

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO	
RAD: 14-50755- -4	FECHA: 2015-07-30 17:51:41
DEP: 2020 DIRECCION DE NUEVAS CREACIONES	EVE: 378 FASE NACIONAL INCLUIDO CAPITULO I
TRA: 11 PCT-PATENTE DE INVENCION CAPITULOS I Y II	FOLIOS: 7
ACT: 430 REQUERSOLICITA	

DIRECCIÓN DE NUEVAS CREACIONES

2020
Bogotá, D.C.,

Abogado(a)/Señor(a)
LUIS FELIPE CASTILLO GIBSON

Asunto: Radicación: 14-50755- -4
 Trámite: 11
 Evento: 378
 Actuación: 430
 Oficio: 9032
 Folios: 7

Patente de Invención	X			Patente de Modelo de Utilidad	
Vía Nacional					
Vía PCT (Fase Nacional)	X	Capítulo I	X	Capítulo II	
No. Solicitud Internacional	PCT/EP2012/065659				
Fecha de Presentación Internacional	10/08/2012				

Como resultado del examen de fondo realizado, con fundamento en el Artículo 45 de la Decisión 486 de la Comisión de la Comunidad Andina, se comunica:

1. Documentos estudiados

Descripción:	Radicado N° 14-050755-00000-0000	10/Marzo/2014
Reivindicaciones:	Radicado N° 14-050755-00000-0000	10/Marzo/2014
Prioridad:	IT F12011A000180	12/Agosto/2011

2. Análisis de la Prioridad

Se acepta la reivindicación de prioridad porque ésta solicitud fue presentada dentro del plazo establecido (Art. 9 D 486) y su contenido técnico corresponde con el de la prioridad reivindicada.

3. Objeto de la invención

De acuerdo con lo establecido en el numeral 1.2.2.2 del capítulo primero del Título 10 de la Circular Única para efectos del examen de patentabilidad, se tendrá en cuenta la tasa pagada por la solicitante al momento de comenzar el examen para las reivindicaciones adicionales; esto es que cuando la solicitud contenga más de diez (10) reivindicaciones y no se haya pagado la tasa complementaria, sólo se estudiarán las cubiertas por la tasa pagada. En el presente caso se estudiarán las reivindicaciones 1 a 15 del capítulo reivindicatorio (Radicado N°. 14-050755-00000-0000).

Título de la solicitud: "PROCEDIMIENTO PARA LA PREPARACIÓN DE COMPLEJOS DE ⁶⁸Ga".

El problema planteado en esta solicitud consiste en la necesidad de proporcionar un procedimiento que permita la preparación de complejos de ⁶⁸Ga de alto rendimiento y rapidez de acomplejamiento.

Para resolver este problema técnico la solicitud en estudio proporciona procedimientos para preparar complejos que contienen isótopos, en particular complejos útiles como radiomarcadores que contienen el isótopo ⁶⁸Ga.

El objeto de la presente solicitud se relaciona con la Clasificación Internacional de Patentes (CIP): C07B 59/00.

4. De la solicitud de patente

Reivindicaciones (Art 30 D 486, Art 22 PCT)

Teniendo en cuenta que el capítulo reivindicatorio estudiado presenta errores de ortografía y redacción tales como "*eterociclico*", "*polidentato*" y "*un jeringa*", se sugiere a la solicitante realizar una corrección ortográfica del capítulo reivindicatorio.

1. La reivindicación 1 no es clara porque no es clara la forma en la cual se lleva a cabo el procedimiento, se sugiere a la solicitante por lo tanto definir la secuencia de etapas, la naturaleza de los materiales utilizados y las condiciones empleadas en el mismo, entre ellas:

- Identificación de los reactivos que participan en el proceso que se reclama, los cuales se definen usando terminología ambigua como "*molécula de quelante funcionalizado*" o "*compuesto capaz de secuestrar cationes de metal*". Se sugiere definir los compuestos involucrados en el proceso de acuerdo a su estructura, nombre IUPAC o denominación común internacional, evitando el uso de términos genéricos o que se refieran a resultados a alcanzar como los actualmente utilizados.
- Tiempo, temperatura, pH y composición del medio en el que se lleva a cabo la reacción de complejación, referida particularmente a la proporción o concentración del sistema amortiguador de ácido fórmico/formiato.
- El término "*posiblemente*" antes de una característica, hace que dicha característica sea opcional, por lo que no es limitativo. Se sugiere definir las características opcionales o preferentes en reivindicaciones independientes.

La definición de estas características es necesaria para comprender los alcances de la materia reclamada y realizar la comparación con el estado de la técnica de manera adecuada, por lo que se sugiere a la solicitante realizar las aclaraciones correspondientes.

2. La reivindicación 2 no es clara porque no es clara la forma en la cual se lleva a cabo el procedimiento, se sugiere a la solicitante por lo tanto definir la secuencia de etapas, la naturaleza de los materiales utilizados y las condiciones empleadas en el mismo, tal como se explicó anteriormente.

3. La reivindicación 3 no es clara porque los términos "DOTA" "NOTA", y "PCTA" no se definen en el capítulo reivindicatorio, por lo que no definen las características técnicas estructurales necesarias para limitar la materia reclamada. Se sugiere identificar dichos compuestos por su nombre IUPAC o estructura.

4. La reivindicación 4 no es clara porque la expresión “*mezcla de marcado*” no se ha mencionado con anterioridad en el capítulo reivindicatorio, por lo que se hace confuso. Se sugiere continuar con el vocabulario utilizado previamente con el fin de evitar confusiones.
5. La reivindicación 5 no es clara porque los términos “*aminoácidos quelantes*”, “*éteres corona*”, “*éteres corona de nitrógeno*”, “*compuesto orgánico heterocíclico*”, “*calixarenos*” “*quelante polidentado*” y “*agentes quelantes naturales*” utilizados para definir las al llamado “*agente secuestrante*” son términos genéricos que no establecen las características estructurales del compuesto, sino que se refieren únicamente a su actividad y su origen. Se sugiere definir los compuestos por medio de su estructura, nombre IUPAC o denominación común internacional, evitando el uso de términos genéricos o que se refieran a resultados a alcanzar como los actualmente utilizados.
6. La reivindicación 9 no es clara porque:
 - La redacción de la reivindicación no permite comprender si se refiere a una etapa adicional en la que se da una separación cromatográfica o si por el contrario se refiere a un tratamiento separado.
 - No es claro a que hace referencia el término “*generador comercial de ⁶⁸Ga*”.
 - En la caracterización de los compuestos y reactivos que participan en esta etapa se usan términos genéricos, tales como “*regulador de pH de formiato*”, “*una base*” y “*quelante funcionalizado*” que no establecen las características esenciales necesarias para definirlos. Se sugiere identificar a los compuestos por medio de su estructura, nombre IUPAC o denominación común internacional y la concentración o proporción en la que se utilizan en la etapa reclamada.
 - Los términos “*se calienta*” y “*corto tiempo*” no son los adecuados para definir características esenciales de la etapa, como lo son la temperatura y el tiempo de reacción. Se sugiere definir estos parámetros usando un rango concreto de valores en la escala del sistema internacional.
7. La reivindicación 10 no menciona características diferentes a las establecidas en la reivindicación 9, por lo que se considera redundante. Se sugiere eliminar esta reivindicación.
8. No es clara la referencia hecha en la reivindicación 11 al procedimiento de la reivindicación 7, puesto que define las características del llamado “*eluido de ácido*” y la base, sin embargo en la reivindicación 7 no se hace mención a ninguno de estos compuestos, por lo que parece que la solicitante se refiere en realidad al proceso de la reivindicación 9 en el cual si se hace mención a los mismos. Se sugiere revisar la dependencia de dicha reivindicación con el fin de evitar las confusiones.
9. La reivindicación 12 no es clara porque se encabeza como un “*kit*”, sin embargo las características técnicas no corresponden a esta modalidad de invención. A este respecto, se le recuerda a la solicitante que este tipo de productos se caracterizan por reunir dos o más compuestos que provienen de preparaciones independientes. Por lo tanto, para definir un kit de manera adecuada se deben caracterizar las composiciones que hacen parte del mismo, las cuales se definen por sus ingredientes y la proporción de los mismos.
10. La reivindicación 13 no es clara porque reclama un recipiente, sin embargo lo caracterizan únicamente en función de su contenido, el cual no es una característica técnica esencial de este tipo de productos, en este caso estas características incluyen la definición de dimensiones y materiales, por lo que hace parte de un campo técnico diferente a la materia reclamada en las demás reivindicaciones. Por otra parte, si la intención de la solicitante es la protección de la solución que comprende simultáneamente un agente quelante y solución amortiguadora de ácido fórmico/formiato de sodio, se sugiere que la defina como tal, incluyendo las

características estructurales de los compuestos y las proporciones de los mismos en dicha mezcla.

11. No es clara la referencia hecha en la reivindicación 14 al “kit” de la reivindicación 11, puesto que la reivindicación 11 hace referencia a un procedimiento, no a un “kit”, por lo que parece que la solicitante se refiere en realidad al “kit” de la reivindicación 12. Se sugiere revisar la dependencia de dicha reivindicación con el fin de evitar las confusiones.

Se sugiere hacer las aclaraciones necesarias.

Descripción (Art 28 D 486)

La descripción no es clara porque presenta errores en la traducción que dificulta comprender la forma en la cual se lleva a cabo el proceso reclamado, de esta forma no se entiende a que hace referencia el término “generador comercial”, ni el proceso mostrado en los ejemplos.

Se sugiere a la solicitante realizar correcciones a la traducción del capítulo descriptivo, para de esta forma permitir que la materia reclamada sea comprendida.

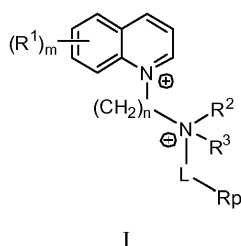
5. Determinación del Estado de la Técnica

El estado de la técnica se determinó con base en la fecha de presentación de la solicitud de prioridad: 12 de agosto de 2011 y se encontraron los siguientes documentos que anticipan el objeto de esta solicitud:

Ítem	Documento	Título	Fecha de Publicación
D1	WO2010092114	Use Of Buffers For Radionuclide Complexation	19/Agosto/2010
D2	WO2010141833	Vital fluorochrome conjugates and methods of use	09/Diciembre/2010

El documento D1¹ divulga un método para la complejación de un quelato con un radionúclido, ventajosamente galo, donde la complejación se realiza a temperatura ambiente, mediante la adición del radionúclido al quelato en una solución acuosa amortiguada (Resumen).

El documento D2² divulga composiciones y métodos para hacer y preparar fluorocromos conjugados que puedan ser usados para hacer imágenes de células muertas o que estén muriendo resultantes de una variedad de enfermedades (Pág. 2). El documento proporciona además métodos para preparar compuestos de formula I. (Pág. 6)



Donde R_p representa un grupo reportero, que comprende un quelante que quelata a un átomo de metal detectable que se selecciona de un grupo que comprende ⁶⁸Ga (Pág. 4).

1http://worldwide.espacenet.com/publicationDetails/originalDocument?CC=WO&NR=2010092114A1&KC=A1&FT=D&ND=&date=20100819&DB=&locale=en_EP
2http://worldwide.espacenet.com/publicationDetails/originalDocument?CC=WO&NR=2010141833A2&KC=A2&FT=D&ND=&date=20101209&DB=&locale=en_EP

6. Examen de Patentabilidad (Art 14 D486)

Novedad (Art 16 D486)

La reivindicación 2 consiste en: “Un proceso para la preparación de complejos de ⁶⁸Ga en donde la reacción de complejación entre una molécula de quelante funcionalizado y ⁶⁸Ga se lleva a cabo en una solución acuosa regulada de pH n presencia de un agente secuestrante” (Radicado N°. 14-050755-00000-00000).

Comparación de las características técnicas esenciales, con las del estado de la técnica:

Características esenciales	D2
Procedimiento para la preparacion de complejos de ⁶⁸ Ga en donde:	Síntesis de un complejo ⁶⁸ Ga-DOTA-TO (Pág. 34, Ej. 2 paso 3b)
La reaccion de complejacion entre una molecula de quelante funcionalizado y ⁶⁸ Ga	La complejación se lleva a cabo por la adición de DOTA-TO a un eluato que contiene ⁶⁸ Ga
Se lleva a cabo en una solucion acuosa regulada de pH	En una solución de acetato de sodio
En presencia de un agente secuestrante	En presencia de EDTA

El método para la preparación de complejos de ⁶⁸Ga con las características esenciales de la reivindicación 2 había sido divulgado previamente en el documento D2, el cual da a conocer en el ejemplo 2 paso 3b, la preparación de complejos de ⁶⁸Ga con un quelante funcionalizado, en una solución acuosa de acetato de sodio y en presencia de EDTA (Pág. 34, paso 3b Ej. 2).

En consecuencia, la reivindicación 2 no es nueva o carece de novedad, según lo divulgado en el documento D1.

Las reivindicaciones dependientes 3 y 5 no mencionan características esenciales que hagan nuevo el procedimiento de la reivindicación 2, por lo cual se considera que la materia allí reclamada no es nueva.

En conclusión las reivindicaciones 2, 3 y 5 no cumplen el requisito de novedad (Art. 16).

Nivel inventivo (Art 18 D486)

La reivindicación 1 consiste en: “Un proceso para la preparación de complejos de ⁶⁸Ga en donde la reacción de complejación entre una molécula de quelante funcionalizado y ⁶⁸Ga se lleva a cabo en una solución acuosa regulada de pH de ácido fórmico/formiato posiblemente en presencia de un compuesto capaz de secuestrar cationes de metal, en donde dicho compuesto capaz de secuestrar cationes de metal si se usa, se agrega al inicio de la reacción de complejación” (Radicado N°. 14-050755-00000-00000).

Comparación de las características técnicas esenciales, con las del estado de la técnica:

Características esenciales	D1	D2
Procedimiento para la preparacion de complejos de ⁶⁸ Ga en donde:	Un método para la complejación de un radionúclido donde (Pág. 51, reivindicación 1)	Síntesis de un complejo ⁶⁸ Ga-DOTA-TO (Pág. 34, Ej. 2 paso 3b)
La reaccion de complejacion entre una molecula de quelante funcionalizado y ⁶⁸ Ga	La complejación se lleva a cabo por la adición del radionúclido, preferiblemente ⁶⁸ Ga (Reivindicación 3)	La complejación se lleva a cabo por la adición de DOTA-TO a un eluato que contiene ⁶⁸ Ga
Se lleva a cabo en una solucion acuosa regulada de pH de ácido formico/formiato	En donde la solución amortiguadora se selecciona de lactato, tartrato, malato, maleato, succinato, ascorbato, carbonato y fosfato y mezclas	En una solución de acetato de sodio

Características esenciales	D1	D2
	de estos (Reivindicación 4).	

El documento D1 se considera el estado de la técnica cercano a la solicitud definida en la reivindicación 1 porque divulga métodos de preparación de complejos de ⁶⁸Ga en soluciones acuosas que comprenden un agente amortiguador (Pág. 51, Reivindicaciones 1, 3 y 4), el documento D1 también menciona el uso de quelato vectorizado seleccionado de NOTA, PCTA, AAZTA, DOTA y derivados (Pág. 52, Reivindicación 6).

La diferencia entre el método solicitado en la reivindicación 1 y el descrito en el documento D1 es el sistema amortiguador de pH empleado, que en la solicitud corresponde a ácido fórmico/formiato, mientras que en el documento D1 corresponde a lactato, tartrato, malato, maleato, succinato, ascorbato, carbonato y fosfato y mezclas de estos.

No hay evidencia de un efecto técnico asociado a la modificación en la composición de la solución amortiguadora, a pesar de que la solicitante resalta la pureza de los productos obtenidos como uno de los objetivos de esta, no aporta ensayos técnicos comparativos que permitan verificar la relación entre la composición de la solución amortiguadora y la pureza del producto. Teniendo en cuenta que el documento D1 no se menciona este parámetro, se considera que no hay evidencia que soporte el efecto técnico atribuido por la solicitante.

