

INFORME DE BÚSQUEDA DE PATENTES				
N° de solicitud: 15-289043-00000-0000				
CRITERIOS PARA LA BÚSQUEDA (Anexar pantallazo o reporte en PDF, junto con los boléanos utilizados*. Para el caso de secuencias, anexar alineamientos)				
PALABRAS CLAVE UTILIZADAS		SFT=("ceramic hydroxyapatite") AND STAC=(radionuclid*) AND PD=19000101:20130605 SFT=("cation exchange resin") AND STAC=(radionuclid*) AND PD=19000101:20130605 Similitud con reivindicaciones		
CLASIFICACIONES UTILIZADAS PARA LA BÚSQUEDA		CIP: A61K 51/00, A61P 35/00, A61K51/10 CPC:		
DOCUMENTOS CONSIDERADOS RELEVANTES (documentos patentes, literatura no patente, etc...)				
Informes/Base de datos	N° de solicitud/ Autor**	Fecha de Publicación/Presentación (DD/MM/AAAA)	Reiv. afectadas (Con indicación, si procede, de las partes relevantes o números de secuencias)	Categorías especiales de los documentos citados***
SIPI (Obligatoria)	16036874	15/05/2016		E
	NC2017/0005975	16/06/2017		E
ISR JPO USPTO Patbase	WO2012131378	04/10/2012		A
ISR USPTO	WO2004091668	28/10/2004		A
ISR	Purkl S (2003-06)	01/06/2003		A
	Purkl S (2003-10)	10/2003		A
USPTO Patbase	US5749042	05/05/1998		A
Patbase	US2008226547	18/09/2008		A
	US2004033229	19/02/2004		A
	US2006153860	13/07/2006		A
	US2004208821	21/10/2004		A
	US2013183235	18/07/2013		P
EPOQUENET	US4213859	22/07/1980		A
	US4542015	17/19/1985		A
	US476509	23/08/1988		A
	RU211558	20/05/1998		A
	JPS5777034	14/05/1982		A
	JPS565334	20/01/1981		A
	GB972943	21/10/1964		A
	GB810542	18/03/1959		A
	GB784392	09/10/1957		A
	GB865011	12/01/1961		A
	GB905920	12/09/1962		A
	GB1111944	01/05/1968		A
	GB745557	29/02/1956		A
	GB965692	06/08/1964		A
	GB870950	21/06/1961		A
*** Categorías especiales de documentos citados:				
“A” documento que define el estado general de la técnica no considerado como particularmente relevante.			“X” documento particularmente relevante; la invención reivindicada no puede considerarse nueva o que implique una actividad inventiva por	

“E” solicitud de patente o patente anterior pero publicada en la fecha de presentación internacional o en fecha posterior. “P” documento publicado antes de la fecha de presentación internacional pero con posterioridad a la fecha de prioridad reivindicada.	referencia al documento aisladamente considerado. “Y” documento particularmente relevante; la invención reivindicada no puede considerarse que implique una actividad inventiva cuando el documento se asocia a otro u otros documentos de la misma naturaleza, cuya combinación resulta evidente para un experto en la materia.
**** Indicar entre paréntesis la Autoridad que realizó la búsqueda o el informe preliminar Ejs: EPO, JP, INAPI.	

Literatura no patente **Se incluye entre otros, toda la referencia de la literatura no patente.	Appl Radiat Isot. 2003 Oct;59(4):245-54. A rapid method for alpha-spectrometric analysis of radium isotopes in natural waters using ion-selective membrane technology. Purkl S, Eisenhauer A. Journal of Radioanalytical and Nuclear Chemistry 2003 Junio;256(3):473-480. Solid-phase extraction using Empore™ Radium Rad Disks to separate radium from thorium. Purkl S, Eisenhauer A.
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Fecha del reporte de búsqueda:	05/04/2018
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AUTHORITY (SEPARATE SHEET)

