US007678912B2

(12) **United States Patent**
Tarur et al.

(10) **Patent No.: US 7,678,912 B2**
(45) **Date of Patent: Mar. 16, 2010**

(54) **PROCESS FOR PREPARATION OF 4-AMINO-1-ISOBUTYL-1H-IMIDAZO[4,5-C]-QUINOLINE (IMIQUIMOD)**

(75) Inventors: **Venkatasubramanian Radhakrishnan Tarur**, Mumbai (IN); **Suresh Mahadev Kadam**, Navi Mumbai (IN); **Anil Purushottam Joshi**, Thane (IN); **Sachin Baban Gavhane**, Ahmednagar (IN)

(73) Assignee: **USV, Ltd.**, Mumbai (IN)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 57 days.

(21) Appl. No.: **11/575,927**

(22) PCT Filed: **Dec. 27, 2004**

(86) PCT No.: **PCT/IN2004/000411**

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(2), (4) Date: **Mar. 23, 2007**

(87) PCT Pub. No.: **WO2006/070379**

PCT Pub. Date: **Jul. 6, 2006**

(65) **Prior Publication Data**

US 2008/0058527 A1 Mar. 6, 2008

(51) **Int. Cl.**
C07D 215/00 (2006.01)

(52) **U.S. Cl.** **546/157**

(58) **Field of Classification Search** 546/157
See application file for complete search history.

(56) **References Cited**

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Primary Examiner—D. Margaret Seaman
Assistant Examiner—Nizal S Chandrakumar
(74) *Attorney, Agent, or Firm*—Pharmaceutical Patent Atty's, LLC

(57) **ABSTRACT**

A process for preparation of 1-isobutyl-1H-imidazo-[4,5-c]-quinoline-5-N-oxide, comprising oxidation of 1-isobutyl-1H-imidazoquinoline with meta-chloroperbenzoic acid.

16 Claims, No Drawings

US007582675B2

(12) **United States Patent**
Osawa et al.

(10) **Patent No.: US 7,582,675 B2**
(45) **Date of Patent: Sep. 1, 2009**

(54) **FLAVONOID COMPOUND AND PROCESS FOR PRODUCING THE SAME**

(75) Inventors: **Toshihiko Osawa**, Nagoya (JP); **Kenichiro Minato**, Sendai (JP); **Yoshiaki Miyake**, Toyota (JP)

(73) Assignees: **Pokka Corporation**, Aichi (JP); **National University Corp. Nagoya University**, Aichi-ken (JP)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 540 days.

(21) Appl. No.: **11/462,437**

(22) Filed: **Aug. 4, 2006**

(65) **Prior Publication Data**

US 2006/0270009 A1 Nov. 30, 2006

Related U.S. Application Data

(62) Division of application No. 10/471,438, filed on Sep. 10, 2003, now Pat. No. 7,138,429.

(30) **Foreign Application Priority Data**

Mar. 15, 2001 (JP) 2001-073577
Mar. 30, 2001 (JP) 2001-098744
Mar. 14, 2002 (JP) PCT/JP02/02445

(51) **Int. Cl.**
A61K 31/352 (2006.01)
C07D 311/74 (2006.01)

(52) **U.S. Cl.** **514/456**; 549/200; 549/356; 549/381; 549/399; 549/401; 514/451

(58) **Field of Classification Search** 549/200, 549/356, 381, 399, 401; 514/451, 456
See application file for complete search history.

(56) **References Cited**

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Primary Examiner—Golam M Shameem
(74) *Attorney, Agent, or Firm*—Pharmaceutical Patent Attorneys, LLC

(57) **ABSTRACT**

A preparation process is provided for preparing a novel flavonoid compound having a high level of antioxidative action. The flavonoid compound is obtained by subjecting hesperidin to microbial fermentation treatment with *Aspergillus saitoi.*

5 Claims, 1 Drawing Sheet

US007446200B2

(12) **United States Patent**
Deshpande et al.

(10) **Patent No.: US 7,446,200 B2**
(45) **Date of Patent: Nov. 4, 2008**

(54) **RAPID RESOLUTION PROCESS OF CLOPIDOGREL BASE AND A PROCESS FOR PREPARATION OF CLOPIDOGREL BISULFATE POLYMORPH-FORM I**

(75) Inventors: **Manoj Madhukarrao Deshpande**, Mumbai (IN); **V. R. Tarur**, Mumbai (IN); **Dhananjay Govind Sathe**, Thane (IN); **Harish Kashniath Mondkar**, Mumbai (IN); **Kamlesh Digambar Sawant**, Mumbai (IN); **Tushar Anil Naik**, Mumbai (IN)

(73) Assignee: **USV, Ltd.**, Mumbai (IN)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 345 days.

(21) Appl. No.: **11/149,646**

(22) Filed: **Jun. 10, 2005**

(65) **Prior Publication Data**

US 2006/0074242 A1 Apr. 6, 2006

Related U.S. Application Data

(63) Continuation-in-part of application No. 10/957,891, filed on Oct. 4, 2004, now abandoned.

(30) **Foreign Application Priority Data**

Feb. 15, 2005 (IN) PCT/IN05/00048

(51) **Int. Cl.**
C07D 495/04 (2006.01)

(52) **U.S. Cl.** **546/114**

(58) **Field of Classification Search** 546/114
See application file for complete search history.

(56) **References Cited**

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Primary Examiner—Patricia L. Morris
(74) *Attorney, Agent, or Firm*—Pharmaceutical Patent Atty's, LLC

(57) **ABSTRACT**

The present invention discloses a rapid resolution process of racemic clopidogrel base followed by conversion of the resolved (S) isomer to crystalline Clopidogrel bisulfate Form I. The invention also discloses novel racemization process of the unwanted (R) isomer of clopidogrel base. The invention further discloses an improved process for preparation of acid addition salts of clopidogrel.

15 Claims, 3 Drawing Sheets

US007439365B2

(12) **United States Patent**
Tarur et al.

(10) **Patent No.: US 7,439,365 B2**
(45) **Date of Patent: Oct. 21, 2008**

(54) **PHARMACEUTICAL SALT OF (1-BENZYL-4-[(5,6-DIMETHOXY-1-INDANONE)-2-YL] METHYL PIPERIDINE (DONEPEZIL)**

(75) Inventors: **Venkatasubramanian Radhakrishnan Tarur**, Mumbai (IN); **Dhananjay Govind Sathe**, Thane (IN); **Avinash Venkatraman Naidu**, Dombivli (IN); **Umesh Parashram Aher**, Kalyan (IN)

(73) Assignee: **USV, Ltd.**, Mumbai (IN)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 525 days.

(21) Appl. No.: **10/879,816**

(22) Filed: **Jun. 29, 2004**

(65) **Prior Publication Data**

US 2005/0107613 A1 May 19, 2005

Related U.S. Application Data

(63) Continuation-in-part of application No. 10/714,724, filed on Nov. 17, 2003, now Pat. No. 6,953,856.

(51) **Int. Cl.**
C07D 211/02 (2006.01)

(52) **U.S. Cl.** **546/206**; 514/319; 546/205

(58) **Field of Classification Search** 514/319; 546/205, 206
See application file for complete search history.

(56) **References Cited**

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Primary Examiner—Celia Chang
(74) *Attorney, Agent, or Firm*—Pharmaceutical Patent Attorneys, LLC

(57) **ABSTRACT**

The present invention relates to the oxalate salt of 1-benzyl-4-[(5,6-dimethoxy-1-indanone)-2-yl]methyl piperidine, commonly known as Donepezil, and its method of preparation.

20 Claims, 6 Drawing Sheets

US007388056B2

(12) **United States Patent**
Gopalkrishna et al.

(10) **Patent No.: US 7,388,056 B2**
(45) **Date of Patent: Jun. 17, 2008**

(54) **PROCESS FOR THE PREPARATION OF CROSSLINKED POLYALLYLAMINE POLYMER**

(75) Inventors: **Kulkarni Mohan Gopalkrishna**, Maharashtra (IN); **Kanawade Sandeep Thakaji**, Maharashtra (IN); **Benjamin Swapnanjali Babu**, Maharashtra (IN)

(73) Assignee: **Council of Scientific of Industrial Research**, Pune (IN)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 306 days.

(21) Appl. No.: **11/365,801**

(22) Filed: **Mar. 2, 2006**

(65) **Prior Publication Data**

US 2006/0258812 A1 Nov. 16, 2006

(30) **Foreign Application Priority Data**

Mar. 16, 2005 (IN) 568/2005

(51) **Int. Cl.**
C08F 8/30 (2006.01)

(52) **U.S. Cl.** **525/359.3**; 525/328.2

(58) **Field of Classification Search** 525/328.2, 525/359.3

See application file for complete search history.

(56) **References Cited**

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Primary Examiner—Bernard Lipman
(74) *Attorney, Agent, or Firm*—Pharmaceutical Patent Attorneys, LLC

(57) **ABSTRACT**

The present invention provides a process for crosslinking of polyallylamine hydrochloride wherein an aqueous solution of polyallylamine hydrochloride is partly neutralized with alkali and epichlorohydrin is added. The aqueous solution is dispersed in an organic medium containing a surfactant. This leads to gelation in individual droplets. The crosslinking in individual gel beads is completed by raising the temperature. The resulting beads are then separated, washed with water, treated with an organic solvent and dried. The method maximizes the yield of crosslinked polyallylamine hydrochloride particles in the range 60-100 mesh.

15 Claims, No Drawings

US007378439B2

(12) **United States Patent**
Tarur et al.

(10) **Patent No.: US 7,378,439 B2**
(45) **Date of Patent: May 27, 2008**

(54) **PROCESS FOR THE PREPARATION OF 4-(2-DIPROPYLAMINOETHYL)-1,3-DIHYDRO-2H-INDOL-2-ONE HYDROCHLORIDE**

(75) Inventors: **Venkatasubramanian Radhakrishna Tarur**, Mumbai (IN); **Dhananjay Govind Sathe**, Thane (IN); **Harish Kashinath Mondkar**, Mumbai (IN); **Rajesh Ganpat Bhopalkar**, Naupada (IN); **Samadhan Daulat Patil**, Dombivli (IN)

(73) Assignee: **USV, Ltd.**, Mumbai (IN)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 200 days.

(21) Appl. No.: **10/888,901**

(22) Filed: **Jul. 9, 2004**

(65) **Prior Publication Data**

US 2005/0159605 A1 Jul. 21, 2005

(30) **Foreign Application Priority Data**

Jan. 20, 2004 (IN) 60/MUM/2004

(51) **Int. Cl.**
A61K 31/4015 (2006.01)
C07D 209/34 (2006.01)

(52) **U.S. Cl.** **514/418**; 548/486

(58) **Field of Classification Search** 548/486; 514/418
See application file for complete search history.

(56) **References Cited**

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Primary Examiner—Joseph McKane
Assistant Examiner—Shawquia Young
(74) *Attorney, Agent, or Firm*—Pharmaceutical Patent Attorneys, LLC

(57) **ABSTRACT**

The present invention discloses a novel process and novel intermediates for the Preparation of 4-[2-(di-n-propyl amino) ethyl]-1,3-dihydro-2H-indol-2-one, commonly known as Ropinirole (I) and pharmaceutical composition comprising the same. Further the present invention also discloses a method of treatment for cardiovascular disorders and Parkinson's disease.

24 Claims, No Drawings

US007378405B2

(12) **United States Patent**
Patel

(10) **Patent No.: US 7,378,405 B2**
(45) **Date of Patent: May 27, 2008**

(54) **STABILIZED STEROID COMPOSITION AND METHOD FOR ITS PREPARATION**

(75) Inventor: **Pravin M. Patel**, Bloomfield Hills, MI (US)

(73) Assignee: **Triax Pharmaceuticals, LLC**, Cranford, NJ (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 757 days.

(21) Appl. No.: **10/762,652**

(22) Filed: **Jan. 22, 2004**

(65) **Prior Publication Data**

US 2004/0152682 A1 Aug. 5, 2004

Related U.S. Application Data

(60) Provisional application No. 60/442,114, filed on Jan. 23, 2003.

(51) **Int. Cl.**
A61K 31/56 (2006.01)

(52) **U.S. Cl.** **514/180**; 514/181

(58) **Field of Classification Search** 514/180, 514/182

See application file for complete search history.

(56) **References Cited**

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5,968,519	A	10/1999	Youssefyeh et al.	424/195
6,090,800	A	7/2000	Unger et al.	514/180
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Primary Examiner—San-ming Hui
(74) *Attorney, Agent, or Firm*—Pharmaceutical Patent Attorneys, LLC

(57) **ABSTRACT**

Stabilized 17-substituted hydrocortisone containing compositions and methods of manufacture. Isomerization of the hydrocortisone component of topical steroid compositions is markedly reduced by introducing an omega-6. acid in the form of linoleic acid into the skin preparation. Preferably, the linoleic acid is added as a component of refined safflower oil. The omega-6 acid has been found to be an effective way of preventing the isomerization of hydrocortisone 17-butyrate into the undesirable isomer HC21-B.

18 Claims, No Drawings

US007186842B2

(12) **United States Patent**
Aher et al.

(10) **Patent No.: US 7,186,842 B2**
(45) **Date of Patent: Mar. 6, 2007**

(54) **POLYMORPH OF (1-BENZYL-4-[(5,6-DIMETHOXY-1-INDANONE)-2-Y1] METHYL PIPERIDINE HYDROCHLORIDE (DONEPEZIL HYDROCHLORIDE) AND A PROCESS FOR PRODUCING THEREOF**

(75) Inventors: **Umesh P. Aher**, Kalyan (IN); **Venkatasubramanian R. Tarur**, Mumbai (IN); **Dhananjay Govind Sathe**, Thane (IN); **Avinash Venkataraman Naidu**, Dombivli (IN); **Kamlesh Digambar Sawant**, Mumbai (IN)

(73) Assignee: **USV, Ltd.**, Mumbai (IN)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **11/145,202**

(22) Filed: **Jun. 3, 2005**

(65) **Prior Publication Data**

US 2005/0272775 A1 Dec. 8, 2005

Related U.S. Application Data

(63) Continuation-in-part of application No. 11/072,169, filed on Mar. 4, 2005, and a continuation-in-part of application No. 10/879,816, filed on Jun. 29, 2004, and a continuation-in-part of application No. 10/714,724, filed on Nov. 17, 2003, now Pat. No. 6,953,856, and a continuation-in-part of application No. 10/365,717, filed on Feb. 12, 2003, now Pat. No. 6,649,765.

(30) **Foreign Application Priority Data**

Jul. 28, 2004 (IN) PCT/IN04/00227

(51) **Int. Cl.**
C07D 211/32 (2006.01)
A61K 31/445 (2006.01)

(52) **U.S. Cl.** **546/206**; 514/319

(58) **Field of Classification Search** 514/319; 546/206
See application file for complete search history.

(56) **References Cited**

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Primary Examiner—Charanjit S. Aulakh
(74) *Attorney, Agent, or Firm*—Pharmaceutical Patent Attys, LLC

(57) **ABSTRACT**

The present invention discloses a novel, stable polymorph of 1-benzyl-4-[(5,6-dimethoxy-1-indanone)-2-yl] methyl piperidine hydrochloride commonly known as Donepezil hydrochloride. Further the present invention discloses a process for producing Donepezil HCl amorphous and its polymorph Form (VI).

9 Claims, 2 Drawing Sheets

US007148364B2

(12) **United States Patent**
Rajamannar et al.

(10) **Patent No.: US 7,148,364 B2**
(45) **Date of Patent: *Dec. 12, 2006**

(54) **PROCESS FOR THE PREPARATION OF 1-[3-(DIMETHYLAMINO)PROPYL]-1-(4-FLUOROPHENYL)-1,3-DIHYDRO-5-ISOBENZOFURAN CARBONITRILE**

(75) Inventors: **Thennati Rajamannar**, Baroda (IN); **Kilaru Srinivasu**, Baroda (IN); **Nileshkumar Sureshbhai Patel**, Baroda (IN); **Chinnapillai Rajendran**, Hyderabad (IN)

(73) Assignee: **Sun Pharmaceutical Industries**, Mumbai (IN)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **10/500,532**

(22) PCT Filed: **Jan. 7, 2003**

(86) PCT No.: **PCT/IN03/00006**

§ 371 (c)(1),
(2), (4) Date: **Jul. 19, 2004**

(87) PCT Pub. No.: **WO03/057132**

PCT Pub. Date: **Jul. 17, 2003**

(65) **Prior Publication Data**

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(30) **Foreign Application Priority Data**

Jan. 7, 2002 (IN) 10/MUM/2002
Jan. 10, 2002 (IN) 18/MUM/2002
Sep. 30, 2002 (IN) 847/MUM/2002

(51) **Int. Cl.**
C07D 307/87 (2006.01)

(52) **U.S. Cl.** **549/467**; 549/462; 549/465

(58) **Field of Classification Search** 549/462, 549/467, 469, 465
See application file for complete search history.

(56) **References Cited**

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Primary Examiner—Sabiha N. Qazi
(74) *Attorney, Agent, or Firm*—Pharmaceutical Patent Attorneys, LLC

(57) **ABSTRACT**

The present invention provides a process for the preparation of crude 1-[3-(dimethylamino)propyl]-1-(4-fluorophenyl)-1,3-dihydro-5-isobenzofuran carbonitrile base with substantially low levels of impurities by arresting the formation of substantial amount of carboxamide impurity, high molecular weight impurities and suppressing the formation of desmethylcitalopram besides taking the cyanide exchange reaction to near completion and thus avoiding an extensive and expensive purification process.

26 Claims, No Drawings

US007138429B2

(12) **United States Patent**
Osawa et al.

(10) **Patent No.: US 7,138,429 B2**
(45) **Date of Patent: Nov. 21, 2006**

(54) **FLAVONOID COMPOUND AND PROCESS FOR PRODUCING THE SAME**

(75) Inventors: **Toshihiko Osawa**, Nagoya (JP); **Kenichiro Minato**, Sendai (JP); **Yoshiaki Miyake**, Toyota (JP)

(73) Assignee: **Japan Sci. Tech. Corp.**, Saitama (JP)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 305 days.

(21) Appl. No.: **10/471,438**

(22) PCT Filed: **Mar. 14, 2002**

(86) PCT No.: **PCT/JP02/02445**

§ 371 (c)(1),
(2), (4) Date: **Sep. 10, 2003**

(87) PCT Pub. No.: **WO02/074971**

PCT Pub. Date: **Sep. 26, 2002**

(65) **Prior Publication Data**

US 2004/0152762 A1 Aug. 5, 2004

(30) **Foreign Application Priority Data**

Mar. 15, 2001 (JP) 2001-073577
Mar. 30, 2001 (JP) 2001-098744

(51) **Int. Cl.**
A61K 31/352 (2006.01)
C07D 311/74 (2006.01)

(52) **U.S. Cl.** **514/456**; 549/356; 549/381; 549/399; 549/401; 514/451

(58) **Field of Classification Search** 549/200, 549/356, 381, 396, 399, 401; 514/451, 458
See application file for complete search history.

(56) **References Cited**

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Primary Examiner—Golam M. M. Shameem
(74) *Attorney, Agent, or Firm*—Pharmaceutical Patent Attorneys, LLC

(57) **ABSTRACT**

A preparation process is provided for preparing a novel flavonoid compound having a high level of antioxidative action. The flavonoid compound is obtained by subjecting hesperidin to microbial fermentation treatment with *Aspergillus saitoi*.

8 Claims, 1 Drawing Sheet

US007132444B2

(12) **United States Patent**
Soni et al.

(10) **Patent No.: US 7,132,444 B2**
(45) **Date of Patent: Nov. 7, 2006**

(54) **PROCESS FOR THE PREPARATION OF TRANS-3-ETHYL-2,5-DIHYDRO-4-METHYL-N-[2-[4-[[[[(4-METHYL CYCLOHEXYL) AMINO]CARBONYL]AMINO]SULFONYL] PHENYL]ETHYL]-2-OXO-1H-PYRROLE-1-CARBOXAMIDE**

(75) Inventors: **Rohit Ravikant Soni**, Baroda (IN); **Thennati Rajamannar**, Baroda (IN); **Rajeev Budhdev Rehani**, Baroda (IN)

(73) Assignee: **Sun Pharmaceutical Industries, Ltd.**, Mumbai (IN)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 268 days.

(21) Appl. No.: **10/501,743**

(22) PCT Filed: **Jan. 6, 2003**

(86) PCT No.: **PCT/IN03/00004**

§ 371 (c)(1),
(2), (4) Date: **Jun. 30, 2004**

(87) PCT Pub. No.: **WO03/057131**

PCT Pub. Date: **Jul. 17, 2003**

(65) **Prior Publication Data**

US 2005/0070593 A1 Mar. 31, 2005

(30) **Foreign Application Priority Data**

Jan. 7, 2002 (IN) 9/MUM/2002

(51) **Int. Cl.**
A61K 31/40 (2006.01)
C07D 207/00 (2006.01)

(52) **U.S. Cl.** **514/423**; 514/424; 548/530

(58) **Field of Classification Search** 514/423, 514/424; 548/530
See application file for complete search history.

(56) **References Cited**

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Primary Examiner—Joseph K. McKane
Assistant Examiner—Susannah L. Chung
(74) *Attorney, Agent, or Firm*—Pharmaceutical Patent Attorneys, LLC

(57) **ABSTRACT**

The present invention provides a novel process for preparation of trans-3-ethyl 2,5-dihydro-4-methyl-N-[2-[4-[[[[(4-methyl cyclohexyl)amino]carbonyl]amino]sulfonyl]phenyl] ethyl]-2-oxo-1H-pyrrole-1-carboxamide via the novel intermediate compounds of formula 3.

18 Claims, No Drawings

US007087015B1

(12) **United States Patent**
Comrie et al.

(10) **Patent No.: US 7,087,015 B1**
(45) **Date of Patent: Aug. 8, 2006**

(54) **NEUROLOGICAL PATHOLOGY DIAGNOSTIC APPARATUS AND METHODS**

(75) Inventors: **McDonald Comrie**, Staten Island, NY (US); **David Michael Erlanger**, New York, NY (US); **Darin F Kaplan**, New York, NY (US); **Vladislav Shchogolev**, Brooklyn, NY (US); **Alexis Theodoracopulos**, New York, NY (US); **Philip Yee**, New York, NY (US)

(73) Assignee: **PanMedix, Inc.**, New York, NY (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/494,475**

(22) Filed: **Jan. 31, 2000**

(51) **Int. Cl.**
A61B 5/00 (2006.01)

(52) **U.S. Cl.** **600/300**; 434/236; 128/904

(58) **Field of Classification Search** 600/300, 600/301, 544, 545; 128/900, 903–905, 920–925; 705/2–4; 434/262, 236–238
See application file for complete search history.

(56) **References Cited**

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Primary Examiner—Kevin Shaver
Assistant Examiner—Michael Astorino
(74) *Attorney, Agent, or Firm*—Mark Pohl, Esq.; Pharmaceutical Patent Law, LLC

(57) **ABSTRACT**

Apparatus and methods for rapidly diagnosing the presence or absence of the symptoms of neurological pathology caused by physical head trauma (such as occurs in contact sports or automobile collisions), disease (such as occurs in Alzheimer's disease), toxins (substance abuse or environmental toxins) or infection (such as occurs as a side effect of later-stage AIDS infection). These inventions are useful for diagnosing neurological pathology, as well as for monitoring recovery from or maintenance or progression of neurological pathology.

1 Claim, No Drawings

US006953856B2

(12) **United States Patent**
Radhakrishnan et al.

(10) **Patent No.: US 6,953,856 B2**
(45) **Date of Patent: *Oct. 11, 2005**

(54) **PROCESS FOR THE PREPARATION OF 1-BENZYL-4-(5,6-DIMETHOXY-1-INDANON)-2-YL) METHYL PIPERIDINE HYDROCHLORIDE (DONEPEZIL HCI)**

(75) Inventors: **Tarur Venkatasubramanian Radhakrishnan**, Maharashtra (IN); **Sathe Dhanajay Govind**, Maharashtra (IN); **Naidu Avinash Venkatraman**, Maharashtra (IN)

(73) Assignee: **USV, Limited**, Mumbai (IN)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 1 day.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **10/714,724**

(22) Filed: **Nov. 17, 2003**

(65) **Prior Publication Data**

US 2004/0158070 A1 Aug. 12, 2004

Related U.S. Application Data

(63) Continuation-in-part of application No. 10/365,717, filed on Feb. 12, 2003, now Pat. No. 6,649,765.