Por lo tanto, el problema técnico objetivo que pretende resolver esta invención se puede formular como la necesidad de proporcionar métodos alternativos al divulgado en D1 para la preparación de complejos de ⁶⁸Ga.

Sin embargo, la sustitución de un agente amortiguador por otro es una alternativa considerada por el la persona del oficio normalmente versada en la materia, puesto que conoce que este agente puede ser reemplazado con otros que proporcionen capacidad amortiguadora en el rango de pH deseado, esto se evidencia en el documento D2, el cual lleva a cabo la reacción de complejación en presencia de un agente amortiguador de acetato.

En consecuencia, la persona del oficio normalmente versada en la materia, cambiaría el sistema amortiguador de pH por ácido fórmico/formiato, llegando así al objeto de la reivindicación 1 por lo que la materia allí reclamada se considera obvia.

Puesto que las reivindicaciones dependientes 4, y 6-15 no mencionan características inventivas adicionales tampoco se pueden considerar inventivas.

En conclusión las reivindicaciones 1, 4 y 6– 15 cumplen el requisito de novedad (Art. 16), pero no cumplen con el requisito de nivel inventivo (Art. 18).

7. Conclusión

Los requisitos de Patentabilidad de la presente solicitud están afectados así:

Ítem	Documento	Reivindicaciones afectadas	Requisito que afecta
D1	WO2010092114	1, 4 y 6-15	Nivel inventivo
D2	WO2010141833	2, 3 y 5	Novedad
		1, 4 y 6-15	Nivel Inventivo

En cumplimiento del artículo 45 de la Decisión 486 de la Comisión de la Comunidad Andina, se le indica que debe dar respuesta dentro del término de sesenta (60) días contados a partir del día siguiente de la fecha de notificación de la presente comunicación. En caso de no dar respuesta al presente requerimiento, o si a pesar de la respuesta subsistieran los impedimentos para la concesión, se denegará la patente.

Se invita al solicitante se sirva indicar, si así lo considera, su renuncia al término faltante de sesenta (60) días para dar respuesta a este requerimiento y presentarla por escrito.

Finalmente, se le recuerda al solicitante que si como respuesta a este requerimiento llegara a modificar el capítulo reivindicatorio y éste contenga más de diez (10) reivindicaciones, no pagará la tasa de modificación voluntaria pero sí la correspondiente al pago por reivindicación adicional.

Notifíquese el presente oficio conforme a lo dispuesto en el numeral 5.2, literal e), del capítulo quinto del título primero de la Circular Única No. 10 de 2001.



JOSÉ LUIS SALAZAR LÓPEZ
Director de Nuevas Creaciones (c)

El anterior requerimiento fue notificado por fijación en lista, de fecha 2015-08-04

Elaboró: Ruth Andrea Rodriguez
Revisó: Jeny Paola Villate Becerra

INFORME DE BÚSQUEDA DE PATENTES PARA EL RADICADO 14-050755-00000-0000						
CRITERIOS PARA LA BÚSQUEDA						
Palabras clave utilizadas		Process 68Ga Preparation 68Ga (Formic or formate) buffer radionuclide				
CLASIFICACIONES INTERNACIONALES UTILIZADAS PARA LA BÚSQUEDA		A61K 51/0482				
BASES DE DATOS CONSULTADAS.						
Google patents		Espacenet		Science Direct		Patbase
INFORMES DE EXÁMENES REALIZADOS EN OTRAS OFICINAS						
Oficina	Fecha del examen o de reporte de búsqueda de documentos	Anterioridades encontradas para el examen o reportados en el examen de búsqueda(relacionarlos todos)	Reiv. afectadas	RELEVANCIA (requisito que afecta)	FUERON TENIDOS EN CUENTA PARA EL EXAMEN EN LA OFICINA COLOMBIANA	
					SI	NO
EUROPEA	03/03/14	WO2010092114	1, 4, 6-15	Nivel Inventivo	X	
ITALIANA		WO2010141833	2, 3 y5 1, 4, 6-15	Novedad Nivel Inventivo	X	
		WO2006056395				
		WO2010092114				
		Convenient preparation of 68Ga-based PET-radiopharmaceuticals at room temperature				
DOCUMENTOS ADICIONALES ENCONTRADOS POR EL EXAMINADOR DE ACUERDO A LOS CRITERIOS DE BÚSQUEDA.						
Wo2011033033						
BÚSQUEDA DE SECUENCIAS						
Número de depósito / patente y N° de secuencia % de identidad						
SEQ ID NO (de la solicitud)	NCBI	The Lens	EMBL-EBI	DDJB	Genome Quest	
NA						

CRITERIOS DE BÚSQUEDA

formic acid buffer radionuclide gallium

Author name

Journal or book title

Volume

Issue

Page



Advanced search

Search results: 39 results found.

[See image results](#)

Refine filters

Year

☐ 2015 (2)☐ 2014 (4)☐ 2013 (1)☐ 2012 (1)☐ 2011 (2)[View more >>](#)

Publication title

☐ Nuclear Medicine and Biology (7)☐ Analytica Chimica Acta (5)☐ Applied Radiation and Isotopes (2)☐ Fuel and Energy Abstracts (2)☐ Journal of Chromatography A (2)[View more >>](#)

Topic

☐ ion (3)☐ dowex (2)☐ energy (2)☐ flow (2)☐ flow system (2)[View more >>](#)

Content type

☐ Journal (28)☐ Book (13)[Apply filters](#)[Purchase](#) | [Download PDFs](#) | [Export](#)[Relevance](#)[All access types](#)

- ☐ [Influence of different chelators on the radiochemical properties of a 68-Gallium labelled bombesin analogue](#) Original Research Article
Nuclear Medicine and Biology, Volume 41, Issue 1, January 2014, Pages 24-35
Mattia Asti, Michele Iori, Pier C. Capponi, Giulia Atti, Sara Rubagotti, René Martin, Albert Brennauer, Marco Müller, Ralf Bergmann, Paola A. Erba, Annibale Versari
[Abstract](#) | [PDF \(2358 K\)](#)
- ☐ [9 - In situ and ex situ bioremediation of radionuclide-contaminated soils at nuclear and norm sites](#)
Environmental Remediation and Restoration of Contaminated Nuclear and Norm Sites, 2015, Pages 185-236
A.J. Francis, Y.V. Nanchaiah
[Abstract](#) | [Purchase PDF](#)
- ☐ [Engineering an antibody with picomolar affinity to DOTA chelates of multiple radionuclides for pretargeted radioimmunotherapy and imaging](#) Original Research Article
Nuclear Medicine and Biology, Volume 38, Issue 2, February 2011, Pages 223-233
Kelly Davis Orcutt, Adrian L. Slusarczyk, Maryelise Cieslewicz, Benjamin Ruiz-Yi, Kumar R. Bhushan, John V. Frangioni, K. Dane Wittrup
[Abstract](#) | [PDF \(866 K\)](#) | [Supplementary content](#)
- ☐ [Preclinical evaluation of a CXCR4-specific ⁶⁸Ga-labelled TN14003 derivative for cancer PET imaging](#) Original Research Article
Bioorganic & Medicinal Chemistry, Volume 22, Issue 2, 15 January 2014, Pages 796-803
Guillaume P.C. George, Elizabeth Stevens, Ola Åberg, Quang-Dé Nguyen, Federica Pisaneschi, Alan C. Spivey, Eric O. Aboagye
[Abstract](#) | [Graphical abstract](#) | [PDF \(1119 K\)](#) | [Supplementary content](#)
- ☐ [Automated synthesis, characterization and biological evaluation of \[⁶⁸Ga\]Ga-AMBA, and the synthesis and characterization of natGa-AMBA and \[⁶⁷Ga\]Ga-AMBA](#) Original Research Article
Applied Radiation and Isotopes, Volume 68, Issue 12, December 2010, Pages 2285-2292
Aldo Cagnolini, Jianqing Chen, Kimberly Ramos, Tina Marie Skedzielewski, Laura E. Lantry, Adrian D. Nunn, Rolf E. Swenson, Karen E. Linder
[Abstract](#) | [PDF \(454 K\)](#) | [Supplementary content](#)
- ☐ [Peptide synthesis, characterization and ⁶⁸Ga-radioradiolabeling of NOTA-conjugated ubiquitin fragments for prospective infection](#)

Ruth Rodriguez

Search history

Search 1: PN=(wo2013024013) (Results 1)

Search 2: [SP]: 1. process for the preparation of complexes of 68ga wherein the complexing reaction between a chelator-functionalized molecule and 68ga is carried out in a buffer formic acid/formate aqueous solution possibly in the presence of a compound capable of sequestering metal cations, wherein said compound able to sequester metal cations, if used, is added at the beginning of the complexing reaction. 2. process for the preparation of complexes of 68ga wherein the complexing reaction between a chelator-functionalized molecule and 68ga is carried out in a buffered aqueous solution in the presence of a sequestering agent. 3. a process according to claim 1 wherein said chelator-functionalized molecule is chosen in the group consisting of: dota and its derivatives, nota and its derivatives, pcta and its derivatives while said formate is sodium formate. 4. a process according to claim 1 wherein the ratio formic acid/formate in the labeling mixture is comprised between 1 and 3.5 5. a process according to claim 1 wherein said the sequestering agent is chosen in the group consisting of: glycine and other chelating aminoacids, crown ethers and nitrogen crown ethers, eterocyclic organic compound, calixarenes, polydentate chelator, natural chelating agents e.g. catechins, tannin, porphyrinin, linear or macrocyclic chelating agents. 6. a process according to claim 1 wherein the complexing reaction is carried out in a ph range between 3 and 4.5. 7. a process according to claim 6 wherein the reaction ph is more preferably comprised between 3.2 and 4.2. 8. a process according to claim 6 wherein the reaction ph is most preferably between 3.4 and 4.0. 9. process according to claim 1 wherein: a commercial generator of 68ga is eluted with an eluate containing an acid directly into a vial containing buffer formate and a base a chelator-functionalized molecule is added into the vial and the reaction vial is heated for a short time the product is collected. 10. process according to claim 1 wherein: a commercial generator of 68ga is eluted with an eluate containing an acid directly into a vial containing a chelator-functionalized molecule buffer formate and a base are added into the vial and the reaction vial is heated for a short time the product is collected. 11. process according to claim 7 wherein the acid eluate is an aqueous solution of hcl, while the base is an aqueous solution of naoh. 12. a reaction kit comprising: a vial containing the chelator-functionalized molecule and a compound capable of sequestering metal cations a vial or a syringe containing a suitable ultra-pure formic acid/sodium formate mixture. 13. a vial containing a chelator-functionalized molecule, a selected compound capable of sequestering metal cations and a suitable ultra-pure formic acid/sodium formate mixture 14. a reaction kit according to claim 11 and a vial according to claim 13 wherein said vials are siliconized vials. 15. complexes of 68ga, obtained by the process, according to claim 1, characterized in that they contain less than 10 mg/ml formate/formic acid and, if used, less than 100 nmols of sequestering agent. 16. a process according to claim 2 wherein said chelator-functionalized molecule is chosen from the group consisting of: dota and its derivatives, nota and its derivatives, pcta and its derivatives while said formate is sodium formate. 18. a process according to claim 2 wherein the ratio formic acid/formate in the labeling mixture is comprised between 1 and 3.5 (Results 4)

Search 3: TAC=((process OR preparation) AND 68GA complexes) and PN=(wo2013024013) and CPC=(A61K51/0482) (Results 0)

Search 4: TAC=((process OR preparation) AND 68GA complexes) and CPC=(A61K51/0482) (Results 0)

Search 5: TAC=(preparation AND 68GA) and CPC=(A61K51/0482) (Results 23)

Title: 1-substituted-1,4,7-trisubstituted-1,4,7,10-tetraazacyclododecane and analogs

Abstract: Source: US4885363A Metal-chelating ligands having the formula or a salt thereof, wherein Y is oxygen or R1 is hydrogen C1-C10 alkyl, aryl-(C1-C10)alkyl, aryl, C1 to C10 alkoxy, hydroxyalkyl with 1 to 10 carbon atoms wherein G is NH2, NCS, NHR4,N(R4)2,CN, wherein R4 is (C1-C10)alkyl or hydroxyalkyl, with 1 to 10 carbon atoms, wherein n and m are zero or an integer from one to five, R2 is hydrogen or C1 to C10 alkyl, R3 is hydrogen, hydroxyalkyl, with 1 to 10 carbon atoms, C1-C10 alkoxy, C1-C10 alkyl, aryl or aryl-(C1-C10)alkyl and X is chloro, bromo or iodo.

FDA Data:

Application numberActive ingredientProprietary nameApplicantDate of approval020131 GADOTERIDOL PROHANCE BRACCO
Nov 16, 1992021489 GADOTERIDOL PROHANCE MULTIPACK BRACCO Oct 9, 2003

Classifications:

International (IPC 8-9): A61K49/00 A61K49/04 A61K49/06 A61K51/00 A61K51/04 C07B31/00 C07B59/00 C07C67/00 C07D255/02 C07D257/00 C07D257/02 C07D273/00 C07D403/04 C07D403/06 C07D403/14 C07F11/00 C07F13/00 C07F15/02 C07F5/00 C07F9/94 (Advanced/Invention);

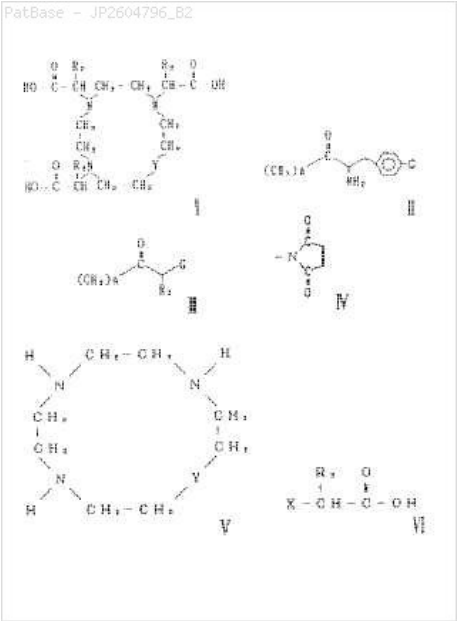
A61K49/00 A61K49/04 A61K49/06 A61K51/00 A61K51/02 C07D257/00 C07D273/00 C07F11/00 C07F13/00 C07F15/00 C07F5/00 C07F9/00 (Core/Invention)

International (IPC 1-7): A61B5/055 A61K43/00 A61K49/00 A61K49/02 A61K49/04 A61K51/00 C07B59/00 C07D255/02 C07D257/00 C07D257/02 C07D273/00 C07D403/04 C07D403/06 C07D403/10 C07D403/14 C07F11/00 C07F13/00 C07F15/02 C07F5/00 C07F9/94 G01N33/58

CPC: Y10S436/806 Y10S514/836 A61K49/06 A61K51/0476 A61K51/0482 C07B59/002 C07D257/00 C07D257/02 C07D273/00 C07F5/003 C07F9/94 C07F11/005 C07F13/005 C07F15/025 Y10T436/24

European: 124Z15 A61K49/06 A61K51/04 A61K51/04L12 A61K51/04L4 C07B59/00D C07D257/00 C07D257/02 C07D273/00 C07F11/00B C07F13/00B C07F15/02B C07F5/00B C07F9/94

US: 128/653.4 424/1.53 424/1.65 424/179.1 424/55 424/607 424/9.363 424/9.42 424/9.5 436/173 436/806 514/184 514/836 530/391.5 534/10 534/11 534/12 534/13 534/14 534/15 534/16 540/465 540/467 540/474 600/420 987/20



Family:

