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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
3 January 2002 (03.01.2002)

PCT

(10) International Publication Number
WO 02/00645 A1

(51) International Patent Classification[7]: C07D 401/14, 413/14, A61K 31/4045, 31/4523, 31/47, 31/538, A61P 25/06, 25/18, 25/20, 25/22, 25/24, 25/28 // (C07D 401/14, 209:04, 211:04, 215:00, 217:00) (C07D 413/14, 209:04, 211:04, 265:38)

(21) International Application Number: PCT/DK01/00407

(22) International Filing Date: 13 June 2001 (13.06.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
PA 2000 01018 29 June 2000 (29.06.2000) DK

(71) Applicant *(for all designated States except US)*: **H. LUNDBECK A/S** [DK/DK]; Ottiliavej 9, DK-2500 Valby-Copenhagen (DK).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **BANG-ANDERSEN, Benny** [DK/DK]; Ægirsgade 50, 2th, DK-22 København N (DK). **FELDING, Jakob** [DK/DK]; Vermlandsgade 4, 5th, DK-2300 København S (DK). **KEHLER, Jan** [DK/DK]; Nymøllevej 28, DK-2800 Kgs. Lyngby (DK).

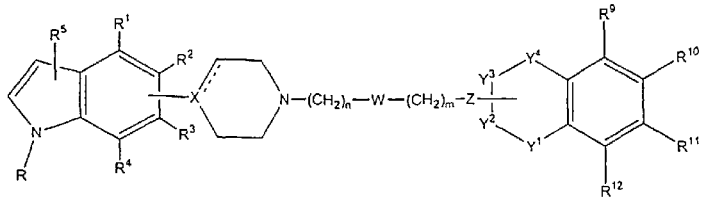
(81) Designated States *(national)*: AE, AG, AL, AM, AT, AT (utility model), AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ (utility model), DE, DE (utility model), DK, DK (utility model), DM, DZ, EE, EE (utility model), ES, FI, FI (utility model), GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK (utility model), SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*
— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

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: INDOLE DERIVATIVES USEFUL FOR THE TREATMENT OF CNS DISORDERS



(I)

(57) Abstract: The present invention relates to dopamine and serotonin receptor ligands having the general formula (I) wherein one of Y^1 and Y^2 is N, which is bound to Z, and the further meanings of Y^1, Y^2, Y^3, Y^4, Z, W, n, m, X, R and R^1-R^{12} are as given in the claims and the description. The compounds of the invention are useful in the treatment of certain psychiatric and neurological disorders, i. e. schizophrenia and other psychoses, anxiety disorders, depression, migraine, cognitive disorders, ADHD and sleep improvement.

WO 02/00645 A1