

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference BCS193081-WO	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/EP2020/078248	International filing date (<i>day/month/year</i>) 8 October 2020 (08-10-2020)	(Earliest) Priority Date (<i>day/month/year</i>) 9 October 2019 (09-10-2019)
Applicant BAYER AKTIENGESELLSCHAFT		

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 7 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. _____

☐

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

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2020/078248

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☒ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2020/078248

A. CLASSIFICATION OF SUBJECT MATTER		
INV.	A61P33/14 C07C321/18	A61K31/506 C07D401/04 C07D401/14 C07C317/22
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) A61P A61K C07D C07C		
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, CHEM ABS Data, WPI Data		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2017/192385 A1 (ELANCO TIERGESUNDHEIT AG [CH]; LILLY CO ELI [US]) 9 November 2017 (2017-11-09) cited in the application	1-10, 12-22
A	biological data; claims; example 4; compounds 73-74	11
X	----- DATABASE chemcats [Online] 22 September 2013 (2013-09-22), chemical library- chembridge corporation: "N-((3-(3-chlorophenyl)methyl-1-(1-methyl-4-piperidinyl)-1H-1,2,4-triazol-5-yl)methyl)-acetamide", XP002797849, Database accession no. 1452979-00-8 abstract ----- -/--	1,6
☒ 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 23 March 2021		Date of mailing of the international search report 06/04/2021
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 Seelmann, Marielle

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE chemcats [Online] 6 June 2014 (2014-06-06), chemical library- chembridge corporation: "N-((3-(3-chlorophenyl)methyl)-1-(6-methyl-2-pyridinyl)-1H-1,2,4-triazol-5-yl)methyl)acetamide", XP002797850, Database accession no. 1609831-36-8 abstract -----	1,6
X	DATABASE chemcats [Online] 16 March 2018 (2018-03-16), chemical library- aurora fine chemicals: "N-((1S)-1-(3-(4-methoxyphenyl)methyl)-1-(4-pyridinyl)-1H-1,2,4-triazol-5-yl)ethyl)-acetamide", XP002797851, Database accession no. 2192638-31-4 abstract -----	1,6
X	DATABASE chemcats [Online] 22 September 2013 (2013-09-22), chemical library- chembridge corporation: "N-((1-(1,3-benzodioxol-5-yl)3-(2-phenylethyl)-1H-1,2,4-triazol-5-yl)methyl)-acetamide", XP002797852, Database accession no. 1453044-62-6 abstract -----	1,6
X	DATABASE chemcats [Online] 21 March 2011 (2011-03-21), chemical library- chembridge corporation: "N-((2-(3-(2-phenylethyl)1-(2-pyridinyl)-1H-1,2,4-triazol-5-yl)ethyl)-acetamide", XP002797853, Database accession no. 1269046-03-8 abstract -----	1,6
X	DATABASE CHEMcats [Online] 21 March 2011 (2011-03-21), chemical library- chembridge corporation: "N-((3-(2-phenylethyl)-1-(2-pyridinyl)-1H-1,2,4-triazol-5-yl)methyl)-benzamide", XP002797854, Database accession no. 1269003-64-6 abstract ----- -/--	1,6

INTERNATIONAL SEARCH REPORT

International application No

PCT/EP2020/078248

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2012/080376 A1 (SYNGENTA PARTICIPATIONS AG [CH]; JUNG PIERRE JOSEPH MARCEL [CH] ET AL.) 21 June 2012 (2012-06-21) page 35, line 8 - line 17 -----	22
X,P	WO 2020/094363 A1 (SYNGENTA PARTICIPATIONS AG [CH]) 14 May 2020 (2020-05-14) at least P21, P26, P30 and P37; claims; compounds -----	1-8,10, 12-22
X,P	WO 2020/079198 A1 (SYNGENTA PARTICIPATIONS AG [CH]) 23 April 2020 (2020-04-23) R5 = cyano; page 60 - page 95; claims 3-8,10-15 -----	1-10, 12-22
A	EP 1 544 202 A1 (NIHON NOHYAKU CO LTD [JP]) 22 June 2005 (2005-06-22) reference example 1 formula (XXXVI), compound 1-1 formula (XI), compound 3-10; page 50, paragraph 307; claims -----	11

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2020/078248

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2017192385	A1	09-11-2017	AR 108222 A1 01-08-2018
		AU 2017261187 A1 04-10-2018	
		BR 112018069578 A2 22-01-2019	
		CA 3023208 A1 09-11-2017	
		CL 2018003021 A1 15-02-2019	
		CN 109311841 A 05-02-2019	
		CO 2018011825 A2 22-11-2018	
		DK 3452460 T3 16-03-2020	
		EA 201892191 A1 30-04-2019	
		EP 3452460 A1 13-03-2019	
		ES 2776850 T3 03-08-2020	
		JP 6370504 B2 08-08-2018	
		JP 2018517716 A 05-07-2018	
		KR 20180132100 A 11-12-2018	
		NZ 746361 A 24-04-2020	
		PL 3452460 T3 01-06-2020	
		PT 3452460 T 24-03-2020	
		TW 201803863 A 01-02-2018	
		TW 201938548 A 01-10-2019	
		US 2018186778 A1 05-07-2018	
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		WO 2017192385 A1 09-11-2017	
WO 2012080376	A1	21-06-2012	AR 084308 A1 08-05-2013
		BR 112013014986 A2 12-07-2016	
		CN 103261188 A 21-08-2013	
		EP 2651921 A1 23-10-2013	
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		UY 33808 A 31-07-2012	
		WO 2012080376 A1 21-06-2012	
WO 2020094363	A1	14-05-2020	TW 202024055 A 01-07-2020
		UY 38448 A 30-06-2020	
		WO 2020094363 A1 14-05-2020	
WO 2020079198	A1	23-04-2020	TW 202033512 A 16-09-2020
		UY 38422 A 29-05-2020	
		WO 2020079198 A1 23-04-2020	
EP 1544202	A1	22-06-2005	AR 044743 A1 05-10-2005
		AU 2003272898 A1 19-04-2004	
		CA 2500207 A1 08-04-2004	
		EP 1544202 A1 22-06-2005	
		TW 200410975 A 01-07-2004	
		US 2007010402 A1 11-01-2007	
		WO 2004029060 A1 08-04-2004	

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-10, 12-22

compound (I) and intermediate (a) (claims 1-10, 12-22)

2. claim: 11

compound b-1