Publication number	Publication date	Application number	Application date
CA1296715 A1	19920303	CA19880562796	19880329
DE3772785 D1	19911017	DE19873772785	19870119
DE3855451 D1	19960905	DE19883855451	19880418
DE3855451 T2	19970109	DE19883855451T	19880418
EP0232751 A1	19870819	EP19870100635	19870119
EP0232751 B1	19910911	EP19870100635	19870119
EP0292689 A2	19881130	EP19880106139	19880418
EP0292689 A3	19910731	EP19880106139	19880418
EP0292689 B1	19960731	EP19880106139	19880418
JP1052764 A2	19890228	JP19880099263	19880421
JP2537502 B2	19960925	JP19870015037	19870122
JP2604796 B2	19970430	JP19880099263	19880421
JP62190175 A2	19870820	JP19870015037	19870122
JP64052764 A2	19890228	JP19880099263	19880421
MX174467 B	19940517	MX19920002168	19920511
US4885363 A	19891205	US19870137267	19871223
US5474756 A	19951212	US19940359960	19941220
US5674470 A	19971007	US19950469546	19950606
US5846519 A	19981208	US19950471591	19950606
US6143274 A	20001107	US19950469544	19950606

Priority:

US19860821725 19860123	US19870042416 19870424	US19940359960 19941220
US19890422176 19891016	US19870137267 19871223	CA19880562796 19880329
US19950469544 19950606	US19950469546 19950606	US19950471591 19950606

Probable Assignee: BRACCO DIAGNOSTICS INC

Assignee(s): (std): TWEEDLE MICHAEL F ; SQUIBB AND SONS INC ; BRACCO DIAGNOSTICS INC ; BRACCO INT BV

Assignee(s): BRACCO INTERNATIONAL B V ; BRACCO INTERNATIONAL B V AMSTERDAM NL ; GAUGHAN GLEN T ; HAGAN JAMES J ; E R SQUIBB AND SONS INC ; BURATSUKO INTERN BV ; E R SQUIBB AND SONS INC PRINCETON N J US ; SQUIBB E R AND SONS INC ; ER SQUIBB AND SONS INC

Inventor(s): (std): GUREN TEII GOOGIYAN ; JIEIMUSU JIEI HEIGAN ; MAIKERU EFU TOUIIDORU ; HAGAN JAMES J ; GUREN TEII GOOGAN ; TWEEDLE MICHAEL F ; HAGAN JAMES T ; GAUGHAN GLEN T

Inventor(s): MAIKERU EFU TOIIDORU ; JEIMUSU JEI HEIGAN ; HAGAN JAMES J HOLMDEL NEW JERSEY US ; GAUGHAN GLEN T WEST TRENTON NEW JERSEY US ; GAUGHAN GLEN T PRINCETON NEW JERSEY US ; TWEEDLE MICHAEL F HIGHTSTOWN NEW JERSEY US ; TWEEDLE MICHAEL F CHERRY HILL NEW JERSEY US

Designated states: BE CH DE FR GB IT LI LU NL SE

Abstract: Source: US5753627A Somatostatin peptides bearing at least one chelating group for a detectable element, said chelating group being linked to an amino group of said peptide, and said amino group having no significant binding affinity for somatostatin receptors, in free or salt form, are complexed with a detectable element and are useful as a pharmaceutical, e.g. a radiopharmaceutical for in vivo imaging of somatostatin receptor positive tumors or for therapy.

Application number	Active ingredient	Proprietary name	Applicant	Date of approval
020314	INDIUM IN-111 PENTETREOTIDE KIT			
OCTREOSCAN	MALLINCKRODT	Jun 2, 1994		

International (IPC-9): A61K38/00 A61K38/04 A61K38/31 A61K49/00 A61K51/00 A61K51/08 A61P35/00 A61P5/02 C07B59/00 C07K1/02 C07K1/06 C07K1/107 C07K1/113 C07K1/13 C07K14/575 C07K14/655 C07K7/06 C07K7/64 (Advanced/Invention); A61K38/00 A61K38/04 A61K49/00 A61K51/00 A61P35/00 (Advanced/Non-invention); A61K38/04 A61K49/00 A61K51/00 A61K51/02 A61P35/00 A61P5/00 C07B59/00 C07K1/00 C07K14/435 C07K7/00 (Core/Invention); A61K38/00 (Core/Non-invention); A61K C07K (Subclass/Invention)

CPC: A61K51/008 A61K38/00 A61K51/0478 A61K51/0482 A61K51/083 A61K2121/00 A61K2123/00 C07K14/6555

US: 424/1.37 514/11 514/11.1 514/16 514/19.3 530/304 530/311 530/317 530/324 530/328

[illegible]

Publication number	Publication date	Application number	Application date
AT403476 B	19980225	AT19890009017	19891130
AT901789 A	19970715	AT19890009017	19891130
AU198945871 A1	19900614	AU19890045871	19891204
AU633859 B2	19930211	AU19890045871	19891204
BE1002296 AF	19901120	BE19890001294	19891205
CA2004532 AA	19900605	CA19892004532	19891204
CA2004532 C	20000222	CA19892004532	19891204
CA2069154 AA	19921124	CA19922069154	19920521
CA2069154 C	20030107	CA19922069154	19920521
CH678329 A	19910830	CH19900002578	19891130
CY1893 A	19960830	CY19960001893	19960830
DE3991505 B4	20060420	DE19893991505	19891130
DE3991505 T	19901122	DE19893991505T	19891130
DE69231324 D1	20000914	DE19926031324	19920520
DE69231324 T2	20010118	DE19926031324T	19920520
DK175338 B1	20040830	DK19890006126	19891205
DK612689 A	19900606	DK19890006126	19891205
DK612689 A0	19891205	DK19890006126	19891205
EP0515313 A2	19921125	EP19920810381	19920520
EP0515313 A3	19940413	EP19920810381	19920520
EP0515313 B1	20000809	EP19920810381	19920520
ES2023533 AF	19920116	ES19890004151	19891205
FI101967 B	19980930	FI19940003306	19940711
FI102540 B	19981231	FI19890005809	19891204
FI985809 A0	19891204	FI19890005809	19891204
FI943306 A	19940711	FI19940003306	19940711
FI943306 A0	19940711	FI19940003306	19940711
FR2639947 A1	19900608	FR19890015993	19891204
FR2639947 B1	19950421	FR19890015993	19891204
GB2225579 A1	19900606	GB19890027255	19891201
GB2225579 B2	19930317	GB19890027255	19891201
GB8828364 A0	19890105	GB19880028364	19881205
GB8916115 A0	19890831	GB19890016115	19890713
GB8916761 A0	19890906	GB19890016761	19890721
GB8927255 A0	19900131	GB19890027255	19891201
GB9111199 A0	19910717	GB19910011199	19910523
GR1002475 B	19961126	GR19890100803	19891204
GR89100803 A	19940331	GR19890100803	19891204
HK189995 A	19951229	HK199500001899	19951221
HU211468 A9	19951128	HU19950000214P	19950615
HU211468 B3	19951128	HU19950000214P	19950615
HU53375 A2	19901028	HU19890006359	19891204
HU8906359 A0	19900228	HU19890006359	19891204
HU9500214 A3	19951128	HU19950000214P	19950615
IE62091 B	19941214	IE19890003866	19891204
IE893866 L	19900605	IE19890003866	19891204
IL92534 A1	19940624	IL19890092534	19891204
IT1239285 A	19931019	IT19890022642	19891206
IT8922642 A0	19891206	IT19890022642	19891206
JP10095737 A2	19980414	JP19970208915	19970804

JP2184698 A2	19900719	JP19890315124	19891204
JP2726320 B2	19980311	JP19890315124	19891204
JP3397338 B2	20030414	JP19920130676	19920522
JP3686503 B2	20050824	JP19970208915	19970804
JP5163297 A2	19930629	JP19920130676	19920522
KR0156541 B1	19981015	KR19890018033	19891204
LU87633 A	19910918	LU19890087633	19891205
NL194828 B	20021202	NL19890002981	19891204
NL194828 C	20030403	NL19890002981	19891204
NL8902981 A	19900702	NL19890002981	19891204
PL163432 B1	19940331	PL19890296879	19891204
PT92487 A	19900629	PT19890092487	19891204
PT92487 B	19960131	PT19890092487	19891204
SE508799 C2	19981109	SE19890004087	19891204
SE8904087 A	19910605	SE19890004087D	19891204
SE8904087 A0	19891204	SE19890004087	19891204
SE8904087 L	19910605	SE19890004087	19891204
US5753627 A	19980519	US19950470099	19950606
US5776894 A	19980707	US19950479052	19950606
WO9006949 A2	19900628	WO1989EP01448	19891130
WO9006949 A3	19900726	WO1989EP01448	19891130
ZA8909285 A	19910828	ZA19890009285	19891205

Priority:

GB19880028364 19881205	GB19890016115 19890713	FI19890005809 19891204
US19890445815 19891204	WO1989EP01448 19891130	GB19890016761 19890721
US19940328296 19941024	US19930034336 19930322	US19910709868 19910603
GB19910011199 19910523	JP19890315124 19891204	CA19892004532 19891204
CA19922069154 19920521	CA19922069154 19920521	US19950479052 19950606
US19950470099 19950606		

Probable Assignee: NOVARTIS SUCCESSOR TO SANDOZ LTD BY OPERATION OF SWISS LAW AG

Assignee(s): (std): NOVARTIS ERFINDUNGEN VERWALTUN ; NOVARTIS ERFINDE VERWALT GMBH ; NOVARTIS BASEL AG ; NOVARTIS NOVARTIS NOVART AG SA ; NOVARTIS AG ; SANDOZ SA ; PLESS JANOS ; SANDOZ LTD ; SANDOZ AG ; CIBA GEIGY AG ; KRENNING ERIC P ; LAMBERTS STEVEN W J ; SHEEHAN BRENDAN ; ALBERT RAINER

Assignee(s): BRENDAN SHEEHAN ; SANDOZ S A ; SANDOZ A G TE BASEL ZWITSERLAND ; SANDOZ AG CH ; SANDOZ ERFINDUNGEN VERWALTUNGSGESELLSCHAFT MBH ; LAMBERTS STEVEN WJ ; SANDOZ ERFINDUNGEN VERWALTUNGSGESELLSCHAFT M B H ; SANDOZ PATENT GMBH ; NOVAS NOVARTIS INC SA ; SANDOZ PATENT GMBH 7850 LOERRACH DE ; SANDOZ A G ; S A SANDOZ ; NOBARUTEISU AG ; NOVARTIS AG BASEL ; NOVARTIS ERFINDUNGEN VERWALTUNGSGESELLSCHAFT M B H ; NOVARTIS (SUCCESSOR TO SANDOZ LTD BY OPERATION OF ; NOVARTIS SUCCESSOR TO SANDOZ LTD BY OPERATION OF S ; NOVARTIS (SUCCESSOR TO SANDOZ LTD BY OPERATION OF SWISS LAW) AG ; NOVARTIS SUCCESSOR TO SANDOZ LTD BY OPERATION OF SWISS LAW AG

Inventor(s): (std): ERIC P KRENNING ; ERITSUKU PEE KURENINGU ; ERITSUKU POURU KURENINGU ; JANOS PLESS ; KRENNING ERIC ; KRENNING ERIC P ; KRENNING ERIC P DR ; ALBERT R ; ALBERT RAINER ; ALBERT RAINER DR ; KRENNING ERIC PAUL ; LAMBERT STEVEN W J ; LAMBERTS STEVEN W J ; LAMBERTS STEVEN W J PROF DR ; LAMBERTS STEVEN WILLEM ; PLESS JANOS ; PLESS JANOS DR ; RAINAA ARUBERUTO ; RAINER ALBERT ; RAINER ALBERT DR ; STEVEN W J LAMBERT ; SUTEFUAN BUEE IEE RANBERUTSU ; SUTEFUAN UIREMU YAN RANBERUTSU ; YANOSU PURESU

Inventor(s): SUTEFUAN UEE IEE RANBERUTSU ; STEVEN W J LAMBERTS ; STEVEN WJLAMBERT ; PLESS JANOS DR BASEL CH ; R ALBERT ; PLESS JANOS CH ; LAMBERTS STEVEN WJ ; LAMBERTS STEVEN WJ PROF DR ; LAMBERTS STEVEN W J PROF DR ROTTERDAM NL ; LAMBERTS STEVEN W J NL ; LAMBERTS STEVEN W ; ALBERT RAINER DR BASEL CH ; ALBERT RAINER CH ; KRENNING ERIC P DR JE CAPELLE NL ; KRENNING ERIC P NL

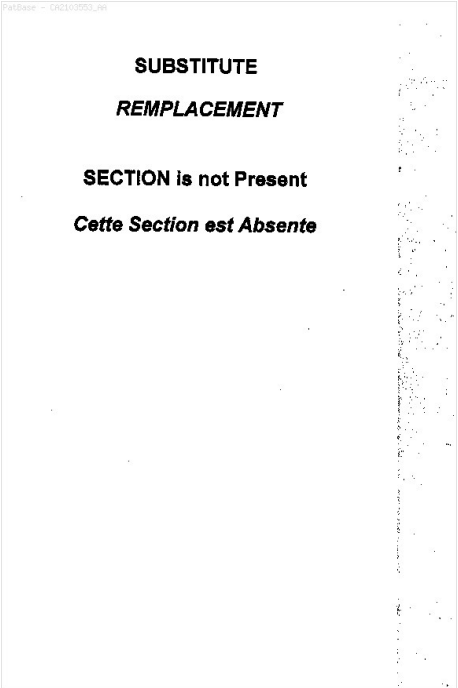
Designated states: AT BE CH DE FR GB IT LI NL

Title: Bicyclopolyazamacrocyclocarboxylic acid complexes their conjugates processes for their **preparation** and use as radiopharmaceuticals

Abstract: Source: ZA9209578A Complexes of bicyclopolyazamacrocyclocarboxylic acid compounds with a metal ion, e.g. Sm, Lu, Gd, Pm, La, Yb, Ho, Y, Sc, Re, Re, Pr, Tc, Ga, Ga, Rh, Ru, In, In or In ion, are disclosed. The complexes can be covalently attached to a biologically active molecule, e.g. an antibody or antibody fragment, to form conjugates. The complexes and conjugates are useful as radiopharmaceutical agents for therapy and/or diagnostic purposes. Processes to prepare the complex and conjugate are discussed.

