

109
109

SEÑORES

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO

DIVISIÓN DE NUEVAS CREACIONES

E. _____ S. _____

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO



No. 06-047835- -00003-0000

Fecha: 2008-02-05 16:01:41 Dep. 2020 NUECREACIONE
Tra 11 PATENTEIYII Eve: 379 FASENACIONALII
Act 539 PETICION Folios: 3

Ref.: Expediente N° 06-047.835

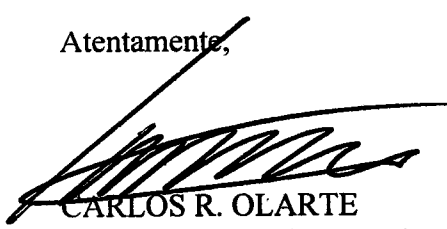
Solicitud de Patente de Invención Titulada: "FORMULACIONES DE INHIBIDORES DE LA FOSFODIESTERASA V."

Solicitante: SCHERING CORPORATION

SOLICITUD DE EXAMEN DE PATENTABILIDAD SEGÚN
EL ARTÍCULO 44 DE LA DECISION 486, GACETA No. 584

CARLOS R. OLARTE, mayor de edad y vecino de Bogotá, D.C., identificado tal como aparece al pie de mi firma, en mi condición de apoderado de la sociedad de la referencia, tal como consta en la sustitución adjunta, respetuosamente me permito solicitar que se examine si la invención reúne los requisitos de patentabilidad previstos en la misma, dando cumplimiento a lo establecido en el artículo 44 de la Decisión 486 de la comisión de la Comunidad Andina. Adjunto recibo por el monto de \$210.000 pesos para cubrir la tasa correspondiente, según la Resolución 44372 de 26 de diciembre 2007.

Atentamente,


CARLOS R. OLARTE
C.C. 79.782.747 de Bogotá
T.P. 74.295

Anexo: Recibo por \$210.000 pesos

FEG/P211K/UKH084 080214 Sol exam

42
110

Señores

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO

DIVISIÓN DE NUEVAS CREACIONES

E. _____ S. _____ D. _____

Ref.: Expediente No. 06.047.835

Solicitud de Patente de Invención Título: "FORMULACIONES DE INHIBIDORES DE LA FOSFODIESTERASA V."

Solicitante: SCHERING CORPORATION

SUSTITUCIÓN DE PODER

J. IAN RAISBECK LLINAS, mayor de edad y vecino de Bogotá D.C., identificado como aparece al pie de mi firma, en mi carácter de apoderado de la sociedad de la referencia, respetuosamente me permito manifestar que SUSTITUYO el poder a mi conferido por la mencionada sociedad, en el doctor **CARLOS R. OLARTE**, mayor de edad, domiciliado en Bogotá D.C., identificado con la Cédula de Ciudadanía No. 79.782.747 de Bogotá y portador de la Tarjeta Profesional No. 74.295 del Consejo Superior de la Judicatura, para que sea él quien en adelante asuma el trámite de la presente acción.

Atentamente,



J. IAN RAISBECK LLINAS
C.C. No. 79.376.996 de Bogotá
T.P. 135.799 del C. S. de la J.

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO



No. 06-047835- -00003-0000

Fecha: 2008-02-05 16:01:41 Dep. 2020 NULCREACIONE
 Tra 11 PATENTILYII Eve 379 FASENACIONALII
 Act 538 PETICION Folia: 3

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO

NIT : 900176009-2

RECIBO OFICIAL DE CAJA : 08 - 8.790
 FECHA : FEBRERO 1 DE 2008

***** CONSIGNACION *****

DEPOSITANTE	TIPO PAGO	BANCO	CUENTA	No. PAGO	FECHA PAGO	VR. PAGO
OLARTE RAISBER	CONSIGNACION	BANCO DE BOGOTA	062734387	2661940	01/02/2008	11.577.000.00

***** CONCEPTO *****

CANT.	NUMEROS	CONCEPTO	TOTAL CONCEPTO
1	30005-01-01	SOLICITUDES	
		114 PTO CAP-II EXAMEN DE PATENTIBILIDAD	210.000.00
		TOTAL :	210.000.00

BOGOTANOS DIEZ MIL PESOS

RESPONSABLE :

RECIBO DE CAJA APLICADO AL EXPEDIENTE NO.