PCT/EP2014/061743

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Reference is made to the following document:

- D1 WO 2012/131378 A2 (ALGETA ASA [NO]; GODDARD CHRISTOPHER [GB]; RAMDAHL THOMAS [NO]) 4 October 2012 (2012-10-04)

Reference is made to the following documents:

- D2 S Purkl ET AL: ,
Journal of Radioanalytical and Nuclear Chemistry, 1 June 2003 (2003-06-01), pages 473-480, XP055133922,
Dordrecht
DOI: 10.1023/A:1024547631964
Retrieved from the Internet:
URL:<http://rd.springer.com/article/10.1023%2FA%3A1024547631964>
- D3 PURKL S ET AL: ,
APPLIED RADIATION AND ISOTOPES, ELSEVIER, OXFORD, GB,
vol. 59, no. 4, 1 October 2003 (2003-10-01), pages 245-254,
XP004458717,
ISSN: 0969-8043, DOI: 10.1016/S0969-8043(03)00172-6

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a)(2) the claimed invention was described in a patent issued under section 151, or in an application for patent published or deemed published under section 122(b), in which the patent or application, as the case may be, names another inventor and was effectively filed before the effective filing date of the claimed invention.

Claim(s) 1 is/are rejected under 35 U.S.C. 102(a)(2) as being anticipated by
Larsen et al. (US 2004/0208821).

Fecha de publicación	desde hasta	Fecha de entrada en fase nacional	desde hasta
Estado(s)	Seleccionar	Clasificación IPC	Seleccionar
Sector Tecnológico		Texto IPC	Ver la clasificación completa del IPC
Tipo de solicitud		Tipo de Patente	
Solicitante/Titular de la patente	☐ Número de identificación ☐ Nombre(s) ☐ Apellido(s) BAYER AS Suprimir 1038717 BAYER AS Suprimir 1045840 BAYER AS Suprimir Mostrar / Ocultar columnas Buscar	Apoderado	Buscar
Contacto de la solicitud	Buscar	Inventor	Buscar
Referencia			
Número de solicitud internacional PCT		Fecha de Solicitud Internacional PCT	desde hasta
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Número de la gaceta		Fecha de la Gaceta	desde hasta

Contacto de la solicitud	Buscar	Inventor	Buscar
Referencia			
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Número de Publicación Internacional PCT		Fecha de Publicación Internacional PCT	desde hasta
Número de la gaceta		Fecha de la Gaceta	desde hasta
Con/Sin Oposición		Número de Resolución	
Buscar Limpiar Búsqueda sencilla			

3 Casos asociados

Expediente No.	Título	Figura Característica	Fecha de presentación	Estado(s)	Titular
15289043	PREPARADO FARMACÉUTICO		03 dic 2015	Requerimiento de Examen de Fondo	BAYER AS
18038874	MÉTODO DE CUANTIFICACIÓN		15 feb 2016	Requerimiento de Examen de Fondo	BAYER AS
HC2017/0005976	COMPLEJOS RADIOFARMACÉUTICOS		16 jun 2017	Publicado sin pago	BAYER AS

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Search 4: 1 and 2 and 3
Results 3

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Edit and resend search

#	Search query	Results	Options
4	1 and 2 and 3	3	View Browse Hits Optimise more...
3	PD=19000101:20130605	more than 1,000,000	View Browse Hits Optimise more...
2	STAC=(radionuclid*)	6757	View Browse Hits Optimise more...
1	SFT=("ceramic hydroxyapatite")	798	View Browse Hits Optimise more...

