

Title (en)
A neutron amplifier assembly

Title (de)
Neutronverstärkungsanlage

Title (fr)
Dispositif multiplicateur de neutrons

Publication
EP 1047083 A1 20001025 (EN)

Application
EP 99107327 A 19990420

Priority
EP 99107327 A 19990420

Abstract (en)
The neutron amplifier assembly comprises an array of a thin fissile material layer (1) on an inner surface of a hollow support moderator material cylinder (2) which is subjected to a primary neutron flux. The fissile material layer thickness and the inner diameter of the cylinder are chosen to configure the array close to criticality.
This invention relates to a neutron amplifier assembly comprising an array of fissile material which is subjected to a primary neutron flux. According to the invention a thin layer (1) of fissile material is located on the inner surface of a hollow support cylinder (2) of moderator material, the fissile material layer thickness and the inner diameter of said cylinder being chosen such that the array is close to criticality. <IMAGE>

IPC 1-7
G21G 4/02

IPC 8 full level
G21G 4/02 (2006.01); **G21K 1/00** (2006.01); **G21K 5/08** (2006.01); **H05H 3/06** (2006.01); **H05H 6/00** (2006.01)

CPC (source: EP)
G21G 4/02 (2013.01)

Citation (search report)
• [A] GB 850876 A 19601012 - DOW CHEMICAL CO
• [A] WO 9524043 A1 19950908 - ION BEAM APPLIC SA [BE], et al
• [A] US 3778627 A 19731211 - CARPENTER J
• [A] DATABASE WPI Week 9220, Derwent World Patents Index; AN 92-164686, XP002116849

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU NL PT SE

DOCDB simple family (publication)
EP 1047083 A1 20001025; EP 1047083 B1 20030730; AT E246394 T1 20030815; CA 2368547 A1 20001026; DE 69909962 D1 20030904; DE 69909962 T2 20040527; DK 1047083 T3 20031124; ES 2204023 T3 20040416; JP 2002542496 A 20021210; NO 20014840 D0 20011004; NO 20014840 L 20011004; PT 1047083 E 20031231; WO 0063921 A1 20001026

DOCDB simple family (application)
EP 99107327 A 19990420; AT 99107327 T 19990420; CA 2368547 A 20000410; DE 69909962 T 19990420; DK 99107327 T 19990420; EP 0003179 W 20000410; ES 99107327 T 19990420; JP 2000612962 A 20000410; NO 20014840 A 20011004; PT 99107327 T 19990420