
DESIGNING A MAGNETIC SYSTEM WITH TWO PLASMA REGIONS FOR LIQUID-PHASE MAGNETRON SPUTTER DEPOSITION

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Abstract

The article considers a way of increasing the magnetic induction generated by a magnetron in order to subsequently perform liquid-phase magnetron sputter deposition. We studied the behaviour of the magnetic field generated by a system of two coaxial cylindrical magnets with a variable distance between them. We present a design of a magnetic system forming two plasma regions that is capable of increasing the magnetic induction above the target. We performed a comparative analysis of the magnetic fields generated by a system with two magnetic regions and a classic magnetic system featuring a single plasma region. The figures we obtained indicate an increase in magnetic field.

Keywords

Liquid-phase magnetron sputter deposition, magnetic induction, magnetic system forming two plasma regions, unbalanced magnetron

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