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(54) Title: HYDROCARBON PROCESSING APPARATUSES AND METHODS OF REFINING HYDROCARBONS WITH ABSORPTIVE RECOVERY OF C3+ HYDROCARBONS

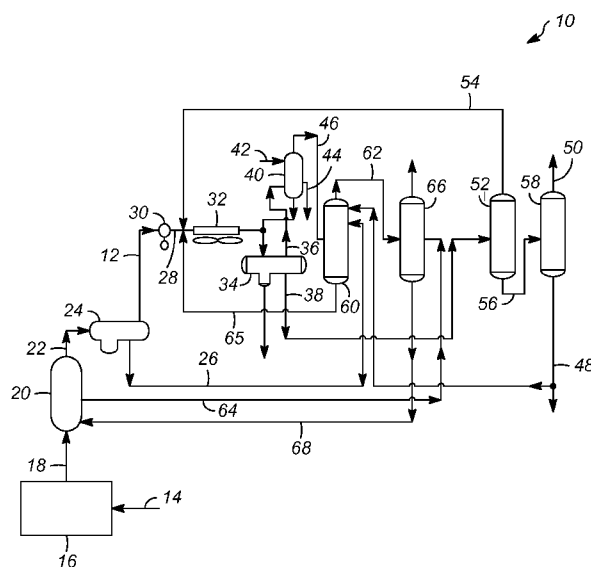


FIG. 1

(57) Abstract: Hydrocarbon processing apparatuses and methods of refining hydrocarbons are provided herein. In an embodiment, a method of refining hydrocarbons includes providing a cracked stream that includes a sulfur-containing component and cracked hydrocarbons. The cracked stream is compressed to produce a pressurized cracked stream. The pressurized cracked stream is separated to produce a pressurized vapor stream and a liquid hydrocarbon stream. The pressurized vapor stream includes C4- hydrocarbons and the liquid hydrocarbon stream includes C3+ hydrocarbons. The liquid hydrocarbon stream is separated to produce a first liquid absorption stream that includes C5+ hydrocarbons and a C4-hydrocarbon stream. C3+ hydrocarbons are absorbed from the pressurized vapor stream through liquid-vapor phase absorption using the first liquid absorption stream. The sulfur-containing component is removed prior to absorbing C3+ hydrocarbons from the pressurized vapor stream.



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A. CLASSIFICATION OF SUBJECT MATTER		
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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)		
C10G 55/06, 31/00, 31/06, C07C 7/11, 7/144, B01D 11/04		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)		
EAPATIS, Espacenet, PAJ, PatSearch (RUPTO internal), RUPTO, USPTO		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 2008/039906 A2 (UOP LLC et al.) 03.04.2008	1-10
A	US 8066868 B1 (UOP LLC) 29.11.2011	1-10
A	US 6843906 B1 (UOP LLC) 18.01.2005	1-10
☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.		
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Date of the actual completion of the international search		Date of mailing of the international search report
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