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Nota di contenuto	Aryl Diazonium Salts: New Coupling Agents in Polymer and Surface Science; Contents; Preface; List of Contributors; 1: Attachment of Organic Layers to Materials Surfaces by Reduction of Diazonium Salts; 1.1: A Brief Survey of the Chemistry and Electrochemistry of Diazonium Salts; 1.2: The Different Methods that Permit Grafting of Diazonium Salts; 1.2.1: Electrochemistry; 1.2.2: Reducing Substrate, Homolytic Dediazonation, Reaction with the Substrate; 1.2.3: Reducing Reagent; 1.2.4: Neutral and Basic Media; 1.2.5: Ultrasonication; 1.2.6: Heating and Microwave; 1.2.7: Mechanical Grafting 1.2.8: Photochemistry1.3: The Different Substrates, Diazonium Salts, and Solvents that Can Be Used; 1.3.1: Substrates; 1.3.2: Diazonium Salts; 1.3.3: Solvents; 1.4: Evidence for the Presence of a Bond between

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Sommario/riassunto

Diazonium compounds are employed as a new class of coupling agents to link polymers, biomacromolecules, and other species (e. g. metallic nanoparticles) to the surface of materials. The resulting high performance materials show improved chemical and physical properties and find widespread applications. The advantage of aryl diazonium salts compared to other surface modifiers lies in their ease of preparation, rapid (electro)reduction, large choice of reactive functional groups, and strong aryl-surface covalent bonding.This unique book summarizes the current knowledge of the surface and