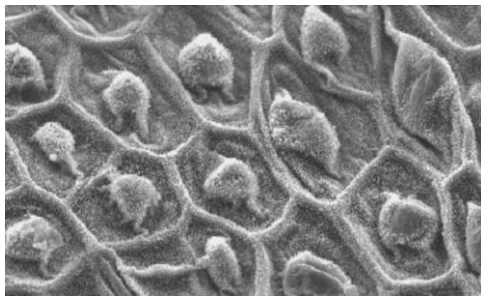


Nanotribology, nanomechanics and applications to nanotechnology – a double volume

Compiled by Bharat Bhushan

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Tribology is the science and technology of interacting surfaces in relative motion and of related subjects and practices. The nature and consequences of the interactions that take place at the moving interface control its friction, wear and lubrication behaviour. Understanding the nature of these interactions and solving the technological problems associated with the interfacial phenomena constitute the essence of tribology. The importance of friction and wear control cannot be overemphasized for economic reasons and long-term reliability.

It is clear that the general field of tribology has grown rapidly in the last twenty years. Conventional tribology is well established but nanotribology is evolving and is beginning to take the center stage for the next decade. New materials are finding use and furthermore new industrial applications continue to evolve with their unique challenges.

Nanotribology and nanomechanics are critical technologies for many micro-/nano- devices and systems and nanostructured materials. The purpose of the two theme issues is to present the fundamentals of nanotribology and nanomechanics in the first issue and applications to nanotechnology in the second issue.

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