Classifications:

International (IPC 8-9): A61K47/48 A61K51/04 A61K51/10 C07B59/00 C07D471/08 C07D487/08 C07F13/00 C07F15/00 C07F5/00 C07K1/13 C07K14/00 C07K16/00 C08B37/02 (Advanced/Invention); A61K51/02 C07B59/00 C07D471/00 C07D487/00 (Core/Invention)
International (IPC 1-7): A61K31/435 A61K43/00 A61K47/48 A61K49/00 A61K49/02 C07D221/00 C07D257/00 C07D471/06 C07D471/08 C07D487/06 C07D487/08 C07F11/00 C07F13/00 C07F15/00 C07F3/00 C07F5/00 C07F7/00 C07K1/13 C07K14/00 C07K16/00 C08B37/02
CPC: A61K51/0482 A61K51/1093 A61K2121/00 A61K2123/00 C07B59/004 C07D471/08 C07D487/08
European: A61K51/04 A61K51/04L12 A61K51/10Z C07B59/00F C07D471/08 C07D487/08 K61K121/00 K61K123/00



Family:

Publication number	Publication date	Application number	Application date
AU199332752 A1	19930719	AU19930032752	19921210
CA2103553 AA	19930806	CA19922103553	19921210
EP0575583 A1	19931229	EP19930901383	19930705
EP0575583 A4	19950215	EP19930901383	19930705
FI933508 A	19930831	FI19930003508	19930809
FI933508 A0	19930809	FI19930003508	19930809
HU9302308 A0	19931228	HU19930002308	19921210
IL104062 A0	19930513	IL19920104062	19921210
MX9207165 A1	19930601	MX19920007165	19921210
RU93054509 A	19961010	RU19930054509	19930809
WO9312112 A1	19930624	WO1992US10663	19921210
ZA9209578 A	19940610	ZA19920009578	19921210

Priority:

US19910805392 19911210 WO1992US10663 19921210

Probable Assignee: DOW CHEMICAL CO

Assignee(s): (std): DOW CHEMICAL CO

Assignee(s): DOW CHEMICAL COMPANY THE ; KIEFER GARRY E ; SIMON JAIME ; THE DOW CHEMICAL CO US ; THE DOW CHEMICAL COMPANY

Inventor(s): (std): KIEFER GARRY E ; SIMON JAIME

Inventor(s): SIMON JAIME US ; KIEFER GARRY E US ; GARRY E KIEFER ; JAIME SIMON

Designated states: AT AU BE BR CA CH DE DK ES FI FR GB GR HU IE IT JP KR LI LU MC NL PT RU SE UA

Title: Bicyclopolyazamacrocyclophosphonic acid complexes for use as radiopharmaceuticals

Abstract: Source: US5428139A Complexes of bicyclopolyazamacrocyclophosphonic acid compounds with a metal ion, e.g. 153Sm, 177Lu, 159Gd, 149Pm, 140La, 175Yb, 166Ho, 90Y, 47Sc, 186Re, 188Re, 142Pr, 99mTc, 67Ga, **68Ga**, 105Rh, 97Ru, 111In, 113mIn or 115mIn ion, are disclosed. The complexes can be covalently attached to a biologically active molecule, e.g. an antibody or antibody fragment, to form conjugates. The complexes and conjugates are useful as radiopharmaceutical agents for therapy and/or diagnostic purposes.

Classifications:

International (IPC 8-9): A61K47/48 A61K51/00 A61K51/04 A61K51/10 C07B59/00 C07F13/00 C07F15/00 C07F5/00 C07F9/547 C07F9/6561 C07K1/13 C07K14/00 C07K16/00 C08B37/02 (Advanced/Invention); A61K51/00 C07F5/00 (Advanced/Non-invention); A61K51/00 A61K51/02 C07B59/00 C07F13/00 C07F5/00 C07F9/00 (Core/Invention)

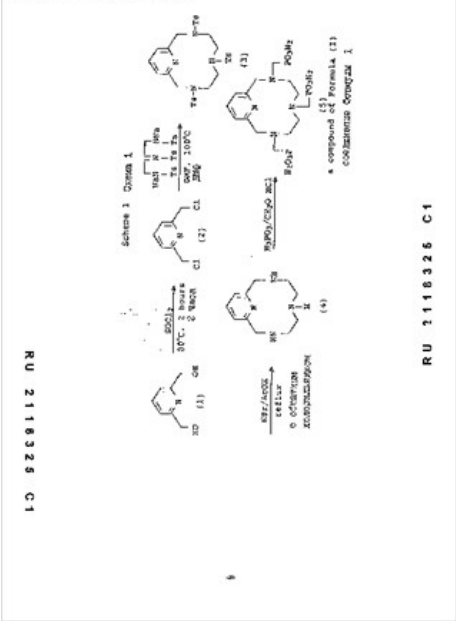
International (IPC 1-7): A61K A61K31/66 A61K43/00 A61K47/48 A61K49/00 A61K49/02 A61K51/00 A61K51/04 C07F13/00 C07F15/00 C07F19/00 C07F5/00 C07F9/38 C07F9/547 C07F9/656 C07F9/6561 C07H17/04 C07K1/13 C07K14/00 C07K15/00 C07K16/00 C08B37/02

CPC: A61K51/0482 A61K51/0489 A61K51/1093 A61K2121/00 A61K2123/00 C07B59/004 C07F9/6561 C07F13/005

European: A61K51/04L12 A61K51/04P A61K51/10Z C07B59/00F C07F13/00B C07F9/6561 K61K121/00 K61K123/00

US: 534/10 534/14

PatBase - RU2118325_C1



Family:

Publication number	Publication date	Application number	Application date
AT174224 E	19981215	AT19920900998T	19921210
AU199332466 A1	19930719	AU19930032466	19921210
AU663753 B2	19951019	AU19930032466	19921210
CA2103555 AA	19930806	CA19922103555	19921210
DE69227828 D1	19990121	DE19926027828	19921210
DE69227828 T2	19990429	DE19926027828T	19921210
DK0570574 T3	19990816	DK19920900998T	19921210
EP0570574 A1	19931124	EP19930900998	19921210
EP0570574 B1	19981209	EP19930900998	19921210
ES2124780 T3	19990216	ES19930900998T	19921210
FI933509 A	19930831	FI19930003509	19930809
FI933509 A0	19930809	FI19930003509	19930809
GR3029318 T3	19990528	GR19990400404T	19990210
HU66002 A2	19940829	HU19930002310	19921210
HU9302310 A0	19931228	HU19930002310	19921210
IL104061 A0	19930513	IL19920104061	19921210
IL104061 A1	19991130	IL19920104061	19921210
MX9207167 A1	19930701	MX19920007167	19921210
PH31049 A	19980203	PH19920045407	19921210
RU2118325 C1	19980827	RU19930052883	19921210
RU93052883 A	19970120	RU19930052883	19930809
US5428139 A	19950627	US19910806069	19911210
WO9311801 A1	19930624	WO1992US10664	19921210
ZA9209577 A	19940610	ZA19920009577	19921210

Priority:

US19910806069 19911210 WO1992US10664 19921210

Probable Assignee: DOW CHEMICAL CO

Assignee(s): (std): DOW CHEMICAL CO

Assignee(s): DOW CHEMICAL COMPANY THE ; DOW GLOBAL TECHNOLOGIES INC ; DZE DAU KEMIKAL KOMPANI ; KIEFER GARRY E ; THE DOW CHEMICAL COMPANY ; THE DOW CHEMICAL CO US ; THE DOW CHEMICAL CO MIDLAND MICH US ; SIMON JAIME

Inventor(s): (std): SIMON JAIME ; KIEFER GARY E ; KIEFER GARRY E ; KIEFER GARRY ; GEHRRI E KIFER ; DZHEJM SAJMON

Inventor(s): GARRY E KIEFER ; JAIME SIMON ; GEHRRI E.KIFER ; SIMON JAIME ANGLETON TX 77515 US ; KIEFER GARRY E US ; KIEFER GARRY E LAKE JACKSON TX 77566 US

Designated states: AT AU BE BR CA CH DE DK ES FI FR GB GR HU IE IT JP KR LI LU MC NL PT RU SE UA

This family is part of an extended family. Please click here to view the extended family.

Title: Radiolabeled platelet GPIIb/IIIa receptor antagonists as imaging agents for the diagnosis of thromboembolic disorders

Abstract: Source: US5879657A This invention provides novel radiopharmaceuticals that are radiolabeled cyclic compounds containing carbocyclic or heterocyclic ring systems which act as antagonists of the platelet glycoprotein IIb/IIIa complex; to methods of using said radiopharmaceuticals as imaging agents for the diagnosis of arterial and venous thrombi; to novel reagents for the **preparation** of said radiopharmaceuticals; and to kits comprising said reagents.

Classifications:

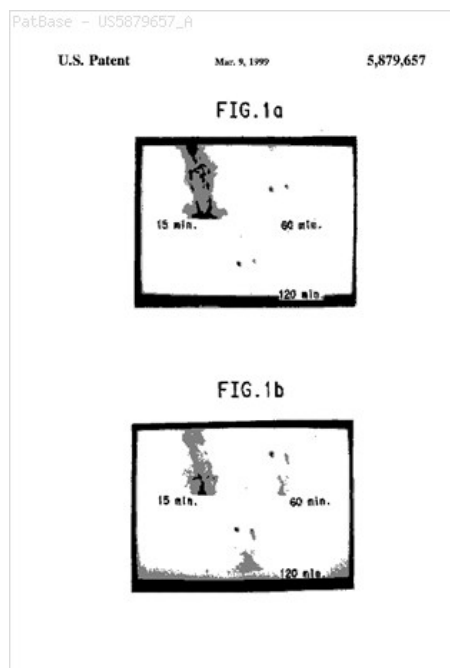
International (IPC 8-9): A61K38/12 A61K49/04 A61K51/00 A61K51/04 A61K51/08 C07B59/00 C07D213/81 C07D213/82 C07D257/00 C07D259/00 C07D277/60 C07D401/00 C07D401/12 C07D401/14 C07D413/12 C07K14/75 C07K17/02 C07K5/10 C07K5/103 C07K7/56 C07K7/64 (Advanced/Invention); A61K38/12 A61K49/04 A61K51/00 C07D259/00 C07K14/75 (Advanced/Non-invention)

International (IPC 1-7): A61K103/00 A61K103/10 A61K103/20 A61K12 A61K123/00 A61K49/02 A61K51/00 A61K51/04 A61K51/08 A61M36/14 C07B59/00 C07F13/00 C07K1/13 C07K17/02 C07K5/08 C07K5/10 C07K7/56 C07K7/64 G01N23/02 G01N23/04

CPC: A61K51/082 C07K14/75 A61K51/04 A61K51/0482 A61K51/088 A61K2123/00 C07B59/008 C07D213/82 C07D401/12 C07D401/14

European: A61K51/04 A61K51/04L12 A61K51/08Z C07B59/00K C07D213/82 C07D401/12 C07D401/14 C07K14/75 K61K123/00 M07K203/00

US: 424/1.11 424/1.65 424/1.69 424/9.1



Family:

Publication number	Publication date	Application number	Application date
AU199534525 A1	19960321	AU19950034525	19951030
AU689643 B2	19980402	AU19950034525	19951030
CA2159445 AA	19950928	CA19942159445	19940329
CN1122577 A	19960515	CN19941092010	19940329
ES2149266 T3	20001101	ES19940912870T	19940329
HU72889 A2	19960628	HU19950002862	19940329
HU9502862 A0	19951128	HU19950002862	19940329
IL109158 A0	19941007	IL19940109158	19940329
NZ263970 A	19960925	NZ19940263970	19940329
PL178252 B1	20000331	PL19940311037	19940329
PL311037 A1	19960122	PL19940311037	19940329
PT692982 T	20001130	PT19940912870T	19940329
US5879657 A	19990309	US19940218861	19940328
WO9422494 A1	19941013	WO1994US03256	19940329

Priority:

US19930040336 19930330 US19940218861 19940328 AU19940065248 19940329
WO1994US03256 19940329

Probable Assignee: LANTHEUS MEDICAL IMAGING INC

Assignee(s): (std): DU PONT PHARM CO ; DU PONT MERCK PHARMA

Assignee(s): DU PONT MERCK PHARMACEUTICAL CO ; DUPONT PHARMACEUTICALS CO ; ABLECO FINANCE LLC AS COLLATERAL AGENT ; ABLECO FINANCE LLC COLLATERAL AGENT AS ; ACP LANTERN ACQUISITION INC ; BARRETT JOHN ANDREW ; BRISTOL MYERS SQUIBB MEDICAL IMAGING INC ; BRISTOL MYERS SQUIBB PHARMA CO ; DUPONT MERCK PHARMACEUTICAL CO ; DU PONT MERCK PHARMACEUTICAL COMPANY ; DU PONT MERCK PHARMACEUTICAL COMPANY THE ; DUPONT PHARMACEUTICALS COMPANY ; DU PONT PHARMACEUTICALS CO ; EDWARDS DAVID SCOTT ; DEGRADO WILLIAM FRANK ; HARRIS THOMAS DAVID ; THE DUPONT MERCK PHARMACEUTICAL COMPANY ; THE DU PONT MERCK PHARMACEUTICAL COMPANY ; LANTHEUS MEDICAL IMAGING INC ; LIU SHUANG ; SWORIN MICHAEL ; MOUSA SHAKER AHMED ; RAJOPADHYE MILIND

Inventor(s): (std): DEGRADO WILLIAM F ; DEGRADO WILLIAM FRANK ; EDWARDS DAVID S ; EDWARDS DAVID SCOTT ; EDWARDS SCOTT DAVID ; HARRIS THOMAS D ; HARRIS THOMAS DAVID ; LIU SHUANG ; LIU SHVANG ; MOUSA SHAKER A ; MOUSA SHAKER AHMED ; RAJOPADHYE MILIND ; SHUANG LIU ; SWORIN MICHAEL ; BARRETT JOHN A ; BARRETT JOHN ANDREW

Inventor(s): DAVID SCOTT EDWARDS ; THOMAS DAVID HARRIS ; WILLIAM FRANK DEGRADO ; SHAKER AHMED MOUSA ; MICHAEL SWORIN ; MILIND RAJOPADHYE ; JOHN ANDREW BARRETT

Designated states: AT AU BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CZ DE DK ES FI FR GA GB GE GN GR HU IE IT JP KG KP KR KZ LK LU LV MC MD MG ML MN MR MW NE NL NO NZ PL PT RO RU SD SE SI SK SN TD TG TJ TT UA UZ VN

This family is part of an extended family. Please click here to view the extended family.

Title: RADIO LABELED PLATELET GPIIb/IIIa RECEPTOR ANTAGONISTS AS IMAGING AGENTS FOR THE DIAGNOSIS OF THROMBOEMBOLIC DISORDERS

Abstract: Source: EP0692982A4 This invention provides novel reagents for the **preparation** of radiopharmaceuticals useful as imaging agents for the diagnosis of cardiovascular disorders, infection, inflammation and cancer, diagnostic kits comprising said reagents and intermediate compounds useful for the **preparation** of said reagents. The reagents are comprised of stable hydrazone modified biologically active molecules that react with gamma emitting radioisotopes to form radiopharmaceuticals that selectively localize at sites of disease and thus allow an image to be obtained of the loci using gamma scintigraphy.

