

Synthesis and X-ray Diffraction Study of Intermetallic Compounds of Americium with Copper

A. M. Radchenko, E. M. Pichuzhkina, M. A. Ryabinin, S. V. Tomilin,
V. G. Nagaitsev, and A. G. Yakovenko

*Research Institute of Nuclear Reactors, State Scientific Center of the Russian Federation, Dimitrovgrad,
Ul'yanovsk oblast, Russia*

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Abstract—An alloy of americium-241 and copper was prepared by high-temperature deposition of the vapor of metallic Am on a Cu support. The intermetallic compound Cu_5Am (or Cu_7Am) with the hexagonal lattice of the Cu_5Ca (or Cu_7Tb) type was detected in the sample. The effect of α -radiation of ^{241}Am on the crystal structure of the intermetallic compound was examined.

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