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Collana	Adhesion and Adhesives: Fundamental and Applied Aspects
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Surface Energy for Metal-Polymer Adhesion; 3.1.2 Physical Effects Produced by Covalent Bonding of Metal to Polymer
3.1.3 Thermal Expansion Coefficients of Metals and Polymers3.1.4 Differences Between Al-Polyolefin and Polyolefin-Al Laminates; 3.1.5 Types of Covalent Metal-Polymer Bonds; 3.1.6 Redox Reactions across the Metal-Polymer Interface; 3.1.7 Reactions of Transition Metals with Aromatic Polymers; 3.1.8 Loss in Anisotropic Orientation of Polymers Caused by Pretreatment or by Contact with Metals; 3.1.9 Combination of Plasma Pretreatment and Metal Deposition; 3.1.10 Thermodynamics; 3.2 New Concepts for Ideal Design of Metal-Polymer Interfaces with Covalently Bonded Flexible Spacer Molecules
3.2.1 Principal Functions of Spacers3.2.2 Ways to Graft Spacer Molecules onto Polyolefin Surfaces; 3.2.3 Grafting of Spacer Molecules onto Monotype Functional Groups at the Polyolefin Surface for Realizing New Interface Design in Metal-Polymer Systems; 3.3 Situation at Al Oxide/Hydroxide Surfaces Using Aluminium as Substrate; 3.4. Adhesion Promotion by Non-specific Functionalization of Polyolefin Surfaces; 3.4.1 General; 3.4.2 Introduction of Functional Groups onto Polyolefin Surfaces; 3.4.3 Usual Pretreatment Processes and Their Advantages and Disadvantages
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3.5.6 Acrylic Acid Plasma Polymerization for Producing COOH Groups

Sommario/riassunto

This comprehensive book will provide both fundamental and applied aspects of adhesion pertaining to microelectronics in a single and easily accessible source. Among the topics to be covered include; Various theories or mechanisms of adhesionSurface (physical or chemical) characterization of materials as it pertains to adhesionSurface cleaning as it pertains to adhesionWays to improve adhesionUnraveling of interfacial interactions using an array of pertinent techniquesCharacterization of interfaces / interphasesPolymer-polymer adhesionMetal-polymer adhesion (metallized polymers)Polymer adhesi