase of the growth of absorbency the carbonyl index ICO and polyene index IPO at the total time of 60 minutes .