

CORRECTED VERSION

(19) World Intellectual Property
Organization
International Bureau



WIPO | PCT



(10) International Publication Number
WO 2012/148832 A8

(43) International Publication Date
1 November 2012 (01.11.2012)

(51) International Patent Classification:

C07K 1/34 (2006.01) *C07K 14/805* (2006.01)
C07K 1/14 (2006.01) *C07K 1/36* (2006.01)

(21) International Application Number:

PCT/US2012/034608

(22) International Filing Date:

23 April 2012 (23.04.2012)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

13/097,183 29 April 2011 (29.04.2011) US
13/217,337 25 August 2011 (25.08.2011) US

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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:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- of inventorship (Rule 4.17(iv))

Published:

- without international search report and to be republished upon receipt of that report (Rule 48.2(g))

(48) Date of publication of this corrected version:

25 April 2013

(15) Information about Correction:

see Notice of 25 April 2013

(54) Title: METHOD FOR REMOVING UNMODIFIED HEMOGLOBIN FROM CROSS-LINKED HEMOGLOBIN SOLUTIONS INCLUDING POLYMERIC HEMOGLOBIN WITH HIGH TEMPERATURES SHORT TIME HEAT TREATMENT APPARATUS

(57) Abstract: A method heat treatment of cross-linked hemoglobin solutions including polymeric hemoglobin is disclosed. The method involves contacting the hemoglobin solution with a high temperature short time heat treatment apparatus. The high temperature short time process thermally denatures unmodified tetrameric hemoglobin (hemoglobin dimer form), protein impurities (e.g. immunoglobulin-G, serum albumin), bacteria, and viruses so that renal injury, vascular detrimental effects and other toxicity reactions can be avoided.



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