

Deposition Tribology of Nano-period Solid Lubricating Films

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It is watching a super-hard film as a thin film of the Tribology use. And, a solid lubrication film is being expected in the same way, too. Because the bitter environment, which can't be adapted, exists, this solid lubrication film is applicable in place of the lubricating oil with lubricating oil.

On the other hand, a super-lattice film made to have a thin film in the number nm unit in the product layer is examined as super-hard film. Writers did the research of the(CN/BN) n layer film made to have a carbon film and a boron film in the number nm unit in the product layer. The deposited of a (CN/BN) n layer film of the number nm period was confirmed, and hardness and a frictional character showed the remarkable product layer periodic dependence as that result.

So, writers aimed at the deposition of a new solid lubrication film which shows the low friction which it couldn't get with the usual simple substance film and a mixed film material. The deposition technology of the super-lattice thin film is being used concretely.

It is researching on the layer film which formed two kinds of thin film alternately in the thickness of nm in the layer-shaped.

A tungsten disulfide and a molybdenum disulfide are taken away in the material of a film, and the result that hardness of that layer film and a frictional character were evaluated is reported by this report.