

Title (en)

Column system for creating a solution with high specific activity

Title (de)

Säulensystem zur Herstellung einer Lösung mit hoher spezifischer Aktivität

Title (fr)

Système de colonnes destiné à la production d'une solution ayant une activité spécifique élevée

Publication

**EP 1933331 B1 20130123 (DE)**

Application

**EP 07024128 A 20071212**

Priority

DE 102006058542 A 20061212

Abstract (en)

[origin: EP1933331A2] The procedure for the production of radioactive daughter nuclide for medical applications, comprises allocating a generator with a chromatography column (3) having a stationary phase and an adsorbed mother nuclide at the stationary phase, eluting the daughter nuclides from the column with 0.9% of sodium chloride solution as solvent, filling the column with mother nuclides in a solution, oxidizing the solution with hydrogen peroxide and then acidifying with hydrochloric acid. The quantity of the adsorbed mother nuclides is 10% of the maximum adsorption capacity of the stationary phase. The procedure for the production of a radioactive daughter nuclide for medical applications, comprises allocating a generator with a chromatography column (3) having a stationary phase and an adsorbed mother nuclide at the stationary phase, eluting the daughter nuclides from the chromatography column with 0.9% of sodium chloride solution as solvent, filling the column with mother nuclides in a solution, oxidizing the solution with hydrogen peroxide and then acidifying with hydrochloric acid. The quantity of the adsorbed mother nuclides is 10% of the maximum adsorption capacity of the stationary phase. The chromatography column is filled with oxides of aluminum, zirconium, manganese or titanium or its mixture. The mother nuclide is tungsten-188 in an acidic solution of sodium tungstate (Na<sub>2</sub>WO<sub>4</sub>) that decomposes in rhenium-188. An independent claim is included for a generator for radioactive substances with a chromatography column.

IPC 8 full level

**G21G 1/00** (2006.01); **G21H 5/02** (2006.01)

CPC (source: EP)

**G21G 1/0005** (2013.01); **G21G 1/001** (2013.01); **G21H 5/02** (2013.01); **G21G 2001/0031** (2013.01); **G21G 2001/0042** (2013.01); **G21G 2001/0073** (2013.01)

Cited by

CN103454364A

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

**EP 1933331 A2 20080618**; **EP 1933331 A3 20100414**; **EP 1933331 B1 20130123**; DE 102006058542 A1 20080619; DE 202006020604 U1 20090226; PL 1933331 T3 20130531

DOCDB simple family (application)

**EP 07024128 A 20071212**; DE 102006058542 A 20061212; DE 202006020604 U 20061212; PL 07024128 T 20071212