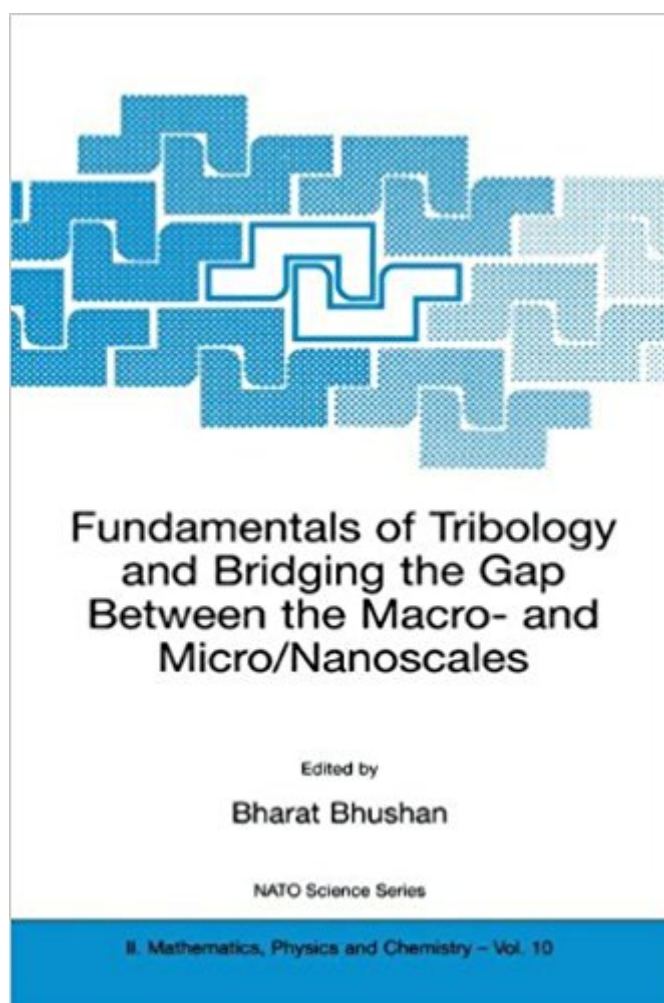


The book was found

Fundamentals Of Tribology And Bridging The Gap Between The Macro- And Micro/Nanoscales (Nato Science Series II:)



Synopsis

The word tribology was first reported in a landmark report by P. Jost in 1966 (Lubrication (Tribology)--A Report on the Present Position and Industry's Needs, Department of Education and Science, HMSO, London). Tribology is the science and technology of two interacting surfaces in relative motion and of related subjects and practices. The popular equivalent is friction, wear and lubrication. The economic impact of the better understanding of tribology of two interacting surfaces in relative motion is known to be immense. Losses resulting from ignorance of tribology amount in the United States alone to about 6 percent of its GNP or about \$200 billion dollars per year (1966), and approximately one-third of the world's energy resources in present use, appear as friction in one form or another. A fundamental understanding of the tribology of the head-medium interface in magnetic recording is crucial to the future growth of the \$100 billion per year information storage industry. In the emerging microelectromechanical systems (MEMS) industry, tribology is also recognized as a limiting technology. The advent of new scanning probe microscopy (SPM) techniques (starting with the invention of the scanning tunneling microscope in 1981) to measure surface topography, adhesion, friction, wear, lubricant-film thickness, mechanical properties all on a micro to nanometer scale, and to image lubricant molecules and the availability of supercomputers to conduct atomic-scale simulations has led to the development of a new field referred to as Microtribology, Nanotribology, or Molecular Tribology (see B. Bhushan, J. N. Israelachvili and U.

Book Information

Series: Nato Science Series II: (Book 10)

Paperback: 964 pages

Publisher: Springer; Softcover reprint of the original 1st ed. 2001 edition (March 31, 2001)

Language: English

ISBN-10: 0792368371

ISBN-13: 978-0792368373

Product Dimensions: 6.1 x 1.9 x 9.2 inches

Shipping Weight: 2.8 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #5,749,851 in Books (See Top 100 in Books) #94 in Books > Engineering & Transportation > Engineering > Mechanical > Tribology #979 in Books > Engineering & Transportation > Engineering > Materials & Material Science > Testing #1220 in Books > Engineering & Transportation > Engineering > Industrial, Manufacturing & Operational Systems >

[Download to continue reading...](#)

Fundamentals of Tribology and Bridging the Gap Between the Macro- and Micro/Nanoscales (Nato Science Series II:) The Blue Sweater: Bridging the Gap Between Rich and Poor in an Interconnected World The Case Approach to Financial Planning: Bridging the Gap between Theory and Practice, 3rd Edition Bridging the Gap Between College and Law School: Strategies for Success ECON MACRO (with ECON MACRO Online, 1 term (6 months) Printed Access Card) (New, Engaging Titles from 4LTR Press) NATO Divided, NATO United: The Evolution of an Alliance Bridging the Gap: College Reading (12th Edition) Handbook of Micro/Nano Tribology, Second Edition (Mechanics & Materials Science) Tribology of Plastic Materials: Their Characteristics and Applications to Sliding Components (Tribology Series) Engineering Tribology (Tribology Series) Tribology of Polymeric Nanocomposites, Volume 55, Second Edition: Friction and Wear of Bulk Materials and Coatings (Tribology and Interface Engineering) Coatings Tribology, Volume 56, Second Edition: Properties, Mechanisms, Techniques and Applications in Surface Engineering (Tribology and Interface Engineering) Tribology of Elastomers, Volume 47 (Tribology and Interface Engineering) Tribology in Electrical Environments, Volume 49 (Tribology and Interface Engineering) Economics for Investment Decision Makers: Micro, Macro, and International Economics Cracking the AP Economics Macro & Micro Exams, 2018 Edition: Proven Techniques to Help You Score a 5 (College Test Preparation) Cracking the AP Economics Macro & Micro Exams, 2017 Edition: Proven Techniques to Help You Score a 5 (College Test Preparation) Cracking the AP Economics Macro & Micro Exams, 2014 Edition (College Test Preparation) Your Gap Year: The Most Comprehensive Guide to an Exciting and Fulfilling Gap Year Micro Irrigation Management: Technological Advances and Their Applications (Innovations and Challenges in Micro Irrigation)

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)