

# DOWNLOAD PDF MULTISCALE DISSIPATIVE MECHANISMS AND HIERARCHICAL SURFACES

## Chapter 1 : Michael Nosonovsky Ph.D. - College of Engineering & Applied Science

*Multiscale Dissipative Mechanisms and Hierarchical Surfaces covers the rapidly developing topics of hierarchical surfaces, roughness-induced superhydrophobicity and biomimetic surfaces. The research in these topics has been progressing rapidly in the recent years due to the advances in the nanosciences and surfaces science and due to potential.*

Associate Professor Mechanical Engineering Dr. Nosonovsky has co-authored more than 70 papers and three books in the areas of surface science, tribology, and biomimetics, which have been cited almost times. His pioneering work on friction and omniphobia stuff that sticks to nothing! He believes that nature is a tremendous engineer and uses many organic concepts in his quest for perfect materials. Self-organization at the interface self-healing, self-lubrication, self-cleaning. Biomimetic surfaces, including novel applications of the Lotus effect omniphobicity, anti-fouling. Adhesion and capillary force. Contact mechanics and dynamic friction. Fundamentals of friction and classical mechanics. Friction-Induced Vibrations and Self-Organization: Rohatgi Biomimetics in Materials Science: Bhushan, , Vols. Nosonovsky "From superhydrophobicity to icephobicity: Nosonovsky "Wetting transitions in underwater oleophobic surface of brass " Adv. Nosonovsky, "Slippery when wetted " Nature V. Nosonovsky, "Self-organization at the frictional interface for green tribology " Phil. Nosonovsky, "Entropy in Tribology: Bhushan, "Thermodynamics of surface degradation, self-organization, and self-healing for biomimetic surfaces, " Phil. A M. Bhushan, "Superhydrophobic surfaces and emerging applications: Interface Sci, 14 M. Bhushan, "Multiscale effects and capillary interactions in functional biomimetic surfaces for energy conversion and green engineering, " Phil. A S. Chung, "Nanoscale water capillary bridges under deeply negative pressure " Chem. Esche, "Multiscale effects in crystal grain growth and physical properties of metals, " Phys Chem. Bhushan, "Biomimetic Superhydrophobic Surfaces: Multiscale Approach, " Nano Lett. Bhushan, "Multiscale friction mechanisms and hierarchical surfaces in nano- and bio-tribology, " Mater.

## Chapter 2 : Multiscale Dissipative Mechanisms And Hierarchical Surfaces PDF

*Multiscale Dissipative Mechanisms and Hierarchical Surfaces covers the rapidly developing topics of hierarchical surfaces, roughness-induced superhydrophobicity and biomimetic surfaces.*

## Chapter 3 : Dr. Nosonovsky's Website and Blog | Dr. Michael Nosonovsky's Website

*Multiscale Dissipative Mechanisms and Hierarchical Surfaces covers the rapidly de- veloping topics of hierarchical surfaces, roughness-induced superhydrophobicity and biomimetic surfaces.*

## Chapter 4 : Michael Nosonovsky (Author of Multiscale Dissipative Mechanisms and Hierarchical Surfaces)

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