DIVISIÓN DE NUEVAS CREACIONES

RADICACIÓN EXPEDIENTE No. 06-47835

EL EXTRACTO DE LA PRESENTE SOLICITUD DE **PATENTE DE INVENCION**

FUE PUBLICADO EN LA GACETA DE PROPIEDAD INDUSTRIAL No **584** DE

FECHA **31 DE DICIEMBRE DE 2007** EL TÉRMINO HÁBIL SEÑALADO POR LA

LEY EXPIRA EL **31 DE MARZO DE 2008**

NOTA: Dentro del plazo de los seis (6) meses siguientes a partir de la fecha de publicación en la gaceta de Propiedad Industrial, deberá solicitar y cancelar el examen de patentabilidad so pena de que la solicitud caiga en abandono, de acuerdo con lo establecido en el Artículo 44 de la Decisión 486/2000.

SE PRESENTARON OPOSICIONES POR PARTE DE TERCEROS.

SI _____

NO _____ **X** _____

D-13
113

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

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
28 March 2002 (28.03.2002)

PCT

(10) International Publication Number
WO 02/24698 A1

(51) International Patent Classification⁷: C07D 473/04,
473/06, 473/08, A61K 31/522, A61P 15/00, 9/00

(21) International Application Number: PCT/US01/28983

(22) International Filing Date:
17 September 2001 (17.09.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/233,567 19 September 2000 (19.09.2000) US

(71) Applicant: SCHERING CORPORATION [US/US];
Patent Department - K-6-1 1990, 2000 Galloping Hill
Road, Kenilworth, NJ 07033-0530 (US).

(72) Inventors: CHACKALAMANNIL, Samuel; 79 Strat-
ford Road, East Brunswick, NJ 08816 (US). WANG,
Yuguang; 38 Princess Drive, North Brunswick, NJ 08902
(US). BOYLE, Craig, D.; 13 Mill Lane, Branchburg, NJ
08876 (US). STAMFORD, Andrew, W.; 27 Overlook
Road, Chatham Township, NJ 07928 (US).

(74) Agent: KUTZENCO, Allan, N.; Schering Corporation,
Patent Department - K-6-1 1990, 2000 Galloping Hill
Road, Kenilworth, NJ 07033-0530 (US).

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

(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, 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

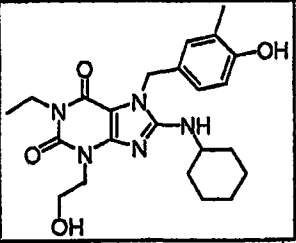
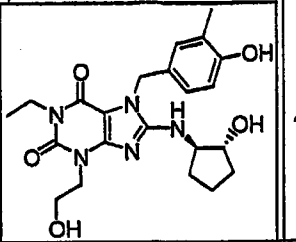
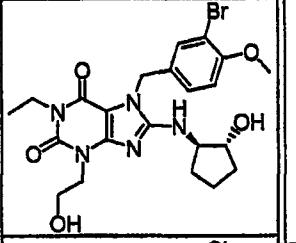
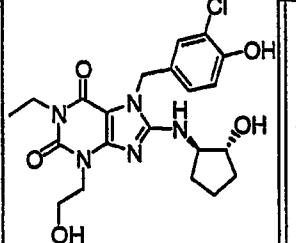
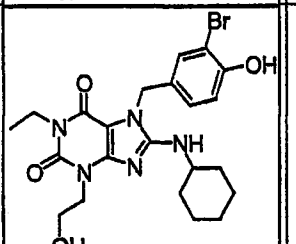
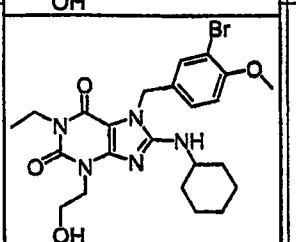
For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

WO 02/24698 A1

(54) Title: XANTHINE PHOSPHODIESTERASE V INHIBITORS

(57) Abstract: A xanthine phosphodiesterase V inhibitor having the formula (I), where R⁴ is a C₃₋₁₅ cycloalkyl group, with or without one or more substituents, C₃₋₁₅ cycloalkenyl group, with or without one or more substituents, or a heterocycloalkyl group of 3 to 15 members, with or without one or more substituents; useful for treating male (erectile) and female sexual dysfunction and other physiological disorders. For example, a representative compound of the invention is formula (II).

114
114**TABLE II**

Compound No.	STRUCTURE	HRMS Calc.	HRMS Found	M. M+1
112		442.2454	442.2448	(M+1)
113		444.2247	444.2252	(M+1)
114		522.1352	522.1346	(M+1)
115		464.1701	464.1696	(M+1)
116		506.1403	506.141	(M+1)
117		520.1559	520.1568	(M+1)

#5
115

systems, surfactants, preservatives, sweetener agents, viscosity agents, fillers, lubricants, glidants, disintegrants, binders and resins.