(51) **Int. Cl.**[7] **C07D 211/02**; C07D 211/06

(52) **U.S. Cl.** **546/185**; 546/206

(58) **Field of Search** 546/185, 206

(56) **References Cited**

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Primary Examiner—Ceila Chang
Assistant Examiner—Raymond Covington
(74) *Attorney, Agent, or Firm*—Pharmaceutical Patent Attorneys, LLC

(57) **ABSTRACT**

A process for the preparation of 1-benzyl-4-[(5,6-dimethoxy-1-indanon)-2-yl] methyl piperidine hydrochloride (Donepezil HCl) is disclosed. 5,6-Dimethoxy-2-(pyridin-4-yl) methylene inda-1-one is hydrogenated with a noble metal catalyst or a non-oxide derivative of a noble metal catalyst in a solvent at 20–100° C. and 10–90 psi gauge pressure. The resulting 4-[(5,6-dimethoxy-1-indanon)-2-yl] methyl piperidine is alkylated with an alkylating agent in an organic solvent at 20–80° C.

16 Claims, No Drawings

US006916935B2

(12) **United States Patent**
Kumar et al.

(10) **Patent No.: US 6,916,935 B2**
(45) **Date of Patent: Jul. 12, 2005**

(54) **LOSARTAN POTASSIUM SYNTHESIS**

(75) Inventors: **Ashok Kumar**, Mumbai (IN); **Rajeshkumar Singh**, Mumbai (IN); **Nalinakshya Panda**, Vasai West (IN); **Abhay Upare**, Mumbai (IN); **Manmohan Nimbalkar**, Mumbai (IN); **Satish Soudagar**, Mumbai (IN)

(73) Assignee: **Ipca Laboratories**, Mumbai (IN)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 11 days.

(21) Appl. No.: **10/431,847**

(22) Filed: **May 7, 2003**

(65) **Prior Publication Data**

US 2004/0224998 A1 Nov. 11, 2004

Related U.S. Application Data

(60) Provisional application No. 60/468,208, filed on May 6, 2003.

(51) **Int. Cl.**[7] **C07D 257/00**

(52) **U.S. Cl.** **548/252**

(58) **Field of Search** 548/252; 514/381

(56) **References Cited**

U.S. PATENT DOCUMENTS

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Primary Examiner—Rita Desai
Assistant Examiner—Robert Shiao
(74) *Attorney, Agent, or Firm*—Pharmaceutical Patent Attorneys, LLC

(57) **ABSTRACT**

A process for the synthesis of Losartan Potassium by reacting Trityl Losartan in a primary alcohol with potassium tertiary alkoxide.

7 Claims, No Drawings

US006841176B2

(12) **United States Patent**
Fleischner

(10) **Patent No.: US 6,841,176 B2**
(45) **Date of Patent: Jan. 11, 2005**

(54) **IMMUNITY ENHANCING SUPPLEMENTS FOR LUNG SUPPORT**

(75) Inventor: **Albert M Fleischner**, Westwood, NJ (US)

(73) Assignee: **Goen Technologies, Inc.**, Cedar Knolls, NJ (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 321 days.

(21) Appl. No.: **10/191,272**

(22) Filed: **Jul. 9, 2002**

(65) **Prior Publication Data**

US 2003/0072823 A1 Apr. 17, 2003

Related U.S. Application Data

(63) Continuation-in-part of application No. 09/842,428, filed on Apr. 27, 2001, now abandoned.

(51) **Int. Cl.**[7] **A61K 35/78**

(52) **U.S. Cl.** **424/729**; 424/725; 424/743; 424/756; 424/757; 424/773; 424/775

(58) **Field of Search** 424/725, 729, 424/743, 756, 757, 773, 775

(56) **References Cited**

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Primary Examiner—Herbert J. Lilling
(74) *Attorney, Agent, or Firm*—Pharmaceutical Patent Attorneys, LLC

(57) **ABSTRACT**

Supplement compositions designed to support healthy lung function and to help strengthen the immune system.

2 Claims, No Drawings

US00D488714S

(12) United States Design Patent

Schengrund et al.

(10) Patent No.: US D488,714 S
(45) Date of Patent: ** Apr. 20, 2004

(54) **SUB-GRADE CONDUIT CONNECTOR**

(75) Inventors: **Peter Schengrund**, Berkeley Heights, NJ (US); **Joseph Curcio**, Berkeley Heights, NJ (US)

(73) Assignee: **C & S Manufacturing Co.**, Berkeley Heights, NJ (US)

(**) Term: **14 Years**

(21) Appl. No.: **29/180,672**

(22) Filed: **Apr. 29, 2003**

(51) **LOC (7) Cl.** **08-08**
(52) **U.S. Cl.** **D8/382**
(58) **Field of Search** D8/382, 394–396; 248/62, 74.1–74.2; D23/393; 285/15, 373

(56) **References Cited**

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5,605,357	A *	2/1997	Bird	285/15
6,276,726	B1 *	8/2001	Daspit	385/15
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Primary Examiner—Holly Baynham
(74) *Attorney, Agent, or Firm*—Pharmaceutical Patent Attorneys, L.L.C.

(57) **CLAIM**

We claim the ornamental design for a sub-grade conduit connector, as shown and described.

DESCRIPTION

The intended use of the article in which the design is embodied is to provide a sub-grade conduit connector.

This application claims priority from co-pending Ser. No. 10/319,072, filed Dec. 11, 2002.

FIG. **1** is a top, front perspective view of the sub-grade conduit connector of our design embodiment thereof.

FIG. **2** is a top plan view thereof

FIG. **3** is a bottom plan view thereof

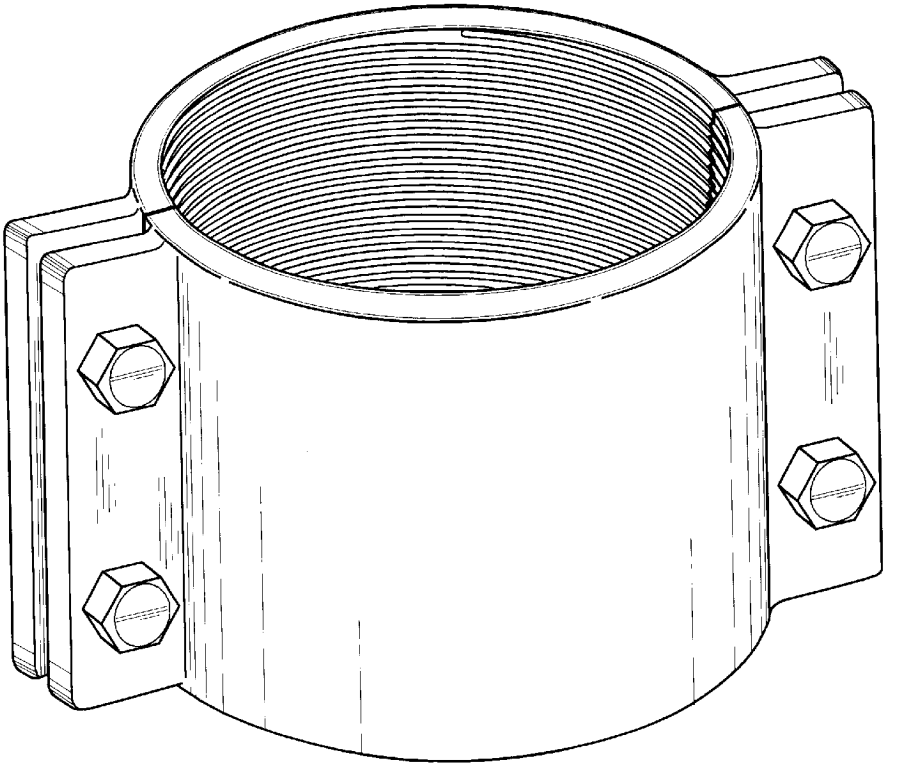
FIG. **4** is a left side elevation view thereof.

FIG. **5** is a right side elevation view thereof.

FIG. **6** is a rear elevation view thereof; and,

FIG. **7** is a top, front perspective view of a sub-grade conduit connector of our new design.

1 Claim, 4 Drawing Sheets



US006503529B1

(12) **United States Patent**
Fleischner

(10) **Patent No.: US 6,503,529 B1**
(45) **Date of Patent: Jan. 7, 2003**

(54) **BLOOD TYPE METHODS AND DIETARY SUPPLEMENTS**

(75) Inventor: **Albert M. Fleischner**, Westwood, NJ (US)

(73) Assignee: **Goen Group, Inc.**, Cedar Knolls, NJ (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 247 days.

(21) Appl. No.: **09/832,213**

(22) Filed: **Apr. 11, 2001**

Related U.S. Application Data

(63) Continuation of application No. 09/468,819, filed on Dec. 22, 1999, now Pat. No. 6,291,533.

(51) **Int. Cl.**[7] **A61K 47/00**; A61K 9/48; A61K 9/62

(52) **U.S. Cl.** **424/439**; 424/451; 424/464

(58) **Field of Search** 424/439, 451, 424/464

(56) **References Cited**

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Primary Examiner—Alton Pryor
(74) *Attorney, Agent, or Firm*—Pharmaceutical Patent Law LLC; Mark Pohl

(57) **ABSTRACT**

Dietary supplement compositions designed to be responsive to specific blood types, and thus most beneficial for people with specific antigenic blood types.

2 Claims, No Drawings

US006431874B1

(12) **United States Patent**
Szynalski

(10) **Patent No.: US 6,431,874 B1**
(45) **Date of Patent: Aug. 13, 2002**

(54) **STOP SMOKING METHOD AND COMPOSITION**

(75) Inventor: **Alexander Goen Szynalski**, Randolph, NJ (US)

(73) Assignee: **Goen Corporation**, Cedar Knolls, NJ (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/427,447**

(22) Filed: **Oct. 27, 1999**

(51) **Int. Cl.**[7] **G09B 23/28**
(52) **U.S. Cl.** **434/262**
(58) **Field of Search** 514/282, 343; 424/449; 434/262

(56) **References Cited**

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FOREIGN PATENT DOCUMENTS

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Primary Examiner—Sam Rimell
(74) *Attorney, Agent, or Firm*—Pharmaceutical Patent Law, LLC; Mark Pohl

(57) **ABSTRACT**

The inventor discloses a unique, new and useful process to reduce tobacco smoking, entitled Stop Smoking Method and Composition, consisting of: (1) educating tobacco smokers regarding smoking, its physiological dangers and addictive nature, and techniques to stop smoking; (2) hypnotizing said tobacco smokers, and (3) providing dietary substances to address the nutritional needs of nicotine addiction and the nutritional challenges thereof.

8 Claims, No Drawings

US006420352B1

(12) **United States Patent**
Knowles

(10) **Patent No.: US 6,420,352 B1**
(45) **Date of Patent: Jul. 16, 2002**

(54) **HAIR LOSS PREVENTION**

(76) Inventor: **W. Roy Knowles**, 7500 San Felipe, Suite 850, Houston, TX (US) 77003

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **10/044,553**

(22) Filed: **Jan. 11, 2002**

Related U.S. Application Data

(63) Continuation of application No. 09/619,142, filed on Jul. 19, 2000.

(51) **Int. Cl.**[7] **A61K 31/56**; A61K 31/496

(52) **U.S. Cl.** **514/171**; 514/255.05; 514/255.06; 514/947

(58) **Field of Search** 514/171, 255.05, 514/255.06

(56) **References Cited**

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Primary Examiner—Theodore J. Criares
Assistant Examiner—Vickie Kim
(74) *Attorney, Agent, or Firm*—Pharmaceutical Patent Law, LLC; Mark Pohl, Esq.

(57) **ABSTRACT**

Compositions to prevent or reduce hair loss, allowing the body to maintain normal, healthy hair growth, comprising a penetration enhancer together with a testosterone blocker or a vascular enhancer, or both.

17 Claims, No Drawings

US006420350B1

(12) **United States Patent**
Fleischner

(10) **Patent No.: US 6,420,350 B1**
(45) **Date of Patent: Jul. 16, 2002**

(54) **WEIGHT LOSS PRODUCT**

(75) Inventor: **Albert M Fleischner**, Westwood, NJ (US)

(73) Assignee: **Goen Group, Inc.**, Cedar Knolls, NJ (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/928,715**

(22) Filed: **Aug. 13, 2001**

Related U.S. Application Data

(63) Continuation-in-part of application No. 09/761,622, filed on Jan. 18, 2001.

(51) **Int. Cl.**[7] **A01N 43/04**; A61K 31/70

(52) **U.S. Cl.** **514/62**; 514/909; 424/725; 424/729

(58) **Field of Search** 424/725, 729; 514/62, 909

(56) **References Cited**

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Primary Examiner—Paul J. Killos
Assistant Examiner—Zachary Tucker
(74) *Attorney, Agent, or Firm*—Pharmaceutical Patent Attys, LLC; Mark Pohl, Esq.

(57) **ABSTRACT**

Supplement compositions designed to support weight loss and increase energy.

7 Claims, No Drawings

US006381592B1

(12) **United States Patent**
Reuning

(10) **Patent No.: US 6,381,592 B1**
(45) **Date of Patent: *Apr. 30, 2002**

(54) **CANDIDATE CHASER**

(76) Inventor: **Stephen Michael Reuning**, 510 Horizon Center, Robbinsville, NJ (US) 08691

(*) Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **08/984,650**

(22) Filed: **Dec. 3, 1997**

(51) **Int. Cl.**[7] **G06F 17/60**

(52) **U.S. Cl.** **707/3**; 707/10; 707/104; 705/1

(58) **Field of Search** 705/1, 7, 8, 9; 707/3, 10, 104; 709/206, 50

(56) **References Cited**

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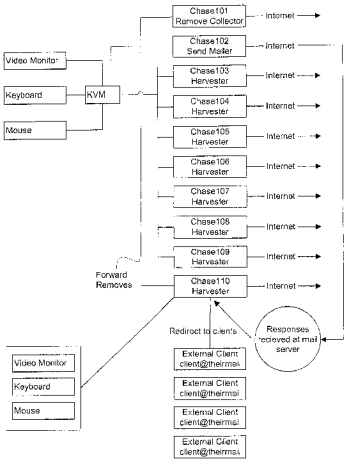
Primary Examiner—Sam Rimell
Assistant Examiner—Romain Jeanty
(74) *Attorney, Agent, or Firm*—Pharmaceutical Patent Law, LLP

(57) **ABSTRACT**

The Candidate Chaser machine and method automatically locates Internet site pages and web postings which contain operator specified keywords or Boolean combinations and then extracts all electronic mail addresses from those pages as well as hyper-linked pages to as many linking levels as selected by the operator and then sends a job opportunity description in the form of an electronic mail message to each of the extracted addresses then receives responses from recipients of the job opportunity message then filters those messages by reading their text and forwards only desired responses to the candidate seeking client's electronic mail address thusly sparing the client interaction with large amounts of irrelevant response while presenting viable candidates for a given job opening. It applies a distinctive and non-obvious method for delivering identical electronic mail messages to a group of targeted potential job candidates sharing a specifically desired single or set of common experiences, interests, capabilities, professional titles or talents relating to the needs of the candidate seeking hiring entity and handling their response.

15 Claims, 2 Drawing Sheets



US006330889B1

(12) **United States Patent**
Overton

(10) **Patent No.: US 6,330,889 B1**
(45) **Date of Patent: Dec. 18, 2001**

(54) **FACE SHADE**

(76) Inventor: **Kym J. Overton**, 111 E. 14th St., Apt. 369, New York, NY (US) 10003-4103

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/511,260**

(22) Filed: **Feb. 23, 2000**

(51) **Int. Cl.**[7] **E04H 15/30**
(52) **U.S. Cl.** **135/95**; 135/87; 135/115; 135/117; 135/124; 135/128; 135/143
(58) **Field of Search** 135/902, 904, 135/907, 121, 128, 95, 87, 124, 143, 115, 117

(56) **References Cited**

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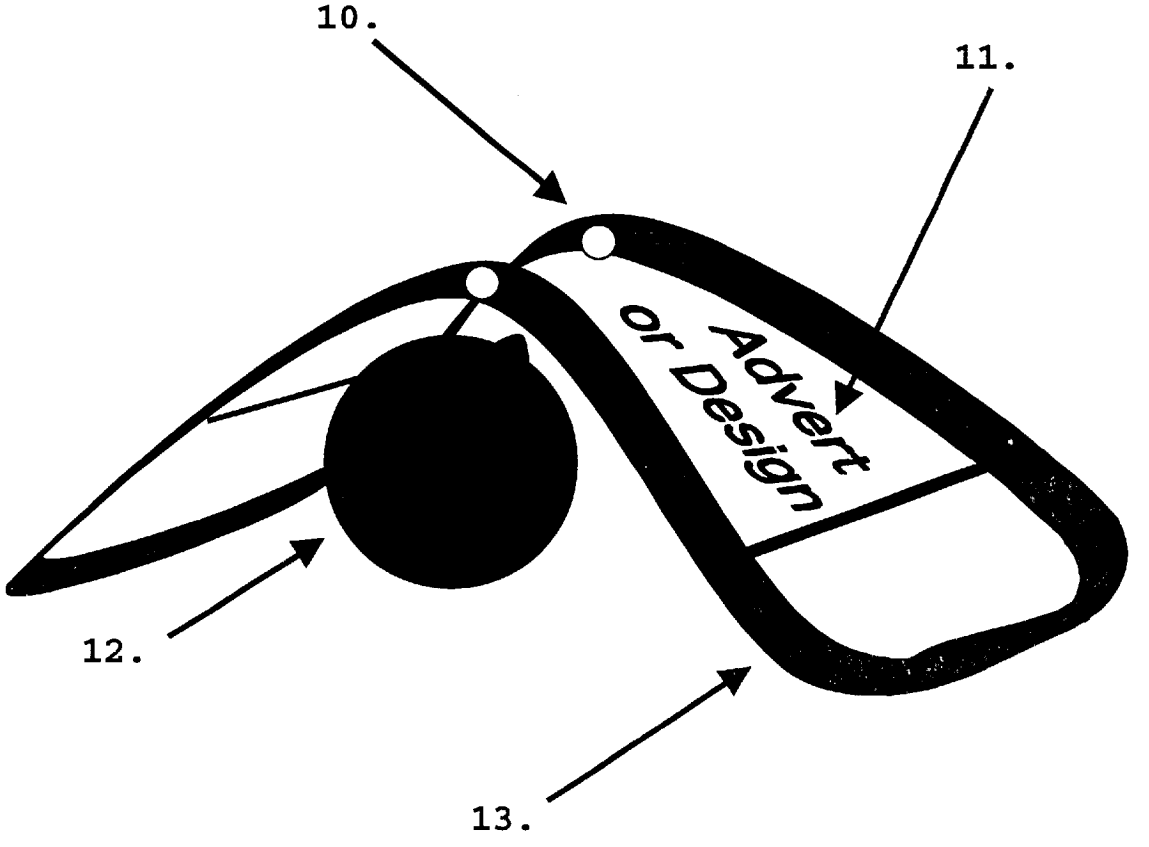
* cited by examiner

Primary Examiner—Beth A. Stephan
(74) *Attorney, Agent, or Firm*—Pharmaceutical Patent Attorneys, LLP; Mark Pohl

(57) **ABSTRACT**

A compact shade for the face of a sunbather or someone lying in the sun. The shade allows the circulation of air to flow about the sunbathers face, neck and head while tanning the rest of their body. The shade folds and can be used as a carrying case for personal goods.

5 Claims, 6 Drawing Sheets



US006291533B1

(12) **United States Patent**
Fleischner

(10) **Patent No.: US 6,291,533 B1**
(45) **Date of Patent: Sep. 18, 2001**

(54) **DIETARY SUPPLEMENTS FOR EACH SPECIFIC BLOOD TYPE**

(75) Inventor: **Albert M. Fleischner**, Westwood, NJ (US)

(73) Assignee: **Vitamerica, Inc.**, Cedar Knolls, NJ (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/468,819**

(22) Filed: **Dec. 22, 1999**

(51) **Int. Cl.**[7] **A61K 31/12**; A61K 31/00; A61K 33/00; A61K 35/78

(52) **U.S. Cl.** **514/682**; 426/72; 426/73; 426/74; 424/195.1; 424/600; 424/630; 424/639; 424/641; 424/646; 424/655; 424/657; 424/667; 424/670; 424/677; 424/679; 424/682; 424/702; 424/722; 424/94.1; 424/94.2; 514/52; 514/167; 514/251; 514/276; 514/277; 514/355; 514/360; 514/365; 514/387; 514/393; 514/443; 514/458; 514/474; 514/557; 514/561; 514/613; 514/646; 514/688; 514/707; 514/724; 514/725; 514/727; 514/728

(58) **Field of Search** 426/72, 73, 74; 424/195.1, 600, 682, 630, 639, 641, 646, 655, 657, 667, 670, 677, 679, 702, 722; 514/52, 167, 251, 276, 277, 355, 360, 365, 387, 393, 443, 458, 474, 557, 561, 613, 646, 682, 688, 707, 724, 725, 727, 728

(56) **References Cited**

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Primary Examiner—Jose' G. Dees
Assistant Examiner—Frank Choi
(74) *Attorney, Agent, or Firm*—Pharmaceutical Patent Attorneys, LLC; Mark Pohl

(57) **ABSTRACT**

Dietary supplement compositions designed to be responsive to specific blood types, and thus most beneficial for people with specific antigenic blood types.

16 Claims, No Drawings

US 20100092421A1

(19) **United States**

(12) **Patent Application Publication**

(10) **Pub. No.: US 2010/0092421 A1**

(43) **Pub. Date: Apr. 15, 2010**

Hegde et al.

(54) **PROCESS FOR THE PREPARATION OF SEVELAMER HYDROCHLORIDE AND FORMULATION THEREOF**

(76) Inventors: **Deepak Anant Hegde**, Thane (IN); **Varsha Shashank Choudhary**, Mumbai (IN); **Venkatasubramanian Radhakrishnan Tarur**, Mumbai (IN); **Dhananjay Govind Sathe**, Thane (IN); **Harish Kashinath Mondkar**, Mumbai (IN); **Samadhan Daulat Patil**, Mumbai (IN); **Sasikumar Mohan Thoovara**, Navi Mumbai (IN); **Yogesh Sharad Bhide**, Pune (IN)

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(21) Appl. No.: **12/620,931**

(22) Filed: **Nov. 18, 2009**

Related U.S. Application Data

(63) Continuation of application No. 12/377,129, filed on Feb. 11, 2009, filed as application No. PCT/IN2007/000387 on Aug. 31, 2007.

(30) **Foreign Application Priority Data**

Sep. 1, 2006 (IN) 1402/MUM/2006

Publication Classification

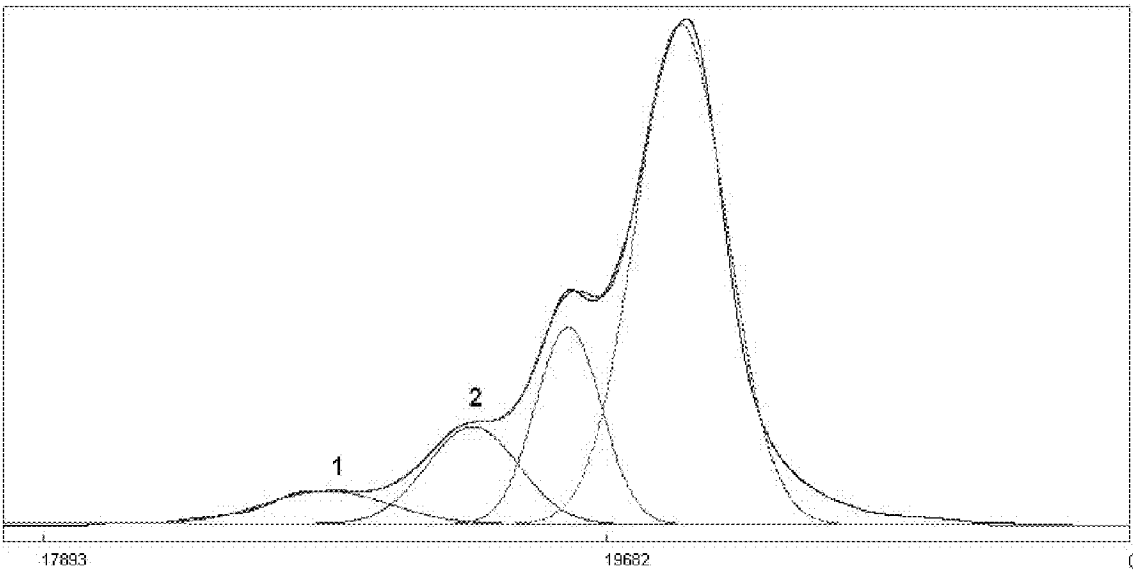
(51) **Int. Cl.**

A61K 31/785	(2006.01)
A61P 13/12	(2006.01)
C08G 61/02	(2006.01)

(52) **U.S. Cl.** **424/78.35**; 528/393

(57) **ABSTRACT**

Disclosed herein is an improved process for preparation of Sevelamer hydrochloride having phosphate binding capacity of 4.7 to 6.4 mmol/g. Further, the invention discloses Sevelamer hydrochloride compositions and a novel process for preparation of said compositions comprising high shear non-aqueous granulation.