Classifications:

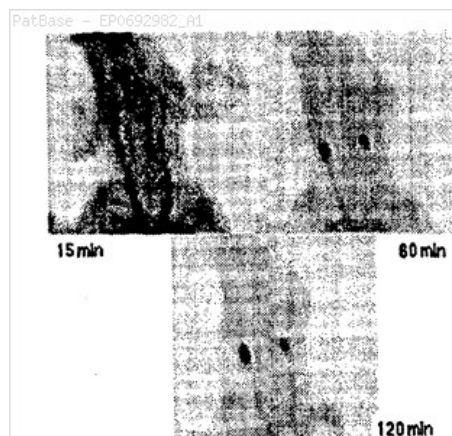
International (IPC 8-9): A61K38/12 A61K49/04 A61K51/00 A61K51/04 A61K51/08 C07B59/00 C07D213/82 C07D257/00 C07D259/00 C07D277/60 C07D401/00 C07D401/12 C07D401/14 C07D413/12 C07K14/75 C07K17/02 C07K5/10 C07K5/103 C07K7/64 (Advanced/Invention);

A61K38/12 A61K49/04 A61K51/00 C07D259/00 (Advanced/Non-invention)

International (IPC 1-7): A61K101/02 A61K103/10 A61K103/20 A61K123/00 A61K38/12 A61K49/02 A61K49/04 A61K51/00 A61K51/00 A61K51/04 A61K51/06 A61K51/08 A61K51/10 C07B59/00 C07D259/00 C07D401/12 C07D413/12 C07F13/00 C07K1/13 C07K105/00 C07K16/30 C07K17/02 C07K5/10 C07K5/103 C07K7/64 C07M7/00 C07M9/00

CPC: A61K51/082 C07K14/75 A61K51/04 A61K51/0482 A61K51/088 A61K2123/00 C07B59/008 C07D213/82 C07D401/12 C07D401/14

European: A61K51/04 A61K51/04112 A61K51/08Z C07B59/00K C07D213/82 C07D401/12 C07D401/14 C07K14/75 K61K123/00 M07K203/00



Family:

Publication number	Publication date	Application number	Application date
AT194293 E	20000715	AT19940912870T	19940329
AU199465248 A1	19941024	AU19940065248	19940329
BG100036 A	19961129	BG19950100036	19950929
BRPI9406055 A	19960910	BR1994PI06055	19940329
BRPI9406820 A	19960910	BR1994PI06820	19940329
DE69425138 D1	20000810	DE19946025138	19940329
DE69425138 T2	20010301	DE19946025138T	19940329
DK0692982 T3	20001023	DK19940912870T	19940329
EP0692982 A1	19960124	EP19940912870	19940329
EP0692982 A4	19980311	EP19940912870	19940329
EP0692982 B1	20000705	EP19940912870	19940329
FI954655 A	19951102	FI19950004655	19950929
FI954655 A0	19950929	FI19950004655	19950929
GR3034272 T3	20001229	GR20000401959T	20000830
JP3042887 B2	20000522	JP19940522205T	19940329
JP8509710 T2	19961015	JP19940522205T	19940329
KR19960701666 A	19960328	KR19950704228	19950929
LV11106 A	19960420	LV19950000296	19951027
LV11106 B	19970420	LV19950000296	19951027
NO307568 B1	20000425	NO19950003886	19950929
NO953886 A	19951130	NO19950003886	19950929
NO953886 A0	19950929	NO19950003886	19950929
RU2145608 C1	20000220	RU19950118183	19940329
RU95118183 A	19971020	RU19950118183	19951030
VN1203 A1	20000525	VN19950001460	19951030

Priority:

US19930040336 19930330 US19940218861 19940328 WO1994US03256 19940329

Probable Assignee: DU PONT MERCK PHARMA

Assignee(s): (std): DU PONT PHARM CO ; DU PONT MERCK PHARMA ; E I DJU PON MERK FARMATS JUTIK ; THE DU PONT MERCK PHARMACEUTICAL COMPANY

Assignee(s): E I DJU PON MERK FARMATS JUTIKAL KOMPANI ; E.I.DJU PON MERK FARMATS'JUTIKAL KOMPANI ; THE DU PONT MERCK PHARMACEUTICAL CO ; DU PONT MERCK PHARMACEUTICAL CO ; DU PONT MERCK PHARMACEUTICAL CO THE ; DUPONT PHARMACEUTICALS CO ; DUPONT PHARMACEUTICALS CO WILMINGTON ; DUPONT PHARMACEUTICALS COMPANY ; EIDJU PON MERK FARMATS JUTIKAL KOMPANI

Inventor(s): (std): SORIN MAJKL ; WILLIAM FRANK DEGRADO ; THOMAS DAVID HARRIS ; SHUANG LIU ; MOUSA SHALER AHMED ; MILIND RAJOPADHYE ; MICHAEL SWORIN ; JOHN ANDREW BARRETT ; DAVID SCOTT EDWARDS ; SWORIN MICHAEL ; RAJOPADHYE MILIND ; MOUSA SHAKER AHMED ; MOUSA SHAEKR A ; LIU SHUANG ; HARRIS THOMAS DAVID ; HARRIS THOMAS D ; EDWARDS DAVID SCOTT ; EDWARDS DAVID S ; DEGRADO WILLIAM FRANK ; DEGRADO WILLIAM F ; BARRETT JOHN ANDREW ; BARRETT JOHN A ; SHAKER AHMED MOUSA ; GRADO FRANK WILLIAM DE ; EDWARDS DEHVID SKOTT ; KHARRIS TOMAS DEHVID ; L JU SHUANG ; BARRET DZHON EHNDJRU ; DE GRADO UILL JAM FREHNK ; MAUSA SHAKER AMED ; RADZHOPAD E MAJLIND ; BARRETT ANDREW JOHN

Inventor(s): RADZHOPAD'E MAJLIND ; DE GRADO UILL'JAM FREHNK ; L'JU SHUANG ; DE GRADO WILLIAM FRANK

Designated states: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

Title: BICYCLOPOLYAZAMACROCYCLOPHOSPHONIC ACID COMPLEXES, A PROCESS FOR THEIR **PREPARATION**, AND THEIR CONJUGATES, FOR USE AS RADIOPHARMACEUTICALS

Abstract: Complexes of bicyclopolyazamacrocyclophosphonic acid compounds with a metal ion, e.g. <153>Sm, <177>Lu, <159>Gd, <149>Pm, <140>La, <175>Yb, <166>Ho, <90>Y, <47>Sc, <186>Re, <188>Re, <142>Pr, <99m>Tc, <67>Ga, <68>Ga, <105>Rh, <97>Ru, <111>In, <113m>In or <115m>In ion, are disclosed. The complexes can be covalently attached to a biologically active molecule, e.g. an antibody or antibody fragment, to form conjugates. The complexes and conjugates are useful as radiopharmaceutical agents for therapy and/or diagnostic purposes. Processes for preparing the complex and conjugate are discussed.

Classifications:
International (IPC 8-9): A61K51/04 A61K51/10 C07F9/6561 (Advanced/Invention);
A61K51/02 C07F9/00 (Core/Invention)
International (IPC 1-7): A61K43/00 A61K47/48 A61K49/02 C07B59/00 C07F15/00 C07F9/6561
CPC: A61K51/0482 A61K51/1093 A61K2121/00 A61K2123/00 C07F9/6561
European: A61K51/04 A61K51/04L12 A61K51/10Z C07F9/6561 K61K121/00 K61K123/00

Family:

Publication number	Publication date	Application number	Application date
AU199342398 A1	19941212	AU19930042398	19930506
WO9426755 A1	19941124	WO1993US04356	19930506

Priority:
WO1993US04356 19930506

Probable Assignee: DOW CHEMICAL CO

Assignee(s): (std): DOW CHEMICAL CO

Assignee(s): THE DOW CHEMICAL COMPANY

Inventor(s): (std): KIEFER GARRY E ; SIMON JAIME

Inventor(s): GARRY E KIEFER ; JAIME SIMON

Designated states: AT AU BE BR CA CH DE DK ES FI FR GB GR HU IE IT JP KR LU MC NL PT RU SE UA

Title: BICYCLOPOLYAZAMACROCYCLOCARBOXYLIC ACID COMPLEXES, THEIR CONJUGATES, PROCESSES FOR THEIR **PREPARATION**, AND USE AS RADIOPHARMACEUTICALS

Abstract: Complexes of bicyclopolyazamacrocyclocarboxylic acid compounds with a metal ion, e.g. <153>Sm, <177>Lu, <159>Gd, <149>Pm, <140>La, <175>Yb, <166>Ho, <90>Y, <47>Sc, <186>Re, <188>Re, <142>Pr, <99m>Tc, <67>Ga, <68>Ga, <105>Rh, <97>Ru, <111>In, <113m>In or <115m>In ion, are disclosed. The complexes can be covalently attached to a biologically active molecule, e.g. an antibody or antibody fragment, to form conjugates. The complexes and conjugates are useful as radiopharmaceutical agents for therapy and/or diagnostic purposes. Processes to prepare the complex and conjugate are discussed.

Classifications:
International (IPC 8-9): A61K51/04 A61K51/10 (Advanced/Invention);
A61K51/02 (Core/Invention)
International (IPC 1-7): A61K43/00 A61K49/02
CPC: A61K51/0482 A61K51/1093 A61K2121/00 A61K2123/00
European: A61K51/04 A61K51/04L12 A61K51/10Z K61K121/00 K61K123/00

Family:

Publication number	Publication date	Application number	Application date
AU199342374 A1	19941212	AU19930042374	19930506
WO9426315 A1	19941124	WO1993US04311	19930506

Priority:
WO1993US04311 19930506

Probable Assignee: DOW CHEMICAL CO

Assignee(s): (std): DOW CHEMICAL CO

Assignee(s): THE DOW CHEMICAL COMPANY

Inventor(s): (std): KIEFER GARRY E ; SIMON JAIME

Inventor(s): GARRY E KIEFER ; JAIME SIMON

Designated states: AT AU BE BR CA CH DE DK ES FI FR GB GR HU IE IT JP KR LU MC NL PT RU SE UA

Title: Polychelants, their complexes with metal ions, their **preparation** and their uses

Abstract: Source: US6719958B A new class of polychelants, their chelates with metal ions and their physiologically acceptable salts, useful, either as they are or in association or formulation with other components, for diagnostic imaging as general or specific contrast agents for specific tissues, organs or body compartments.

Classifications:
International (IPC 8-9): A61K49/00 A61K49/06 A61K49/08 A61K51/00 A61K51/04 A61K51/08 C07C229/16 C07C229/76 C07C237/04 C07D257/02 C07F5/00 (Advanced/Invention); A61K49/00 A61K51/00 C07F5/00 (Advanced/Non-invention)
International (IPC 1-7): A61K31/33 A61K49/00 A61K49/12 A61K51/00 C07C229/16 C07C229/76 C07C237/04 C07D257/00 C07D257/02 C07F5/00
CPC: A61K49/06 A61K49/085 A61K49/122 A61K49/124 A61K49/14 A61K49/146 A61K51/0478 A61K51/0482 A61K51/088 A61K2123/00 C07C229/16 C07C229/76 C07D257/02
European: A61K49/06 A61K49/08Z A61K49/12D A61K49/12H A61K49/14 A61K49/14T A61K51/04 A61K51/04L12 A61K51/04L8 A61K51/08Z C07C229/16 C07C229/76 C07D257/02 K61K123/00
US: 424/9.363 514/183 514/184 534/15 534/16 540/465 540/474

Family:

Publication number	Publication date	Application number	Application date
AU199720946 A1	19970922	AU19970020946	19970303
EP0885202 A1	19981223	EP19970906153	19970303
EP1151997 A1	20011107	EP20010118591	19970303
IT1283218 B1	19980416	IT1996MI00458	19960308
ITMI960458 A0	19960308	IT1996MI00458	19960308
ITMI960458 A1	19970908	IT1996MI00458	19960308
JP2000506152 T2	20000523	JP19970531441T	19970303
US6719958 BA	20040413	US20000659593	20000911
WO9732862 A1	19970912	WO1997EP01048	19970303
ZA9701995 A	19980623	ZA19970001995	19970307

Priority:
IT1996MI00458 19960308 EP19970906153 19970303 WO1997EP01048 19970303

Probable Assignee: DIBRA SPA

Assignee(s): (std): BRACCO IMAGING SPA ; BRACCO SPA ; DIBRA SPA ; GOZZINI LUIGIA ; MAISANO FEDERICO ; MURRU MARCELLA

Assignee(s): DIBRA S P A ; BRACCO S P A ; BRACCO IMAGING S P A

Inventor(s): (std): GOZZINI LUIGIA ; MAISANO FEDERICO ; MAISANO FREDRICO ; MURRU MARCELLA

Inventor(s): MARCELLA MURRU ; LUIGIA GOZZINI ; FREDRICO MAISANO ; FEDERICO MAISANO

Designated states: AL AM AT AU AZ BA BB BE BF BG BR BY CA CH CN CU CZ DE DK EE ES FI FR GB GE GH GR HU IE IL IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MC MD MG MK MN MW MX NL NO NZ PL PT RO RU SD SE SG SI SK SZ TJ TM TR TT UA UG US UZ VN YU

Title: CONTRAST MEDIA FOR INFARCTION AND NECROSIS IMAGING

Abstract: Source: US6083479A The invention relates to new compounds that are suitable as contrast media especially for infarction and necrosis imaging, process for their production and pharmaceutical agents that contain these compounds.

Classifications:

International (IPC 8-9): A61K49/00 A61K49/06 A61K51/00 A61K51/04 C07B59/00 C07D257/02 (Advanced/Invention); A61K51/00 (Advanced/Non-invention); A61K49/00 A61K49/06 A61K51/00 A61K51/02 C07B59/00 C07D257/00 (Core/Invention)

International (IPC 1-7): A61B5/055 A61B6/00 A61K49/00 A61K49/04 A61K51/00 A61K51/04 A61K51/06 C07B59/00 C07D257/02 C07D259/00

CPC: Y10S514/836 A61K51/0478 A61K49/103 A61K49/106 A61K51/0482 C07B59/004 C07D257/02

European: A61K49/10C4 A61K49/10C8 A61K51/04 A61K51/04L12 A61K51/04L8 C07B59/00F C07D257/02

US: 424/1.65 424/9.363 424/9.42 514/184 514/836 534/16 540/465 540/474

PatBase - US6083479_A

U.S. Patent Jul. 4, 2000 Sheet 1 of 3 6,083,479



FIG. 1A



FIG. 1B

Family:

Publication number	Publication date	Application number	Application date
AT228116 E	20021215	AT19980946346T	19980817
AU199893428 A1	19990423	AU19980093428	19980817
CA2304458 AA	20000324	CA19982304458	19980817
DE19744003 A1	19990715	DE19971044003	19970926
DE19744003 B4	20040708	DE19971044003	19970926
DE59806371 D1	20030102	DE19985006371	19980817
DK1017684 T3	20030303	DK19980946346T	19980817
EP1017684 A1	20000712	EP19980946346	19980817
EP1017684 B1	20021120	EP19980946346	19980817
ES2188011 T3	20030616	ES19980946346T	19980817
JP2001518471 T2	20011016	JP20000513843T	19980817
NO20001556 A	20000523	NO20000001556	20000324
NO20001556 A0	20000324	NO20000001556	20000324
NO315514 B1	20030915	NO20000001556	20000324
PT1017684 T	20030331	PT19980946346T	19980817
US6083479 A	20000704	US19980157959	19980922
WO9916757 A1	19990408	WO1998EP05184	19980817

Priority:

DE19971044003 19970926 DE19985006371 19980817 WO1998EP05184 19980817

Probable Assignee: BAYER SCHERING PHARMA AG

Assignee(s): (std): SCHERING AG

Assignee(s): SCHERING AKTIENGESellschaft ; SCHERING AG 13353 BERLIN DE ; RADUCHEL BERND ; WEINMANN HANNS JOACHIM ; SCHERING 13353 BERLIN DE AG ; BAYER SCHERING PHARMA AG ; EBERT WOLFGANG ; NIEDBALLA ULRICH ; PLATZEK JOHANNES

Inventor(s): (std): NIEDBALLA ULRICH ; NIEDBALLA ULRICH DR ; PLATZEK JOHANNES ; PLATZEK JOHANNES DR ; RADUCHEL BERND ; RADUCHEL BERND DR ; RADUCHEL BERND ; RADUCHEL BERND DR ; EBEERT WOLFGANG ; EBERT WOLFGANG ; EBERT WOLFGANG DR ; WEINMANN HANNS JOACHIM ; WEINMANN HANNS JOACHIM DR ; WEINMANN HANS JOACHIM

Inventor(s): WOLFGANG EBEERT ; WOLFGANG EBERT ; HANNS JOACHIM WEINMANN ; JOHANNES PLATZEK ; ULRICH NIEDBALLA ; BERND RADUCHEL ; BERND RADUCHEL DR ; DR JOHANNES PLATZEK

Designated states: AL AM AT AU AZ BA BB BE BG BR BY CA CH CN CU CY CZ DE DK EE ES FI FR GB GE GH GM GR HR HU ID IE IL IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MC MD MG MK MN MW MX NL NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW

Title: Macrocylic chelants for metallopharmaceuticals

Abstract: Source: US2002004032A This invention relates to new macrocyclic chelants and metal chelates thereof, methods of preparing the chelants and metal chelates, and pharmaceutical compositions comprising the macrocyclic chelants and metal chelates. This invention relates particularly to the use of the new metal chelates as contrast agents in X-ray or CT, MRI imaging, and radiopharmaceuticals for the diagnosis of cardiovascular disorders, infectious disease and cancer. This invention also relates to new bifunctional chelants (BFCs) for attaching diagnostic metals and therapeutic isotopes to target-specific biomolecules such as proteins, peptides, peptidomimetics, and non-peptide receptor ligands. In addition, the macrocyclic chelants are useful for heavy metal detoxification.