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Username: sic7@patbase.com
Subaccount: none

Search 4: "1 and 2 and 3" 1-3 of 3

Display results

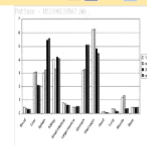
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1) Family number: 30501369 (US2008226547A)

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ALPHA-EMITTING HYDROXYAPATITE PARTICLES

Abstract: Source: US2008226547A The present invention provides Hydroxyapatite (HA) incorporating an alpha-emitting **radionuclide** or an in vivo generator for an alpha-emitting **radionuclide**. The invention further provides methods for the formation of such HA, pharmaceutical compositions comprising the HA and methods of medical treatment of cancerous or noncancerous disease including administering the HA or compositions thereof.

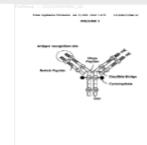
Probable Assignee: ALGETA AS**Earliest Publication Date:** 20050901

2) Family number: 32574192 (US2006153860A)

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NOVEL ANTIGEN-BINDING POLYPEPTIDES AND THEIR USES

Abstract: Source: US2006153860A Novel antigen-binding polypeptides (ABP) and uses thereof are provided.

Probable Assignee: AMBRX INC**Earliest Publication Date:** 20060126Username: sic7@patbase.com
Subaccount: noneSearch 6: 1 AND 2 AND 5
Results 1

Explore search

Edit and resend search

#	Search query	Results	Options
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4	1 and 2 and 3	3	View Browse Hits Optimise more...
3	PD=19000101:20130605	more than 1,000,000	View Browse Hits Optimise more...
2	STAC=(radionuclid*)	6757	View Browse Hits Optimise more...
1	SFT=("ceramic hydroxyapatite")	798	View Browse Hits Optimise more...

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Username: sic7@patbase.com
Subaccount: none

Search 6: "1 AND 2 AND 5" 1 of 1

Display results

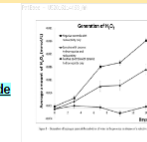
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1) Family number: 54507947 (US2016114063A)

Similar • Translate • Full-text • Status • Citations

PHARMACEUTICAL PREPARATION

Abstract: Source: US2016114063A The present invention provides a method for generating a purified solution of at least one alpha-emitting **radionuclide** complex. The method comprises contacting a solution of the alpha-emitting **radionuclide** complex and at least one daughter nuclide with at least one selective binder for the daughter nuclide and subsequently separating the solution from the selective binder. The invention also provides a method for the removal of at least one daughter **radionuclide** from a solution comprising at least one alpha-emitting **radionuclide** complex. The method comprises contacting the solution with at least one selective binder for the daughter nuclide.

Probable Assignee: BAYER AS**Earliest Publication Date:** 20141211

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to be separated from said solution by the process of administration of said solution. 24) a kit as claimed in claim 23 wherein said solid or gel support is at least one selected from membranes, resin beads, gel beads, self-assembled lipid structures (e.g. liposomes), microparticles, nanoparticles, powders, crystals and polymer structures. 25) a kit as claimed in any of claims 18 to 24 wherein said selective binder comprises at least one selected from cation exchange resins, size exclusion resins, zeolites, molecular sieves, hydroxyapatite, alginates, liposomes, phosphonates, polyphosphonates, phospholipids, glycolipids, lipo-proteins, oligosaccharides, ferritin, transferrin, phytic acid and co-precipitation agents. 26) a kit as claimed in any of claims 18 to 25 wherein said alpha-emitting radioisotope is at least one thorium radioisotope such as 227Th. 27) a kit as claimed in any of claims 18 to 26 wherein said daughter isotope is at least one radium isotope, such as 223Ra. 28) a kit as claimed in any of claims 18 to 27 additionally comprising a filter and/or an administration device. 29) a kit as claimed in any of claims 18 to 28 comprising a filter of pore size of no larger than 0.22 micrometers. 30) an administration device comprising a solution of at least one alpha-emitting radionuclide complex and at least one daughter nuclide, said device further comprising a filter containing at least one selective binder for said daughter nuclide. 31) a device as claimed in claim 30 in the form of a disposable syringe and syringe filter. 32) a kit as claimed in any of claims 18 to 29 comprising an administration device comprising a solution of at least one complexed alpha-emitting radionuclide and at least one daughter nuclide, said kit further comprising a selective binder for said daughter nuclide in the form of a filter. 33) a method for the formation of an injectable solution of an alpha-radionuclide complex comprising the steps of: a) combining a first solution comprising a dissolved salt of an alpha-emitting radionuclide and at least one daughter nuclide with a second solution comprising at least one ligand conjugated to at least one targeting moiety b) incubating the combined solutions at a suitable temperature (e.g. 0 degrees centigrade to 50 degrees centigrade, preferably 20 degrees centigrade to 40 degrees centigrade) for a period to allow complex formation between said ligand and said alpha-emitting radioisotope whereby to form a solution of at least one alpha-emitting radioisotope complex c) contacting said solution of at least one alpha-emitting radioisotope complex with at least one selective binder for at least one of said daughter nuclides. d) separating said solution of at least one alpha-emitting radionuclide complex from said at least one selective binder. 34) a method for the formation of an injectable solution as claimed in claim 33 wherein steps c) and d) comprise a method for generating a purified solution as claimed in any of claims 1 to 17.