US 20100009977A1

(19) **United States**

(12) **Patent Application Publication**

(10) **Pub. No.: US 2010/0009977 A1**

(43) **Pub. Date: Jan. 14, 2010**

Sathe et al.

(54) **PROCESS FOR THE PREPARATION OF (R)-(+)-4-(ETHYLAMINO)-3,4-DIHYDRO-2-(3-METHOXYPROPYL)-2H-THIENO[3,2-E]-1,2-THIAZINE-6-SULFONAMIDE-1,1-DIOXIDE.**

(76) Inventors: **Dhananjay Govind Sathe**, Panchpakhadi (IN); **Radhakrishnan Venkatasubramanian Tarur**, Maharashtra (IN); **Nandu Baban Bhise**, Maharashtra (IN); **Ajit Bhaskar Shinde**, Maharashtra (IN); **Santosh Pardeshi**, Maharashtra (IN)

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(21) Appl. No.: **12/443,836**

(22) PCT Filed: **Oct. 12, 2007**

(86) PCT No.: **PCT/IN2007/000479**

§ 371 (c)(1),
(2), (4) Date: **Apr. 1, 2009**

(30) **Foreign Application Priority Data**

Oct. 13, 2006 (IN) 1689/MUM/2006

Publication Classification

(51) **Int. Cl.**

A61K 31/54	(2006.01)
C07D 513/04	(2006.01)
A61P 9/12	(2006.01)

(52) **U.S. Cl.** **514/226.5**; 544/48

(57) **ABSTRACT**

Disclosed herein is an improved process for the preparation of (R)-(+)-4-(Ethylamino)-3,4-dihydro-2-(3-methoxypropyl)-2H-thieno[3,2-e]-1,2-thiazine-6-sulfonamide-1,1-dioxide (Brinzolamide) and novel intermediates thereof.

US 20090304797A1

(19) **United States**

(12) **Patent Application Publication**

Tarur et al.

(10) **Pub. No.: US 2009/0304797 A1**

(43) **Pub. Date: Dec. 10, 2009**

(54) **PROCESS FOR THE PREPARATION OF MICRONIZED VALSARTAN**

(76) Inventors: **Venkatasubramanian Radhakrishnan Tarur**, Mumbai (IN); **Dhananjay Govind Sathe**, Thane (IN); **Narayana Rao**, Mumbai (IN); **Kamles Digambar Sawant**, Mumbai (IN); **Sasi Kumar Mohan Thoovara**, Mumbai (IN); **Bhupendra Shaligram Rane**, Dombivli (IN)

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(21) Appl. No.: **12/304,148**

(22) PCT Filed: **Jun. 22, 2007**

(86) PCT No.: **PCT/IN07/00249**

§ 371 (c)(1),
(2), (4) Date: **Feb. 2, 2009**

(30) **Foreign Application Priority Data**

Jun. 23, 2006 (IN) 985/MUM/2006

Publication Classification

(51) **Int. Cl.**

A61K 9/14	(2006.01)
C07D 257/04	(2006.01)
A61K 31/41	(2006.01)
A61P 9/12	(2006.01)

(52) **U.S. Cl.** **424/489**; 548/253; 514/381

(57) **ABSTRACT**

The present invention relates to process for preparing micronized Valsartan with particle size distribution of d_{10} less than 5μ, d_{50} less than 10μ and d_{90} less than 20μ preferably d_{90}<10μ.

US 20090280178A1

(19) **United States**

(12) **Patent Application Publication**

Hedge et al.

(10) **Pub. No.: US 2009/0280178 A1**

(43) **Pub. Date: Nov. 12, 2009**

(54) **PROCESS FOR THE PREPARATION OF SEVELAMER HYDROCHLORIDE AND FORMULATION THEREOF**

(76) Inventors: **Deepak Anant Hedge**, Thane (IN); **Varsha Shashank Choudhary**, Mumbai (IN); **Venkatasubramanian Radhakrjshnan Tarur**, Mumbai (IN); **Dhananjay Govind Sathe**, Thane (IN); **Harish Kashinath Mondkar**, Mumbai (IN); **Samadhan Daulat Patil**, Mumbai (IN); **Sasikumar Mohan Thoovara**, Navimumbai (IN); **Yogesh Sharad Bhide**, Pune (IN)

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(21) Appl. No.: **12/377,129**

(22) PCT Filed: **Aug. 31, 2007**

(86) PCT No.: **PCT/IN2007/000387**

§ 371 (c)(1),
(2), (4) Date: **Feb. 11, 2009**

(30) **Foreign Application Priority Data**

Sep. 1, 2006 (IN) 1402/MUM/2006

Publication Classification

(51) **Int. Cl.**

A61K 31/785	(2006.01)
C08G 61/02	(2006.01)
A61P 13/12	(2006.01)
A61K 9/28	(2006.01)

(52) **U.S. Cl.** **424/474**; 528/393; 424/78.38

(57) **ABSTRACT**

Disclosed herein is an improved process for preparation of Sevelamer hydrochloride having phosphate binding capacity of 4.7 to 6.4 mmol/g. Further, the invention discloses Sevelamer hydrochloride compositions and a novel process for preparation of said compositions comprising high shear non-aqueous granulation.

US 20090239262A1

(19) United States

(12) Patent Application Publication

(10) Pub. No.: US 2009/0239262 A1

(43) Pub. Date: Sep. 24, 2009

Rao et al.

(54) **AFFINITY POLYPEPTIDE FOR PURIFICATION OF RECOMBINANT PROTEINS**

(76) Inventors: **Laxmi Srinivas Rao**, Mumbai (IN); **Shrikant Mishra**, Mumbai (IN); **Monsur Ahmed Borbhuiya**, Mumbai (IN); **Deepa Mhatre**, Mumbai (IN); **Priti Thakur**, Mumbia (IN)

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55 MADISON AVENUE, 4TH FLOOR
MORRISTOWN, NJ 07960-7397 (US)

(21) Appl. No.: **12/161,603**

(22) PCT Filed: **Feb. 7, 2007**

(86) PCT No.: **PCT/IN07/00051**

§ 371 (c)(1),
(2), (4) Date: **Nov. 19, 2008**

(30) **Foreign Application Priority Data**

Feb. 8, 2006 (IN) 186/MUM/2006

Publication Classification

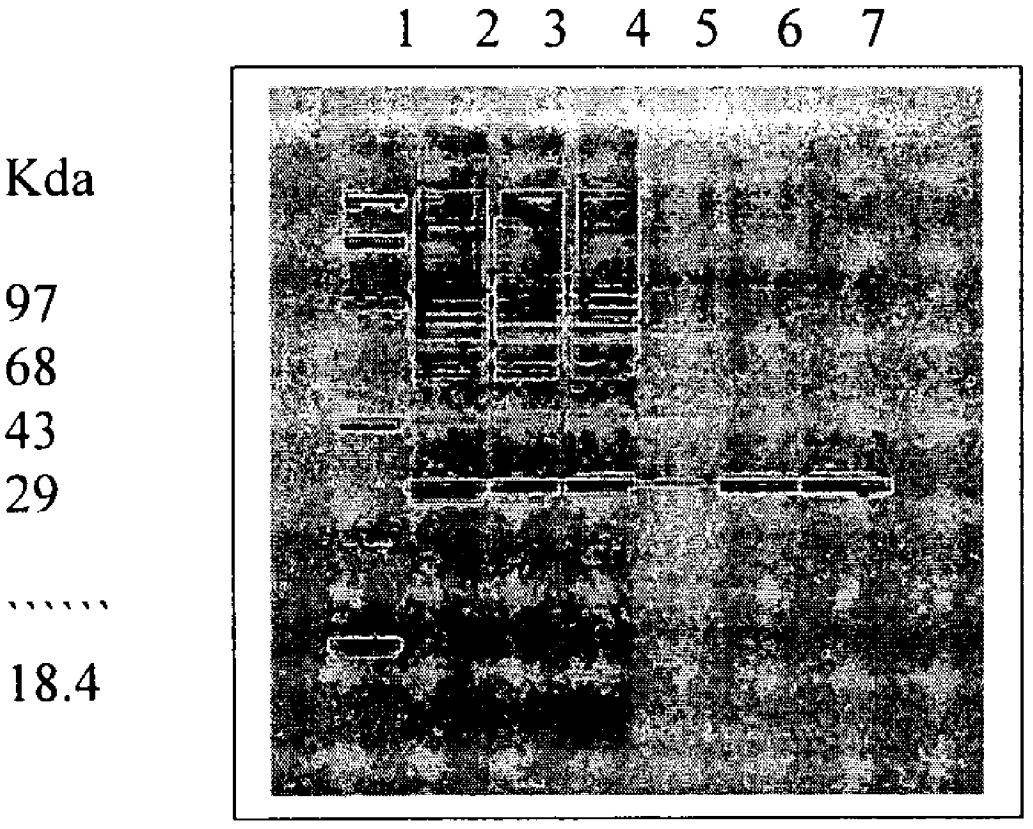
(51) **Int. Cl.**

C12P 21/02	(2006.01)
C07K 14/00	(2006.01)
C12N 15/11	(2006.01)
C12N 15/00	(2006.01)
C12N 1/21	(2006.01)
C12N 1/19	(2006.01)
C12N 5/06	(2006.01)

(52) **U.S. Cl.** **435/69.4**; 530/324; 536/23.1; 435/320.1; 435/252.33; 435/254.2; 435/252.34; 435/254.21; 435/254.23; 435/358; 435/365; 435/69.1; 435/69.52; 435/69.51

(57) **ABSTRACT**

The present disclosure provides an affinity polypeptide for the purification of a recombinant biologically active protein or polypeptide. Further, the present disclosure provides a fusion recombinant protein or polypeptide wherein the fusion recombinant protein comprises of at least two components, a biologically active polypeptide or protein or protein of interest and the affinity polypeptide. The biologically active polypeptide may be linked directly or indirectly to the affinity polypeptide by covalent binding. The present disclosure provides a recombinant expression vector for the producing said fusion recombinant protein in host cells. Further, the present disclosure provides an improved method of purification of recombinant protein from the host cells. Further, the disclosure provides a method of purification of the recombinant biologically active polypeptide or protein by immobilized metal ion chelating chromatography.



US 20090209764A1

(19) **United States**

(12) **Patent Application Publication**

Tarur et al.

(10) **Pub. No.: US 2009/0209764 A1**

(43) **Pub. Date: Aug. 20, 2009**

(54) **PROCESS FOR PREPARATION OF 4-AMINO-1-ISOBUTYL-1H-IMIDAZO[4,5-C]-QUINOLINE (IMIQUIMOD)**

(76) Inventors: **Venkatasubramanian Radhakrishnan Tarur**, Maharashtra (IN); **Suresh Mahadev Kadam**, Maharashtra (IN); **Anil Purushottam Joshi**, Maharashtra (IN); **Sachin Baban Gavhane**, Maharashtra (IN)

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(21) Appl. No.: **12/418,803**

(22) Filed: **Apr. 6, 2009**

Related U.S. Application Data

(62) Division of application No. 11/575,927, filed on Mar. 23, 2007, filed as application No. PCT/IN2004/000411 on Dec. 27, 2004.

Publication Classification

(51) **Int. Cl.**
C07D 471/04 (2006.01)

(52) **U.S. Cl.** **546/82**

(57) **ABSTRACT**

A process for the preparation of imiquimod comprising oxidation of 1-Isobutyl-1H-imidazo quinoline quinoline (II) afforded 1-Isobutyl-1H-imidazo-[4,5-c]-quinoline-5-N-oxide (III) which is isolated in pure form as its hydrochloride salt (IV) followed by conversion to 4-chloro derivative (V) and conversion to corresponding 4-iodo derivative (VI) which is a new intermediate. This new intermediate in convened to imiquimod (VIII) and purified via its novel maleate salt.

US 20090198058A1

(19) United States

(12) Patent Application Publication

(10) Pub. No.: US 2009/0198058 A1

(43) Pub. Date: Aug. 6, 2009

SATHE et al.

(54) **PROCESS FOR PREPARATION OF DEXTROROTATORY ISOMER OF 6-(5-CHLORO-PYRID-2-YL)-5-[(4-METHYL -1-PIPERAZINYL) CARBONYLOXY] -7-OXO-6,7-DIHYDRO-5H-PYRROLO [3,4-B] PYRAZINE (ESZOPICLONE)**

(76) Inventors: **Dhananjay Govind SATHE**, Thane (IN); **Nandu Baban Bhise**, Mumbai (IN); **Harish Kashinath Mondkar**, Mumbai (IN); **Anand Vinod Shindikar**, Aurangabad (IN); **Manoj Madhukarrao Deshpande**, Ahmedpur (IN)

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(21) Appl. No.: **12/186,567**

(22) Filed: **Aug. 6, 2008**

(30) **Foreign Application Priority Data**

Aug. 6, 2007 (IN) 1511/MUM/2007
Aug. 6, 2008 (IN) PCT/IN2008/000487

Publication Classification

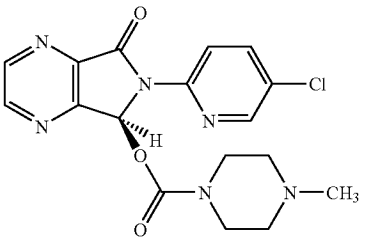
(51) **Int. Cl.**
C07D 487/04 (2006.01)

(52) **U.S. Cl.** **544/350**

(57) **ABSTRACT**

Disclosed herein is the process for preparation of 6-(5-chloro-pyrid-2-yl)-5-[(4-methyl-1-piperazinyl)carbonyloxy]-7-oxo-6,7-dihydro-5H-pyrrolo[3,4-b]pyrazine (Zopiclone), its resolution to get the dextrorotatory isomer of formula (I) substantially free of R(−) enantiomer and recovery of key raw material i.e. 6-(5-chloro pyrid-2-yl)-5-hydroxy-7-oxo-5,6-dihydropyrrolo[3,4-b]pyrazine from the R-isomer of Zopiclone followed by conversion of the recovered compound to get pure Eszopiclone (I) in high yield and high purity.

(I)



US 20090060995A1

(19) **United States**

(12) **Patent Application Publication**

Singh et al.

(10) **Pub. No.: US 2009/0060995 A1**

(43) **Pub. Date: Mar. 5, 2009**

(54) **DISPERSIBLE SUSTAINED RELEASE PHARMACEUTICAL COMPOSITIONS**

(76) Inventors: **Kamalinder Kaur Singh**, Mumbai (IN); **Madhiri Dahiwal**, Mumbai (IN)

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(21) Appl. No.: **11/330,522**

(22) Filed: **Jan. 12, 2006**

(30) **Foreign Application Priority Data**

Jan. 13, 2005 (IN) 880/MUM/2004

Publication Classification

(51) **Int. Cl.**
A61K 9/22 (2006.01)

(52) **U.S. Cl.** **424/465**

(57) **ABSTRACT**

Disclosed herein are pharmaceutical compositions, in particular, dispersible compositions comprising sustained release granules of at least one active pharmaceutical ingredient and at least one release retard hydrophobic polymer formulated with super disintegrant and lubricant, to achieve dispersible and sustained release effect.

US 20090035815A1

(19) **United States**

(12) **Patent Application Publication**

(10) **Pub. No.: US 2009/0035815 A1**

(43) **Pub. Date: Feb. 5, 2009**

Rao et al.

(54) **SYNTHETIC GENE FOR ENHANCED EXPRESSION IN E. COLI**

(76) Inventors: **Laxmi Srinivas Rao**, Mumbai (IN); **Monsur Borbhuiya Ahmed**, Mumbai (IN); **Milind Niphadkar**, Mumbai (IN); **Dinesh Paliwal**, Mumbai (IN); **Rakesh Shekhawat**, Mumbai (IN); **Aruna Khare**, Mumbai (IN); **Radhika Samant**, Mumbai (IN); **Priti Thakur**, Mumbai (IN); **Anjali Chutke**, Mumbai (IN); **Neelesh Surlikar**, Mumbai (IN); **Sagar Zawar**, Mumbai (IN); **Shrikant Mishra**, Mumbai (IN)

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(21) Appl. No.: **12/126,319**

(22) Filed: **May 23, 2008**

(30) **Foreign Application Priority Data**

Jun. 29, 2007 (IN) 1247/MUM/2007

Publication Classification

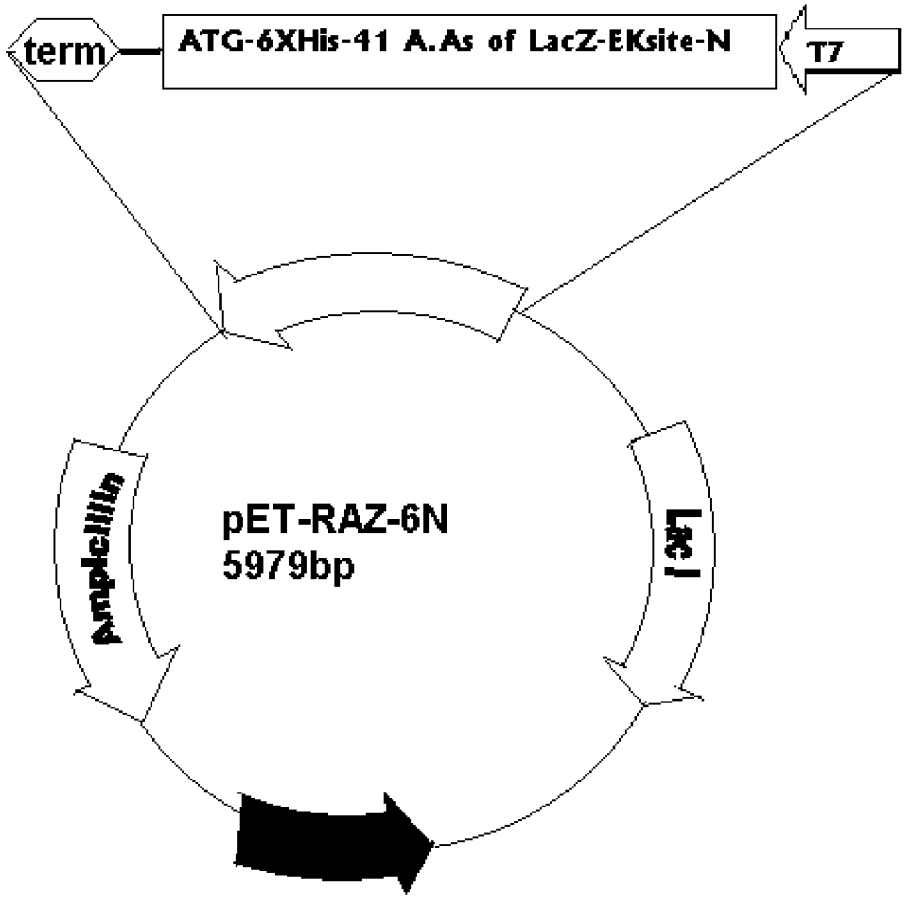
(51) **Int. Cl.**

C12P 21/06	(2006.01)
C12N 15/62	(2006.01)
C12P 41/00	(2006.01)
C07H 21/04	(2006.01)
C12N 15/12	(2006.01)

(52) **U.S. Cl.** **435/68.1**; 435/69.1; 536/23.4; 435/280; 536/24.33; 536/23.5

(57) **ABSTRACT**

A novel nesiritide synthetic cDNA chimera encoding human b-type natriuretic peptide (hBNP) or nesiritide and a process for the preparation of the said novel chimera. Further, the inventors disclose the use of nesiritide synthetic cDNA chimera to obtain an expressible construct to produce mature nesiritide. Particularly, the inventors disclose an application of recombinant cloning method to prepare an ORF of a nesiritide chimeric construct, which is simultaneously codon optimized for *E. coli* and has optimal RNA stability. The inventors also provide a process for large scale purification of nesiritide by pH precipitation and chromatography.



US 20080275241A1

(19) **United States**

(12) **Patent Application Publication**

(10) **Pub. No.: US 2008/0275241 A1**

(43) **Pub. Date: Nov. 6, 2008**

Tarur et al.

(54) **POLYMORPHIC FORMS OF DOLASETRON BASE AND PROCESSES OF PREPARING DOLASETRON BASE, ITS POLYMORPHIC FORMS AND SALT THEREOF**

(76) Inventors: **Venkatasubramanian Radhakrishnan Tarur**, Maharashtra (IN); **Dhananjay Govind Sathe**, Maharashtra (IN); **Nandu Baban Bhise**, Maharashtra (IN); **Kamlesh Digambar Sawant**, Maharashtra (IN); **Tushar Anil Naik**, Maharashtra (IN); **Neeraj Srivastav**, Maharashtra (IN); **Raviraj Bhatu Deore**, Maharashtra (IN)

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(21) Appl. No.: **12/158,708**

(22) PCT Filed: **Dec. 22, 2006**

(86) PCT No.: **PCT/IN06/00500**

§ 371 (c)(1),
(2), (4) Date: **Jul. 16, 2008**

(30) **Foreign Application Priority Data**

Dec. 23, 2005 (IN) 1610/MUM/2005
Dec. 29, 2005 (IN) 1635/MUM/2005

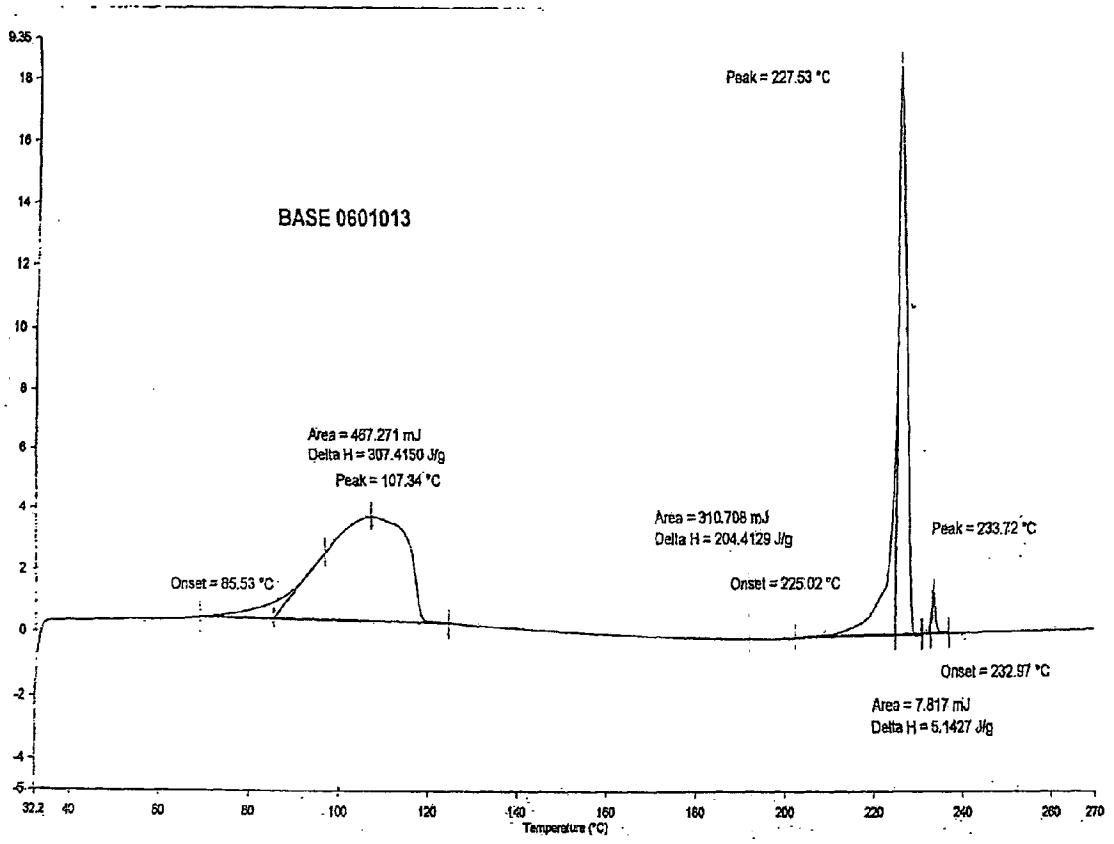
Publication Classification

(51) **Int. Cl.**
C07D 455/03 (2006.01)

(52) **U.S. Cl.** **546/94**

(57) **ABSTRACT**

The present disclosure relates to a process for the preparation of endo-hexahydro-8-(3-indolylcarbonyloxy)-2,6-methano-2H-quinolizin-3(4H)-one or Dolasetron base. It also discloses a process for the preparation of endo-hexahydro-8-(3-indolylcarbonyloxy)-2,6-methano-2H-quinolizin-3(4H)-one mesylate or Dolasetron mesylate. Further, the present disclosure relates to a process for producing Form I of Dolasetron base, and to the novel crystalline polymorphs, Form II, III, IV and V of Dolasetron base and industrial processes for producing them.



