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SPECIALIZED HOMOGENEOUS REACTOR FOR SPENT FUEL TREATMENT

YU. N. KUZNETZOV, I. Ch. GANEV, V.A. RESHETOV, V.P. SMIRNOV, V.A. MOSKIN
State Unitary Enterprise, Research and Development Institute of Power Engineering (RDPE)
Russia

Specialized homogeneous reactors on fast neutrons with circulating metal fuel and liquid metal coolant, in which new method for circulation of metal fuel - with phase transition from liquid state to granulated one and vice versa, can be used effectively in nuclear power system, consisting of the reactors both on fast and on thermal neutrons, with the aim to annihilate highly active and long-lived products of nuclear fuel irradiation - minor actinides, to reduce the mass of produced plutonium and radioactive wastes to be disposed. The method of fuel circulation is examined at demonstration facility with using simulating media. The results of experimental investigations are given.