Title (en)

METHOD OF IMPROVING THE SAFETY OF ACCELERATOR COUPLED HYBRID NUCLEAR SYSTEMS, AND DEVICE FOR IMPLEMENTING SAME

Title (de)

VERFAHREN ZUR VERBESSERUNG DER SICHERHEIT VON BESCHLEUNIGERGEKOPPELTEN HYBRID-KERNSYSTEMEN UND EINRICHTUNG ZUR IMPLEMENTIERUNG DAFÜR

Title (fr)

PROCEDE CONCERNANT LA SURETE DES SYSTEMES NUCLEAIRES HYBRIDES COUPLES, ET DISPOSITIF METTANT EN OEUVRE CE PROCEDE

Publication

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Application

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Priority

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Abstract (en)

[origin: US2007064859A1] The present invention pertains to a method of controlling an accelerator coupled nuclear system comprising a nuclear reactor operating in subcritical mode and a neutron generator device using a beam of charged particles originating from an accelerator, said neutron generator supplying the quantity of neutrons necessary in order to maintain the nuclear reaction. Said method is characterized in that the operating point is determined by giving the energy E_pof the particles a value greater than or equal to the value E_{PMax}, which maximizes the production of neutrons, and in that the number of neutrons is adjusted by acting on the energy of the particles originating from the accelerator, with constant beam intensity. The present invention also pertains to the accelerator coupled hybrid nuclear system used for same.

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IPC 8 full level

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