P-2-557

GRAFT POLYETHYLENE TEREPHTHALATE FOR THE PURPOSE OF INCREASE ION ABSORPTION AND POLARITY

Nasrin shamloo,Majid Abdouss,Ebadullah Asadi, Ahmad Mousavi Shoushtari, Aliasghar Roghanizad

Department of Chemistry, Amir Kabir University of technology,

**Corresponding author: phdabdouss44@aut.ac.ir*

Polyethylene terephthalate filaments for the purpose of ion absorption grafted with methacrylic acid monomer.Polyethylene terephthalate filaments was reacted with the solution of acetic acid and formaldehyde with temperature of 70c ,for 4 hour. In this stage the filaments are ready for grafting with methacrylic acid monomer.so filaments with 3 monomer,50 deionized water and 0.02gr benzoyl peroxide which are dissolved in acetone are refluxed in 4hour,with the temperature of 80c.

Then it soxhlet with acetone.grafted filaments are put in the solution of copper sulfate and in that case after 2houres ,filament's color changed from white to blue.Primary filaments didn't have ion absorption in the solution of copper sulfate and there was no change in their color, although grafted filaments have changed color in the mentioned solution.