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**Horia Hulubei National Institute for
R&D in Physics and Nuclear
Engineering**

**MULTILAYER COATING MATERIAL HAVING
TRIBOLOGICAL PROPERTIES AND PROCESS
FOR MAKING THE SAME**

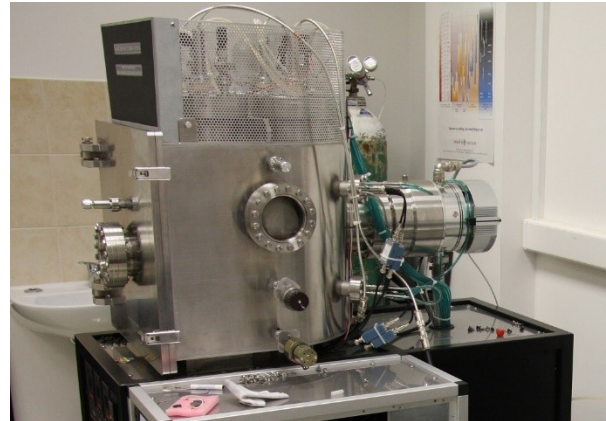
Patent Number: RO 128094/25.07.2011

Abstract

The invention relates to a material with multiple coating layers and to a process for in-vacuum obtaining the same, used for making the vacuum depositions of the multiple thin layers, for improving the tribological properties of the metal parts subjected to friction which causes by wear, noises and exaggerated heating, which leads to their premature damaging. According to the invention, the material comprises 4 layers with individual thicknesses of 100 nm

Technology stage

The product was tested and the technology is proved on a small scale. The patent is ready for licensing.



Applications

Industrial applications

Advantages

The patent uses multilayers with tribological properties offering:

- Better adherence to the substrate
- Stronger hardness and therefore higher allowed weights
- High temperature resistance
- Lower friction coefficient at higher humidity
- Longer lifetime

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