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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
22 June 2006 (22.06.2006)

PCT

(10) International Publication Number
WO 2006/063708 A1

(51) International Patent Classification:
C07D 487/14 (2006.01) *A61K 31/5517* (2006.01)

(21) International Application Number:
PCT/EP2005/012993

(22) International Filing Date:
5 December 2005 (05.12.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
04106556.6 14 December 2004 (14.12.2004) EP

(71) Applicant *(for all designated States except US)*: **F.HOFFMANN-LA ROCHE AG** [CH/CH]; Grenzacherstrasse 124, CH-4070 Basel (CH).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **BUETTELMANN, Bernd** [DE/DE]; Amselweg 10, 79650 Schopfheim (DE). **KNUST, Henner** [DE/DE]; Untere Dorfstrasse 20, 79618 Rheinfelden (DE). **THOMAS, Andrew, William** [GB/CH]; Zwinglistrasse 4, CH-4127 Birsfelden (CH).

(74) Agent: **POPPE, Regina**; Grenzacherstrasse 124, CH-4070 Basel (CH).

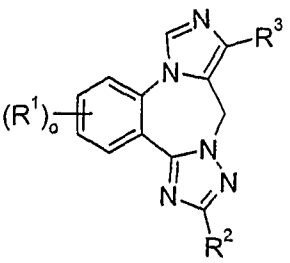
(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, 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:
— *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:** TETRACYCLIC IMIDAZO-BENZODIAZEPINES AS GABA RECEPTORS MODULATORS



(I)

(57) **Abstract:** The present invention is concerned with substituted imidazo [1,5-a] [1,2,4] triazolo [1,5-d] [1,4]benzodiazepine derivatives of the following formula (I) wherein R' is hydrogen, halogen, lower alkyl, lower alkyl substituted by halogen, lower alkoxy, lower alkoxy substituted by halogen, nitro, cycloalkyl, $-O(CH_2)_mO(CH_2)_mOH$ or $-C\equiv C-R'$; R^2 is hydrogen or methyl; R^3 is lower alkyl, lower alkyl substituted by halogen, lower alkenyl, lower alkenyl substituted by halogen, lower alkynyl, $-(CH_2)_n$-cycloalkyl, $-(CR'R")_m CH_3$, or is phenyl, unsubstituted or substituted by halogen, or is pyridinyl or thienyl, unsubstituted or substituted by lower alkyl, or is $-(CH_2)_n$-NH-cycloalkyl, lower alkenyl-cycloalkyl, lower alkynyl-$(CR'R")_mOH$, or is lower alkynyl-phenyl, wherein the phenyl ring is unsubstituited or substituted by halogen, CF_3, lower alkyl or lower alkoxy; R' is hydrogen or lower alkyl; R" is hydrogen, hydroxy or lower alkyl; n is 0, 1 or 2; m is 1, 2 or 3; o is 1 or 2; and with their pharmaceutically acceptable acid addition salts. It has been found that this class of compounds show high affinity and selectivity for GABA A α 5 receptor binding sites and might be useful as cognitive enhancer or for the treatment of cognitive disorders like Alzheimer's disease.

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