(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
16 July 2009 (16.07.2009)

PCT

(10) International Publication Number
WO 2009/087690 A3

(51) International Patent Classification:
A61K 9/22 (2006.01)

(21) International Application Number:
PCT/IN2009/000035

(22) International Filing Date:
12 January 2009 (12.01.2009)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
104/DEL/2008 11 January 2008 (11.01.2008) IN

(71) Applicant *(for all designated States except US)*: **JUBILANT ORGANOSYS LIMITED** [IN/IN]; Plot 1A, Sector 16 A, Noida 201 301, Uttar Pradesh (IN).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **BHAVARISETTI, Murali, Krishna** [IN/IN]; D.No: 16-5, Near Vegetable Market, Nandigama 521 185, Krishna District, Andhra Pradesh (IN). **MUKHERJI, Gour** [IN/IN]; E-12/31, Phase-I, DLF Qutab Enclave, Gurgaon 122 002, Haryana (IN).

(74) Agents: **MANISHA, Singh** et al.; M/S Lex Orbis (Intellectual Property Practice), 709-710 Tolstoy House, 15-17 Tolstoy Marg, New Delhi 110 001 (IN).

(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, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, 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, MK, 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).

Published:

— *with international search report (Art. 21(3))*

(88) Date of publication of the international search report:
22 April 2010

WO 2009/087690 A3

(54) Title: MULTIPARTICULATE EXTENDED RELEASE PHARMACEUTICAL COMPOSITION OF CARBAMAZEPINE AND PROCESS FOR MANUFACTURING THE SAME

(57) Abstract: Disclosed herein is an extended release pharmaceutical composition comprising at least two populations of extended release minitablets having a core comprising carbamazepine or its pharmaceutical salts, solvates, hydrates, an extended release polymer(s), wherein the extended release polymer of each population of minitablets is unalike. The process for manufacturing said composition is also disclosed.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IN 09/00035

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - A61K 9/22 (2010.01)
USPC - 424/468
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)
USPC-424/468

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC-424/468,469,470,474,464,480,488

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Google Patents, USPT, PGPub, Dialog, oral, extended, sustained, prolonged, controlled modified, release, minitablets, microtablets, minibeads, multiple tablets in capsules, active ingredient, drug, pharmaceutical, carbamazepine

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 5912013 A (Rudnic et al.) 15 June 1999 (15.06.1999) col. 2, ln 8-11, 20, 26-27, col.2, ln 55-60, col. 3, ln 43, col.3, ln 50-57	1-9, 11-12 ---------- 10, 13
Y	US 5955104 A (Momberger et al.) 21 September 1999 (21.09.1999) col. 3, ln16, col. 2, ln 42-44	10, 13

☐ Further documents are listed in the continuation of Box C. ☐

* 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
15 January 2010 (15.01.2010)	02 FEB 2010
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Lee W. Young PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)