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Nota di contenuto	FRONT COVER; AAP RESEARCH NOTES ON CHEMISTRY; BOOKS IN THE AAP RESEARCH NOTES ON CHEMISTRY; ABOUT THE EDITOR; REVIEWERS AND ADVISORY BOARD MEMBERS; CONTENTS; LIST OF CONTRIBUTORS; LIST OF ABBREVIATIONS; LIST OF SYMBOLS; PREFACE; CHAPTER 1 - AN OVERVIEW ON NANOSYSTEMS: PROMISES AND CHALLENGES FOR THE FUTURE; CHAPTER 2 - A CASE STUDY ON PERFORMANCE OF NANOPARTICLE AGGREGATES IN POLYMERIC NANOCOMPOSITES; CHAPTER 3 - A NOTE ON BOND ENERGY CALCULATIONS IN NANOSTRUCTURED MATERIAL; CHAPTER 4 - A COMPREHENSIVE REVIEW ON COMPUTATIONAL METHODS FOR NANOPOROUSPOLYMER/CARBON NANOTUBE MEMBRANE SEPARATION CHAPTER 5 - EFFECTS OF POLYPROPYLENE FIBERS AND NANOPARTICLES ON MICROSTRUCTURE OF FIBER REINFORCED CONCRETECHAPTER 6 - IMPROVING OF THE FUNCTIONALITY OF GLYCININ BY LIMITED PAPAIN HYDROLYSIS; CHAPTER 7 - RUBBERS PROTECTION AGAINST AGING: STRUCTURAL, DIFFUSION, AND KINETIC EFFECTS; CHAPTER 8 - A CASE STUDY ON STRUCTURING AND ELECTRIC CONDUCTIVITY OF POLYMER

COMPOSITES; CHAPTER 9 - A STUDY ON MAGNETIC PROPERTIES OF RB3C60 SINGLE-CRYSTAL FULLERENE; CHAPTER 10 - MODIFICATION OF ETHYLENE COPOLYMERS BY AMINOALKOXY-, GLYCIDOXYALKOXYSILANES  
CHAPTER 11 - A RESEARCH NOTE ON NEW FILM-FORMING COMPOSITIONS ON THE BASIS OF EPOXY RESIN AND INDUSTRIALLY PRODUCED ISOCYANATE CHAPTER 12 - A RESEARCH NOTE ON THE MECHANISM OF DEVELOPMENT OF A MYOCARDIAL INFARCTION; CHAPTER 13 - A COMMENTARY NOTE ON STRUCTURAL TRANSFORMATIONS OF PIRACETAM UNDER LEAD ACETATE INFLUENCE; CHAPTER 14 - A RESEARCH NOTE ON TRANSPORT PROPERTIES OF FILMS ON A BASIS CHITOSAN AND MEDICINAL SUBSTANCE; CHAPTER 15 - A RESEARCH NOTE ON APPLICATION OF POLYMERS CONTAINING SILICON NANOPARTICLES AS EFFECTIVE UV PROTECTORS  
CHAPTER 16 - A CASE STUDY ON BIODEGRADABLE COMPOSITIONS BASED ON NATURAL POLYMERS CHAPTER 17 - A RESEARCH NOTE ON THE INFLUENCE OF HYDROPHILIC FILLER CONTENT ON THE FIRE RESISTANCE OF COMPOSITES BASED ON EPOXY RESIN ED-20; CHAPTER 18 - A RESEARCH NOTE ON DEVELOPMENT OF GLUE COMPOSITIONS WITH IMPROVED ADHESION CHARACTERISTICS TO MATERIALS OF DIFFERENT NATURE; CHAPTER 19 - UPDATE ON BASIC MATHEMATICAL RELATIONS WITH PARTICULAR REFERENCE ON INDUSTRIAL DRYING OF LEATHER; CHAPTER 20 - A RESEARCH NOTE ON SORPTION-ACTIVE ARBON-POLYMER NANOCOMPOSITES; BACK COVER

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Sommario/riassunto

Through advanced characterization and new fabrication techniques, the physics, chemistry, and structure of functional materials have become a central focus of investigation in materials science, chemistry, physics, and engineering. This book presents a detailed overview of recent research developments on functional materials, including nanomaterials, synthesis, characterization, and applications. A series of chapters provides state-of-the-art information on structures and performance of polymer composites. This volume contains topical articles by prominent leaders in this field. The research pr

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