

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference ALG00021-WO	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/EP2016/082835	International filing date (<i>day/month/year</i>) 29 December 2016 (29-12-2016)	(Earliest) Priority Date (<i>day/month/year</i>) 5 January 2016 (05-01-2016)
Applicant BAYER AS		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of:

- ☒ the international application in the language in which it was filed
☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))

b. ☐ This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6**bis**(a)).

c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box No. II)

3. ☐ **Unity of invention is lacking** (see Box No III)

4. With regard to the **title**,

- ☒ the text is approved as submitted by the applicant
☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

- ☒ the text is approved as submitted by the applicant
☐ the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority

6. With regard to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. 1
☐ as suggested by the applicant
☒ as selected by this Authority, because the applicant failed to suggest a figure
☐ as selected by this Authority, because this figure better characterizes the invention
 b. ☐ none of the figures is to be published with the abstract

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International application No
PCT/EP2016/082835

A. CLASSIFICATION OF SUBJECT MATTER		
INV.	B01D15/18 A61K51/12	A61K51/06 G21G1/00
	B01D15/36	B01J39/05
		B01J41/05
ADD.		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols)		
B01D A61K B01J G21G		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)		
EPO-Internal		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	ROY H LARSEN ET AL: "Preparation of TH<227>-labeled radioimmunoconjugates, assessment of serum stability and antigen binding ability", CANCER BIOTHERAPY AND RADIOPHARMACEUTICALS, LIEBERT, US, vol. 22, no. 3, 1 June 2007 (2007-06-01), pages 431-437, XP002639642, DOI: 10.1089/GBR.2006.321 [retrieved on 2007-07-26]	29-31
Y	Paragraph "Preparation of 227Th"; page 432 ----- -/-	1-28
☒ Further documents are listed in the continuation of Box C. ☒ See patent family annex.		
* Special categories of cited documents : "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
Date of the actual completion of the international search		Date of mailing of the international search report
10 March 2017		21/03/2017
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016		Authorized officer Fourgeaud, Damien

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International application No
PCT/EP2016/082835

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	BAGHERI REZA ET AL: "Production of ^{223}Ra from ^{226}Ra in Tehran Research Reactor for treatment of bone metastases", JOURNAL OF RADIOANALYTICAL AND NUCLEAR CHEMISTRY, AKADEMIKI KIADO RT, HU, vol. 304, no. 3, 14 January 2015 (2015-01-14), pages 1185-1191, XP035496597, ISSN: 0236-5731, DOI: 10.1007/S10967-015-3931-X [retrieved on 2015-01-14] first full paragraph; page 1186, left-hand column Paragraph "separation of ^{227}Ac from irradiated ^{226}Ra target", pages 1188-1190 -----	1-28
X	EP 2 564 396 A1 (ALGETA ASA [NO]) 6 March 2013 (2013-03-06) paragraph [0087] -----	29-31
A	US 5 809 394 A (BRAY LANE A [US] ET AL) 15 September 1998 (1998-09-15) example 1 -----	1-28
A	HORWITZ E P ET AL: "Purification of radionuclides for nuclear medicine: The multicolumn selectivity inversion generator concept", CZECHOSLOVAK JOURNAL OF PHYSICS, KLUWER ACADEMIC PUBLISHERS-CONSULTANTS BUREAU, NE, vol. 53, no. 1, 1 January 2003 (2003-01-01), pages A713-A716, XP019499324, ISSN: 1572-9486, DOI: 10.1007/S10582-003-0091-Y the whole document -----	1-28

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Information on patent family members

International application No

PCT/EP2016/082835

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 2564396	A1	06-03-2013	
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