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[Continued on next page]

(54) Title: REDUCTION IN FLUSHING VOLUME IN AN ADSORPTIVE SEPARATION SYSTEM

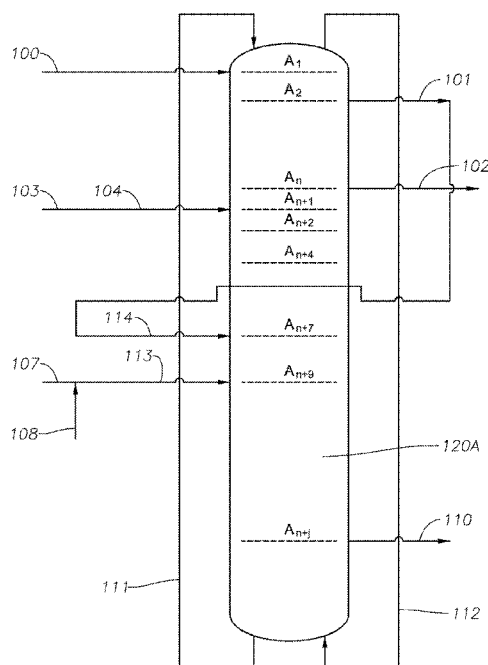


Fig. 1
(Prior Art)

(57) Abstract: A process for separating a product from a multicomponent feedstream to an adsorption apparatus or system is described. The apparatus or system may comprise a moving-bed or a simulated moving-bed adsorption means. The product comprises at least one organic compound, such as an aryl compound with alkyl substituents. In embodiments the conduits used to supply the feedstream to the apparatus or system are flushed with media of multiple grades. The improvement is a more efficient use of the desorbent. In embodiments the process achieves improvements in one or more of efficiency of adsorption separation, capacity of adsorption apparatus systems, and purity of product attainable by adsorption process.

**Declarations under Rule 4.17:**

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2012/029800**A. CLASSIFICATION OF SUBJECT MATTER*****B01D 15/02(2006.01)i, B01D 15/42(2006.01)i, B01D 15/00(2006.01)i, B01D 24/36(2006.01)i***

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 15/02; C07C 7/12

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: seperat*, adsorpt*, parex, moving-bed, flushing adsorpt*

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	US 2010-0305381 A1 (GO ANTHONY et al.) 02 December 2010 See pp.3-6; figure 1	1,3-7 2-4
PY	US 2011-0245573 A1 (PORTER JOHN R. et al.) 06 October 2011 See abstract; claims; figure 1-2	2-4
A	US 2009-0247806 A1 (PORTER JOHN R.) 01 October 2009 See abstract; claims; figure 1-2	1-7
A	US 05750820 A (WEI. CHIU N.) 12 May 1998 See abstract; claims; figure 1-4B	1-7
A	WO 95-07740 A1 (EXXON CHEMICAL PATENTS INC.) 23 March 1995 See abstract; claims; figure 1-4B	1-7

☐ 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

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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