Results 7

#	Search query	Results	Options
7	[SP]: 1) a method for generating a purified solution of at least one alpha-emitting radionuclide, said method comprising contacting a solution comprising said least one alpha-emitting radionuclide complex and at least one daughter nuclide with at least one selective binder for said at least one daughter nuclide and subsequently separating said solution of at least one alpha-emitting radionuclide complex from said at least one selective binder. 2) a method for reducing the radiolysis of at le... show full search	7	View Browse Hits Optimise more...
6	1 AND 2 AND 5	1	View Browse Hits Optimise more...
5	SFT=("(cation exchange resin")	30991	View Browse Hits Optimise more...
4	1 and 2 and 3	3	View Browse Hits Optimise more...
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Search 7: "[SP]: 1) a method for generating a purified solution of at least on..." 1-7 of 7

Display format: Scan Sorted by: Relevance Print Save/export Snapshot Visual explorer Analytics

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1) Family number: 54507947 (US2016114063A)

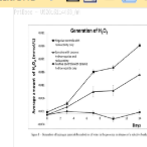
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PHARMACEUTICAL PREPARATION

Abstract: Source: US2016114063A The present invention provides a method for generating a purified solution of at least one alpha-emitting radionuclide complex. The method comprises contacting a solution of the alpha-emitting radionuclide complex and at least one daughter nuclide with at least one selective binder for the daughter nuclide and subsequently separating the solution from the selective binder. The invention also provides a method for the removal of at least one daughter radionuclide from a solution comprising at least one alpha-emitting radionuclide complex. The method comprises contacting the solution with at least one selective binder for the daughter nuclide.

Probable Assignee: BAYER AS

Earliest Publication Date: 20141211



2) Family number: 20637892 (US5749042A)

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BISMUTH GENERATOR METHOD

Abstract: Source: US5749042A A method for separating 213Bi from a solution of radionuclides wherein the solution contains a concentration of the chloride ions and hydrogen ions adjusted to allow the formation of a chloride complex. The solution is then brought into contact with an anion exchange resin, whereupon 213Bi is absorbed from the solution and adhered onto the anion exchange resin in the chloride complex. Other non-absorbing radionuclides such as 225Ra, 225Ac, and 221Fr, along with HCl are removed from the anion exchange resin with a scrub solution. The 213Bi is removed from the anion exchange resin by washing the anion exchange resin with a stripping solution free of chloride ions and with a reduced hydrogen ion concentration which breaks the chloride anionic complex, releasing the 213Bi as a cation. In a preferred embodiment of the present invention, the anion exchange resin is provided as a thin membrane, allowing for extremely rapid adherence and stripping of the 213Bi. A preferred stripping solution for purification of 213Bi for use in medical applications includes sodium acetate.