Conventional flavoring agents may be used, such as those described in *Remington's Pharmaceutical Sciences*, 18th Ed., Mack Publishing Co., pp. 1288-1300 (1990), which is incorporated in its entirety by reference herein. The pharmaceutical compositions of the invention generally contain from about 0 to 2 % of flavoring agents.

Conventional dyes and/or pigments may also be used, such as those described in the *Handbook of Pharmaceutical Excipients*, by the American Pharmaceutical Association & the Pharmaceutical Society of Great Britain, pp. 81-90 (1986), which is incorporated in its entirety by reference herein. The pharmaceutical compositions of the invention generally contain from about 0 to 2 % of dyes and/or pigments.

The pharmaceutical compositions of the invention generally contain from about 0.1 to 99.9 % of solvent(s). A preferred solvent is water.

Preferred co-solvents include ethanol, glycerin, propylene glycol, polyethylene glycol, and the like. The pharmaceutical compositions of the invention may include from about 0 to 50 % of co-solvents.

Preferred buffer systems include acetic, boric, carbonic, phosphoric, succinic, malic, tartaric, citric, acetic, benzoic, lactic, glyceric, gluconic, glutaric and glutamic acids and their sodium, potassium and ammonium salts. Particularly preferred buffers are phosphoric, tartaric, citric and acetic acids and salts thereof. The pharmaceutical compositions of the invention generally contain from about 0 to 5 % of a buffer.

Preferred surfactants include polyoxyethylene sorbitan fatty acid esters, polyoxyethylene monoalkyl ethers, sucrose monoesters and lanolin esters and ethers, alkyl sulfate salts and sodium, potassium and ammonium salts of fatty acids. The pharmaceutical compositions of the invention
5 generally contain from about 0 to 2 % of surfactants.

Preferred preservatives include phenol, alkyl esters of parahydroxybenzoic acid, o-phenylphenol benzoic acid and salts thereof, boric acid and salts thereof, sorbic acid and salts thereof, chlorobutanol, benzyl alcohol, thimerosal, phenylmercuric acetate and nitrate, nitromersol,
10 benzalkonium chloride, cetylpyridinium chloride, methyl paraben and propyl paraben. Particularly preferred preservatives are the salts of benzoic acid, cetylpyridinium chloride, methyl paraben and propyl paraben. The pharmaceutical compositions of the invention generally include from about 0 to 2 % of preservatives.

Preferred sweeteners include sucrose, glucose, saccharin, sorbitol, mannitol and aspartame. Particularly preferred sweeteners are sucrose and saccharin. Pharmaceutical compositions of the invention generally include
15 from about 0 to 5 % of sweeteners.

Preferred viscosity agents include methylcellulose, sodium carboxymethylcellulose, hydroxypropyl-methylcellulose,
20 hydroxypropylcellulose, sodium alginate, carbomer, povidone, acacia, guar gum, xanthan gum and tragacanth. Particularly preferred viscosity agents are methylcellulose, carbomer, xanthan gum, guar gum, povidone, sodium carboxymethylcellulose, and magnesium aluminum silicate. Pharmaceutical

compositions of the invention generally include from about 0 to 5 % of viscosity agents.

Preferred fillers include lactose, mannitol, sorbitol, tribasic calcium phosphate, diabasic calcium phosphate, compressible sugar, starch, calcium sulfate, dextro and microcrystalline cellulose. Pharmaceutical compositions of the invention generally contain from about 0 to 75 % of fillers.

Preferred lubricants/glidants include magnesium stearate, stearic acid and talc. Pharmaceutical compositions of the invention generally include from about 0 to 7 %, preferably, about 1 to 5 % of lubricants/glidants.

Preferred disintegrants include starch, sodium starch glycolate, crospovidone and croscarmellose sodium and microcrystalline cellulose. Pharmaceutical compositions of the invention generally include from about 0 to 20 %, preferably, about 4 to 15 % of disintegrants.

Preferred binders include acacia, tragacanth, hydroxypropylcellulose, pregelatinized starch, gelatin, povidone, hydroxypropylcellulose, hydroxypropylmethylcellulose, methylcellulose, sugar solutions, such as sucrose and sorbitol, and ethylcellulose. Pharmaceutical compositions of the invention generally include from about 0 to 12 %, preferably, about 1 to 10 % of binders.

Additional agents known to a skilled formulator may be combined with the compounds of the invention to create a single dosage form. Alternatively, additional agents may be separately administered to a mammal as part of a multiple dosage form.