

Synthesis of coatings with a perovskite structure in a magnetron discharge with pure Ca and Ti targets

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The results of experimental studies on perovskite-type (CaTiO_3) coatings plasma deposition using two planar magnetrons are presented. Pure (99.9 %) sputtering targets made of titanium and calcium were used in the experiments. The coatings were deposited in a mixture of argon and oxygen. Each magnetron discharge was independently powered by both DC and pulsed (10–20 kHz) voltages. The resulting coatings were annealed and analyzed by scanning electron microscopy and X-ray phase analysis.

Keywords: magnetron discharge; coatings deposition; calcium titanate.

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