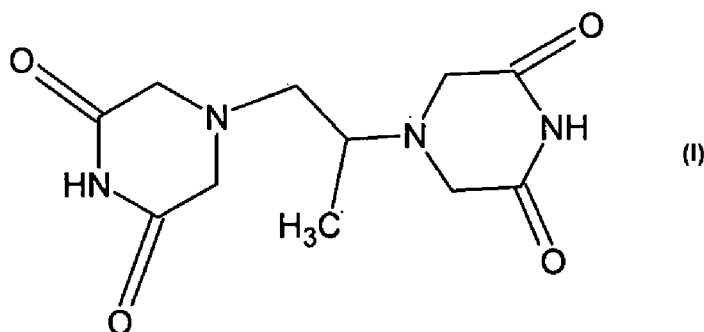




- (51) **International Patent Classification:**
A61K 31/497 (2006.01) *C07C 255/00* (2006.01)
- (21) **International Application Number:** PCT/IN2011/000847
- (22) **International Filing Date:** 12 December 2011 (12.12.2011)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:** 3795/CHE/2010 13 December 2010 (13.12.2010) IN
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- (81) **Designated States (unless otherwise indicated, for every
kind of national protection available):** AE, AG, AL, AM,
AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,
CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,
HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR,
KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME,
MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ,
OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD,
SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR,
TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
- (84) **Designated States (unless otherwise indicated, for every
kind of regional protection available):** ARIPO (BW, GH,
GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ,
UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU,
TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE,
DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU,
LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK,
SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).
- Declarations under Rule 4.17:**
— of inventorship (Rule 4.17(iv))
- Published:**
— with international search report (Art. 21(3))
- (88) **Date of publication of the international search report:**
4 October 2012

(54) **Title:** A PROCESS FOR PREPARATION OF 4,4'-(1-METHYL-1,2-ETHANDIYL)-BIS-(2,6-PIPERAZINEDIONE)



(57) **Abstract:** The present invention relates to a new method for preparing 4,4'-(1-methyl-1,2-ethandiyl)-bis-(2,6-piperazinedione) of formula (I) or its enantiomers. More specifically this invention relates to a new process for preparing 4,4'-(1-methyl-1,2-ethandiyl)-bis-(2,6-piperazinedione), which gives better yield and purity and involves new intermediate.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/IN 11/00847

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - A61K 31/497; C07C 255/00 (2012.01)

USPC - 514/252.11; 558/467

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC(8) -A61K 31/497; C07C 255/00 (2012.01)

USPC -514/252.11; 558/467

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC - 544/357; 514/255.02 (see search terms below)Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
PubWest, Google Patents, Google Scholar, WIPO (piperazinedione, process, propanediamine, chloroacetonitrile, bis, ethanediyl, carbonyl, diimidazole, hydroxylimino, piperazine, nitrile, cyclizing, salts, reflux, hydrochloride, methanol, potassium carbonate, dioxopiperazine, oxime, hydroxy, amine, diaminopropane, ammonia, acetonitrile)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2010/0152447 A1 (KOCH, et al.) 17 June 2010 (17.06.2010) entire document, especially para[0005], [0010].	12-14
Y	US 2006/0194969 A1 (ZIMMERMANN, et al.) 31 August 2006 (31.08.2006) entire document, especially para[0439]-[0440].	12-14
Y	US 5,618,936 A (MACDONALD, et al.) 08 April 1997 (08.04.1997) entire document, especially col 2, ln 59-66; col 4, 55-61.	1-11
Y	US 4,963,679 A (TU, et al.) 16 October 1990 (16.10.1990) entire document, especially col 2, ln 5-27, 38-40; col 3, ln 15-16; col 5, ln 23-30.	1-11
Y	US 4,523,013 A (FREHEL, et al.) 11 June 1985 (11.06.1985) entire document, especially col 5, ln 65-67; col 6, ln 1-15, 61-67; col 7, ln 10-15.	1-11
Y	US 3,840,542 A (JENSEN) 08 October 1974 (08.10.1974) entire document, especially col 10, ln 34-40.	8-9

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"&" document member of the same patent family

Date of the actual completion of the international search

05 July 2012 (05.07.2012)

Date of mailing of the international search report

17 JUL 2012

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US, Commissioner for Patents
P.O. Box 1450, Alexandria, Virginia 22313-1450

Facsimile No. 571-273-3201

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PCT OSP: 571-272-7774