US 20080269480A1

(19) **United States**

(12) **Patent Application Publication**

(10) **Pub. No.: US 2008/0269480 A1**

(43) **Pub. Date: Oct. 30, 2008**

Muthukumaran et al.

(54) **PROCESS FOR THE PREPARATION OF 10,11-DIHYDRO-10-OXO-5H-DIBENZ[B,F] AZEPINE-5-CARBOXAMIDE**

(76) Inventors: **Mandakini Muthukumaran**, Baroda (IN); **Muthukumaran Natarajan**, Baroda (IN); **Rajamannar Thennati**, Baroda (IN)

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(21) Appl. No.: **10/598,623**

(22) PCT Filed: **Mar. 10, 2005**

(86) PCT No.: **PCT/IN2005/000077**

§ 371 (c)(1),
(2), (4) Date: **May 5, 2008**

(30) **Foreign Application Priority Data**

Mar. 11, 2004 (IN) 304/MUM/2004

Publication Classification

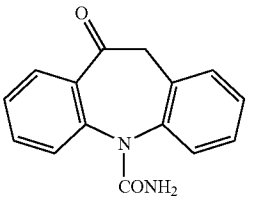
(51) **Int. Cl.**
C07D 223/22 (2006.01)
C07D 223/28 (2006.01)

(52) **U.S. Cl.** **540/589**; 540/591

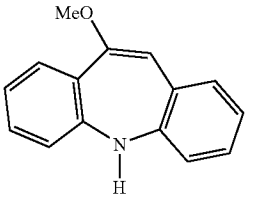
(57) **ABSTRACT**

A process for preparing 10,11-dihydro-10-oxo-5H-dibenz[b,f]azepine-5-carboxamide, compound of formula (I), said process comprising a. reacting compound of formula (Ivb) with alkali metal methoxide to yield compound of formula (II); and b. converting compound of formula (II) to compound of formula (I).

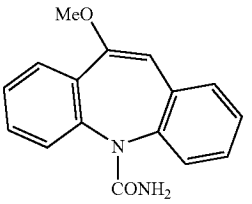
(I)



(II)



(III)



US 20080262078A1

(19) United States

(12) Patent Application Publication

(10) Pub. No.: US 2008/0262078 A1

(43) Pub. Date: Oct. 23, 2008

Namdeo et al.

(54) PHARMACEUTICAL COMPOSITIONS

(76) Inventors: **Alok B. Namdeo**, Baroda (IN); **N. Subramanian**, Baroda (IN); **Subhas Balaram Bhowmick**, Baroda (IN)

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(21) Appl. No.: **12/106,355**

(22) Filed: **Apr. 21, 2008**

(30) **Foreign Application Priority Data**

Apr. 20, 2007 (IN) 787/MUM/2007

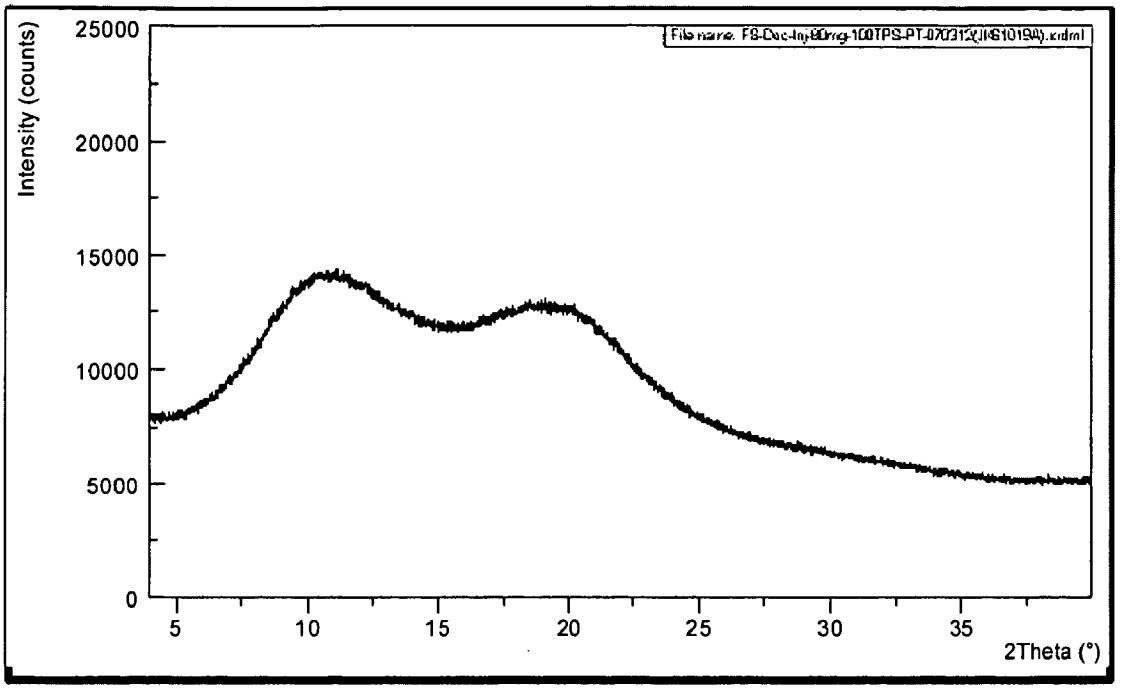
Publication Classification

(51) **Int. Cl.**
A61K 31/337 (2006.01)
A61P 35/00 (2006.01)

(52) **U.S. Cl.** **514/449**

(57) **ABSTRACT**

The present invention relates to a process for the preparation of a stable lyophilized form of a water insoluble drug suitable for parenteral use and pharmaceutical compositions comprising such lyophilized form of the drug.



US 20080207915A1

(19) **United States**

(12) **Patent Application Publication**

(10) **Pub. No.: US 2008/0207915 A1**

(43) **Pub. Date: Aug. 28, 2008**

Radhakrishnan et al.

(54) **PROCESS FOR THE PREPARATION OF 2,2'-[5-(1H-1,2,4-TRIAZOLE-1-YLMETHYL) -1,3-PHENYLENE] DI (2-METHYLPROPIONITRILE)**

(76) Inventors: **Tarur Venkatasubramanian Radhakrishnan**, Maharashtra (IN); **Bhise Nandu Baban**, Maharashtra (IN); **Sathe Dhananjay Govind**, Maharashtra (IN); **Chaudhari Chhayendra Janardan**, Maharashtra (IN); **Joshi Mehul Ashokkumar**, Maharashtra (IN)

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(21) Appl. No.: **12/088,950**

(22) PCT Filed: **Oct. 5, 2005**

(86) PCT No.: **PCT/IN2005/000332**

§ 371 (c)(1),
(2), (4) Date: **Apr. 2, 2008**

Publication Classification

(51) **Int. Cl.**
C07D 249/08 (2006.01)
C07C 22/04 (2006.01)

(52) **U.S. Cl.** **548/267.4**; 570/190

(57) **ABSTRACT**

The present invention discloses a process for the preparation of Anastrozole of the formula I in high purity and in high yield. 3,5-bis(halomethyl)toluene is prepared by reacting mesitylene with N-halosuccinimide in the presence of light or dibenzoyl peroxide or azobis isobutyronitrile as a catalyst and in a chlorinated solvent. 3,5-bis(halomethyl)toluene is cyanated with metal cyanide in the presence of a catalyst and in water, organic solvent or mixture thereof at temperature of 40 to 60° C. to obtain 2,2'-(5-methyl-1,3 phenylene)diacetonitrile which is further methylated with iodomethane in the presence of base and an organic solvent at temperature of 0 to 15° C. to obtain 2,2'-(5-methyl-1,3-phenylene)di(2-methylpropiononitrile). The product obtained is treated with N-halosuccinimide in the presence of a catalyst and in a chlorinated solvent at temperature of 60 to 100° C. to obtain 2,2'-(5-halomethyl-1,3-phenylene)di(2-methyl propionitrile) which was further treated with potassium or sodium salt 1,2,4-triazole at temperature of 20 to 50° C. in dimethyl formamide to obtain crude 2,2'-[5-(1H-1,2,4-triazole-1-ylmethyl)-1,3-phenylene]di(2-methyl-propionitrile). The crude product is purified by column chromatography using a stationary phase and a mobile phase followed by recrystallization with a solvent or mixture of solvents to obtain highly pure Anastrozole.

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(19) **United States**

(12) **Patent Application Publication**

(10) **Pub. No.: US 2008/0182781 A1**

(43) **Pub. Date: Jul. 31, 2008**

Saksena et al.

(54) **PROCESS FOR THE PREPARATION OF PEPTIDES**

(76) Inventors: **Divya Lal Saksena**, Mumbai (IN); **Shrikant Mishra**, Mumbai (IN); **Chandrakesan Muralidharan**, Mumbai (IN); **Milind Thakare**, Mumbai (IN); **Nilesh Patil**, Mumbai (IN); **Aruna Khare**, Mumbai (IN)

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(21) Appl. No.: **10/592,118**

(22) PCT Filed: **Oct. 10, 2004**

(86) PCT No.: **PCT/IN04/00315**

§ 371(c)(1),
(2), (4) Date: **Aug. 15, 2007**

(30) **Foreign Application Priority Data**

Jun. 14, 2004 (IN) 648/MUM/2004

Publication Classification

(51) **Int. Cl.**

A61K	***38/12***	(2006.01)
C07K	***7/64***	(2006.01)
C07K	***7/06***	(2006.01)

(52) **U.S. Cl.** **514/10**; 530/317; 530/330; 530/329

(57) **ABSTRACT**

The present invention relates to an improved process for the preparation of N^6-(aminoiminomethyl)-N^2-(3-mercapto-1-oxopropyl-L-lysylglycyl-L-α-aspartyl-L-tryptophyl-L-prolyl-L-cysteinamide, cyclic(1→6)-disulfide of formula (1), which involves assembling amino acid residues and a thioalkyl carboxylic acid with appropriate protecting groups on a solid phase resin, cleaving the peptide thus obtained from the resin with concomitant removal of side chain protecting groups except Acm protecting group of thiol moiety to obtain peptide amide of formula (3), converting lysine residue of peptide amide of formula (3) having protected thiol group to homoarginine residue by guanylation to obtain peptide of formula (4), preparing silver peptide of formula (5), followed by simultaneous deprotection, obtaining silver peptide of formula (5) and oxidation of silver peptide to obtain crude peptide amide comprising compound of formula (1) and finally subjecting to chromatographic purification. The described process is simple, easy, environment friendly and cost effective.

US 20080177109A1

(19) United States

(12) Patent Application Publication

(10) Pub. No.: US 2008/0177109 A1

(43) Pub. Date: Jul. 24, 2008

Tarur et al.

(54) **NOVEL PROCESS FOR PREPARATION OF BICALUTAMIDE**

(75) Inventors: **Venkatasubramanian Radhakrishnan Tarur**, Maharashtra (IN); **Suresh Mahadev Kadam**, Maharashtra (IN); **Anil Purushottam Joshi**, Maharashtra (IN); **Sachin Baban Gavhane**, Maharashtra (IN)

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(73) Assignee: **USV LIMITED**, Mumbai (IN)

(21) Appl. No.: **11/574,886**

(22) PCT Filed: **May 10, 2005**

(86) PCT No.: **PCT/IN05/00152**

§ 371 (c)(1),
(2), (4) Date: **Mar. 8, 2007**

(30) **Foreign Application Priority Data**

Mar. 29, 2005 (IN) 363/MUM/2005

Publication Classification

(51) **Int. Cl.**
C07C 315/02 (2006.01)

(52) **U.S. Cl.** **564/162**

(57) **ABSTRACT**

The present invention discloses a process for the synthesis of N-[4-Cyano-3-(trifluoromethyl)phenyl]-3-[(4-fluorophenyl) sulphonyl]-2-hydroxy-2-methyl propanamide (Form I). The invention discloses a reagent for oxidation of N-[4-Cyano-3-(trifluoromethyl)phenyl]-3-[(4-fluorophenyl)thio]-2-hydroxy-2-methyl propanamide to N-[4-Cyano-3-(trifluoromethyl)phenyl]-3-[(4-fluorophenyl)sulphonyl]-2-hydroxy-2-methyl propanamide. More particularly, the invention discloses a method of purification of N-[4-Cyano-3-(trifluoromethyl)phenyl]-3-[(4-fluorophenyl)sulphonyl]-2-hydroxy-2-methyl propanamide in a mixture of methylethyl ketone and hexane giving form (I). This form (I) is useful as an active pharmaceutical and has antiandrogenic activity.

US 20080167452A1

(19) **United States**

(12) **Patent Application Publication**

(10) **Pub. No.: US 2008/0167452 A1**

(43) **Pub. Date: Jul. 10, 2008**

Maiti et al.

(54) **PROCESS FOR PURIFICATION OF HUMAN GROWTH HORMONE**

(76) Inventors: **Dipanwita Maiti**, Mumbai (IN); **Shrikant Mishra**, Mumbai (IN); **Laxmi Srinivas Rao**, Mumbai (IN); **Milind Prabhakar Niphadkar**, Navi Mumbai (IN); **Ahmed Monsur Borbhuiya**, Navi Mumbai (IN); **Madhava Yada Rao**, Khammam (IN)

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(21) Appl. No.: **11/568,235**

(22) PCT Filed: **Nov. 9, 2004**

(86) PCT No.: **PCT/IN2004/000346**

§ 371 (c)(1),
(2), (4) Date: **Oct. 29, 2007**

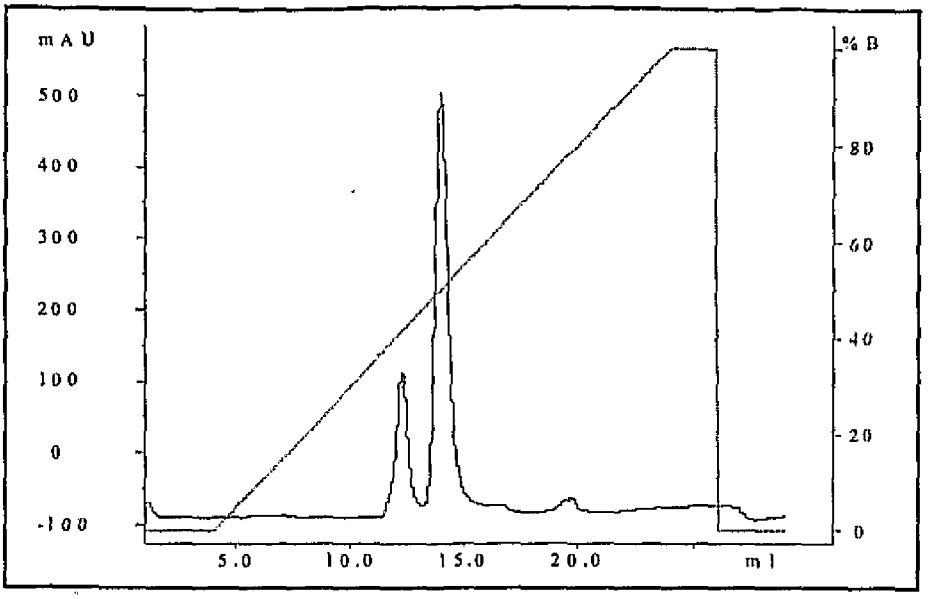
Publication Classification

(51) **Int. Cl.**
C07K 16/00 (2006.01)

(52) **U.S. Cl.** **530/417**

(57) **ABSTRACT**

Adding enough organic solvent to hydrophobic interactive chromatography elution buffer eliminates the need to also add detergent to the buffer when separating poly-peptides. For example, adding about 50% acetonitrile to detergent-free elution buffer enaibls one to separate full-length human growth hormone from its various truncated forms, to obtain hGH with a purity of >99.5%. This technique is useful to purify polypeptide where detergent to contamination in the resulting polypeptide is undesirable.



US 20080076928A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2008/0076928 A1**

Tarur et al. (43) **Pub. Date: Mar. 27, 2008**

(54) **NOVEL PHARMACEUTICAL SALTS OF 1-BENZYL-4-&LSQB; (5,6-DIMETHOXY-1-INDANONE)-2-YL&RSQB; METHYL PIPERIDINE (DONEPEZIL)**

(76) Inventors: **Venkatasubramanian Radhakrishnan Tarur**, Mumbai (IN); **Dhanajay Govind Sathe**, Mumbai (IN); **Avinash Vankatraman Naidu**, Mumbai (IN); **Kamiesh Digamber Sawant**, Mumbai (IN); **Tushar Anil Naik**, Mumbai (IN); **Umesh Parashram Aher**, Mumbai (IN); **Sachin Shivali Patil**, Mumbai (IN)

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(21) Appl. No.: **11/412,294**

(22) Filed: **Apr. 27, 2006**

Related U.S. Application Data

(63) Continuation-in-part of application No. 10/879,816, filed on Jun. 29, 2004, Continuation-in-part of application No. 11/072,169, filed on Mar. 4, 2005, Continuation-in-part of application No. 11/145,202, filed on Jun. 3, 2005, now Pat. No. 7,186,842.

(60) Provisional application No. 60/752,640, filed on Dec. 21, 2005.

(30) **Foreign Application Priority Data**

Jul. 28, 2004 (IN) PCT/IN04/00227

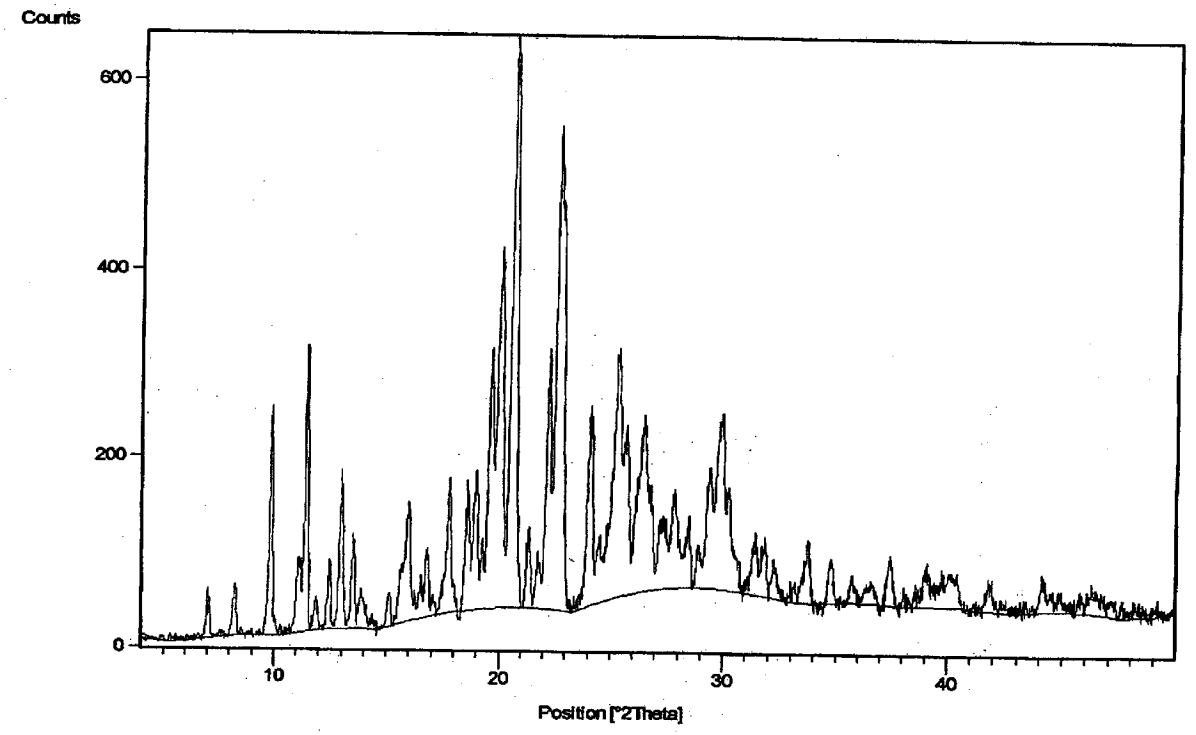
Publication Classification

(51) **Int. Cl.**
C07D 221/00 (2006.01)

(52) **U.S. Cl.** **546/206**

(57) **ABSTRACT**

New salts of donepezil, and new polymorphic forms of donepezil and its salts, and methods to prepare both the amorphous form and various polymorphic forms of donepezil or its salts.



US 20080058527A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2008/0058527 A1**

Tarur (43) **Pub. Date: Mar. 6, 2008**

(54) **A PROCESS FOR THE PREPARATION OF 4-AMINO-1-ISOBUTYL-1H-IMIDAZO[4,5-C]-QUINOLINE (IMIQUIMOD)**

(76) Inventor: **Venkatasubramanian Radhakrishnan Tarur**, Maharashtra (IN)

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(21) Appl. No.: **11/575,927**

(22) PCT Filed: **Dec. 27, 2004**

(86) PCT No.: **PCT/IN04/00411**

§ 371(c)(1),
(2), (4) Date: **Mar. 23, 2007**

Publication Classification

(51) **Int. Cl.**
C07D 487/02 (2006.01)

(52) **U.S. Cl.** **546/82**

(57) **ABSTRACT**

A process for preparation of imiquimod comprising oxidation of 1-Isobutyl-1H-imidazo quinoline quinoline (II) afforded 1-Isobutyl-1H-imidazo-[4,5-c]-quinoline-5-N-oxide (III) which is isolated in pure form as its hydrochloride salt (IV) followed by conversion to 4-chloro derivative (V) and conversion to corresponding 4-iodo derivative (VI) which is a new intermediate. This new intermediate is convened to imiquimod (VIII) and purified via its novel maleate salt.

US 20070249806A1

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2007/0249806 A1

Saksena et al. (43) Pub. Date: Oct. 25, 2007

(54) SOLID PHASE FMOC CHEMISTRY PROCESS TO PREPARE PEPTIDES

(76) Inventors: **Divya Lal Saksena**, Mumbai (IN); **Shrikant Mishra**, Mumbai (IN); **Chandrakesan Muralidharan**, Tamil Nadu (IN); **Nilesh Patil**, Navi Mumbai (IN); **Nikhil Umesh Mohe**, Mumbai (IN); **Mandar Ravindra Maduskar**, Mumbai (IN)

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(21) Appl. No.: **11/729,047**

(22) Filed: **Mar. 27, 2007**

Related U.S. Application Data

(63) Continuation-in-part of application No. 10/592,118, filed as 371 of international application No. PCT/IN04/00315, filed on Oct. 10, 2004.

Publication Classification

(51) **Int. Cl.**
C07K 7/60 (2006.01)
C07K 7/06 (2006.01)

(52) **U.S. Cl.** **530/317**; 530/333; 530/329

(57) **ABSTRACT**

The present invention relates to an improved process for the preparation of N^6-(aminoiminomethyl)-N^2-(3-mercapto-1-oxopropyl)-L-lysylglycyl-L-α-aspartyl-L-tryptophyl-L-prolyl-L-cysteinamide, cyclic(16)-disulfide of formula (1), which involves assembling a peptide chain comprising of six amino acids and a thioalkyl carboxylic acid in a required sequence on a solid support to obtain a peptide bound resin of formula (2), capping the free amino groups after each coupling, cleaving Dde group in the peptide of formula (2) from the solid support to obtain peptide-solid support of formula (3), guanylating the peptide of formula (3) at ϵ-lysine-NH_2 in an organic solvent to obtain peptide-solid support of formula (4), cleaving and deprotecting all groups in the peptide of formula (4) from the solid support to obtain peptide-amide formula (5), oxidizing the SH-peptide of formula (5) with an appropriate oxidizing agent to obtain the crude peptide-amide of formula (1) and purifying the crude peptide-amide of formula (1) by chromatographic technique. The solid support is either resin or a cellulose support like cotton, gauze, fabric, paper and perloza beads. The described process is simple, easy, environment friendly, takes lesser time and more cost effective

US 20070224294A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2007/0224294 A1**

Thierman (43) **Pub. Date: Sep. 27, 2007**

(54) **NOVEL NON-SURGICAL METHOD FOR TREATING CATARACTS IN MAMMALS INCLUDING MAN**

(75) Inventor: **Mark Thierman**, Tucson, AZ (US)

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(73) Assignee: **Advanced Scientific**

(21) Appl. No.: **11/388,882**

(22) Filed: **Mar. 24, 2006**

Publication Classification

(51) **Int. Cl.**

A61K 38/05	(2006.01)
A61K 31/525	(2006.01)
A61K 31/22	(2006.01)
A61K 31/185	(2006.01)
A61K 31/198	(2006.01)

(52) **U.S. Cl.** **424/717**; 514/18; 514/546; 514/562; 514/553; 514/250

(57) **ABSTRACT**

An anti-oxidant cocktail demonstrated efficacious in the treatment of avian and mammalian cataracts, useful for veterinary and human use as a veterinary or human pharmaceutical (to cure existing cataracts) or as a dietary supplement (to maintain a healthy, non-diseased state).

