



(51) International Patent Classification:

C07D 401/04 (2006.01) A61K 31/4427 (2006.01)
C07D 401/14 (2006.01) A61P 1/04 (2006.01)
A61K 31/4439 (2006.01)

(21) International Application Number:

PCT/IN2013/000699

(22) International Filing Date:

18 November 2013 (18.11.2013)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

3360/MUM/2012 26 November 2012 (26.11.2012) IN

(71) Applicant: EMCURE PHARMACEUTICALS LIMITED [IN/IN]; Emcure House, T-184, MIDC, Bhosari, Pune-411026 (IN).

(72) Inventors: GURJAR, Mukund, Keshav; Emcure House, T-184, MIDC, Bhosari, Pune-411026, Maharashtra (IN).
MAIKAP, Golakchandra, Sudarshan; Emcure House, T-184, MIDC, Bhosari, Pune-411026, Maharashtra (IN).
TRIPATHY, Narendra, Kumar; Emcure House, T-184, MIDC, Bhosari, Pune-411026, Maharashtra (IN).
MAHALE, Rajendra, Dagesing; Emcure House, T-184, MIDC, Bhosari, Pune-411026, Maharashtra (IN).
KHALADKAR, Tushar, Pandurang; Emcure House, T-

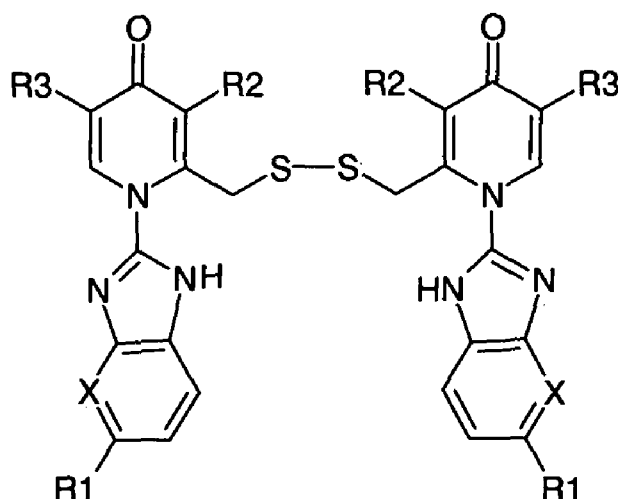
184, MIDC, Bhosari, Pune-411026, Maharashtra (IN).
CHAUDHARI, Ashok, Tukaram; Emcure House, T-184, MIDC, Bhosari, Pune-411026, Maharashtra (IN).
PAWAR, Sanjay, Shankar; Emcure House, T-184, MIDC, Bhosari, Pune-411026, Maharashtra (IN).
KALHAPURE, Vijay, Keshav; Emcure House, T-184, MIDC, Bhosari, Pune-411026, Maharashtra (IN).
MEHTA, Samit, Satish; Emcure House, T-184, MIDC, Bhosari, Pune-411026, Maharashtra (IN).

(74) Agent: **SUNIL, Bhat;** Intellectual Property Management, Emcure Pharmaceuticals Limited, ARCH, P-2, IT-BT park, Phase-II. MIDC, Hinjwadi, Pune-411057, Maharashtra (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, BN, BR, BW, BY, BZ, CA, CH, CL, 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, IR, IS, JP, KE, KG, 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, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

[Continued on next page]

(54) Title: PYRIDONE DERIVATIVES AS ACID SECRETION INHIBITORS AND PROCESS FOR PREPARATION THEREOF

**Pyridone disulphide derivatives (I)**

(57) Abstract: Provided are pyridine disulphide derivatives of Formula (I) and their preparation, pharmaceutical composition. The pyridine disulphide derivatives are useful in the treatment of gastrointestinal disorders. wherein, R¹, R² and R³ are independently alkyl, alkoxy, halogen, halogenated alkoxy, halogenated alkyl, hydrogen and could be same or different and X is CH or N. R¹ is methyl, methoxy, fluorine, trifluoromethyl, difluoromethoxy and hydrogen, R² is methyl, methoxy and hydrogen, and R³ is methyl and hydrogen.



(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, 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, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— *as to the identity of the inventor (Rule 4.17(i))*

— *of inventorship (Rule 4.17(iv))*

Published:

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

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(88) Date of publication of the international search report:

19 June 2014