

Microscopy, a Vital Technique for the Study of Microgels and Nanogels Polypropylene Modified by Gamma Irradiation

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The visualization of nanogels and microgels can be realized by various microscopics techniques. Most studies are based on transmission microscopy (TEM), atomic force microscopy (AFM) and Field Emission Scanning Electron Microscopy (FESEM).

The complex microgel structures, multilayers, foils, and surface features of microgels-based materials can be visualized by scanning electron microscopy. SEM enables the analysis of thick, nontransparent samples and due to its large focus depth gives sharp pictures of structurally complexes materials.

AFM is a development of scanning tunneling microscopy, technique that differs from electron microscopy both in operating principles and in many aspects of their application whereas have been used as an important technique to study polypropylene nanogels and microgels structures.

The Field Emission Scanning Electron Microscopy demonstrated to be one important tool to characterization of nanometrics structures by polypropylene.

The combination of those techniques contributed to researches in nanoscience materials, as the present case of study in polypropylene gels.

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