PLASMA ASSISTED MAGNETRION DEPOSITION OF DLC COATING*

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The results of experiments on DLC coatings producing using a deposition system including an unbalanced magnetron with a graphite target and a PINK gas plasma generator, based on a non-self-sustained arc discharge with a thermionic cathode are presented. Investigations with a single-grid energy analyzer showed that ions arriving at the substrate have an energy higher than with conventional magnetron sputtering. This become possible thanks to the original electrode and magnetic systems, as well as the electrodes connection scheme of plasma generators. It was shown that the use of such plasma-physical system allows to deposit a DLC coating.

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