Preface

This special edition presents the latest engineering investigations in the area of functional materials and some chemical technologies for materials recovery.

Structural polymer and composite materials, their properties and diamond turning, and electrostatic discharge machining technologies are the subject of investigations in the first chapter.

Conductive polymer composites, semiconductors, quantum dots and advanced ceramic materials are considered in the next three chapters. This part of the edition is devoted to an analysis of properties and synthesis methods of functional materials that are mainly used in opto- and microelectronics.

The last chapter is devoted to the investigation of chemical industrial technologies for materials recovering from chemical waste and the catalytic efficiency of nanosized zinc oxide and tin oxide materials.

The special edition will be useful to many researchers and engineers whose activities are related to opto- and microelectronics, the development of energy conversion and storage devices and chemical technologies.