Abstract: The present invention relates to compounds of the formula (I): (I) and pharmaceutically acceptable salts and solvates thereof, to processes for the preparation of, intermediates used in the preparation of, and compositions containing such compounds and the uses of such compounds for the treatment of pain.

Title: 2-PYRIDINE CARBOXAMIDE DERIVATIVES AS SODIUM CHANNEL MODULATORS

(51) International Patent Classification:
C07D 401/12 (2006.01) A61K 31/44 (2006.01)
C07D 213/75 (2006.01) A61P 29/00 (2006.01)
A61K 31/4439 (2006.01) A61P 25/28 (2006.01)
A61K 31/4427 (2006.01)

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  60/957,536 23 August 2007 (23.08.2007) US

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  CT13 9NJ (GB).

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  Research and Development, Ramsgate Road, Sandwich, Kent
  CT13 9NJ (GB).

(81) Designated States (unless otherwise indicated, for every
  kind of national protection available): AE, AG, AL, AM,
  AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA,
  CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE,
  EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID,
  IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC,
  LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN,
  MW, MX, MY, MZ, NA, NG, NL, NO, NZ, OM, PG, PH,
  PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV,
  SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN,
  ZA, ZM, ZW.

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  ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
  European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
  FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL,
  NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG,
  CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(88) Date of publication of the international search report:
5 February 2009
### A. CLASSIFICATION OF SUBJECT MATTER

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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)**
  - C07D

- **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 practical, search terms used)**
  - EPO-Internal, WPI Data, BEILSTEIN Data, CHEM ABS Data

### C. DOCUMENTS CONSIDERED TO BE RELEVANT

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<th>Category</th>
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<th>Relevant to claim No.</th>
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<td>WO 2006/011050 A (PFIZER LTD [GB]; PFIZER [US]; LANE CHARLOTTE ALICE LOUISE [GB]; MAW GR) 2 February 2006 (2006-02-02) see claim 1, definition of R1 and pharmacological activity</td>
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<td>WO 03/037274 A (ICAGEN INC [US]; ATKINSON ROBERT NELSON [US]; GROSS MICHAEL FRANCIS [U]) 8 May 2003 (2003-05-08) see claim 1, definitions of residue Y and pharmacological activity</td>
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- **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 document 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

- **Further documents are listed in the continuation of Box C.**

- **See patent family annex.**

- **Date of the actual completion of the international search**
  - 26 November 2008

- **Date of mailing of the international search report**
  - 04/12/2008

- **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**
  - Traegler-Goeldel, M
INTERNATIONAL SEARCH REPORT

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. X Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
   Although claims 15 and 16 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.

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:

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.
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