

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
6 April 2006 (06.04.2006)

PCT

(10) International Publication Number
WO 2006/035960 A2

(51) International Patent Classification:

C07D 233/92 (2006.01) A61K 31/4164 (2006.01)
C07D 233/94 (2006.01)

(21) International Application Number:

PCT/JP2005/018230

(22) International Filing Date:

27 September 2005 (27.09.2005)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2004-278974 27 September 2004 (27.09.2004) JP

(71) Applicant (for all designated States except US): OT-SUKA PHARMACEUTICAL CO., LTD. [JP/JP]; 9, Kanda-Tsukasacho 2-chome, Chiyoda-ku, Tokyo, 1018535 (JP).

(72) Inventor; and

(75) Inventor/Applicant (for US only): SHINHAMA, Koichi [JP/JP]; c/o Otsuka Pharmaceutical Co., Ltd., 224-18, Hiraishiebisuno, Kawauchicho, Tokushima-shi, Tokushima 7710182 (JP).

(74) Agents: ASAMURA, Kiyoshi et al.; Room 331, New Ohtemachi Bldg., 2-1, Ohtemachi 2-chome, Chiyoda-ku, Tokyo 1000004 (JP).

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

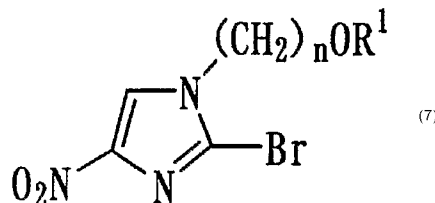
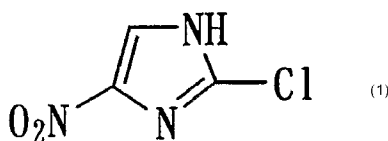
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, 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:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PROCESS FOR PRODUCTION OF 2-CHLORO-4-NITROIMIDAZOLE



(57) Abstract: The present invention provides a process for production of 2-chloro-4-nitroimidazole in a high yield and at a high purity by a simple operation in a safer manner involving a low risk of explosion or the like. The present invention provides a process for production of 2-chloro-4-nitroimidazole represented by the formula (1): comprising a reaction of a 1-alkoxyalkyl-2-bromo-4-nitroimidazole compound represented by the general formula (7): wherein R1 represents a lower alkyl group, and n represents an integer of 1 to 3, with hydrogen chloride.