

Title (en)
METHODS AND SYSTEMS FOR THE MASS PRODUCTION OF RADIOACTIVE MATERIALS

Title (de)
VERFAHREN UND SYSTEME ZUR MASSENPRODUKTION VAN RADIAKTIVEN STOFFEN

Title (fr)
PROCEDES ET SYSTEMES POUR LA PRODUCTION EN SERIE DE MATERIAUX RADIOACTIFS

Publication
EP 1087814 A2 20010404 (EN)

Application
EP 99925549 A 19990408

Priority
• US 9907663 W 19990408
• US 8143598 P 19980410

Abstract (en)
[origin: WO9952587A2] Systems and methods mass produce radioactive materials and structures, such as stents. A three-dimensional array of targets is disposed in a beam path of an electron beam emitted from a source thereof (e.g., a linear accelerator). A bremsstrahlung converter is interposed between the array of targets and the source of the electron beam so as to convert the electron beam to an irradiating beam which contains both electrons and photons. The electrons in the irradiating beam may be divergently directed away from the beam path (e.g., by magnetic sweepers) and along a divergent path so that the targets are irradiated predominantly by photons. Furthermore, the electron beam can be conditioned (focused) by means of magnetic stirring coils positioned upstream of the converter. The bremsstrahlung converter is most preferably provided by a plurality of individual converters which differ from one another in terms of their thickness and/or high Z material. One or more of these individual converters may thus be interposed in the beam path as may be desired in dependence upon the targets to be irradiated.

IPC 1-7
A61N 1/00

IPC 8 full level
A61F 2/82 (2013.01); **A61F 2/84** (2006.01); **G21G 1/10** (2006.01); **G21G 1/12** (2006.01); **A61N 5/10** (2006.01)

CPC (source: EP)
G21G 1/10 (2013.01); **G21G 1/12** (2013.01); **A61N 5/1001** (2013.01)

Citation (search report)
See references of WO 9952587A2

Cited by
EP4191613A1; WO2023104729A1

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

DOCDB simple family (publication)
WO 9952587 A2 19991021; **WO 9952587 A3 20010201**; AU 4180799 A 19991101; CA 2327824 A1 19991021; EP 1087814 A2 20010404; JP 2002511566 A 20020416

DOCDB simple family (application)
US 9907663 W 19990408; AU 4180799 A 19990408; CA 2327824 A 19990408; EP 99925549 A 19990408; JP 2000543195 A 19990408