

**Название:** Homogeneous deposition of nickel in pores of the ordered thin aluminum oxide

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### **Abstract**

Fabrication of a matrix of ordered vertically oriented nickel nanocolumns with the use of a porous aluminum oxide template is considered. The effect of thinning of a barrier layer at the bottom of the aluminum oxide pores on the nucleation and growth of ordered metal nanocolumns is discussed. Morphological parameters of Ni nanocolumns fabricated in different regimes are studied by atomic force microscopy. Kinetic regulations and conditions of the electrochemical deposition of nickel into a porous aluminum oxide template are investigated.