Classifications:
International (IPC 8-9): A61K51/04 A61P29/00 A61P35/00 C07B59/00 C07D401/06 C07D403/06 C07F13/00 C07F5/00 (Advanced/Invention)
International (IPC 1-7): A61K49/12 A61K51/00 A61K51/04 A61K51/12 A61M36/14 A61P29/00 A61P35/00 C07D257/02 C07D401/06 C07F5/00
CPC: A61K51/0482 C07B59/002 C07B2200/05 C07D401/06 C07D403/06 C07F5/003 C07F13/005
European: A61K51/04 A61K51/04L12 C07B59/00D C07D401/06 C07D403/06 C07F13/00B C07F5/00B M07B200/05
US: 424/1.11 424/1.53 424/1.65 424/9.1 424/9.363 424/9.363P 534/10 534/14 534/15 540/474 540/474S

Family:

Publication number	Publication date	Application number	Application date
AU2001251441 AA	20011023	AU20010251441	20010406
AU200151441 A5	20011023	AU20010051441	20010406
US2002004032 AA	20020110	US20010826549	20010405
US6565828 BB	20030520	US20010826549	20010405
WO0177102 A1	20011018	WO2001US11388	20010406

Priority:
US20000195234P 20000407 US20010826549 20010405 WO2001US11388 20010406

Probable Assignee: LANTHEUS MEDICAL IMAGING INC

Assignee(s): (std): DU PONT PHARM CO ; SQUIBB BRISTOL MYERS CO

Assignee(s): PIASECKI AIRCRAFT CORP ; LANTHEUS MEDICAL IMAGING INC ; LIU SHUANG ; DU PONT PHARMACEUTICALS COMPANY ; DUPONT PHARMACEUTICALS CO ; DUPONT PHARMACEUTICALS COMPANY ; ABLECO FINANCE LLC AS COLLATERAL AGENT ; ABLECO FINANCE LLC COLLATERAL AGENT AS ; ACP LANTERN ACQUISITION INC ; BRISTOL MYERS SQUIBB COMPANY ; BRISTOL MYERS SQUIBB MEDICAL IMAGING INC ; BRISTOL MYERS SQUIBB PHARMA CO

Inventor(s): (std): LIU SHUANG

Inventor(s): SHUANG LIU

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CR CU CY CZ DE DK DM DZ EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Title: Ascorbic acid analogs for metalloradiopharmaceuticals

Abstract: Source: US2002122769A The invention relates to the use of ascorbic acid analogs as buffering reagents and chelating agents for the **preparation** of metalloradiopharmaceuticals. Also, invention relates to the use of ascorbic acid as a buffering reagent, a chelating agent, and a stabilizer for the **preparation** and stabilization of radiopharmaceuticals and processes for making and using the same.

Classifications:
International (IPC 8-9): A61K47/10 A61K47/22 A61K51/00 A61K51/04 A61K51/12 A61M36/14 C07K1/13 C07K14/435 C07K14/705 C07K16/00 C07K2/00 (Advanced/Invention); C07K14/435 (Core/Invention)
International (IPC 1-7): A61K31/375 A61K31/4015 A61K47/10 A61K47/22 A61K51/00 A61M36/14 C07K1/13 C07K14/435 C07K14/705 C07K16/00 C07K2/00
CPC: A61K51/04 A61K51/0482 A61K51/0491 A61K51/121
European: A61K51/04 A61K51/04H A61K51/04L12 A61K51/04R A61K51/12C A61K51/12D
US: 424/1.11 424/1.110P 424/1.65 424/9.1 424/91 514/424 514/424S 514/474 514/474S 514/690 514/690S 548/400 548/401 549/200 549/201

Family:

Publication number	Publication date	Application number	Application date
AU2002253999 AA	20020912	AU20020253999	20020222
BRPI0207315 A	20040210	BR2002PI07315	20020222
CA2438204 AA	20030812	CA20022438204	20020222
CN1503680 A	20040609	CN20028008718	20020222
CZ20032597 A3	20041215	CZ20030002597	20020222
EP1365813 A2	20031203	EP20020723206	20020222
EP1365813 A4	20060322	EP20020723206	20020222
HU0304083 AB	20040329	HU20030004083	20020222
IL157359 A0	20040219	IL20020157359	20020222
IN01279DN2003 A	20070803	IN2003DN01279	20030812
JP2004529884 T2	20040930	JP20020567231T	20020222
MXPA03007595 A1	20031204	MX2003PA07595	20030822
US2002122769 AA	20020905	US20020081258	20020222
US6713042 BB	20040330	US20020081258	20020222
WO02067859 A2	20020906	WO2002US05155	20020222
WO02067859 A3	20021128	WO2002US05155	20020222

Priority:
US20010271389 20010226 US20010271389P 20010226 US20020081258 20020222
WO2002US05155 20020222

Probable Assignee: LANTHEUS MEDICAL IMAGING INC

Assignee(s): (std): BRISTOL MYERS SQUIBB PHARMA CO

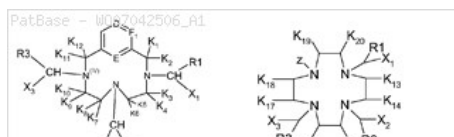
Assignee(s): BRISTOL MYERS SQUIBB PHARMA CO PRINCETON ; BRISTOL MYERS SQUIBB PHARMA COMPANY ; BRISTOL MYERS SQUIBB PHARMA COMPANY PRINCETON ; DUPONT PHARMACEUTICALS CO ; LANTHEUS MEDICAL IMAGING INC ; LIU SHUANG ; WORLDWISE INC ; ABLECO FINANCE LLC AS COLLATERAL AGENT ; ABLECO FINANCE LLC COLLATERAL AGENT AS ; ACP LANTERN ACQUISITION INC ; BRISTOL MYERS SQUIBB CO ; BRISTOL MYERS SQUIBB MEDICAL IMAGING INC

Inventor(s): (std): LIU S ; LIU SHUANG ; SHUANG LIU

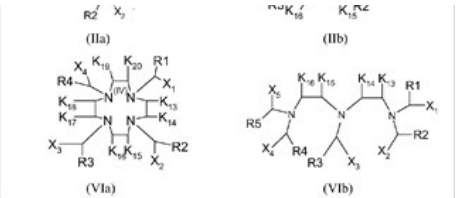
Inventor(s): S LIU

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW

Abstract: Source: US2009169479A The present invention relates to a compound of formula (II) chosen from (IIa) and (IIb) or of formula (VI) chosen from (VIa) and (VIb) of following general formulae:



C07D471/04 C07D471/08 C07D471/14 C07D475/04 C07D487/04 C07D498/04
C07D498/06 C07D513/04 C07D519/00 C07F15/00 C07F19/00 C07F5/00 C07J63/00
C07J9/00 C07K7/06 C12N15/63 G01N23/00 G01R33/28
G01T1/161 (Advanced/Invention);
A61K103/10 A61K103/20 A61K103/32 A61K103/34 A61K51/04 C07C211/05
C07D257/02 C07D487/04 C07F5/00 C07K7/06 (Advanced/Non-invention);
A61B5/055 A61K31/395 A61K31/439 A61K31/555 A61K49/00 A61K49/06 A61K51/00
A61K51/02 C07C211/00 C07D213/00 C07D255/00 C07D257/00 C07D401/00
C07D403/00 C07D409/00 C07D417/00 C07D459/00 C07D471/00 C07D487/00
C07D498/00 C07D519/00 C07F15/00 C07J63/00 C07J9/00 C12N15/63 G01R33/28
G01T1/00 (Core/Invention);
C07F5/00 C07K7/00 (Core/Non-invention)
CPC: A61K49/103 A61K49/106 A61K51/0402 A61K51/0478 A61K51/0482 C07D257/02 A61K49/10 A61K49/085 A61K49/14 A61K51/0497
A61K51/088 C07D471/08 A61K51/0459 C07D209/48 C07D239/95 C07D295/15 C07D487/04
European: A61K49/08Z A61K49/10C4 A61K49/10C8 A61K49/14 A61K51/04B A61K51/04G60M A61K51/04L12 A61K51/04L8
A61K51/04Z A61K51/08Z C07D209/48 C07D239/95 C07D257/02 C07D295/15 C07D471/08 C07D487/04
US: 424/1.11 424/1.65 424/1.650S 424/1.69 424/1.690P 424/9.1 424/9.3 424/9.300P 435/320.1 435/320.100S 436/57 436/57S 514/183
514/183S 514/184 514/184S 514/186 514/186S 514/300 514/300S 534/15 540/465 540/465S 540/472 540/472S 540/474 540/474S 600/420
600/420P 600/427 600/427S



Family:

Publication number	Publication date	Application number	Application date
BRPI0617151 A2	20110712	BR2006PI17151	20061009
CA2625196 AA	20080407	CA20062625196	20061009
CA2625207 AA	20080407	CA20062625207	20061009
CA2625207 C	20140513	CA20062625207	20061009
CN101305006 A	20081112	CN200680041615	20061009
CN101305006 B	20130424	CN200680041615	20061009
CN103224495 A	20130731	CN201310087412	20061009
CN103224495 B	20150715	CN201310087412	20061009
DK1931673 T3	20121008	DK20060807100T	20061009
EP1931673 A1	20080618	EP20060807100	20061009
EP1931673 B1	20120829	EP20060807100	20061009
EP1940841 A2	20080709	EP20060807097	20061009
EP2457914 A1	20120530	EP20120153144	20061009
EP2457914 B1	20140806	EP20120153144	20061009
ES2390092 T3	20121106	ES20060807100T	20061009
ES2519369 T3	20141106	ES20120153144T	20061009
FR2891830 A1	20070413	FR20050010289	20051007
FR2891830 B1	20110624	FR20050010289	20051007
FR2899585 A1	20071012	FR20060002975	20060405
FR2899585 B1	20120615	FR20060002975	20060405
JP2009513574 T2	20090402	JP20080534029T	20061009
JP2009519209 T2	20090514	JP20080534028T	20061009
JP2013189454 A2	20130926	JP20130107700	20130522
JP2013209400 A2	20131010	JP20130105720	20130520
JP5317270 B2	20131016	JP20080534029T	20061009
JP5368099 B2	20131218	JP20080534028T	20061009
JP5706926 B2	20150422	JP20130107700	20130522
JP5731572 B2	20150610	JP20130105720	20130520
KR101440761 B1	20140917	KR20147009046	20061009
KR20080080495 A	20080904	KR20087010991	20080507
KR20140060565 A	20140520	KR20147009046	20061009
PL1931673 T3	20121130	PL20060807100T	20061009
PT1931673 T	20120924	PT20060807100T	20061009
US2009169479 AA	20090702	US20060083092	20061009
US2011092806 AA	20110421	US20060083269	20061009
US2012064003 AA	20120315	US20110205352	20110808
US8114863 BB	20120214	US20060083092	20061009
US8926945 BB	20150106	US20060083269	20061009
US8986650 BB	20150324	US20110205352	20110808
WO07042504 A2	20070419	WO2006EP67211	20061009
WO07042504 A3	20080228	WO2006EP67211	20061009
WO07042506 A1	20070419	WO2006EP67214	20061009

Priority:

FR20050010289	20051007	US20050734756P	20051109	FR20060002975	20060405
WO2006EP67214	20061009	WO2006EP67211	20061009	US20060083092	20061009
US20080083269	20080407	US20110205352	20110808	EP20060807100	20061009
JP20080534028	20061009	JP20080534029	20061009	CN200680041615	20061009

Probable Assignee: GUERBET SA

Assignee(s): (std): COROT CLAIRE ; GAUTHERET THIERRY ; GUERBET SA ; PORT MARC ; GUERBET

Assignee(s): GUERBET SOC ANONYME ; GUERBET SOCIETE ANONYME ; GUERBET

Inventor(s): (std): PORT MARC ; GAUTHERET THIERRY ; COROT CLAIRE ; MARC PORT

Agent(s): WARCOIN JACQUES ET AL; FAIVRE PETIT FREDERIQUE; AHNER FRANCIS ET AL; AHNER FRANCIS; REGIMBEAU; BIRCH STEWART KOLASCH AND BIRCH; BIRCH STEWART KOLASCH AND BIRCH LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GO GR GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: COMPOSITIONS AND METHODS FOR CELLULAR IMAGING AND THERAPY

Abstract: Source: US2007248537A The present invention relates generally to the fields of chemistry and radionuclide imaging. More particularly, it concerns compositions, kits and methods for imaging and therapy involving N₄ compounds and derivatives.

Classifications:
International (IPC 8-9): A61B5/055 A61K31/395 A61K31/7052 A61K45/00 A61K47/48 A61K49/00 A61K49/10 A61K51/00 A61K51/04 A61P35/00 C07D257/02 C07F13/00 C07F5/00 C07F9/6524 C07H19/04 C07K16/46 (Advanced/Invention); C07D257/02 C07F13/00 (Advanced/Non-invention); A61B5/055 A61K31/395 A61K31/7042 A61K45/00 A61K49/06 A61K51/00 A61K51/02 A61P35/00 C07D257/00 C07F13/00 C07F5/00 C07F9/00 C07H19/00 C07K16/46 (Core/Invention); A61K C07F (Subclass/Invention)
International (IPC 1-7): C07F13/00
CPC: C07F13/005 A61K51/04 A61K51/0406 A61K51/0482 A61K51/0491 A61K51/0493 A61K51/0497 A61K47/48076 A61K51/0474
European: A61K51/04R C07F13/00B
US: 424/1.49 424/1.490 424/1.490P 424/1.69 424/9.34 424/9.340 424/9.340S 424/9.363 424/9.363S 530/391.1 530/391.100 530/391.100S 530/400 530/400S 534/16 534/16S 536/17.4 536/17.400 536/17.400S 536/25.32 536/25.320 536/25.320S 540/474 540/474S

PatBase - US2007248537_AA

Patent Application Publication Oct. 25, 2007 Sheet 1 of 29

US 2007/0248537 A1

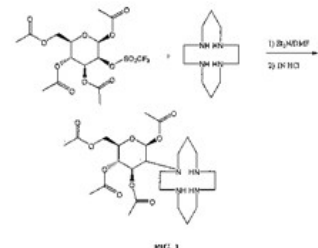


FIG. 1

Family:

Publication number	Publication date	Application number	Application date
AU2006342202 AA	20071025	AU20060342202	20060504
AU2006342202 BB	20130307	AU20060342202	20060504
AU2006342202 CA	20130926	AU20060342202	20060504
AU2007351789 AA	20081030	AU20070351789	20071024
AU2007351789 BB	20131024	AU20070351789	20071024
BRPI0621580 A2	20110510	BR2006PI21580	20060504
CA2649869 AA	20081020	CA20062649869	20060504
CA2649869 C	20141118	CA20062649869	20060504
CN101516899 A	20090826	CN200680055029	20060504
EP2013221 A1	20090114	EP20060769952	20060504
EP2013221 A4	20101215	EP20060769952	20060504
EP2013221 B1	20150624	EP20060769952	20060504
EP2146632 A1	20100127	EP20070868568	20071024
EP2146632 A4	20130320	EP20070868568	20071024
HK1123306 A3	20090612	HK20090101029	20090205
IL194826 A0	20090803	IL20080194826	20081022
IL194826 A1	20130829	IL20080194826	20081022
IN09620DN2008 A	20090327	IN2008DN09620	20081118
JP2009534381 T2	20090924	JP20090506472T	20060504
KR20090014164 A	20090206	KR20087028323	20081119
KR20140099557 A	20140812	KR20147020865	20060504
NO20084821 A	20090116	NO20080004821	20081118
US2007248537 AA	20071025	US20070737694	20070419
US8758723 BB	20140624	US20070737694	20070419
WO07120153 A1	20071025	WO2006US16784	20060504
WO08130439 A1	20081030	WO2007US82411	20071024

