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**Simulation of heating of the target during high-power impulse magnetron sputtering**

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**Abstract.** This paper presents the solution of a thermal task connected with the titanium target's heating under the influence of high-power pulses during magnetron sputtering. It is well known that more than 90 % of power is absorbed due to the cathode heating. During DCMS mode the heating is not substantial but situation changes radically in HiPIMS mode. Target's temperature can reach values of its material melting. In this case a flux, connected with the target's evaporation is being added to the physical sputtering. It leads to the deposition rate growth.

**Keywords:**

HiPIMS

HiPIMS-EM

Hot target

Magnetron sputtering

Heating simulation

High-rate deposition

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