Surface Graft Copolymerization of 2-Hydroxyethyl Methacrylate onto Acrylic Fiber by UV Irradiation

Dong Jin Lee, Young Seok Koo, Ho Jung Kim, and Han Do Kim

Dept. of Textile Engineering, Pusan National University

Surface graft copolymerization of 2-hydroxyethyl methacrylate onto polyacrylonitrile (PAN) by using benzophenone as a photosensitizer in a mixtured solvent was carried under UV irradiation

The effects of reaction conditions such as monomer concentration, photosensitizer concentration, mixing ratio of solvents, immersion time of fiber on grafting were investigated. The percent grafting increaged with increasing monomer concentration, benzophenone concentration, immersion time and UV irradiation time up to limiting ualue and thereafter decreased or level offed.

The percent grafting increased with using suitable mixtured solvent.