Priority:
US20060745148P 20060419 WO2006US16784 20060504 US20070737694 20070419
WO2007US82411 20071024

Probable Assignee: BOARD OF UNIV OF TEXAS SYSTEM

Assignee(s): (std): UNIV TEXAS ; OH CHANG SOK ; KOHANIM SAADY ; AZHDARINIA ALI ; YANG DAVID J ; YU TONY DONG FANG ; YU DONG FANG

Assignee(s): BOARD OF REGENTS THE UNIVERSITY OF TEXAS SYSTEM ; BOARD OF REGENTS UNIV OF TEXAS SYSTEM ; BOARD OF REGENTS UNIV TEXAS SYSTEM ; BOARD OF UNIV TEXAS SYSTEM ; BOARD OF UNIV ; BOARD OF UNIV OF TEXAS SYSTEM ; THE BOARD OF REGENTS OF THE UNIVERSITY OF TEXAS SYSTEM ; BOARD OF UNIV OF TEXAS SYSTEM201 WEST 7TH STREETAUSTINTX78701US

Inventor(s): (std): AZHDARINIA ALI ; KOHANIM SAADY ; OH CHANG SOK ; YANG DAVID J ; YU DONG FANG ; YU TONY DONG FANG ; SOK OH CHANG ; SAADY KOHANIM ; ALI AZHDARINIA

Inventor(s): OH CHANG ; DAVID J YANG ; CHANG SOK OH ; YANG DAVID ; TONY DONG FANG YU ; YU DONG FANGUS ; YANG DAVID JUS ; OH CHANG SOKUS ; KOHANIM SAADYUS ; AZHDARINIA ALIUS ; DONG FANG YU

Agent(s): DEHMEL ALBRECHT ; FULBRIGHT AND JAWORSKI LLP ; PARKER HIGHLANDER PLLC ; DE LA PAZ MONICA A

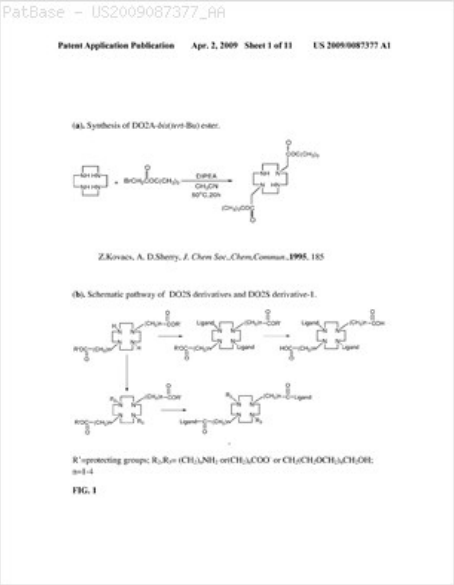
Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: COMPOSITIONS FOR TARGETED IMAGING AND THERAPY

Abstract: Source: US2009087377A The present invention relates to the field of radiochemistry, nuclear imaging, radionuclide therapy and chemical synthesis. More particularly, it concerns a strategy for radiolabeling target ligands. It further concerns methods of using those radiolabeled ligands for imaging, radionuclide therapy and tissue-specific disease imaging.

Classifications:

International (IPC 8-9): A61K103/00 A61K103/10 A61K103/20 A61K103/32 A61K103/34 A61K103/40 A61K31/395 A61K47/48 A61K49/00 A61K49/10 A61K51/02 A61K51/04 A61K51/08 A61K51/12 A61P35/00 (Advanced/Invention); A61K103/00 A61K103/10 A61K103/20 A61K103/32 A61K103/34 A61K103/40 A61P35/00 (Advanced/Non-invention); A61K47/48 A61K49/06 A61K51/02 (Core/Invention); A61K51/04 A61P35/00 (Core/Non-invention); A61K (Subclass/Invention)
CPC: A61K51/088 A61K51/0482 A61K51/0491 A61K51/0493 A61K51/0497 A61K51/08 A61K51/1244 A61K51/1248
European: A61K51/04L12 A61K51/04R A61K51/04S A61K51/04Z A61K51/08 A61K51/08Z A61K51/12H
US: 424/1.65 424/1.650P 424/9.364 424/9.364S 514/788 514/788S



Family:

Publication number	Publication date	Application number	Application date
AU2008230771 AA	20081002	AU20080230771	20080327
AU2008230771 BB	20140508	AU20080230771	20080327
BRPI0809442 A2	20140909	BR2008PI09442	20080327
CA2682064 AA	20090924	CA20082682064	20080327
CA2682064 C	20130924	CA20082682064	20080327
EP2155262 A2	20100224	EP20080732945	20080327
EP2155262 A4	20121219	EP20080732945	20080327
MX2009010412 A1	20100217	MX20090010412	20090925
TW200940098 A	20091001	TW20080112535	20080407
US2009087377 AA	20090402	US20080057066	20080327
WO08119036 A2	20081002	WO2008US58476	20080327
WO08119036 A3	20091230	WO2008US58476	20080327
ZA200907492 A	20100825	ZA20090007492	20091026

Priority:
US20070908332P 20070327 US20080057066 20080327 WO2008US58476 20080327

Probable Assignee: RADIOMEDIX INC

Assignee(s): (std): AZHDARINIA ALI ; DELPASSAND EBRAHIM S ; RADIOMEDIX INC ; SIMS MOURTADA JENNIFER ; TWOROWSKA IZABELA

Inventor(s): (std): DELPASSAND EBRAHIM S ; AZHDARINIA ALI ; SIMS MOURTADA JENNIFER ; TWOROWSKA IZABELA

Inventor(s): ALI AZHDARINIA ; SIMS-MOURTADA, JENNIFER ; EBRAHIM S DELPASSAND ; IZABELA TWOROWSKA ; JENNIFER SIMS MOURTADA

Agent(s): GIOVANNINI FRANCESCA; FULBRIGHT AND JAWORSKI LLP; CATENA GINO ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: COMPLEX OF BIFUNCTIONAL CHELATING AGENT AND MANNOSYL HUMAN SERUM ALBUMIN

Abstract: Source: US2011286920A The present invention is about bifunctional chelating agents (BCA) conjugated mannosyl human serum albumin (MSA) and its radioisotope labeled compounds for imaging immune system such as macrophages, Kupffer cells, reticuloendothelial system (RES), and lymphatic system. The present invention comprises BCA-MSA conjugates, their radiolabeled compounds, and kits for radiolabeling. The present invention improved radiolabeling procedure, showed higher lymphatic system uptake, and enabled image by positron emission tomography (PET).

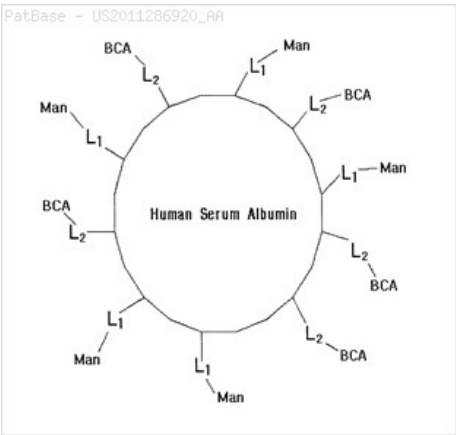
Classifications:

International (IPC 8-9): A61K36/14 A61K38/38 A61K47/48 A61K51/00 A61K51/04 A61K51/08 A61K9/19 A61P35/00 C07K14/765 (Advanced/Invention); A61K38/38 A61K51/08 A61P35/00 (Advanced/Non-invention); A61K38/38 A61K51/02 A61P35/00 (Core/Invention)

CPC: A61K51/0482 A61K51/081

European: A61K51/04R A61K51/04Z A61K51/08H

US: 424/1.11 424/1.65 424/1.69 424/1.690P 530/363 530/363S



Family:

Publication number	Publication date	Application number	Application date
CN102300590 A	20111228	CN201080005965	20100127
CN102300590 B	20131016	CN201080005965	20100127
EP2391390 A1	20111207	EP20100736003	20100127
EP2391390 A4	20130123	EP20100736003	20100127
EP2391390 B1	20131023	EP20100736003	20100127
JP2012516323 T2	20120719	JP20110547788T	20100127
JP5575150 B2	20140820	JP20110547788T	20100127
KR101055700 B1	20110811	KR20090006553	20090128
KR20100087511 A	20100805	KR20090006553	20090128
US2011286920 AA	20111124	US20100146280	20100127
US8911706 BB	20141216	US20100146280	20100127
WO10087612 A1	20100805	WO2010KR00488	20100127

Priority:

KR20090006553 20090128 WO2010KR00488 20100127

Probable Assignee: SNU R AND DB FOUNDATION

Assignee(s): (std): CHUNG JUNE KEY ; INDUSTRIAL ACADEMIC COOPERATION GROUP SEOUL NATIONAL UNIV ; JEONG JAE MIN ; LEE DONG SOO ; SNU R AND DB FOUNDATION ; LEE MYUNG CHUL

Inventor(s): (std): CHUNG JUNE KEY ; JEONG JAE MIN ; LEE DONG SOO ; LEE MYUNG CHUL

Agent(s): BARZ PETER; MEISSNER BOLTE AND PARTNER; HESLIN ROTHENBERG FARLEY AND MESITI PC; SUH JONG WAN

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: NOVEL TETRAAZA MACROCYCLIC COMPOUND, **PREPARATION** METHOD THEREOF AND USE THEREOF

Abstract: Source: US2012219495A Provided are a cross-bridged tetraaza macrocyclic compound of a novel structure that can be used, for example, as a contrast agent for diagnostic imaging or a radiopharmaceutical and a method for preparing the same. The disclosed tetraaza macrocyclic compound is able to form a stable metal complex at a lower temperature and allows easy conjugation with a bioactive substance or a chemically active substance, when compared to the existing cross-bridged tetraaza macrocyclic compounds.

Classifications:

International (IPC 8-9): A61K39/395 A61K49/00 A61K49/04 A61K51/00 A61K51/04 A61K51/08 A61K51/10 A61M36/14 A61P25/00 A61P25/28 A61P31/00 A61P31/04 A61P31/10 A61P31/12 A61P33/00 A61P35/00 A61P37/00 A61P37/08 A61P9/00 C07D257/00 C07D257/02 C07D403/12 C07D487/04 C07D487/08 C07F1/08 C07F3/06 C07F5/00 C07K17/02 (Advanced/Invention)

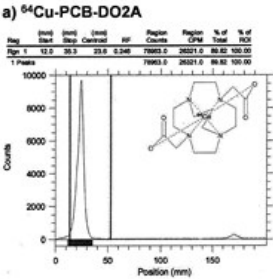
CPC: C07D257/02 C07D257/10 A61K51/0482 A61K51/082 A61K51/088 A61K51/1051 C07D487/08

European: A61K51/04L12 A61K51/08Z A61K51/10B30B C07D487/08

US: 424/1.53 424/1.530P 424/1.69 424/1.690S 424/178.1 424/178.100S 424/9.1 424/9.100S 530/321 530/321S 530/391.1 530/391.100S 530/391.5 530/391.500S 534/10 534/10S 534/16 534/16S 540/465 540/465S 540/472 540/472S

PatBase - US2012219495_AA
Patent Application Publication Aug. 30, 2012 Sheet 1 of 61 US 2012219495 A1

(Fig. 1)



Family:

Publication number	Publication date	Application number	Application date
EP2476683 A2	20120718	EP20100815618	20100909
EP2476683 A4	20130619	EP20100815618	20100909
KR101199570 B1	20121113	KR20100073954	20100730
KR20110027555 A	20110316	KR20100073954	20100730
US2012219495 AA	20120830	US20100395346	20100909
US9061078 BB	20150623	US20100395346	20100909
WO11031073 A2	20110317	WO2010KR06139	20100909
WO11031073 A3	20110804	WO2010KR06139	20100909

Priority:

KR20090084943 20090909 KR20100073954 20100730 WO2010KR06139 20100909

Probable Assignee: KYUNGPOOK NATIONAL UNIV IND ACADEMIC COOPERATION FOUNDATION

Assignee(s): (std): KYUNGPOOK NAT UNIV IND ACAD ; PANDYA DARPAN ; YOO JEONG SOO

Assignee(s): KYUNGPOOK NATIONAL UNIV IND ACADEMIC COOPERATION F ; KYUNGPOOK NATIONAL UNIV IND ACADEMIC COOPERATION FOUNDATION ; KYUNGPOOK NATIONAL UNIVERSITY INDUSTRY ACADEMIC COOPERATION FOUNDATION

Inventor(s): (std): DARPAN PANDYA ; YOO JEONG SOO ; PANDYA DARPAN

Agent(s): EHNIS TOBIAS; ALSTON AND BIRD LLP; J C HYUN PATENT AND LAW FIRM

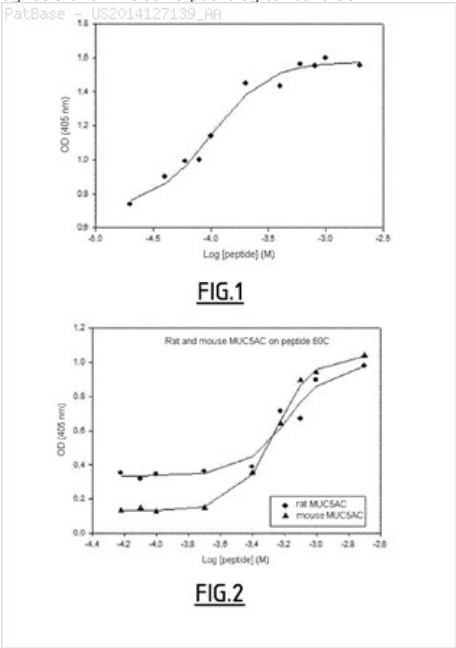
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: COMPOUNDS FOR DIAGNOSING DISEASES ASSOCIATED WITH THE EXPRESSION OF MUC5AC

Abstract: Source: US2014127139A The application relates to a compound of general formula (I) below: Signal-Linker-Peptide (I) and to the uses thereof for medical imaging or diagnosis or the **preparation** of a composition for diagnosis of an MUC5AC pathological condition.

Classifications:

International (IPC 8-9): A61K47/48 A61K49/00 A61K49/04 A61K49/14 A61K49/18 A61K51/04 A61K51/08 A61P35/00 G01N33/574 G01N33/58 G01N33/68 (Advanced/Invention)
CPC: A61K49/14 A61K47/48084 A61K49/0017 A61K49/049 A61K49/1842 A61K49/186 A61K49/1866 A61K51/0478 A61K51/048 A61K51/0482 A61K51/08 A61K51/088 B82Y5/00
European: A61K47/48H4L A61K49/00P4F A61K49/04H8P4S A61K49/14 A61K49/18R2N2H6 A61K49/18R2N2K6A A61K49/18R2N2R A61K51/04L12 A61K51/04L8 A61K51/04L8D A61K51/08 B82Y5/00
US: 424/9.341 530/328



Family:

Publication number	Publication date	Application number	Application date
EP2651453 A1	20131023	EP20110788849	20111130
FR2968562 A1	20120615	FR20100060497	20101214
FR2968562 B1	20130111	FR20100060497	20101214
US2014127139 AA	20140508	US20110993975	20111130
WO12079989 A1	20120621	WO2011EP71427	20111130

Priority:

FR20100060497 20101214 WO2011EP71427 20111130

Probable Assignee: GUERBET

Assignee(s): (std): BALLEST SEBASTIEN ; GONZALEZ WALTER ; GUERBET SA ; ROSSEZ YANNICK

Assignee(s): GUERBET

Inventor(s): (std): BALLEST SEBASTIEN ; GONZALEZ WALTER ; ROSSEZ YANNICK

Agent(s): BLOT PHILIPPE ROBERT EMILE; BLOT PHILIPPE ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: PROCESS FOR THE **PREPARATION** OF COMPLEXES OF **68Ga**

Abstract: Source: US2014171637A A process for the **preparation** of complexes containing **68Ga** wherein a buffer formic acid/formate in the presence of compounds capable to sequester metal cations is used in the complexation reaction.

