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Measurements and AFM Calibration; 3.3.1.1 Force-Distance Curve Features; 3.3.1.2 The DD Curve (Contact Mode); 3.3.1.3 AFM Calibration; 3.3.1.3.1 Determination of the Spring Constant of the Cantilever
3.3.1.3.2 Nonlinearity of the Quadrant of Photodiodes3.3.1.3.3 Scan Rate of the Cantilever; 3.3.1.3.4 Systematic Check; 3.3.2 Force-Distance Curves on Rigid Systems of Controlled Surface Chemistry; 3.3.3 Force-Distance Measurements on Polymers; 3.3.3.1 Force-Indentation Measurements on Polymers; 3.3.3.2 Force-Indentation Curves on Systems of Controlled Surface Chemistry and Controlled Mechanical Properties; 3.4 Conclusion; References; 4 Organization of PCL-b-PMMA Diblock Thin Films: Relationship to the Adsorption Substrate Chemistry; Abstract; 4.1 Introduction; 4.2 Materials and Methods
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7 Properties of the Interphase Epoxy-Amine/Metal: Influences from the Nature of the Amine and the Metal

Sommario/riassunto

Emphasizing the most recent developments this book addresses both the basic and applied aspects of adhesion. The authors present the latest results on fundamental aspects, adhesion in biology, chemistry for adhesive formulation, surface chemistry and the pretreatment of adherends, mechanical issues, non-destructive testing and the durability of adhesive joints, as well as advanced technical applications of adhesive joints. Prominent scientists review the current level of knowledge concerning the role of chemical bonds in adhesion, new resins and nanocomposites for adhesives, and about the role