US 20070219146A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2007/0219146 A1**

Bhaskaran et al. (43) **Pub. Date: Sep. 20, 2007**

(54) **SYNERGISTIC PHARMACEUTICAL AND/OR NEUTRACEUTICAL FLAVANOID COMPOSITION FOR MANAGEMENT OF DIABETES MELLITUS**

(76) Inventors: **Sunil Bhaskaran**, Pune (IN); **Vishwaraman Mohan**, Pune (IN)

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(21) Appl. No.: **11/669,197**

(22) Filed: **Jan. 31, 2007**

(30) **Foreign Application Priority Data**

Feb. 6, 2006 (IN)..... 01949/MUM/2006

Publication Classification

(51) **Int. Cl.**
A61K 31/7048 (2006.01)
A61K 31/522 (2006.01)
A61K 31/353 (2006.01)

(52) **U.S. Cl.** **514/27**; 514/263.31; 514/456

(57) **ABSTRACT**

The present invention relates to a synergistic pharmaceutical and/or neutraceutical flavanoid composition for management of Diabetes Mellitus, said composition comprising polyphenol of concentration ranging between 85 to 95% (w/w) GAE, theobromine of concentration ranging between 1 to 5% (w/w), and moisture content ranging between 0.5 to 10% (v/w).

US 20070191456A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2007/0191456 A1**

Tarur et al. (43) **Pub. Date: Aug. 16, 2007**

(54) **NOVEL PROCESS FOR THE PREPARATION OF 1-(9H-CARBAZOL-4-YLOXY)-3-[[2-(-METHOXYPHENOXY)-ETHYL] AMINO]-PROPAN-2-OL**

(76) Inventors: **Venkatasubramanian Radhakrishnan Tarur**, Maharashtra (IN); **Dhananjay Govind Sathe**, Maharashtra (IN); **Swapnil Jayant Kulkarni**, Maharashtra (IN)

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(21) Appl. No.: **10/568,732**

(22) PCT Filed: **May 3, 2005**

(86) PCT No.: **PCT/IN05/00139**

§ 371(c)(1),
(2), (4) Date: **Dec. 27, 2006**

(30) **Foreign Application Priority Data**

May 7, 2004 (IN)..... 479/MUM/2004

Publication Classification

(51) **Int. Cl.**
A61K 31/403 (2006.01)
C07D 209/82 (2006.01)

(52) **U.S. Cl.** **514/411**; 548/444

(57) **ABSTRACT**

The present invention discloses a novel process for preparation of carvedilol by using eco friendly solvents to obtain the said carvedilol in high purity. The said process comprises, reacting 4-hydroxy carbazole of formula (IV) with epichlorhydrin in presence of an organic solvent and a base at temperatures between 10° C.-30° C.; further reacting the resultant 4-(2,3-epoxypropoxy)- carbazole of formula (II) with a salt of 2-(2-methoxyphenoxy)ethylamine of formula (III), preferably hydrochloride salt in presence of a base and a hydroxylic solvent at temperatures between 30° C.-90° C.

US 20070166274A1

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2007/0166274 A1

MAZUR et al. (43) Pub. Date: Jul. 19, 2007

(54) **7-DIMETHYLAMINO-6-DEMETHYL-6-DEOXYTETRACYCLINE SKIN TREATMENT KIT**

(76) Inventors: **Leonard L. MAZUR**, Mountain Lakes, NJ (US); **Joseph J. Krivulka**, (US)

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(21) Appl. No.: **11/459,778**

(22) Filed: **Jul. 25, 2006**

Related U.S. Application Data

(63) Continuation-in-part of application No. 11/418,514, filed on May 4, 2006.

(60) Provisional application No. 60/760,121, filed on Jan. 19, 2006.

Publication Classification

(51) **Int. Cl.**

A61K 8/97	(2006.01)
A61K 36/886	(2006.01)
A61K 36/82	(2006.01)

(52) **U.S. Cl.** **424/74**; 424/744; 514/152; 424/729

(57) **ABSTRACT**

A method to ameliorate the skin-irritating effects of topical tretinoin treatment by providing the tretinoin-using patient with a skin-care kit which includes (1) topical tretinoin; and (2) a skin cleanser formulated to minimize tretinoin-induced skin irritation, and (3) a skin moisturizer formulated to reduce tretinoin-induced skin irritation; and (4) packaging to present the aforementioned components together as a unified system.

US 20070166273A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2007/0166273 A1**

Krivulka et al. (43) **Pub. Date: Jul. 19, 2007**

(54) **SKIN TREATMENT EDUCATIONAL KIT**

(76) Inventors: **Joseph J. Krivulka**, (US); **Leonard L. Mazur**, (US)

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(21) Appl. No.: **11/418,514**

(22) Filed: **May 4, 2006**

Related U.S. Application Data

(60) Provisional application No. 60/760,121, filed on Jan. 19, 2006.

Publication Classification

(51) **Int. Cl.**
A61K 8/97 (2006.01)
A61K 36/82 (2006.01)
A61K 36/886 (2006.01)

(52) **U.S. Cl.** **424/74**; 424/729; 424/744

(57) **ABSTRACT**

A method to ameliorate the skin-irritating effects of topical tretinoin treatment by providing the tretinoin-using patient with a skin-care kit which includes (1) topical tretinoin; and (2) a skin cleanser formulated to minimize tretinoin-induced skin irritation, and (3) a skin moisturizer formulated to reduce tretinoin-induced skin irritation; and (4) packaging to present the aforementioned components together as a unified system.

US 20070128622A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2007/0128622 A1**

Maiti et al. (43) **Pub. Date: Jun. 7, 2007**

(54) **CHIMERIC HUMAN GROWTH HORMONE DERIVED FROM THE PLACENTA AND PITUITARY ISOFORM AND PROCESSES FOR OBTAINING SAID CHIMERA**

(76) Inventors: **Dipanwita Maiti**, Mumbai (IN); **Shrikant Misiira**, Mumbai (IN); **Laxmi Srinivas Rao**, Mumbai (IN); **Milind Prabhakar Nipiiadkar**, Mumbai (IN); **Ahmed Monsur Borbiiuiya**, Mumbai (IN); **Ganesh Aruna Khare**, Mumbai (IN)

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(21) Appl. No.: **11/464,251**

(22) Filed: **Aug. 14, 2006**

(30) **Foreign Application Priority Data**

Jun. 23, 2004 (IN)..... PCT/IN04/00182

Publication Classification

(51) **Int. Cl.**

C12Q 1/68	(2006.01)
C07H 21/04	(2006.01)
C12P 21/06	(2006.01)
C07K 14/61	(2006.01)
C12N 1/21	(2006.01)

(52) **U.S. Cl.** **435/6**; 435/69.1; 435/320.1; 435/252.33; 530/399; 536/23.5

(57) **ABSTRACT**

Our invention relates to a new way of preparing coding DNA constructs, by making a chimera of various coding region isoforms. For example, our method has been successfully used to make a new hGH-NV cDNA chimera having SEQ ID NO: 3, by combining the cDNA isoforms of human placenta and pituitary RNA encoding human growth hormone. Our invention also relates to a process for increasing the production of recombinant human growth hormone by inserting a plurality of promoter—coding region—termination sequences into a vector in tandem. For example, our method has been successfully used to approximately double the yield of recombinant growth hormone in transformed cells.

US 20070123565A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2007/0123565 A1**

Aher et al. (43) **Pub. Date: May 31, 2007**

(54) **DONEPEZIL HYDROCHLORIDE FORM VI**

(76) Inventors: **Umesh P. Aher**, Kalyan (IN); **Venkatasubramanian R. Tarur**, Mumbai (IN); **Dhananjay Govind Sathe**, Thane (IN); **Avinash Venkataraman Naidu**, Dombivli (IN); **Kamlesh Digambar Sawant**, Mumbai (IN)

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(21) Appl. No.: **11/557,764**

(22) Filed: **Nov. 8, 2006**

Related U.S. Application Data

(63) Continuation of application No. 11/145,202, filed on Jun. 3, 2005, now Pat. No. 7,186,842.

(30) **Foreign Application Priority Data**

Jul. 23, 2004 (IN)..... CT/IN04/00227

Publication Classification

(51) **Int. Cl.**
A61K 31/445 (2006.01)
C07D 211/06 (2006.01)

(52) **U.S. Cl.** **514/319**; 546/206

(57) **ABSTRACT**

The present invention discloses a novel, stable polymorph of 1-benzyl-4-[(5,6-dimethoxy-1-indanone)-2-yl] methyl piperidine hydrochloride commonly known as Donepezil hydrochloride. Further the present invention discloses a process for producing Donepezil HCl amorphous and its polymorph Form (VI).

US 20070082943A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2007/0082943 A1**

Kadam et al. (43) **Pub. Date: Apr. 12, 2007**

(54) **PROCESS FOR PREPARATION OF SUBSTANTIALLY PURE GLIMEPIRIDE**

(76) Inventors: **Suresh Mahadev Kadam**, Mumbai (IN); **Venkatasubramanian Radhakrishnan Tarur**, Mumbai (IN); **Sanjay Janardham Naik**, Mumbai (IN); **Sachin Baban Gavhane**, Mumbai (IN)

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(21) Appl. No.: **11/156,343**

(22) Filed: **Jun. 17, 2005**

(30) **Foreign Application Priority Data**

Apr. 1, 2005 (IN) 410/MUM/2005

Publication Classification

(51) **Int. Cl.**
A61K 31/4015 (2006.01)
C07D 207/38 (2006.01)

(52) **U.S. Cl.** **514/423**; 548/537

(57) **ABSTRACT**

The present invention discloses a novel process for purification of trans-4-methyl cyclohexylamine HCl and 4[-2-(3-Ethyl-4-methyl-2-carbonyl pyrrolidine amido) ethyl] benzene sulfonamide used in the synthesis of 3-Ethyl-2,5-dihydro-4-methyl-N-[2-[4-[[[[(trans-4-methyl cyclohexyl)amino]carbonyl]amino]sulfonyl]phenyl]ethyl]-2-oxo-1H-pyrrole-1-carboxamide (I), popularly known as Glimepiride. The present invention also discloses a novel purification of Glimepiride usingS methanolic ammonia and glacial acetic acid to obtain highly pure Glimepiride Form I (I) having the undesired cis isomer below 0.15%. Glimepiride (I) is useful in the treatment of diabetes mellitus.

US 20070021490A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2007/0021490 A1**

Gunjal et al. (43) **Pub. Date: Jan. 25, 2007**

(54) **PROCESS FOR MANUFACTURE OF PURE (2S, 3AS, 7AS)-1-[(2S)-2-[[(1S)-1-(ETHOXYCARBONYL) BUTYL] AMINO]-1-OXOPROPYL] OCTAHYDRO-1H-INDOLE-2-CARBOXYLIC ACID AND ITS TERT. BUTYL AMINE SALT**

(76) Inventors: **Sanjay Tukaram Gunjal**, Mumbai (IN); **Dilip Uttam Jadhav**, Mumbai (IN); **Ashok Kumar**, Mumbai (IN); **Mathur Arpana**, Thane (IN); **Nalinakshya Balaram Panda**, Thane (IN); **Satish Rajanikant Soudagar**, Mumbai (IN)

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(21) Appl. No.: **11/324,349**

(22) Filed: **Jan. 3, 2006**

Related U.S. Application Data

(63) Continuation-in-part of application No. 11/140,226, filed on May 27, 2005.

(30) **Foreign Application Priority Data**

Jan. 6, 2005 (IN)..... 17.MUM.2005

Publication Classification

(51) **Int. Cl.**
A61K 31/405 (2007.01)
C07D 209/42 (2006.01)

(52) **U.S. Cl.** **514/419**; 548/492

(57) **ABSTRACT**

New compounds useful as synthetic intermediates to synthesize perindopril, a new process for synthesizing perindopril, and new salts of perindopril.

US 20070009621A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2007/0009621 A1**

Eng (43) **Pub. Date: Jan. 11, 2007**

(54) **CORRECTING SYSTEMIC ANDROGEN LEVELS USING EURYCOMA LONGIFOLIA**

(76) Inventor: **Annie Eng**, Bradenton, FL (US)

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(21) Appl. No.: **11/176,464**

(22) Filed: **Jul. 7, 2005**

Publication Classification

(51) **Int. Cl.**
A61K 36/18 (2006.01)

(52) **U.S. Cl.** **424/773**

(57) **ABSTRACT**

A method for treating Systemic Androgen Deficiency, by administering *Eurycoma longifolia,* a plant native to South East Asia which regulates testosterone biosynthesis in vivo by, inter alia, impacting the activity of CYP17 (17-hydroxylase/17,20 lysase) and leutenizing hormone.

US 20060270009A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2006/0270009 A1**

Osawa et al. (43) **Pub. Date: Nov. 30, 2006**

(54) **FLAVONOID COMPOUND AND PROCESS FOR PRODUCING THE SAME**

(76) Inventors: **Toshihiko Osawa**, Nagoya-shi (JP); **Kenichiro Minato**, Sendai-shi (JP); **Yoshiaki Miyake**, Toyota-shi (JP)

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(21) Appl. No.: **11/462,437**

(22) Filed: **Aug. 4, 2006**

(30) **Foreign Application Priority Data**

Mar. 15, 2001 (JP) ..... PAT 2001-073577
Mar. 30, 2001 (JP) ..... PAT 2001-098744
Mar. 14, 2002 (WO) PCT/JP02/02445

Publication Classification

(51) **Int. Cl.**
C12P 17/06 (2006.01)

(52) **U.S. Cl.** **435/125**

(57) **ABSTRACT**

A preparation process is provided for preparing a novel flavonoid compound having a high level of antioxidative action. The flavonoid compound is obtained by subjecting hesperidin to microbial fermentation treatment with *Aspergillus saitoi*.

US 20060241311A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2006/0241311 A1**

Tarur (43) **Pub. Date: Oct. 26, 2006**

(54) **NOVAL POLYMORPHS OF ATOVAQUONE AND PROCESS OF**

(76) Inventor: **Venkataswubramanian R. Tarur**, Mumbai (IN)

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(21) Appl. No.: **10/569,036**

(22) PCT Filed: **Jul. 16, 2004**

(86) PCT No.: **PCT/IN04/00213**

Publication Classification

(51) **Int. Cl.**
A61K 31/12 (2006.01)
C07C 50/02 (2006.01)

(52) **U.S. Cl.** **552/295**; 514/682

(57) **ABSTRACT**

Novel crystalline forms of anti Pneumocystis carinii compound (2-[4-(4-Chlorophenyl)cyclohexyl]-3-hydroxy-1,4-naphthoquinone) commonly known as Atovaquone and methods for producing the same is disclosed herein. This also provides pharmaceutical compositions comprising the said polymorphs of Atovaquone and method of treating Pneumocystis carinii pneumonia, the method comprising administering to a warm blooded animal an effective amount of a product-by-process composition of matter comprising polymorphic forms of Atovaquone.

US 20060229453A1

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2006/0229453 A1

Gediya et al. (43) Pub. Date: Oct. 12, 2006

(54) **PROCESS FOR THE PREPARATION OF 5-[4-[2-[N-METHYL-N-(2-PYRIDYL) AMINO] ETHOXY] PHENYL METHYL] THIAZOLIDINE-2,4-DIONE MALEATE (ROSIGLITAZONE)**

(75) Inventors: **Lalji Karsan Gediya**, Mumbai (IN); **Venkatasubramanian Radha Tarur**, Mumbai (IN); **Suresh Mahadev Kadam**, Navi Mumbai (IN); **Subodh Shashikant Patnekar**, Thane (IN)

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(73) Assignee: **USV**

(21) Appl. No.: **11/399,789**

(22) Filed: **Apr. 5, 2006**

Related U.S. Application Data

(62) Division of application No. 10/938,317, filed on Sep. 10, 2004.

(30) **Foreign Application Priority Data**

Jan. 28, 2004 (IN)..... 80/MUM/2004

Publication Classification

(51) **Int. Cl.**
C07D 417/02 (2006.01)

(52) **U.S. Cl.** **546/269.7**

(57) **ABSTRACT**

A process for the preparation of 5-[4-[2-[N-methyl-N-(2-pyridyl)amino]ethoxy]phenyl methyl]thiazolidine-2,4-dione maleate (the compound of Formula VI) comprising the steps of Coupling 2-[N-methyl-N-(2-pyridyl)amino]ethanol (the compound of Formula I) and 4-fluorobenzaldehyde (the compound of Formula II) in N,N-dimethylformamide, isolating the coupled product 4-[2-[N-methyl-N-(2-pyridyl)amino]ethoxy]benzaldehyde (the compound of Formula III), converting said isolated benzaldehyde compound of formula III) to 5-[4-[2-[N-methyl-N-(2-pyridyl)amino] ethoxy]benzylidene]thiazolidine-2,4-dione (the compound of Formula IV) and purifying the same, reducing 5-[4-[2-[N-methyl-N-(2-pyridyl)amino]ethoxy]benzylidene]thiazolidine-2,4-dione, by a novel reduction method for making 5-[4-[2-[N-methyl-N-(2-pyridyl)amino]ethoxy]phenyl methyl]thiazolidine-2,4-dione (the compound of Formula V). This reduction method involves reacting the compound of formula IV with a novel metal legand complex and a reducing agent, purifying the product of formula V obtained by a new method reported in the present invention and converting the said thiazolidine-2,4-dione (the compound of Formula V) into a pharmaceutically acceptable salt.

US 20060178422A1

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2006/0178422 A1

Kumar et al. (43) Pub. Date: Aug. 10, 2006

(54) **PROCESS FOR MAKING (2S, 3AS, 7AS)-1-[(2S)-2-[[(1S)-1-(ETHOXYCARBONYL) BUTYL] AMINO]-1-OXOPROPYL] OCTAHYDRO-1H-INDOLE-2-CARBOXYLIC ACID**

(76) Inventors: **Ashok Kumar**, (US); **Satish Rajanikant Soudagar**, (US); **Arpana Mathur**, (US); **Chirag Hasmukh Shah**, (US); **Sanjay Tukaram Gunjal**, Mumbai (IN); **Dattatray Shamrao Metil**, Thane (IN); **Rahul Suresh Kelkar**, Mumbai (IN); **Devendra Digambar Thakare**, Mumbai (IN); **Bindu Manoj Kumar**, Thane (IN); **Raji Nair**, Mumbai (IN)

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(21) Appl. No.: **11/140,226**

(22) Filed: **May 27, 2005**

(30) **Foreign Application Priority Data**

May 31, 2004 (IN)..... 566/MUM/2004

Publication Classification

(51) **Int. Cl.**
A61K 31/405 (2006.01)
C07D 209/42 (2006.01)

(52) **U.S. Cl.** **514/419**; 548/492

(57) **ABSTRACT**

The present invention discloses a process for the synthesis and isolation of (2S, 3aS, 7aS)-1-[(2S)-2-[[(1S)-1-(ethoxycarbonyl)butyl]amino]-1-oxopropyl] octahydro-1H-indole-2-carboxylic acid and its tert-butylamine salt, by condensing (2S, 3aS, 7aS)-octahydroindole-2-carboxylic acid benzyl ester and N[(S)1-carboxybutyl]-(S)-alanine ethyl ester in nonreactive solvents in turn avoiding the formation of impurity viz. N-acetyl (2S,3aS,7aS)-octahydroindole-2-carboxylic acid benzyl ester (Formula V). The de-protection of benzyl ester group is optimized and then isolation of the product from aqueous layer by extraction using an organic solvent, which eliminates the need of lyophilization. The process of the present invention yields perindopril erbumnine salt of Formula 1B free of contaminants derivable from dicyclohexylcarbodiimide and impurities originated by the use of ethyl acetate.

US 20060105068A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2006/0105068 A1**

Fleischner (43) **Pub. Date: May 18, 2006**

(54) **DIETARY SUPPLEMENT FORMULATIONS CONTAINING HOODIA GORDONII**

(76) Inventor: **Albert M. Fleischner**, Westwood, NJ (US)

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(21) Appl. No.: **11/332,865**

(22) Filed: **Jan. 17, 2006**

Related U.S. Application Data

(63) Continuation-in-part of application No. 10/693,442, filed on Oct. 24, 2003.

Publication Classification

(51) **Int. Cl.**
A61K 36/33 (2006.01)

(52) **U.S. Cl.** **424/767**

(57) **ABSTRACT**

A diet composition for weight control including effective amounts of *hoodia gordonii* cactus (whole plant/less roots), alone or together with any or all of chromium, vanadium amino acid chelate, glucomannan, sodium carboxymethylcellulose, citrus naringinine, green tea, cocoa extract, glucosamine HCl, ma huang, 3-acetyl-7-oxo-dehydroepiandrosterone, and coleus forskohlii. The effective amounts may be administered before each meal.

US 20060074242A1

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2006/0074242 A1

Deshpande et al. (43) Pub. Date: Apr. 6, 2006

(54) **RAPID RESOLUTION PROCESS OF CLOPIDOGREL BASE AND A PROCESS FOR PREPARATION OF CLOPIDOGREL BISULFATE POLYMORPH-FORM I**

(76) Inventors: **Manoj Madhukarrao Deshpande**, (US); **V.R. Tarur**, Mumbai (IN); **Dhananjay Govind Sathe**, Thane (IN); **Harish Kashniath Mondkar**, Mumbai (IN); **Kamlesh Digambar Sawant**, Mumbai (IN); **Tushar Anil Naik**, (US)

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(21) Appl. No.: **11/149,646**

(22) Filed: **Jun. 10, 2005**

Related U.S. Application Data

(63) Continuation-in-part of application No. 10/957,891, filed on Oct. 4, 2004.

(30) **Foreign Application Priority Data**

Feb. 15, 2005 (WO) PCT/IN05/00048

Publication Classification

(51) **Int. Cl.**
C07D 498/02 (2006.01)

(52) **U.S. Cl.** **546/114**

(57) **ABSTRACT**

The present invention discloses a rapid resolution process of racemic clopidogrel base followed by conversion of the resolved (S) isomer to crystalline Clopidogrel bisulfate Form I. The invention also discloses novel racemization process of the unwanted (R) isomer of clopidogrel base. The invention further discloses an improved process for preparation of acid addition salts of clopidogrel.

US 20060063831A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2006/0063831 A1**

Hancke Orozco et al. (43) **Pub. Date: Mar. 23, 2006**

(54) **COMPOSITION OF LABDANE DITERPENES EXTRACTED FROM ANDROGRAPHIS PANICULATA, UFEFUL FOR THE TREATMENT OF AUTOIMMUNE DISEASES, AND ALZHEIMER DISEASE BY ACTIVATION FOR PPR-GAMMA RECEPTORS**

(75) Inventors: **Juan Luis Hancke Orozco**, Valdivia (CL); **Rafael Agustin Burgos Aguilera**, Valdivia (CL)

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(73) Assignee: **Hebal Powers Corporation**, Bradenton, FL (US)

(21) Appl. No.: **10/516,500**

(22) PCT Filed: **May 21, 2004**

(86) PCT No.: **PCT/EP04/05516**

(30) **Foreign Application Priority Data**

Feb. 3, 2004 (CL)..... 178-2004

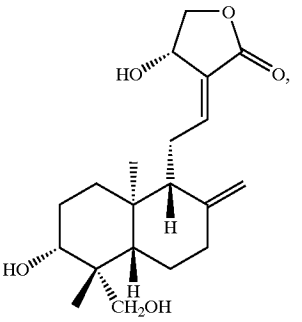
Publication Classification

(51) **Int. Cl.**
A61K 31/365 (2006.01)

(52) **U.S. Cl.** **514/473**

(57) **ABSTRACT**

The diterpenic labdane 3-[2-[decahydro-6-hydroxy-5-(hydroxymethyl)-5,ha-dimethyl-2-methylene-1-naphthalenyl] ethylidene]-dihydro-4-hydroxy-2(3h)-furanone, chemically diagrammed as



inhibits the synthesis of pro-inflammatory cytokines, activates the PPAR-gamma receptor and diminishes nuclear factor kappa B. The compound is useful to treat autoimmune diseases, for organ and tissue transplantation, and to treat immunodeficiency (e.g., AIDS).