Classifications:

International (IPC 8-9): A61K51/00 A61K51/04 C07B C07B59/00 (Advanced/Invention); C07B (Subclass/Invention)

International (IPC 1-7): C07B59/00

CPC: A61K51/088 A61K51/0482 C07B59/00

US: 540/465

Family:

Publication number	Publication date	Application number	Application date
AU2012297008 AA	20130221	AU20120297008	20120810
CA2844145 AA	20140204	CA20122844145	20120810
CN103889930 A	20140625	CN201280039304	20120810
CO7020857 A2	20140811	CO20140050755	20140310
EP2742017 A2	20140618	EP20120756391	20120810
IL230904 A0	20140331	IL20140230904	20140210
IN01897CN2014 A	20150529	IN2014CN01897	20140311
ITFI20110180 A1	20130213	IT2011FI00180	20110812
JP2014524423 T2	20140922	JP20140524396T	20120810
MX2014001691 A1	20141113	MX20140001691	20140211
US2014171637 AA	20140619	US20120237728	20120810
WO13024013 A2	20130221	WO2012EP65659	20120810
WO13024013 A3	20130502	WO2012EP65659	20120810

Priority:

IT2011FI00180 20110812 WO2012EP65659 20120810

Probable Assignee: ADVANCED ACCELERATOR APPLICATIONS SA

Assignee(s): (std): ADVAMCED ACCELERATOR APPLIC S A ; ADVANCED ACCELERATOR APPLIC S A ; ADVANCED ACCELERATOR APPLIC SA ; MARIANI MAURIZIO FRANCO ; LORENZA FUGAZZA ; MAURIZIO FRANCO MARIANI ; MARIA AZZURRA FILANNINO ; FUGAZZA LORENZA ; FILANNINO MARIA AZZURRA

Assignee(s): ADVANCED ACCELERATOR APPLICATIONS SA ; ADVANCED ACCELERATOR APPLICATIONS S A ; ADVAMCED ACCELERATOR APPLICATIONS SA

Inventor(s): (std): FILANNINO MARIA AZZURRA ; MARIANI MAURIZIO FRANCO ; FUGAZZA LORENZA ; FILANNINO AZZURRA

Inventor(s): MAURIZIO FRANCO MARIANI ; MARIA AZZURRA FILANNINO ; LORENZA FUGAZZA

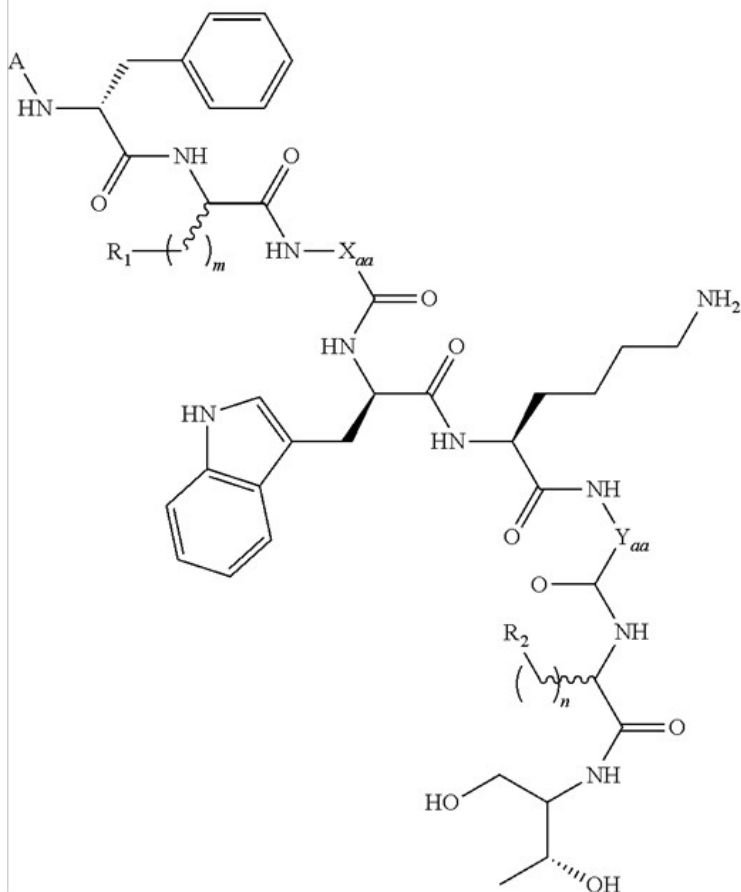
Agent(s): BRIGHENTI LIVIO; BRIGHENTI LIVIO ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: CLICKED SOMATOSTATIN CONJUGATED ANALOGS FOR BIOLOGICAL APPLICATIONS

Abstract: Source: US2014314670A The invention relate to the new conjugated somatostatin analogs of formula (I), wherein A- is H or TAG-B-, wherein -B- is 0 or a spacer, wherein TAG is a chelating agent (e.g. DOTA), a fluorescent dye, (e.g. Bodipy-B derivative, a Rho-damine-B derivative, a Fluorescein-B derivative, a Cyanine-B derivative, a Porphyrin-B derivative), a bimodal agent, or a cytotoxic agent (e.g. a doxorubicin derivative) wherein R1 is CI-C4 alkynyl radical when R2 is CI-C4 azido radical and viceversa and methods for preparing same, pharmaceutical compositions comprising them and their use in imaging and the treatment of cancer.

Formula I

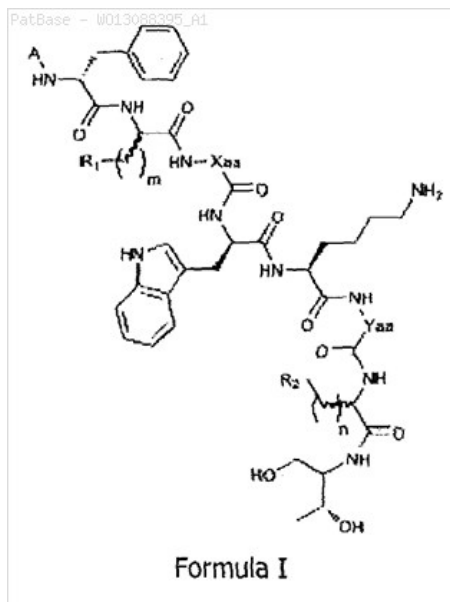


Classifications:

International (IPC 8-9): A61K38/08 A61K47/48 A61K49/00 A61K51/04 A61K51/08 C07K7/06 C07K7/56 (Advanced/Invention)

CPC: A61K47/48246 A61K49/0056 A61K49/108 A61K51/085 A61K38/00 C07K14/655 A61K51/083 A61K51/088 A61K51/0482 A61K47/48076 A61K49/14

US: 424/1.69 514/11.1 530/311



Family:

Publication number	Publication date	Application number	Application date
EP2604281 A1	20130619	EP20110193530	20111214
EP2604281 B1	20140730	EP20110193530	20111214
EP2790732 A1	20141022	EP20120818617	20121214
US2014314670 AA	20141023	US20120365875	20121214
W01308395 A1	20130620	W02012IB57310	20121214

Priority:

EP20110193530 20111214 WO2012IB57310 20121214 EP20120818617 20121214

Probable Assignee: CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS

Assignee(s): (std): CENTRE NAT RECH SCIENT ; DE BOURGOGNE DIJON UNIV ; UNIV BOURGOGNE DIJON ; DE CERGY PONTOISE UNIV ; UNIV CERGY PONTOISE ; DE BOURGOGNE UNIV

Assignee(s): UNIVERSITE DE CERGY PONTOISE ; UNIVERSITE DE BOURGOGNE DIJON ; CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS ; CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE (CNRS) ; CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS

Inventor(s): (std): BERNHARD CLAIRE ; CHOREV MICHAEL ; D ADDONA DEBORA ; D ADDONA DEBORA M ; DENAT FRANCK ; ROVERO ANNA MARIA

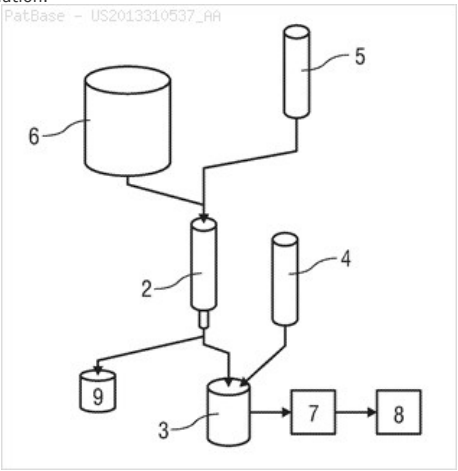
Agent(s): PEAUCELLE CHANTAL; PEAUCELLE CHANTAL ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: METHOD AND KIT FOR PREPARING A RADIOPHARMACEUTICAL

Abstract: Source: US2013310537A The invention relates to a method and a kit for preparing a radiopharmaceutical, the method comprising the steps: elution of a 68Ge/**68Ga**-Generator using hydrochloric acid as an eluent for obtaining a generator eluate comprising 68Gallium, feeding the generator eluate through a cation exchange cartridge, which collects the 68Gallium, separating the used eluent, eluting the 68Gallium from the cation exchange cartridge using a solution comprising sodium chloride and hydrochloric acid and feeding the resulting eluate into an aqueous precursor mixture comprising at least a labelling precursor thereby forming a reaction solution.

Classifications:
International (IPC 8-9): A61K51/02 B01L3/00 C07B59/00 C07F19/00 C07F5/00 C07K1/13 (Advanced/Invention)
CPC: A61K51/0482 A61K51/00 C07B59/00 C07B59/004 C07B59/008 C07K1/13
US: 422/430 530/345 530/363 534/10



Family:

Publication number	Publication date	Application number	Application date
CA2816070 AA	20131118	CA20132816070	20130516
US2013310537 AA	20131121	US20120475759	20120518

Priority:
US20120475759 20120518 CA20132816070 20130516

Probable Assignee: ZENTRAKLINIK BAD BERKA GMBH
Assignee(s): (std): MUELLER DIRK ; ZENTRAKLINIK BAD BERKA GMBH
Inventor(s): (std): MUELLER DIRK

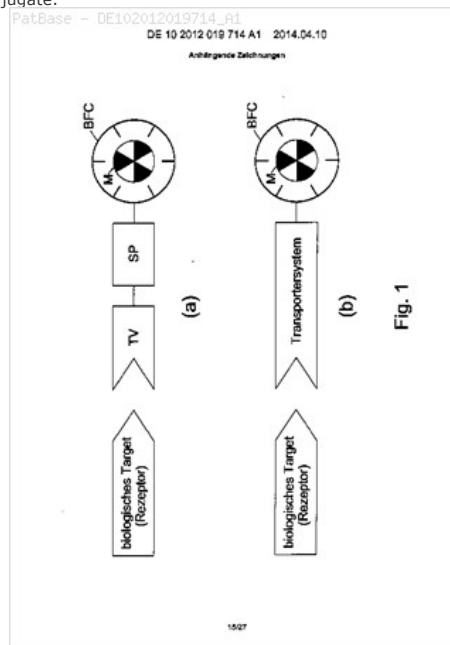
Title: VERFAHREN ZUR HERSTELLUNG VON PHARMAKOLOGISCHEN METALL-LIGAND-KONJUGATEN PRODUCING METALLIC LABELED COMPOUNDS, INVOLVES PROVIDING FIRST SOLUTION FROM FIRST SOLVENT COMPRISING WATER AND FIRST NON-AQUEOUS SOLVENT, AND FIRST ACID AND FIRST METAL DISSOLVED IN SOLVENT

Abstract: Source: DE102012019714A1 In einem Verfahren zur Herstellung von metallisch markierten Verbindungen wird ein Konjugat C aus einem Liganden BFC und einem oder mehreren an den Liganden BFC direkt oder ueber Spacergruppen gebundenen, biologisch aktiven Molekuelresten TV oder Transportersystemen mit einem oder mit zwei Metallen (M1, M2) in einer, nichtwaessrige Solventien (O1, O2) enthaltenden Loesung komplexiert. Producing metallic labeled compounds, comprises: (a) providing a first solution from a first solvent comprising 0-100 vol. percent of water and 0-100 vol. percent of a first non-aqueous solvent, and a first acid and a first metal dissolved in the solvent; (b) optionally providing a second solution of a second solvent comprising 0-100 vol. percent of water and 0-100 vol. percent of a second non-aqueous solvent, and a second acid and a second metal dissolved in the second solvent; and (C) providing a third solution of a third solvent comprising 0-100 vol. percent of water and 0-100 vol. percent of a third non-aqueous solvent. Producing metallic labeled compounds, comprises: (a) providing a first solution from a first solvent comprising 0-100 vol. percent of water and 0-100 vol. percent of a first non-aqueous solvent, and a first acid and a first metal dissolved in the solvent; (b) optionally providing a second solution of a second solvent comprising 0-100 vol. percent of water and 0-100 vol. percent of a second non-aqueous solvent, and a second acid and a second metal dissolved in the second solvent; (C) providing a third solution of a third solvent comprising 0-100 vol. percent of water and 0-100 vol. percent of a third non-aqueous solvent, and a conjugate of a ligand dissolved in the solvent and one or more biologically active molecule residues or transporter systems directly bounded to the ligand or via spacer groups; (D) mixing the first and third, and optionally second solution optionally with the addition of the first, third and/or second non-aqueous solvent to a reaction mixture, where the total amount of the first, third and/or second non-aqueous solvent is 0.1-100 vol. percent; and (E) complexing the first metal and optionally the second metal with the conjugate.

Classifications:

International (IPC 8-9): A61K51/04 (Advanced/Invention)

CPC: A61K51/0482 A61K51/0478 A61K51/088



Family:

Publication number	Publication date	Application number	Application date
DE102012019714 A1	20140410	DE201210019714	20121008

Priority:

DE201210019714 20121008

Probable Assignee: UNIV MAINZ JOHANNES GUTENBERG

Assignee(s): (std): UNIV MAINZ JOHANNES GUTENBERG

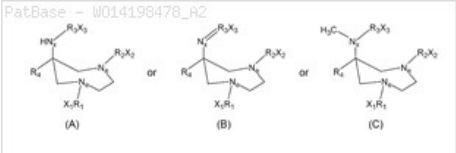
Assignee(s): JOHANNES GUTENBERG UNIV MAINZ

Inventor(s): (std): ROESCH FRANK PROF DR

Title: BIFUNCTIONAL CHELATING AGENTS BASED ON THE 1,4-DIAZEPINE SCAFFOLD (DAZA) FOR NON-INVASIVE MOLECULAR IMAGING

Abstract: A compound for radio metal complexation comprises a chelator and one or more biological targeting vectors TV conjugated to said chelator, wherein the chelator has structure (A) or (B) or (C), based on 1,4-diazepine with groups R1; R2, R3, R4, X1, X2, X3. The compound is particularly suited for complexation of radio-isotopic metals, such as 66Ga(III), 67Ga(III) and 68Ga(III).

Classifications:
International (IPC 8-9): A61K51/04 C07D243/08 (Advanced/Invention)
CPC: A61K51/0482 A61K51/0489



Family:

Publication number	Publication date	Application number	Application date
DE102013106066 A1	20141211	DE201310106066	20130611
WO14198478 A2	20141218	WO2014EP59874	20140514
WO14198478 A3	20150205	WO2014EP59874	20140514

Priority:
DE201310106066 20130611

Probable Assignee: JOHANNES GUTENBERG UNIV MAINZ

Assignee(s): (std): JOHANNES GUTENBERG UNIV MAINZ

Inventor(s): (std): PARKER DAVID ; ROESCH FRANK ; WALDRON BRADLEY PETER

Agent(s): PLATE SCHWEITZER ZOUNEK PAE

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW