

1. Record Nr.	UNINA9910894383103321
Titolo	Revue pro pravo a technologie / Ustav prava a technologii Pravnice fakulty Masarykovy university
Pubbl/distr/stampa	Brno, CR, : Masarykova univerzita, 1. listobadu 2010-
ISSN	1805-2797
Descrizione fisica	Online-Ressource
Classificazione	OST
Disciplina	340 600
Soggetti	Zeitschrift
Lingua di pubblicazione	Ceco
Formato	Materiale a stampa
Livello bibliografico	Periodico
2. Record Nr.	UNINA9911019766603321
Titolo	Adhesion : current research and applications // edited by Wulff Possart
Pubbl/distr/stampa	Weinheim, : Wiley-VCH, c2005
ISBN	9786610854189 9781280854187 1280854189 9783527607303 3527607307 9783527607105 3527607102
Descrizione fisica	1 online resource (609 p.)
Altri autori (Persone)	PossartWulff
Disciplina	541.33 620.199
Soggetti	Adhesion Adsorption
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa

Livello bibliografico	Monografia
Note generali	"Based on lectures held at the 7th European Conference on Adhesion"-- P. vi.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Adhesion; Preface; Contents; List of Contributors; 1 The Interfacial Chemistry of Adhesion: Novel Routes to the Holy Grail?; Abstract; 1.1 Introduction; 1.2 Development of a Model Interphase; 1.3 The Buried Interface; 1.4 Conclusion; Acknowledgments; References; 2 Modeling Fundamental Aspects of the Surface Chemistry of Oxides and their Interactions with Coupling Agents; Abstract; 2.1 Introduction: Atomistic Simulations in Adhesion; 2.2 Prediction of Surface Properties: Ideal Reconstructions on -SiO(2) (0001); 2.3 Organic Components of the Adhesive and Substrate-Adhesive Interaction 2.4 Conclusion and OutlookReferences; 3 Adhesion at the Nanoscale: an Approach by AFM; Abstract; 3.1 Introduction; 3.2 Materials and Methods; 3.2.1 Preparation of Oxidized Silica Surface; 3.2.2 Grafting of Functionalized SAMs onto Silicon Wafer; 3.2.3 Crosslinking and Functionalization of PDMS Networks; 3.2.4 Characterization of the SAMs; 3.3 Results and Discussion; 3.3.1 Force-Distance Curve 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 4.2.1 PCL-b-PMMA Diblocks4.2.2 Infrared Spectroscopy; 4.2.2.1 Transmission; 4.2.2.2 Polarization-Modulation Infrared Reflection-Absorption Spectroscopy (PM-IRRAS); 4.2.3 Atomic Force Microscopy (AFM); 4.3 Results and Discussion; 4.3.1 PCL-b-PMMA Bulk Characterization; 4.3.2 PCL-b-PMMA Thin Films on OH-Functionalized Gold Substrates; 4.3.3 PCL-b-PMMA Thin Films on Gold Substrates; 4.4 Conclusion; References; 5 Adhesion and Friction Properties of Elastomers at Macroscopic and Nanoscopic Scales; Abstract; 5.1 Introduction; 5.2 Materials and Methods; 5.3 Results and Discussion 5.3.1 Adherence Energy5.3.2 Macroscale Friction; 5.3.3 Nanoscale Friction and Adhesion; 5.4 Conclusion; References; 6 Chemical Structure Formation and Morphology in Ultrathin Polyurethane Films on Metals; Abstract; 6.1 Introduction; 6.2 Materials and Methods; 6.2.1 Sample Preparation; 6.2.2 Experimental Characterization; 6.2.3 IR Spectra Calculation; 6.2.4 IR Band Assignment; 6.3 Results and Discussion; 6.3.1 Curing at Room Temperature; 6.3.2 Morphology of Thin Films; 6.3.3 Chemical Structure of Cured Films; 6.4 Conclusion; Acknowledgments; References 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