US 20060052405A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2006/0052405 A1**

Knowles (43) **Pub. Date: Mar. 9, 2006**

(54) **HAIR LOSS PREVENTION**

(76) Inventor: **W. Roy Knowles**, Houston, TX (US)

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(21) Appl. No.: **11/208,864**

(22) Filed: **Aug. 22, 2005**

Related U.S. Application Data

(63) Continuation-in-part of application No. 09/619,142, filed on Jul. 19, 2000.

Publication Classification

(51) **Int. Cl.**
A61K 8/49 (2006.01)
A61K 31/513 (2006.01)

(52) **U.S. Cl.** **514/269**; 424/70.1

(57) **ABSTRACT**

Compositions to prevent or reduce hair loss, allowing the body to maintain normal, healthy hair growth, comprising a penetration enhancer together with a testosterone blocker or a vascular enhancer, or both.

US 20060047121A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2006/0047121 A1**

Sawant et al. (43) **Pub. Date: Mar. 2, 2006**

(54) **NOVEL PROCESS FOR PREPARATION OF CLOPIDOGREL BISULFATE POLYMORPH - FORM I**

(76) Inventors: **Kamlesh Digambar Sawant**, Mumbai (IN); **Venkatasubramanian R. Tarur**, Mumbai (IN); **Dhananjay Govind Sathe**, Thane (IN)

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(21) Appl. No.: **10/957,891**

(22) Filed: **Oct. 4, 2004**

(30) **Foreign Application Priority Data**

Sep. 1, 2004 (IN)..... 945/MUM/2004

Publication Classification

(51) **Int. Cl.**
C07D 498/02 (2006.01)

(52) **U.S. Cl.** **546/113**

(57) **ABSTRACT**

A process for making Clopidogrel Bisulfate Form I which comprises dissolving Clopidogrel Bisulfate Form II in a solublizing solvent at room temperature to form a solution; adding an anti-solvent to the said solution till turbid; stirring the said turbid solution; collecting the precipitated solid and drying the final solid product, form I.

US 20060014987A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2006/0014987 A1**

Huang (43) **Pub. Date: Jan. 19, 2006**

(54) **SYNTHESIS OF BETA-ELEMENE, INTERMEDIATES THERETO, ANALOGUES AND USES THEREOF**

(76) Inventor: **Lan Huang**, Bronx, NY (US)

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(21) Appl. No.: **10/886,334**

(22) Filed: **Jul. 7, 2004**

Related U.S. Application Data

(60) Provisional application No. 60/485,358, filed on Jul. 7, 2003.

Publication Classification

(51) **Int. Cl.**
C07C 35/24 (2006.01)

(52) **U.S. Cl.** **568/820**

(57) **ABSTRACT**

The present invention provides convergent processes for preparing beta-elemene, and analogues thereof. Also provided are analogues related to beta-elemene and intermediates useful for preparing the same. The present invention further provides novel compositions based on analogues of beta-elemene and methods for the treatment of cancer, such as brain tumor, lung cancer, colorectal cancer, gastric intestional cancer, and stomach cancer.

US 20050288330A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2005/0288330 A1**

Naidu et al. (43) **Pub. Date: Dec. 29, 2005**

(54) **PROCESS FOR PRODUCING A POLYMORPHIC FORM OF (1-BENZYL-4-[(5,6-DIMETHOXY-1-INDANONE)-2-YL] METHYL PIPERIDINE HYDROCHLORIDE (DONEPEZIL HYDROCHLORIDE)**

(76) Inventors: **Avinash Naidu**, Dombivli (IN); **Venkatasubramanian R. Tarur**, Mumbai (IN); **Dhanajay Govind Sathe**, Thane (IN); **Umesh Parashram Aher**, Kalyan (IN)

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(21) Appl. No.: **11/072,169**

(22) Filed: **Mar. 4, 2005**

Related U.S. Application Data

(63) Continuation-in-part of application No. 10/879,816, filed on Jun. 29, 2004.

Publication Classification

(51) **Int. Cl.**[7] **C07D 211/06**; A61K 31/445

(52) **U.S. Cl.** **514/319**; 546/206

(57) **ABSTRACT**

The present invention discloses a novel, stable polymorph of 1-benzyl-4-[(5,6-dimethoxy-1-indanone)-2-yl]methyl piperidine hydrochloride commonly known as Donepezil hydrochloride. Further the present invention discloses a process for producing Donepezil HCl amorphous and it's polymorph Form (VI).

US 20050277667A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2005/0277667 A1**

Kumar et al. (43) **Pub. Date: Dec. 15, 2005**

(54) **MANUFACTURING PROCESS FOR METHYL PHENIDATE AND INTERMEDIATES THEREOF**

(76) Inventors: **Ashok Kumar**, Mumbai (IN); **Dharmendra Singh**, Thane (IN); **Swapnali Hemant Patil**, Thane (IN); **Ganesh Devidas Mahale**, Mumbai (IN); **Uttamrao Arjunrao Sawant**, Thane (IN)

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(21) Appl. No.: **11/150,737**

(22) Filed: **Jun. 10, 2005**

(30) **Foreign Application Priority Data**

Jun. 15, 2004 (IN) 651.MUM.2004

Publication Classification

(51) **Int. Cl.**[7] **A61K 31/445**

(52) **U.S. Cl.** **514/317**

(57) **ABSTRACT**

The present invention discloses selective and complete reduction of pyridine ring in a biaryl system comprising ∝-substituted or nonsubstituted benzene ring and relates more specifically, not exclusively, for the manufacture of methylphenidate, which is used for treatment of Attention Deficit Hyperactive Disorder (ADHD) and also acts as central nervous system stimulant, by using palladium/C in a solvent such as C1-C4 alcohols in presence of molar quantities of organic and/or inorganic acids.

US 20050272775A1

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2005/0272775 A1

Aher et al. (43) Pub. Date: Dec. 8, 2005

(54) **POLYMORPH OF (1-BENZYL-4-[(5,6-DIMETHOXY-1-INDANONE)-2-Y1] METHYL PIPERIDINE HYDROCHLORIDE (DONEPEZIL HYDROCHLORIDE) AND A PROCESS FOR PRODUCING THEREOF**

(76) Inventors: **Umesh P. Aher**, Kalyan (IN); **Venkatasubramanian R. Tarur**, Mumbai (IN); **Dhananjay Govind Sathe**, Thane (IN); **Avinash Venkataraman Naidu**, Dombivli (IN); **Kamlesh Digambar Sawant**, Mumbia (IN)

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(21) Appl. No.: **11/145,202**

(22) Filed: **Jun. 3, 2005**

Related U.S. Application Data

(63) Continuation-in-part of application No. 10/365,717, filed on Feb. 12, 2003, now Pat. No. 6,649,765.
Continuation-in-part of application No. 10/714,724, filed on Nov. 17, 2003, now Pat. No. 6,953,856.
Continuation-in-part of application No. 10/879,816, filed on Jun. 29, 2004.
Continuation-in-part of application No. 11/072,169, filed on Mar. 4, 2005.

(30) **Foreign Application Priority Data**

Jul. 28, 2004 (WO) PCT/IN04/00227

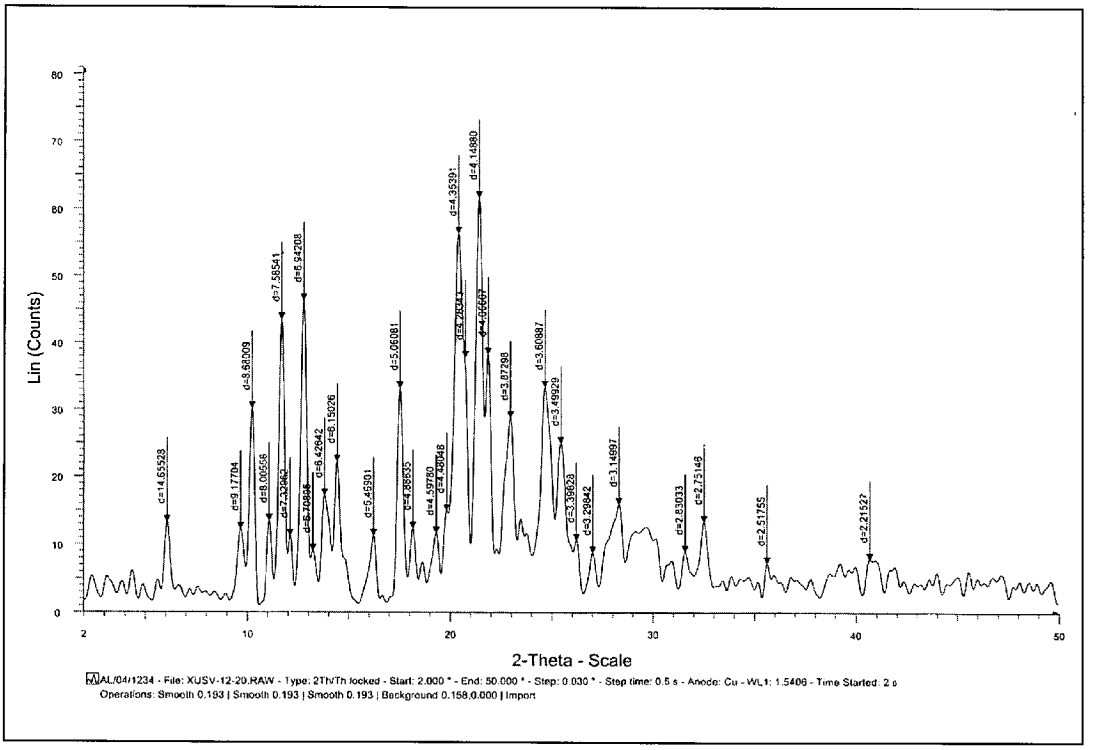
Publication Classification

(51) **Int. Cl.**[7] **A61K 31/445**; C07D 211/06

(52) **U.S. Cl.** **514/319**; 546/206

(57) **ABSTRACT**

The present invention discloses a novel, stable polymorph of 1-benzyl-4[(5,6-dimethoxy-1-indanone)-2-yl]methyl piperidine hydrochloride commonly known as Donepezil hydrochloride. Further the present invention discloses a process for producing Donepezil HCl amorphous and its polymorph Form (VI).



US 20050255160A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2005/0255160 A1**

Bell (43) **Pub. Date: Nov. 17, 2005**

(54) **POLYMIDE RESIN DERMAL COMPOSITION**

(76) Inventor: **Stephen Bell**, Harwinton, CT (US)

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(21) Appl. No.: **10/843,236**

(22) Filed: **May 11, 2004**

Publication Classification

(51) **Int. Cl.**[7] **A61K 9/14**

(52) **U.S. Cl.** **424/486**

(57) **ABSTRACT**

A gel composition made from a polyamide resin combined with an lower carboxylic acid or anhydride alkyl amide; the compositions are suitable for making attractive topically-applied cosmetic, topical fragrance and topical dermatology drug products in translucent gel form.

US 20050250746A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2005/0250746 A1**

Iammatteo (43) **Pub. Date: Nov. 10, 2005**

(54) **PREMENSTRUAL DYSPHORIC DISORDER MEDICATION**

(76) Inventor: **Matthew Iammatteo**, Morristown, NJ (US)

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(21) Appl. No.: **10/840,131**

(22) Filed: **May 6, 2004**

Publication Classification

(51) **Int. Cl.**[7] **A61K 31/56**

(52) **U.S. Cl.** **514/170**

(57) **ABSTRACT**

A medication to treat the symptoms of premenstrual syndrome and similar conditions related to the periodic change in the physiological level of hormones in a woman's body.

US 20050249804A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2005/0249804 A1**

Sapte (43) **Pub. Date: Nov. 10, 2005**

(54) **STABILIZED SHORT-COURSE CHEMOTHERAPY (SCC) ANTI-TUBERCULOSIS DRUG COMPOSITIONS**

(76) Inventor: **Vinay Ramakant Sapte**, Mumbai (IN)

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(21) Appl. No.: **10/841,057**

(22) Filed: **May 7, 2004**

Publication Classification

(51) **Int. Cl.**[7] **A61K 31/4965**; A61K 31/496; A61K 31/355

(52) **U.S. Cl.** **424/464**; 514/252.13; 514/255.06; 514/356

(57) **ABSTRACT**

A stabilized oral powder or granule mixture made from at least two different anti-microbial tuberculosis drugs (e.g., rifampacin, isoniazid, ethambutol, pyrazinamide), for a short-course therapy; the powder can be consumed by mixing in a glass of water or juice and assures that each of the various drugs is in fact consumed by the tuberculosis patient.

US 20050171116A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2005/0171116 A1**

Sapte (43) **Pub. Date: Aug. 4, 2005**

(54) **ENHANCING THE EFFICACY OF TUBERCULAR DRUGS**

(76) Inventor: **Vinay Ramakant Sapte**, Mumbai (IN)

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(21) Appl. No.: **10/851,601**

(22) Filed: **May 21, 2004**

(30) **Foreign Application Priority Data**

Feb. 4, 2004 (IN)..... 124/MUM/2004
May 7, 2004 (IN)..... 527/MUM/2004

Publication Classification

(51) **Int. Cl.**[7] **A61K 31/4965**; A61K 31/496; A61K 31/355

(52) **U.S. Cl.** **514/252.13**; 514/255.06; 514/356; 514/458

(57) **ABSTRACT**

Alpha-tocopherol shows broad-spectrum anti-microbial activity against *Mycobacterium Tuberculosis* bacilli, against the rifampicin-resistant, isoniazid-resistant and multi-drug-resistant strains of *M. tuberculosis,* against *Pseudomonas,* against *Staphylococci* and against *Escherichia coli.* Further, the antimicrobial activity of known anti-tubercular pharmaceuticals can be improved by administering the anti-tubercular pharmaceutical together with α-tocopherol.

US 20050159605A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2005/0159605 A1**

Tarur et al. (43) **Pub. Date: Jul. 21, 2005**

(54) **PROCESS FOR THE PREPARATION OF 4-(2-DIPROPYLAMINOETHYL)-1,3-DIHYDRO-2H-INDOL-2-ONE HYDROCHLORIDE**

(76) Inventors: **Venkatasubramanian Radhakrishna Tarur**, Mumbai (IN); **Dhananjay Govind Sathe**, Thane (IN); **Harish Kashinath Mondkar**, Mumbai (IN); **Rajesh Ganpat Bhopalkar**, Naupada (IN); **Samadhan Daulat Patil**, Dombivli (West) (IN)

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(21) Appl. No.: **10/888,901**

(22) Filed: **Jul. 9, 2004**

(30) **Foreign Application Priority Data**

Jan. 20, 2004 (IN)..... 60/MUM/2004

Publication Classification

(51) **Int. Cl.**[7] **C07D 209/36**

(52) **U.S. Cl.** **548/484**

(57) **ABSTRACT**

The present invention discloses a novel process and novel intermediates for the Preparation of 4-[2-(di-n-propyl amino) ethyl]-1,3-dihydro-2H-indol-2-one, commonly known as Ropinirole (I) and pharmaceutical composition comprising the same. Further the present invention also discloses a method of treatment for cardiovascular disorders and Parkinson's disease.

US 20050107635A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2005/0107635 A1**

Mehra et al. (43) **Pub. Date: May 19, 2005**

(54) **METOPROLOL MANUFACTURING PROCESS**

(76) Inventors: **Janakraj Karamchand Mehra**, Mumbai (IN); **Ajit Choubey**, Sejavta (IN); **Bimal Kumar Srivastava**, Sejavta (IN); **Rajendra Kumar Porwal**, Sejavta (IN); **Prashant Gautam**, Mumbai (IN)

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(21) Appl. No.: **10/807,221**

(22) Filed: **Mar. 23, 2004**

(30) **Foreign Application Priority Data**

Nov. 14, 2003 (IN)..... 1185/MUM/2003

Publication Classification

(51) **Int. Cl.**[7] **C07C 217/32**

(52) **U.S. Cl.** **564/349**

(57) **ABSTRACT**

Metoprolol manufacturing process with optimized reaction temperatures and reactant molar ratios, to avoid the manufacture of excessive epoxide intermediates, thus avoiding the need for purification of epoxide intermediates, thus achieving higher yields and higher-purity product than that seen in the prior art teachings.

US 20050107613A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2005/0107613 A1**

Tarur et al. (43) **Pub. Date: May 19, 2005**

(54) **NOVEL PHARMACEUTICAL SALT OF (1-BENZYL-4-[(5,6-DIMETHOXY-1-INDANONE)-2-YL] METHYL PIPERIDINE (DONEPEZIL)**

(76) Inventors: **Venkatasubramanian Radhakrishnan Tarur**, Mumbai (IN); **Dhananjay Govind Sathe**, Thane (IN); **Avinash Venkatraman Naidu**, Dombivli (IN); **Umesh Parashram Aher**, Kalyan (IN)

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(21) Appl. No.: **10/879,816**

(22) Filed: **Jun. 29, 2004**

Related U.S. Application Data

(63) Continuation-in-part of application No. 10/714,724, filed on Nov. 17, 2003.

Publication Classification

(51) **Int. Cl.**[7] **A61K 31/445**; C07D 211/06

(52) **U.S. Cl.** **546/206**; 514/319

(57) **ABSTRACT**

The present invention relates to the oxalate salt of 1-benzyl-4-[(5,6-dimethoxy-1-indanone)-2-yl]methyl piperidine, commonly known as Donepezil, and its method of preparation.

US 20050091816A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2005/0091816 A1**

Pesek (43) **Pub. Date: May 5, 2005**

(54) **WALLPAPER SEAM REPAIR TOOL**

(76) Inventor: **Filip Pesek**, Bernardsville, NJ (US)

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(21) Appl. No.: **10/700,117**

(22) Filed: **Nov. 4, 2003**

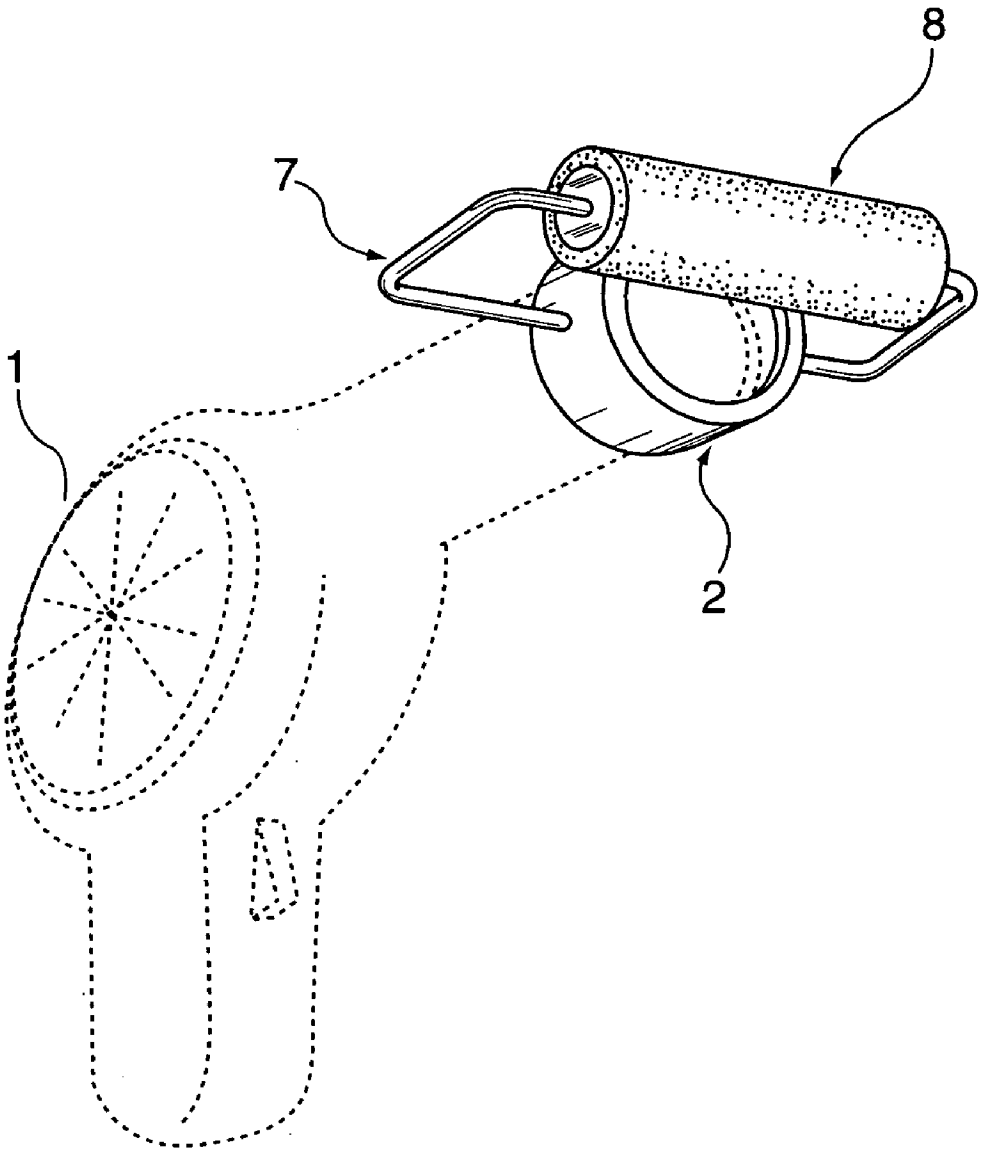
Publication Classification

(51) **Int. Cl.**[7] **B25B 27/00**; B23P 6/00

(52) **U.S. Cl.** **29/402.18**; 29/270

(57) **ABSTRACT**

A tool for repairing ruptured wallpaper seams, including a hot air blower and a paper press.



US 20050091105A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2005/0091105 A1**

Novak-Torre (43) **Pub. Date: Apr. 28, 2005**

(54) **BUSINESS CARD DISPLAY**

(76) Inventor: **Jody L. Novak-Torre**, Hope, NJ (US)

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(21) Appl. No.: **10/693,472**

(22) Filed: **Oct. 23, 2003**

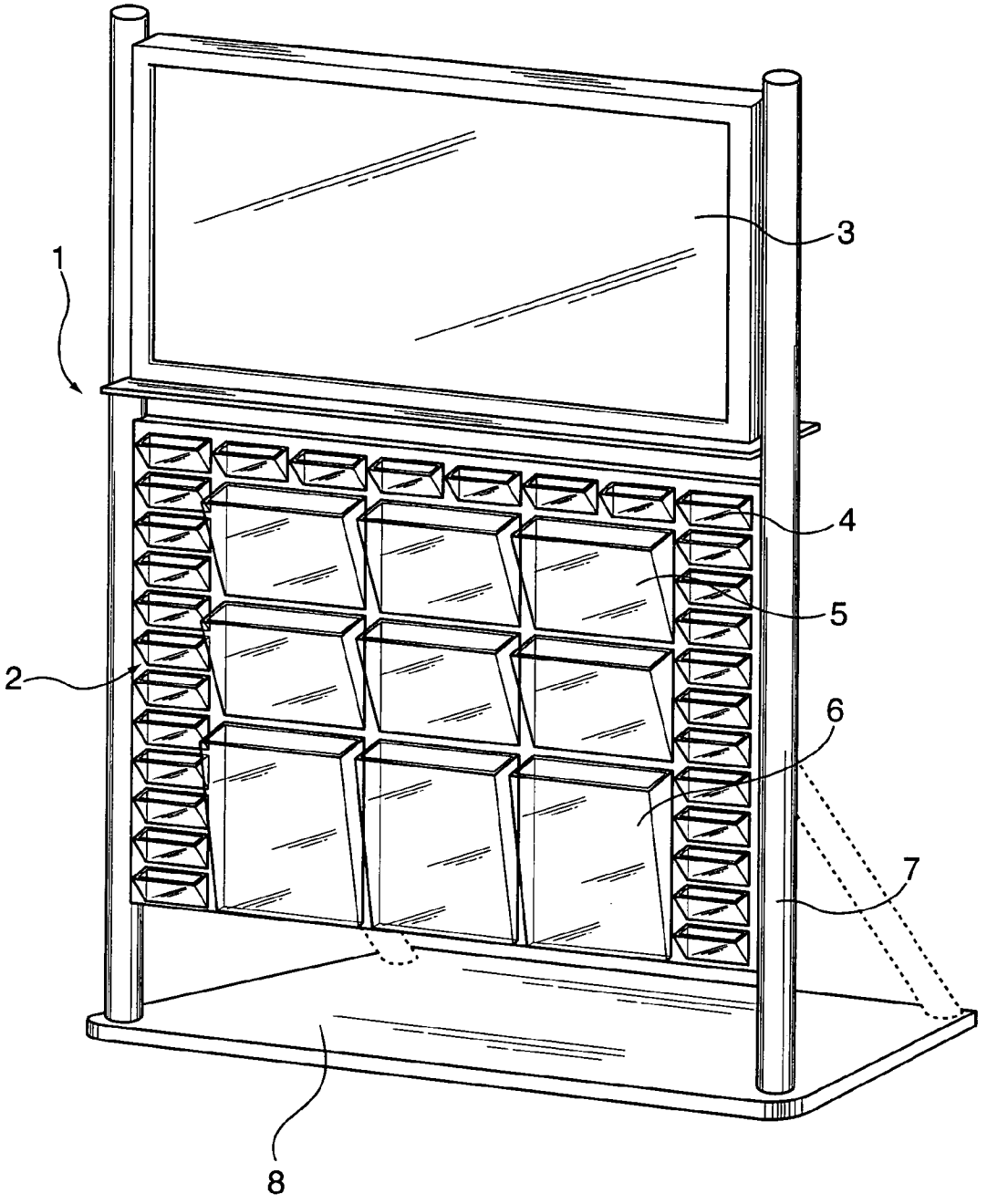
Publication Classification

(51) **Int. Cl.**[7] **G06F 17/60**

(52) **U.S. Cl.** **705/14**

(57) **ABSTRACT**

An advertising kiosk combining a business card display rack and an electronic screen which displays advertising for the advertisers having business cards in the display rack.



