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Nota di contenuto	Front Cover; Contents; Preface; Editors; Contributors; Chapter 1: Physical Mechanisms of Atomic-Scale Friction; Chapter 2: Shear-Induced Anisotropic Friction in a Lubricated Contact; Chapter 3: Macrotribology of Semirigid Poly(-methylene--butyrolactone) and Poly(methyl methacrylate) Brushes; Chapter 4: Application of Quartz Crystal Microbalance Technology in Tribological Investigation; Chapter 5: Tribology of Water on Graphene and Silicon Superhydrophobic Nanostructured Surfaces; Chapter 6: Design and Properties of Self-Assembled Ordered Films for Nanolubrication Chapter 7: Surfactant Influence on Stability and Lubrication Properties of Metal Nanoparticle Suspensions in OilChapter 8: Nanotribology : Progress toward Improved Lubrication for the Control of Friction Using Ionic Liquid Lubricants; Chapter 9: Effects of Mixing Two Ionic Liquids on Tribological Behavior of Bearing Steel; Chapter 10: Aqueous Solutions of Surfactants in Materials Engineering of Tribological Systems; Chapter 11: Use of Surfactants in Metal Cutting Fluids Formation; Chapter 12: Automotive Lubricant Friction Modifiers : Additive Durability Studies Chapter 13: Evaluation of Nonionic Surfactants in Drilling MudsChapter 14: Adsorption of Surfactants with Different Degrees of Ethoxylation on Hematite Weighting Material and Its Effect on the Tribological

Properties of Water-Based Petroleum Drilling Fluids; Chapter 15: Role of Gemini Cationic Surfactants in Inhibiting the Corrosion of Carbon Steel; Chapter 16: Soy-Based Polymeric Surfactants Prepared in Carbon Dioxide Media and Influence of Structure on Their Surface Properties; Chapter 17: Biobased Lubricants and Functional Products from Cuphea Oil  
Chapter 18: Biodiesel Lubricity and Other PropertiesBack Cover

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Sommario/riassunto

Surface science and tribology play very critical roles in many industries. Manufacture and use of almost all consumer and industrial products rely on the application of advanced surface and tribological knowledge. The fourth in a series, Surfactants in Tribology, Volume 4 provides an update on research and development activities connecting surfactants and tribological phenomena. Written by renowned subject matter experts, the book demonstrates how improved design of surfactants can be harnessed to control tribological phenomena. Profusely illustrated and copiously referenced, the chapters also

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