



- (51) **International Patent Classification:**
B01D 11/04 (2006.01) C02F 103/08 (2006.01)
- (21) **International Application Number:**
PCT/US2010/021932
- (22) **International Filing Date:**
25 January 2010 (25.01.2010)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
61/148,270 29 January 2009 (29.01.2009) US
- (71) **Applicant (for all designated States except US):** THE BOARD OF TRUSTEES OF THE UNIVERSITY OF ILLINOIS [US/US]; 352 Henry Administration Building, 506 South Wright Street, Urbana, IL 61801 (US).
- (72) **Inventors; and**
- (75) **Inventors/Applicants (for US only):** RAJAGOPALAN, Nandakishore [US/US]; 1209 Wilshire Court, Champaign, IL 61821 (US). PATEL, Vinodkumar, Ambalal [US/US]; 2011 Philo Road, Apt. #8, Urbana, IL 61802 (US).
- (74) **Agent:** SEANEY, Lisa, M.; Brinks Hofer Gilson & Lione, P.O. Box 10087, Chicago, IL 60610 (US).

- (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, RO, RS, RU, 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, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

- (88) **Date of publication of the international search report:**
18 November 2010

(54) **Title:** SOLVENT REMOVAL AND RECOVERY FROM INORGANIC AND ORGANIC SOLUTIONS

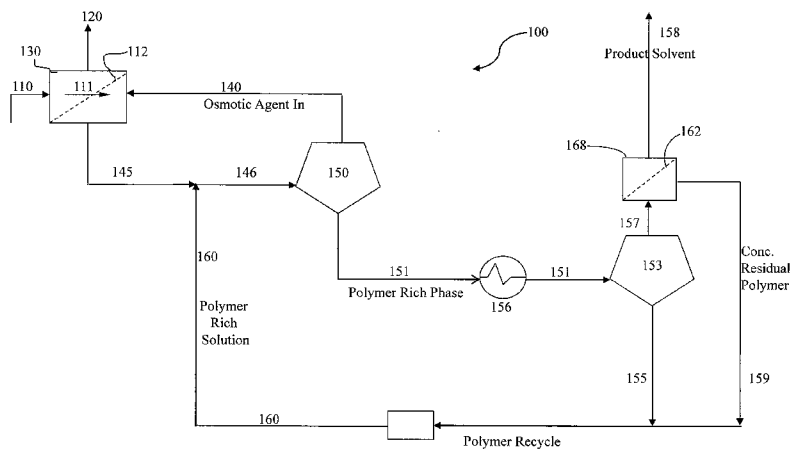


FIGURE 1

(57) **Abstract:** A process for recovering solvents from inorganic and organic solutions is disclosed. The process utilizes a polymer capable of selectively extracting the solvent from the inorganic or organic solution. Introduction of the polymer into the solvent solution creates formation of a polymer-rich phase and a solute-rich phase. The recovered solvent may be separated from the polymer-rich phase by heating the polymer-rich phase to at least the cloud point of the polymer. The polymer and/or solute may be recycled for further use in the solvent recovery process.

WO 2010/088170 A3

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2010/021932**A. CLASSIFICATION OF SUBJECT MATTER****B01D 11/04(2006.01)i, C02F 103/08(2006.01)n**

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)

B01D 11/04; B01D 11/00; C02F 9/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: desalination, osmotic, polymer, cloud point

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5948263 A1 (CHAIKO; DAVID J. et al.) 07 September 1999	1-10
Y	See column 4 line 50 - column 7 line44	11-20
Y	US 3386912 A (LAZARE; LEON) 04 June 1968 See column 2 line 14 - column 3 line 17	11-20
A	US 2006-0144789 A1 (TZAHI CATH et al.) 06 July 2006 See paragraphs [0055]-[0061]	1-20
A	US 5679254 A1 (CHAKRABARTI; DEBTOSH) 21 October 1997 See abstract	1-20

 Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:

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"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

31 AUGUST 2010 (31.08.2010)

Date of mailing of the international search report

01 SEPTEMBER 2010 (01.09.2010)

Name and mailing address of the ISA/KR

Korean Intellectual Property Office
Government Complex-Daejeon, 139 Seonsa-ro, Seo-
gu, Daejeon 302-701, Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

JANG, Sung Won

Telephone No. 82-42-481-8717



INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2010/021932

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5948263 A1	07.09.1999	US 6206724 B1 WO 98-56076 A1 WO 98-56481 A1 WO 98-57489 A2	27.03.2001 10.12.1998 17.12.1998 17.12.1998
US 3386912 A	04.06.1968	None	
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US 5679254 A1	21.10.1997	None	