US 20050076919A1

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2005/0076919 A1

Muzzio (43) Pub. Date: Apr. 14, 2005

(54) SCAPULA STABILIZATION METHOD AND APPARATUS

(76) Inventor: Joseph Muzzio, Golden, CO (US)

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(21) Appl. No.: 10/681,911

(22) Filed: Oct. 10, 2003

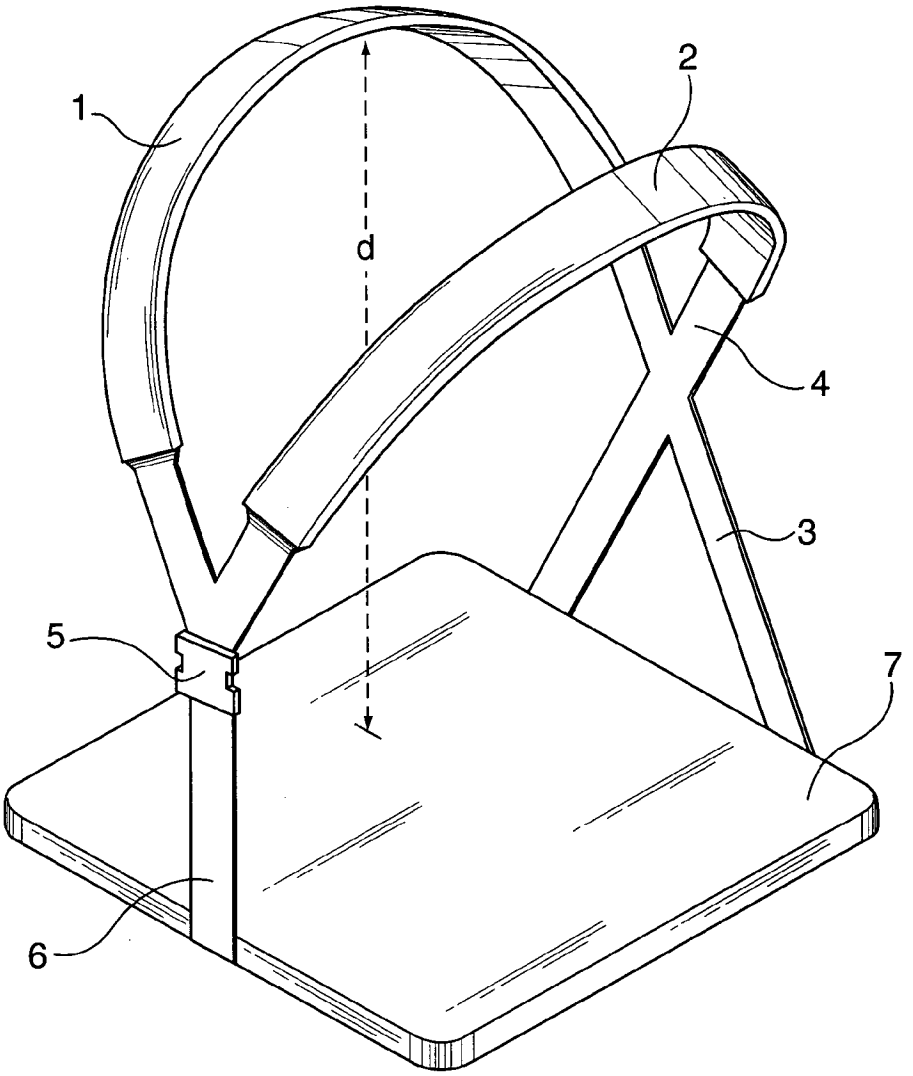
Publication Classification

(51) Int. Cl.[7] A61B 19/00

(52) U.S. Cl. 128/869; 128/870

(57) ABSTRACT

A physical therapy device that limits undesirable scapula motion and provides tactile feedback to a patient performing shoulder rehabilitation exercises.



US 20050075505A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2005/0075505 A1**

Gandhi et al. (43) **Pub. Date: Apr. 7, 2005**

(54) **NOVEL PROCESS FOR THE PREPARATION OF SUBSTANTIALLY PURE 5-(3,5-DIMETHYLPHENOXY) METHYL-2-OXAZOLIDINONE**

(76) Inventors: **Biren Jaiprakash Gandhi**, Baroda (IN); **Samir Rameschandra Shah**, Baroda (IN); **Trinadha Rao Chitturi**, Baroda (IN); **Rajamannar Thennati**, Baroda (IN)

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(21) Appl. No.: **10/501,588**

(22) PCT Filed: **Jan. 13, 2003**

(86) PCT No.: **PCT/IN03/00009**

(30) **Foreign Application Priority Data**

Jan. 14, 2002 (IN) 27/MUM/2002

Publication Classification

(51) **Int. Cl.**[7] **C07D 263/04**

(52) **U.S. Cl.** **548/229**

(57) **ABSTRACT**

Substantially pure 5-(3,5-dimethylphenoxy)methyl-2-oxazolidinone, a compound of formula (1), is prepared by a novel route, which comprises reacting 3-(3,5-dimethylphenoxy)-2-hydroxypropylamine, a compound of formula (2), or its acid addition salt with a compound of formula (3) (YCOZ) wherein Y and Z are selected from X, CC13CO, 1-imidazolyl or substituted imidazolyl, and OR; wherein X is a halide, preferably chloride, and R is selected from substituted or unsubstituted linear, branched or cyclic alkyl and aryl or heteroaryl radicals. The compound of formula (2) is prepared by treating 2-[(3,5-Dimethylphenoxy)methyl] oxirane with ammonia to yield compound of formula (2), and optionally purifying compound of formula (2) by converting to its acid addition salt.

US 20050070593A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2005/0070593 A1**

Soni et al. (43) **Pub. Date: Mar. 31, 2005**

(54) **NOVEL PROCESS FOR THE PREPARATION OF TRANS-3-ETHYL-2,5-DIHYDRO-4-METHYL-N-[2-[4-[[[[(4-METHYL CYCLOHEXYL) AMINO]CARBONYL] AMINO]SULFONYL] PHENYL]ETHYL]-2-OXO-1H-PYRROLE-1-CARBOXAMIDE**

(75) Inventors: **Rohit Ravikant Soni**, Baroda (IN); **Thennati Rajamannar**, Baroda (IN); **Rajeev Budhdev Rehani**, Baroda (IN)

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(73) Assignee: **Sun Pharmaceutical Industries, Ltd.**, Mumbai (IN)

(21) Appl. No.: **10/501,743**

(22) PCT Filed: **Jan. 6, 2003**

(86) PCT No.: **PCT/IN03/00004**

(30) **Foreign Application Priority Data**

Jan. 7, 2002 (IN) 9/MUM/2002

Publication Classification

(51) **Int. Cl.**[7] **A61K 31/4015**; C07D 207/28

(52) **U.S. Cl.** **514/423**; 548/534

(57) **ABSTRACT**

The present invention provides a novel process for preparation of trans-3-ethyl 2,5-dihydro-4-methyl-N-[2-[4-[[[[(4-methyl cyclohexyl)amino]carbonyl]amino]sulfonyl]phenyl] ethyl]-2-oxo-1H-pyrrole-1-carboxamide via the novel intermediate compounds of formula 3.

US 20050070586A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2005/0070586 A1**

Kumar et al. (43) **Pub. Date: Mar. 31, 2005**

(54) **PROCESS FOR THE SYNTHESIS OF LOSARTAN POTASSIUM**

(76) Inventors: **Ashok Kumar**, Mumbai (IN); **Rajesh Kumar Keshava Prasad Singh**, Mumbai (IN); **Nalinakshya Balaram Panda**, Mumbai (IN); **Abhay Atmaram Upare**, Mumbai (IN); **Manmohan Madhavrao Nimbalkar**, Mumbai (IN); **Satish Rajanikant Soudagar**, Mumbai (IN); **Ashvini Kumar Nand Kishore Saxena**, Ratlam (IN)

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(21) Appl. No.: **10/913,121**

(22) Filed: **Aug. 5, 2004**

Related U.S. Application Data

(63) Continuation-in-part of application No. 10/431,847, filed on May 7, 2003.

Publication Classification

(51) **Int. Cl.**[7] **A61K 31/4184**; C07D 43/02

(52) **U.S. Cl.** **514/381**; 548/254

(57) **ABSTRACT**

Improved processes using primary, secondary and tertiary alcohols and with safer mode of introduction of the reagent and reaction conditions are described. Further, the process of manufacture of Losartan potassium by use of alkali metal salt such as Potassium carbonate is disclosed. A process for preparation of the polymorphic Form I of Losartan potassium is also disclosed herein.

US 20050043550A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2005/0043550 A1**

Rajamannar et al. (43) **Pub. Date: Feb. 24, 2005**

(54) **PROCESS FOR THE PREPARATION OF 1-[3-(DIMETHYLAMINO)PROPYL]-1-(4-FLUOROPHENYL)-1,3-DIHYDRO-5-ISOBENZOFURAN CARBONITRILE**

(76) Inventors: **Thennati Rajamannar**, Baroda (IN); **Kilaru Srinivasu**, Baroda (IN); **Nileshkumar Sureshbhai Patel**, Baroda (IN); **Chinnapillai Rajendran**, Hyderabad (IN)

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(21) Appl. No.: **10/500,532**

(22) PCT Filed: **Jan. 7, 2003**

(86) PCT No.: **PCT/IN03/00006**

(30) **Foreign Application Priority Data**

Jan. 7, 2002 (IN)..... 10/MUM/2002
Jan. 10, 2002 (IN)..... 18/MUM/2002
Sep. 30, 2002 (IN)..... 847/MUM/2002

Publication Classification

(51) **Int. Cl.**[7] **C07D 307/87**
(52) **U.S. Cl.** **549/467**

(57) **ABSTRACT**

The present invention provides an improved cyanide exchange process for preparation of 1-[3-(dimethy-lamino-)propyl]-1-(4-fluorophenyl)-1,3-dihydro-5-isobenzofuran carbonitrile, followed by the treatment of crude 1-[3-(dimethylamino)propyl]-1-(4-fluorophenyl)-1,3-dihydro-5-isobenzofuran carbonitrile with a cyanide reversal agent and its purification from a solvent system.

US 20050043539A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2005/0043539 A1**

Gediya et al. (43) **Pub. Date: Feb. 24, 2005**

(54) **PROCESS FOR THE PREPARATION OF 5-[4-[2-[N-METHYL-N-(2-PYRIDYL) AMINO] ETHOXY] PHENYL METHYL] THIAZOLIDINE-2, 4-DIONE MALEATE**

(76) Inventors: **Lalji Karsan Gediya**, Mumbai (IN); **Venkatasubramanian Radha Tarur**, Mumbai (IN); **Suresh Mahadev Kadam**, Navi Mumbai (IN); **Subodh Shashikant Patnekar**, Thane (IN)

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(21) Appl. No.: **10/938,317**

(22) Filed: **Sep. 10, 2004**

Related U.S. Application Data

(63) Continuation-in-part of application No. 10/431,847, filed on May 7, 2003.

(30) **Foreign Application Priority Data**

Jan. 28, 2004 (IN) 80/MUM/2004

Publication Classification

(51) **Int. Cl.**[7] **C07D 417/02**

(52) **U.S. Cl.** **546/269.7**

(57) **ABSTRACT**

The present invention discloses a process for the preparation of 5-[4-[2-[N-methyl-N-(2-pyridyl)amino]ethoxy]phenyl methyl]thiazolidine-2,4-dione maleate (VI) comprising the steps of Coupling 2-[N-methyl-N-(2-pyridyl)amino]ethanol (I) and 4-fluorobenzaldehyde (II) in N,N-dimethylformamide, isolating the coupled product 4[2-[N-methyl-N-(2-pyridyl)amino]ethoxy]benzaldehyde (III), converting said isolated benzaldehyde compound (III) to 5-[4-[2-[N-methyl-N-(2-pyridyl)amino]ethoxy]benzylidene]thiazolidine-2,4-dione (IV) and purifying the same, reducing 5-[4-[2-[N-methyl-N-(2-pyridyl)amino]ethoxy]benzylidene] thiazolidine-2,4-dione, by a novel reduction method for making 5-[4-[2-[N-methyl-N-(2-pyridyl)amino]ethoxy]phenyl methyl]thiazolidine-2,4-dione (V). This reduction method involves reacting the compound (IV) with a novel metal legand complex and a reducing agent, purifying the product (V) obtained by a new method reported in the present invention and converting the said thiazolidine-2,4-dione compound (V) into a pharmaceutically acceptable salt.

US 20040265398A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2004/0265398 A1**

Fleischner (43) **Pub. Date: Dec. 30, 2004**

(54) **HERBAL COMPOSITION FOR WEIGHT CONTROL**

(76) Inventor: **Albert M. Fleischner**, Westwood, NJ (US)

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(21) Appl. No.: **10/693,442**

(22) Filed: **Oct. 24, 2003**

Related U.S. Application Data

(63) Continuation-in-part of application No. 10/131,868, filed on Apr. 25, 2002.

Publication Classification

(51) **Int. Cl.**[7] **A61K 35/78**

(52) **U.S. Cl.** **424/725**

(57) **ABSTRACT**

A diet composition for weight control including effective amounts of *hoodia gordonii* cactus (whole plant/less roots), alone or together with any or all of chromium, vanadium amino acid chelate, glucomannan, sodium carboxymethylcellulose, citrus naringinine, green tea, cocoa extract, glucosamine HCl, *ma huang*, 3-acetyl-7-oxo-dehydroepiandrosterone, and *coleus forskohlii*. The effective amounts may be administered before each meal.

US 20040228932A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2004/0228932 A1**

Pilgaonkar et al. (43) **Pub. Date: Nov. 18, 2004**

(54) **PHARMACEUTICAL EXCIPIENT**

(76) Inventors: **Pratibha S. Pilgaonkar**, Mumbai (IN); **Maharukh T. Rustomjee**, Mumbai (IN); **Anilkumar S. Gandhi**, Mumbai (IN); **Vinderjit S. Bhumra**, Mumbai (IN)

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(21) Appl. No.: **10/439,161**

(22) Filed: **May 12, 2003**

Publication Classification

(51) **Int. Cl.**[7] **A61K 35/78**; B02C 11/08; B02C 21/00

(52) **U.S. Cl.** **424/757**; 241/23

(57) **ABSTRACT**

The invention relates to a multifunctional fiber rich fraction (FRF) useful as an excipient for pharmaceutical dosage forms for various routes of administration. This excipient can be used as binder, disintegrant, filler, dispersing agent, coating agent, film forming agent, thickener etc for preparation of variety of dosage forms. This FRF can also be used in a controlled release, targeted release and other specialized delivery systems, as well as in food and cosmetics formulation.

US 20040224998A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2004/0224998 A1**

Kumar et al. (43) **Pub. Date: Nov. 11, 2004**

(54) **LOSARTAN POTASSIUM SYNTHESIS**

(76) Inventors: **Ashok Kumar**, Mumbai (IN); **Rajeshkumar Singh**, Mumbai (IN); **Nalinakshya Panda**, Vasai West (IN); **Abhay Upare**, Mumbai (IN); **Manmohan Nimbalkar**, Mumbai (IN); **Satish Soudagar**, Mumbai (IN)

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(21) Appl. No.: **10/431,847**

(22) Filed: **May 7, 2003**

Related U.S. Application Data

(60) Provisional application No. 60/468,208, filed on May 6, 2003.

Publication Classification

(51) **Int. Cl.**[7] **A61K 31/4184**; C07D 43/02

(52) **U.S. Cl.** **514/381**; 548/254

(57) **ABSTRACT**

A process for the synthesis of Losartan Potassium by reacting Trityl Losartan in a primary alcohol with potassium tertiary alkoxide.

US 20040223998A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2004/0223998 A1**

Iyer et al. (43) **Pub. Date: Nov. 11, 2004**

(54) **INSECT REPELLENT**

(76) Inventors: **Ganesh Natrajan Iyer**, Mumbai (IN); **Ramesh Trimbak Sane**, Mumbai (IN); **Sasikumar Menon**, Mumbai (IN)

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(21) Appl. No.: **10/831,798**

(22) Filed: **Apr. 26, 2004**

(30) **Foreign Application Priority Data**

Apr. 28, 2003 (IN) 422/MUM/2003

Publication Classification

(51) **Int. Cl.**[7] **A01N 25/00**; A01N 37/10; A01N 65/00; A01N 35/00; A01N 43/06

(52) **U.S. Cl.** **424/405**; 424/725; 514/691; 514/438

(57) **ABSTRACT**

Mosquito-repellant and insecticidal compounds identified as oils present in the plant *Blumea lacera* [Burm. F.] DC. These compounds may be extracted from a plant source or synthetically synthesized and formulated to make anti-mosquito products.

US 20040208932A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2004/0208932 A1**

Thembalath et al. (43) **Pub. Date: Oct. 21, 2004**

(54) **STABILIZED PAROXETINE HYDROCHLORIDE FORMULATION**

(76) Inventors: **Ramachandran Thembalath**, Mumbai (IN); **Yatish Kumar Bansal**, Mumbai (IN); **Veena Singh**, Mumbai (IN)

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(21) Appl. No.: **10/768,348**

(22) Filed: **Jan. 30, 2004**

(30) **Foreign Application Priority Data**

Apr. 17, 2003	(IN)	384/MUM/2003
Sep. 18, 2003	(IN)	977/MUM/2003
Oct. 31, 2003	(WO)	PCT/IN03/00349

Publication Classification

(51) **Int. Cl.**[7] **A61K 9/24**

(52) **U.S. Cl.** **424/471**

(57) **ABSTRACT**

A stabilized oral dosage form of an active pharmaceutical ingredient (API) such as paroxetine hydrochloride for improving the stability of the said API prior to incorporating into an oral delivery system, and a process for preparation of free flowing granules of paroxetine hydrochloride obtained by coating them with moisture barrier pharmaceutical excipients.

US 20040152762A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2004/0152762 A1**

Osawa et al. (43) **Pub. Date: Aug. 5, 2004**

(54) **FLAVONOID COMPOUND AND PROCESS FOR PRODUCING THE SAME**

(76) Inventors: **Toshihiko Osawa**, Nagoya-shi (JP); **Kenichiro Minato**, Sendai-shi (JP); **Yoshiaki Miyake**, Toyota-shi (JP)

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(21) Appl. No.: **10/471,438**

(22) PCT Filed: **Mar. 14, 2002**

(86) PCT No.: **PCT/JP02/02445**

(30) **Foreign Application Priority Data**

Mar. 15, 2001 (JP) 2001-073577
Mar. 30, 2001 (JP) 2001-098744

Publication Classification

(51) **Int. Cl.**[7] **C12P 17/06**; C07D 311/74; A61K 31/353

(52) **U.S. Cl.** **514/456**; 549/403; 435/125

(57) **ABSTRACT**

A preparation process is provided for preparing a novel flavonoid compound having a high level of antioxidative action. The flavonoid compound is obtained by subjecting hesperidin to microbial fermentation treatment with *Aspergillus saitoi*.

US 20040112621A1

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2004/0112621 A1

Schengrund et al. (43) Pub. Date: Jun. 17, 2004

(54) EASY INSTALLATION SUB-GRADE CONDUIT CONNECTOR

(76) Inventors: **Peter Schengrund**, Berkeley Heights, NJ (US); **Joseph Curcio**, Berkeley Heights, NJ (US)

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(21) Appl. No.: **10/319,072**

(22) Filed: **Dec. 11, 2002**

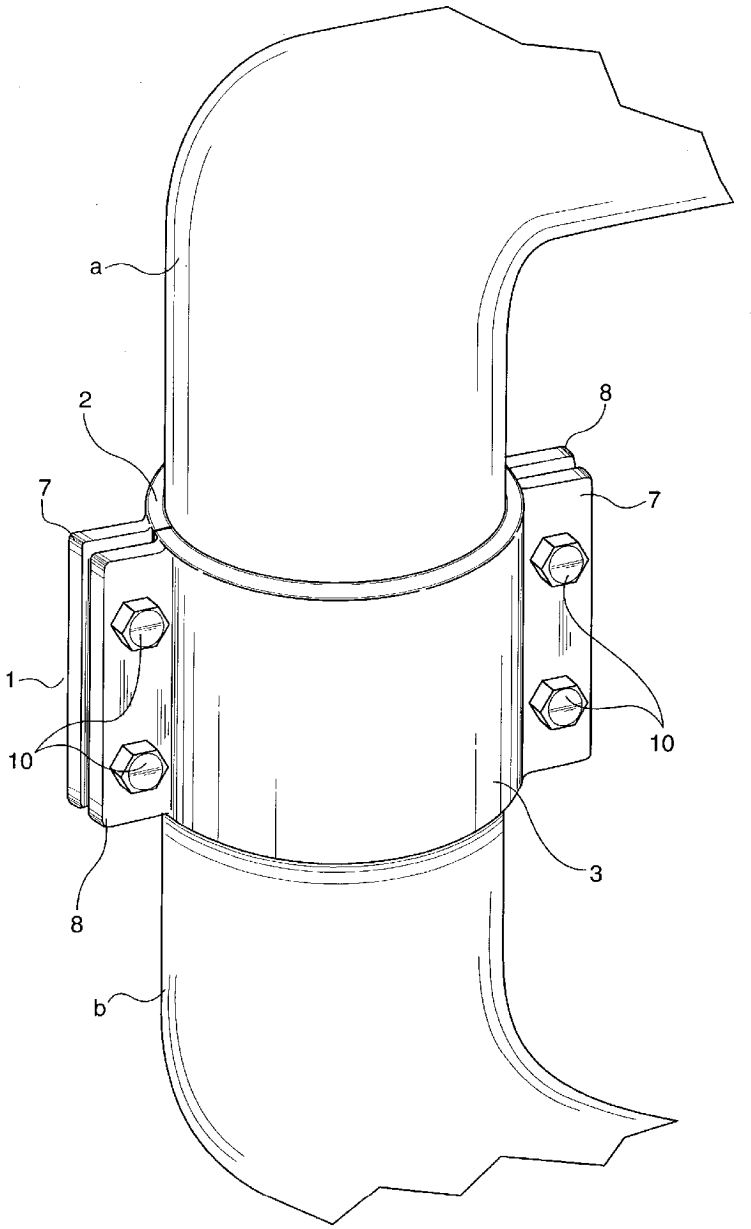
Publication Classification

(51) **Int. Cl.**[7] **H02G 3/04**

(52) **U.S. Cl.** **174/48**

(57) **ABSTRACT**

An electrical conduit connector particularly suited for connecting angled or elbowed conduit in a constrained space.



