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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
21 February 2008 (21.02.2008)

PCT

(10) International Publication Number
WO 2008/021235 A2

(51) International Patent Classification:
C07C 211/00 (2006.01) *C07D 413/14* (2006.01)
C07D 413/04 (2006.01)

(21) International Application Number:
PCT/US2007/017796

(22) International Filing Date: 10 August 2007 (10.08.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/837,567	14 August 2006 (14.08.2006)	US
60/959,252	10 July 2007 (10.07.2007)	US

(71) Applicant *(for all designated States except US)*: **SCHERING CORPORATION** [US/US]; 2000 Galloping Hill Road, Kenilworth, NJ 07033 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **CUTARELLI, Timothy, D.** [US/US]; 214 Potomac Drive, Basking Ridge, NJ 07920 (US). **FU, Xiaoyong** [US/US]; 18 Augusta Avenue, Edison, NJ 08820 (US). **MCALLISTER, Timothy, L.** [US/US]; 45 A2 Sandra Circle, Westfield, NJ 07090 (US). **REEDER, Michael, R.** [US/US]; 12 Seminole Road, Skillman, NJ 08558 (US). **YIN, Jianguo** [US/US]; 11 Mahogany Court, Plainsboro, NJ 08536 (US). **YONG, Kelvin, H.** [CA/US]; 601 Riverside Avenue, Unit 319, Lyndhurst, NJ 07071 (US). **ZHANG, Shuyi** [US/US]; 1 Doric Avenue, Parsippany, NJ 07054 (US).

(74) Agent: **FISCHER, Eric, H.**; Schering Corporation, Patent Dept. K-6-1 1990, 2000 Galloping Hill Road, Kenilworth, NJ 07033 (US).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, 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, 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, HU, IE, IS, IT, LT, LU, LV, MC, MT, 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*

WO 2008/021235 A2

(54) Title: PROCESS AND INTERMEDIATES FOR THE SYNTHESIS OF 2-(QUINOLIN-5-YL)-4,5 DISUBSTITUTED-AZOLE DERIVATIVES

(57) Abstract: This application discloses a novel process to synthesize 2-(Quinolin-5yo)-4,5-Disubstituted-Azole derivatives, which may be used, for example, as PDE IV inhibitor compounds in pharmaceutical preparations.