Compounds and salts of Formula (I) are useful for treating viral infections, including HCV infections.

Deuterated nucleoside analogs of Formula (I) and the pharmaceutically acceptable salts thereof are provided by this disclosure. Formula (I) The variables, e.g., B1, Y, R1, R2, R3, R4, R5, R6, R7, R8, and R9 carry definitions set forth in the disclosure. Compounds of Formula (I) are deuterated at one or more positions and the deuterium enrichment at each deuterated position is at least 50%. Compounds and salts of Formula (I) are useful for treating viral infections, including HCV infections.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

INV. C07H19/067 A61K31/7072 A61P31/14 C07B59/00

According to International Patent Classification (IPC) onto both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols):

C07H A61K A61P C07B

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 , WPI Data, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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<td>Y</td>
<td>wo 2010/135569 AI (PHARMASSET INC [US]; ROSS BRUCE S [US]; SOFIA MICHAEL JOSEPH [US]; PAM) 25 November 2010 (2010-11-25) page 33 - page 34 the examples</td>
<td>1-83</td>
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<td>Y</td>
<td>wo 2012/040127 AI (ALIOS BIOPHARMA INC [US]; SMITH DAVID BERNARD [US]; DEVAL JEROME [US];) 29 March 2012 (2012-03-29) page 84 - page 85 claim 1</td>
<td>1-83</td>
</tr>
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</table>

Further documents are listed in the continuation of Box C.

X 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 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.

"A" document member of the same patent family

Date of the actual completion of the international search

9 July 2014

Date of mailing of the international search report

06/11/2014

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

Ni kol ai , Joachim

Form PCT/ISA/210 (second sheet) (April 2005)
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.:

1-83

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

1. claims: 1-83

A compound of formula (I), pharmaceutical compositions comprising said compound, its use for treating HCV infections and a method for preparing a compound of formula (I).

2. claims: 84-86

Phosphoramide intermediate
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