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| Autore | Subramanian Muralisrinivasan |
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| Nota di contenuto | <p>Preface -- About the author --</p> <p>1. Introduction -- 1.1 Polymer basics -- 1.2 Morphological aspects -- 1.3 Chemical aspects -- 1.4 Classification of polymers -- 1.5 Polymerization techniques -- 1.6 Polymerization processes -- 1.7 Polymer synthesis -- 1.8 Polymer structure and properties -- 1.9 Requirements for instrumental methods -- References --</p> <p>2. Polymer separation techniques -- 2.1 Chromatographic methods -- 2.2 Liquid chromatography -- 2.3 High-performance liquid chromatography -- 2.4 Gel permeation chromatography -- 2.5 Field- flow fractionation -- 2.6 Super-fluid chromatography -- 2.7 Gas chromatography -- 2.8 Future trends -- References --</p> <p>3. Spectroscopic techniques -- 3.1 Fourier-transform infrared (FTIR) spectroscopy -- 3.2 Raman spectroscopy -- 3.3 Nuclear magnetic resonance spectroscopy (NMR) -- References --</p> <p>4. Thermal analysis and degradation -- 4.1 Thermogravimetric analysis -- 4.2 Differential scanning calorimetry -- 4.3 Differential thermal analysis -- 4.4 Polymer degradation -- References --</p> <p>5. Rheology and other instrumental techniques -- 5.1 Rheology -- 5.2 Mass spectrometry -- 5.3 Matrix-assisted laser desorption ionization (MALDI) mass spectrometry -- 5.4 Electron microscopy -- 5.5 Future trends -- References --</p> |

- 6. Thermoplastics -- 6.1 Polyethylene (PE) -- 6.2 Polypropylene (PP) --
- 6.3 Polystyrene (PS) -- 6.4 Polyethylene terephthalate (PET) -- 6.5
- Polyvinylchloride (PVC) -- 6.6 Polymethylmethacrylate (PMMA) -- 6.7
- Polyvinyl acetate (PVAC) -- 6.8 Nylon -- 6.9 Polycarbonate (PC) -- 6.10
- Infrared bands for identification of thermoplastic materials -- 6.11
- Future trends -- References --
- 7. Thermosets -- 7.1 Phenol formaldehyde -- 7.2 Urea formaldehyde --
- 7.3 Melamine formaldehyde -- 7.4 Epoxy thermosets -- 7.5 Future trends -- References --
- 8. Polymer blends and composites -- 8.1 Polymer blends -- 8.2
- Polymer composites -- 8.3 Future trends -- 8.4 Conclusion --
- References -- Index.

Sommario/riassunto

Polymers are complex in nature, and their utility depends on mechanism and process conditions. They become even more complex as a result of blends, composites, and branched and graft structures of unusual architecture. The polymerization must be carefully controlled to obtain the desired properties and processing characteristics. Therefore, it is necessary to understand the influence of polymer properties on their end-use performance. The polymer industry has also grown, and consumption is increasing every year. It is necessary to understand the various facets of the polymerization process in order to understand the variations in polymer properties.
