

Title (en)
CONVERTER REACTOR FOR THERMAL NEUTRONS

Title (de)
KONVERTER - REAKTOR F1JR THERMISCHE NEUTRONEN

Title (fr)
RÉACTEUR CONVERTISSEUR POUR NEUTRONS THERMIQUES

Publication
EP 2641249 A1 20130925 (DE)

Application
EP 11826178 A 20111221

Priority
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Abstract (en)
[origin: WO2013011350A1] The invention relates to a converter reactor, comprising a low-pressure housing, in which the active zone is located, which comprises the vertical columns of the side reflector and of the moderator, the technological channels (TK) for the flow of the heat carrier being set into the central openings of the moderator columns, in which technological channels in turn the fuel elements (TVS) having the fuel rods (TVEL) are accommodated, characterized in that the low-pressure housing of the reactor is made of a high-strength titanium alloy equipped with a protective boron nitride composite material on the inside and is filled with a polysilazane-based heat carrier into which the active zone is immersed, that the interior of the fuel rods of the fuel elements accommodated in the technological channels of the moderator is filled with the uranium-plutonium melt, and that the upper ends of the fuel rods are brought together in the fission product collectors of the fuel elements and the ends of the fuel rods communicate with the cavity of the fuel element, which cavity communicates with the open cavity by means of the fuel, which has the same pressure as the cavity.

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Citation (search report)
See references of WO 2013011350A1

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