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of Particle Shape and Concentration"; "3.3. The Effect of Current Density"; "3.4. The Effect of Surfactant"; "3.5. The Effect of Ultrasonic Treatment"; "4. THE APPLICATION OF NANOCOMPOSITE COATINGS"; "4.1. Improvement of Surface Characteristics"; "4.2. The Environmental Applications"; "4.3. Fuel Cell Applications"; "CONCLUSION"; "ACKNOWLEDGMENTS"; "REFERENCES"; "PREPARATION AND MECHANICAL PERFORMANCE OF RUBBER-MODIFIED THERMOPLASTIC POLYMER-CLAY NANOCOMPOSITES"; "ABSTRACT"; "INTRODUCTION"; "RUBBER TOUGHENING EFFECT"; "POLYAMIDE-RUBBER/CLAY NANOCOMPOSITES"; "POLYOLEFIN-RUBBER/CLAY NANOCOMPOSITES"; "CONCLUSION"; "REFERENCES"; "NANOCOMPOSITES: PREPARATION, PROPERTIES AND PERFORMANCE"; "1. INTRODUCTION"; "2. PREPARATION, PROPERTIES AND PERFORMANCE OF FUNCTIONAL NANOCOMPOSITES"; "2.1. Electropolymerization Nanocomposites"; "2.2. Sol-Gel Nanocomposites"; "2.3. Nanozeolite-Derived Nanocomposites"; "2.4. Protein Entrapped Nanoporous Films"; "2.5. CNT-Derived Nanocomposites"; "2.6. Metal Nanoparticles-Derived Nanocomposites"; "2.7. Magnetic Nanocomposites"; "CONCLUSIONS"; "KNOWLEDGEMENTS"; "REFERENCES"; "BIODEGRADABLE NANOCOMPOSITES BASED ON STARCH, PCL AND THEIR BLENDS"; "ABSTRACT"; "1. RAW MATERIALS"; "1.1. Starch"; "1.2. Polycaprolactone"; "1.3. Starch-Based PCL Blends"; "1.4. Clay"; "2. PROCESSING TECHNIQUES"; "2.1. Casting"; "2.2. Intensive Mixing"; "2.3. In Situ Polymerization"; "3. CHARACTERIZATION TECHNIQUES"; "3.1. DRX"; "3.2. TEM"; "4. MECHANICAL PROPERTIES"; "4.1. Starch-Clay Nanocomposites (Table 4)"; "4.2. PCL a€? Clay Nanocomposites (Table 5)"; "4.3. Starch/PCL Blends-Clay Nanocomposites (Table 7)";

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