US 20040101507A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2004/0101507 A1**

Predovan (43) **Pub. Date: May 27, 2004**

(54) **SKIN CREAM**

(76) Inventor: **Janco Predovan**, Manahawkin, NJ (US)

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(21) Appl. No.: **10/305,571**

(22) Filed: **Nov. 27, 2002**

Publication Classification

(51) **Int. Cl.**[7] **A61K 7/06**; A61K 35/78

(52) **U.S. Cl.** **424/74**; 424/769

(57) **ABSTRACT**

A skin cream made from an emulsion of beeswax and olive oil, which is useful as a skin cream, a burn cream, and a wound dressing lubricant.

US 20040032954A1

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2004/0032954 A1

Bonfrate et al. (43) Pub. Date: Feb. 19, 2004

(54) METHOD AND APPARATUS FOR USE IN ENCRYPTED COMMUNICATION

(76) Inventors: **Gabriele Bonfrate**, Milano (IT); **Paul D. Townsend**, Ovens (IE)

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(21) Appl. No.: **10/449,995**

(22) Filed: **May 30, 2003**

Related U.S. Application Data

(60) Provisional application No. 60/424,991, filed on Nov. 8, 2002.

(30) **Foreign Application Priority Data**

May 31, 2002 (GB) 0212627.4

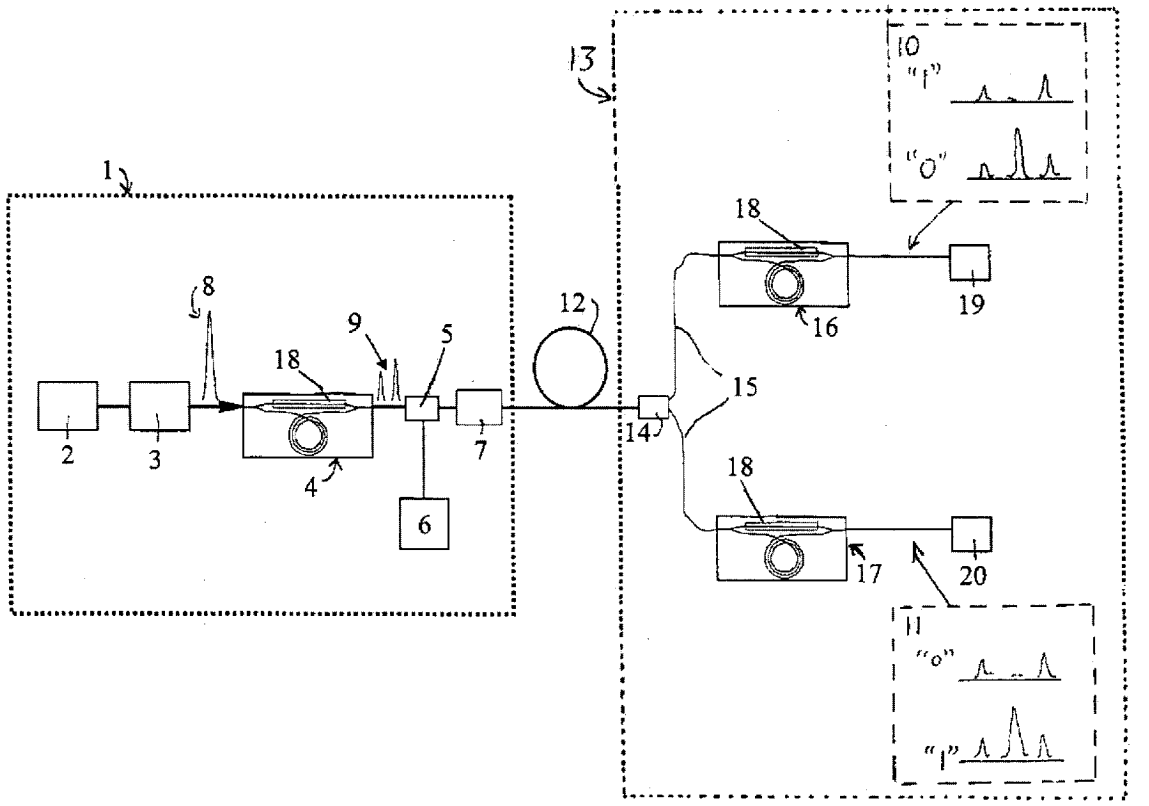
Publication Classification

(51) **Int. Cl.**[7] **H04L 9/00**

(52) **U.S. Cl.** **380/263**

(57) **ABSTRACT**

A method and apparatus for secure distribution of cryptographic key information based on quantum cryptography is described. The apparatus incorporates or is used with a transmitter comprising a source of pairs of dim, depolarised light pulses together with a phase modulator and random number generator that are used to encode the pulse pairs with the binary key information by changing the relative phases of the pulses of some pairs. The apparatus incorporates a receiver comprising a polarisation beam splitter, and a pair of interferometers and optical detectors. The invention overcomes problems associated with polarisation evolution in quantum cryptography systems that incorporate a non-polarisation-preserving optical channel (e.g. standard optical fiber). In addition the invention removes the need for an active random number generator and phase modulator at the receiver, because the polarisation beam splitter acts as if it were a random router, thereby achieving significant reduction of the cost and complexity of the apparatus.



US 20030216605A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2003/0216605 A1**

Chen et al. (43) **Pub. Date: Nov. 20, 2003**

(54) **BETA-ELEMENE, METHOD TO PREPARE THE SAME AND USES THEREOF**

(76) Inventors: **Yuren Chen**, Dalian (CN); **Xiu Ying Wu**, Dalian (CN)

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(21) Appl. No.: **10/270,098**

(22) Filed: **Oct. 11, 2002**

Related U.S. Application Data

(63) Continuation of application No. 09/402,744, filed on Apr. 19, 2000, now Pat. No. 6,464,839, filed as 371 of international application No. PCT/US98/07341, filed on Apr. 13, 1998.

(30) **Foreign Application Priority Data**

Apr. 14, 1997 (CN) 97103910.0

Publication Classification

(51) **Int. Cl.**[7] **C07C 7/00**

(52) **U.S. Cl.** **585/803**

(57) **ABSTRACT**

This invention provides an anti-cancer composition of high purity beta-elemene extracted from plant sources. This invention also provides for the use of the composition as well as a low cost method to prepare it by multiple passes through the precision distillation tower.

US 20030111005A1

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2003/0111005 A1

Lord et al. (43) Pub. Date: Jun. 19, 2003

(54) WEARABLE DIET COUNTER

(76) Inventors: Gregory Lord, Leesville, LA (US); Angelle Lord, Leesville, LA (US)

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(21) Appl. No.: 10/025,162

(22) Filed: Dec. 19, 2001

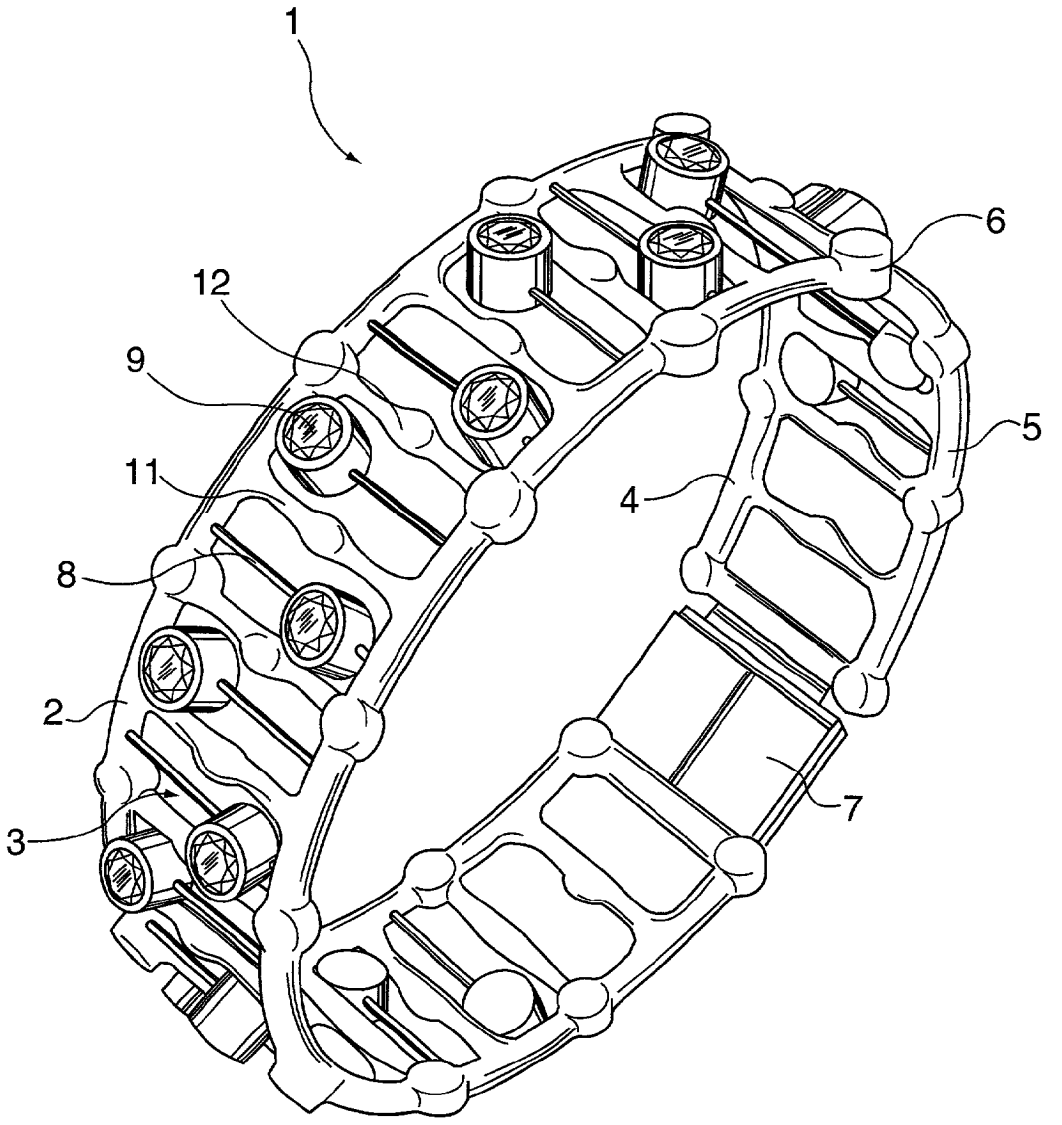
Publication Classification

(51) Int. Cl.[7] G09F 9/00

(52) U.S. Cl. 116/307

(57) ABSTRACT

A wearable dietary-intake counter for counting and tracking dietary intake of foods.



US 20030073885A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2003/0073885 A1**

Theodoracopulos et al. (43) **Pub. Date: Apr. 17, 2003**

(54) **MEASURING COGNITIVE IMPAIRMENT**

(76) Inventors: **Alexis Theodoracopulos**, New York, NY (US); **Darin Kaplan**, New York, NY (US); **Vladislav Shchogolev**, Brooklyn, NY (US); **David M. Erlanger**, New York, NY (US); **Philip Yee**, New York, NY (US); **McDonald Comrie**, Staten Island, NJ (US)

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(21) Appl. No.: **10/239,383**

(22) PCT Filed: **Jan. 23, 2001**

(86) PCT No.: **PCT/US01/02189**

Related U.S. Application Data

(63) , which is a continuation-in-part of application No. 09/534,545, filed on Mar. 27, 2000, now abandoned, which is a continuation-in-part of application No. 09/494,475, filed on Jan. 31, 2000.

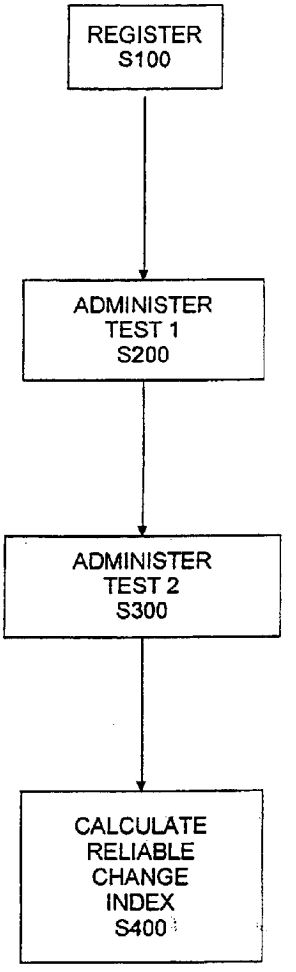
Publication Classification

(51) **Int. Cl.**[7] **A61B 5/00**

(52) **U.S. Cl.** **600/300**

(57) **ABSTRACT**

System (s100, s200, s300, s400) to quantify cognitive performance.



US 20030072823A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2003/0072823 A1**

Fleischner (43) **Pub. Date: Apr. 17, 2003**

(54) **IMMUNITY ENHANCING SUPPLEMENTS FOR LUNG SUPPORT**

(76) Inventor: **Albert M. Fleischner**, Westwood, NJ (US)

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(21) Appl. No.: **10/191,272**

(22) Filed: **Jul. 9, 2002**

Related U.S. Application Data

(63) Continuation of application No. 09/842,428, filed on Apr. 27, 2001.

Publication Classification

(51) **Int. Cl.**[7] **A61K 35/78**; A61K 31/198; A61K 31/23; A61K 31/4415

(52) **U.S. Cl.** **424/756**; 424/757; 424/764; 424/769; 424/773; 424/774; 514/562; 514/350; 514/552

(57) **ABSTRACT**

Supplement compositions designed to support healthy lung function and to help strengthen the immune system.

US 20030050857A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2003/0050857 A1**

Shaftel (43) **Pub. Date: Mar. 13, 2003**

(54) **PERSONALIZED ELECTRONIC-COMMERCE PET SHOP**

(76) Inventor: **Farell Shaftel**, Whippany, NJ (US)

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(21) Appl. No.: **10/234,585**

(22) Filed: **Sep. 4, 2002**

Related U.S. Application Data

(60) Provisional application No. 60/317,527, filed on Sep. 7, 2001.

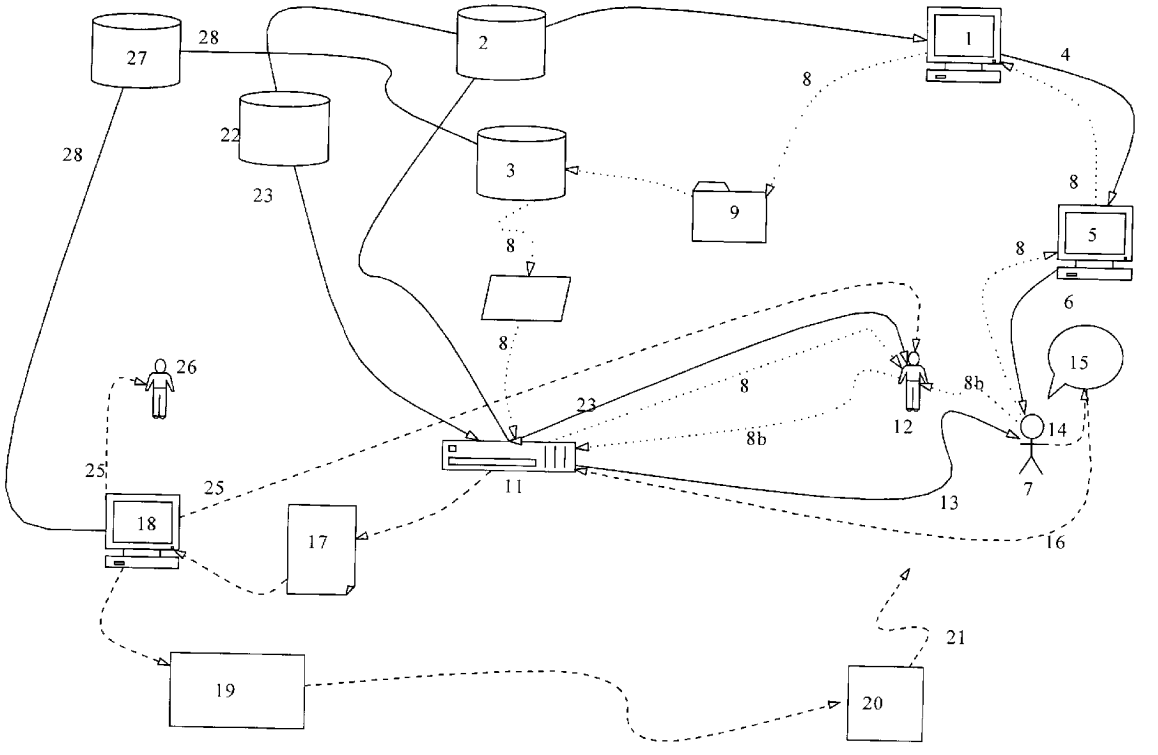
Publication Classification

(51) **Int. Cl.**[7] **G06F 17/60**

(52) **U.S. Cl.** **705/26**

(57) **ABSTRACT**

An electronic commerce marketing system wherein in-person sales representatives personally visit potential customers, to improve the efficacy of the on-line marketing effort.



US 20030044473A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2003/0044473 A1**

Fleischner (43) **Pub. Date: Mar. 6, 2003**

(54) **BLOOD TYPE DIETARY SUPPLEMENTS**

(76) Inventor: **Albert M. Fleischner**, Westwood, NJ (US)

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(21) Appl. No.: **10/211,677**

(22) Filed: **Aug. 2, 2002**

Related U.S. Application Data

(63) Continuation of application No. 09/468,819, filed on Dec. 22, 1999, now Pat. No. 6,291,533. Continuation of application No. 09/832,213, filed on Apr. 11, 2001, now Pat. No. 6,503,529. Continuation of application No. 09/468,893, filed on Dec. 22, 1999, now abandoned. Continuation of application No. 09/468,894, filed on Dec. 22, 1999, now abandoned.

Publication Classification

(51) **Int. Cl.**[7] **A61K 35/78**; A61K 31/12

(52) **U.S. Cl.** **424/728**; 424/729; 514/682

(57) **ABSTRACT**

Dietary supplement compositions designed to be responsive to specific blood types, and thus most beneficial for people with specific antigenic blood types.

US 20030039708A1

(19) **United States**

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Fleischner (43) **Pub. Date: Feb. 27, 2003**

(54) **NON-MA HUANG HERB WEIGHT LOSS PRODUCT**

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(21) Appl. No.: **09/928,714**

(22) Filed: **Aug. 13, 2001**

Publication Classification

(51) **Int. Cl.**[7] **A61K 35/78**; A61K 31/715

(52) **U.S. Cl.** **424/729**; 424/773; 514/54

(57) **ABSTRACT**

Supplement compositions designed to support weight loss and increase energy while suppressing appetite.

Chromium (as chromium dinicotinate glycinate)	25 mcg to 200 mg
Vanadium (as vanadium amino acid chelate)	25 mcg to 100 mg
Glucomannan	100 mg to 500 mg
Green tea leaf extract (supplying 60 mg caffeine)	50 mg to 500 mg
Coleus forskohlii extract (10% forskolin) (tuber)	50 mg to 500 mg
Sodium carboxymethyl cellulose	25 mg to 250 mg
Excipients:	aa of each to produce a
Gelatin, Magnesium Stearate, Silica	suitable tablet

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Mazur (43) **Pub. Date: Feb. 13, 2003**

(54) **SAFER TERATOGENIC PHARMACEUTICALS**

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(21) Appl. No.: **09/915,467**

(22) Filed: **Jul. 27, 2001**

Publication Classification

(51) **Int. Cl.**[7] **A61F 6/06**; A61F 13/00

(52) **U.S. Cl.** **424/430**

(57) **ABSTRACT**

A pharmaceutical product comprising isotretinoin and a contraceptive.

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(19) **United States**

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Fleischner (43) **Pub. Date: Jan. 2, 2003**

(54) **IMMUNITY ENHANCING SUPPLEMENTS FOR LUNG SUPPORT**

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(73) Assignee: **GOEN GROUP, INC.**

(21) Appl. No.: **09/842,428**

(22) Filed: **Apr. 27, 2001**

Publication Classification

(51) **Int. Cl.**[7] **A61K 35/78**

(52) **U.S. Cl.** **424/756**; 424/757; 424/769; 424/773; 424/764; 514/345; 514/552

(57) **ABSTRACT**

Supplement compositions designed to support healthy lung function and to help strengthen the immune system.

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(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2002/0119430 A1

Szynalski (43) Pub. Date: Aug. 29, 2002

(54) HYPNOTIST REFERRAL NETWORK

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(21) Appl. No.: **10/092,130**

(22) Filed: **Mar. 6, 2002**

Related U.S. Application Data

(63) Continuation-in-part of application No. 09/427,447, filed on Oct. 27, 1999.

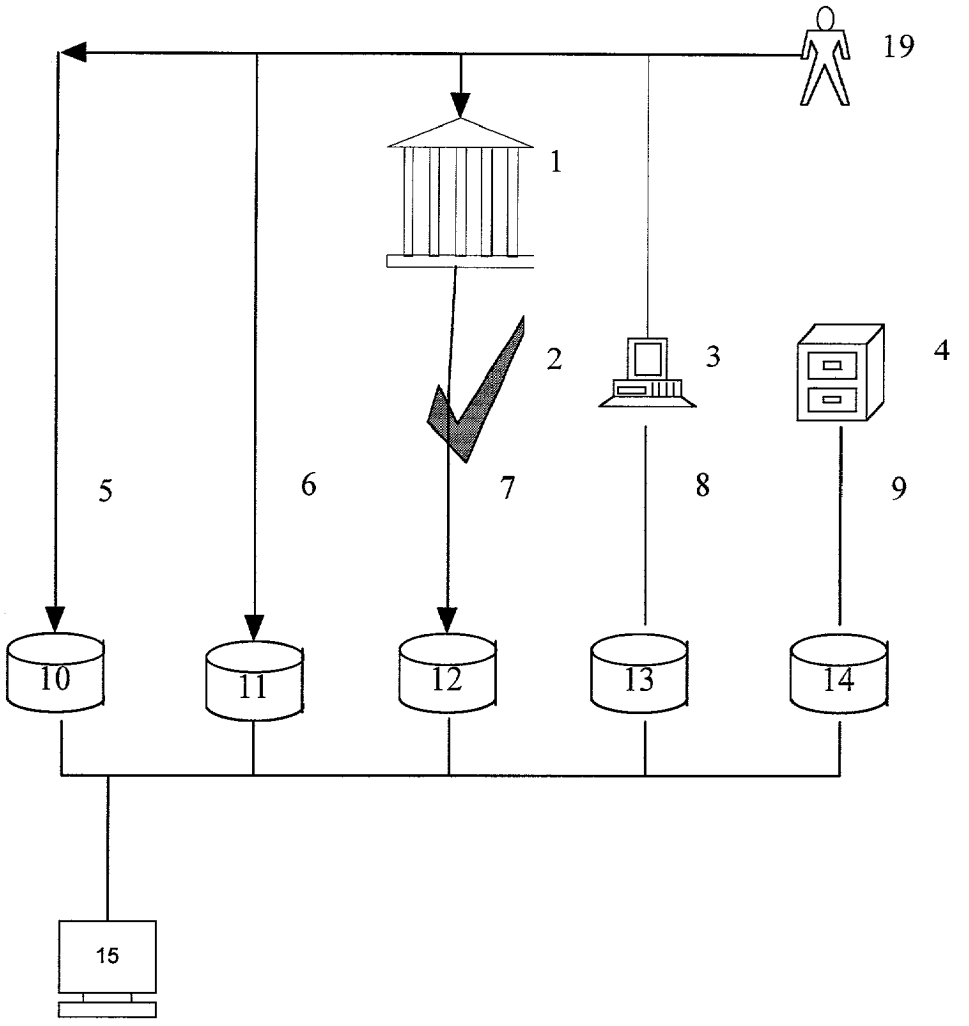
Publication Classification

(51) **Int. Cl.**[7] **G09B 19/00**

(52) **U.S. Cl.** **434/219**

(57) **ABSTRACT**

A system for training and certifying hypnotists, and for referring patients to appropriately certified hypnotists for behavior modification therapy.



US 20020116272A1

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2002/0116272 A1

Szynalski (43) Pub. Date: Aug. 22, 2002

(54) ADVERTISING STRATEGY AND MOTIVATIONAL BEHAVIOR MODIFICATION METHOD FOR WEIGHT LOSS

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(21) Appl. No.: **10/131,868**

(22) Filed: **Apr. 25, 2002**

Related U.S. Application Data

(63) Continuation-in-part of application No. 09/427,447, filed on Oct. 27, 1999.

Publication Classification

(51) **Int. Cl.**[7] **G06F 17/60**

(52) **U.S. Cl.** **705/14**

(57) **ABSTRACT**

A weight control system combining a weight control substance with a live beauty pageant; the weight control substance addresses physical parameters affecting weight control, while the beauty contest addresses psychological parameters affecting performance optimization.