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(54) Title: IMPROVED QUENCH TOWER CATALYST RECOVERY

(57) Abstract: A process and apparatus is presented for the removal of solid particles from a gas stream. The process and apparatus includes adding a second stream of liquid that is sprayed over the openings in trays in a quench tower. The second spray stream provides for a veil of liquid to wash out solid particles from the vapor stream.

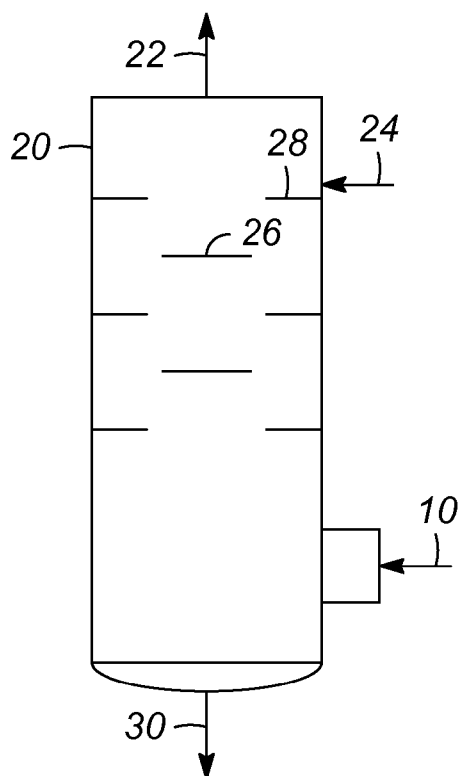


FIG. 1



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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2011/065076**A. CLASSIFICATION OF SUBJECT MATTER*****B01J 38/48(2006.01)i, B01J 38/06(2006.01)i, B01J 37/06(2006.01)i, B01J 19/24(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)

B01J 38/48

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: quenching, quench tower, effluent stream, water stream, spray of water droplets, catalyst recovery

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2005-0027152 A1 (COR F. VAN EGMOND et al.) 03 February 2005 See abstract, claims 1, 32	1-10
A	US 2004-0152939 A1 (MALCOLM G. PETTIGREW et al.) 05 August 2004 See abstract, claims 1, 7, 38, 45	1-10
A	US 2009-0325783 A1 (DANIEL N. MYERS et al.) 31 December 2009 See abstract, claims 1, 11, 17	1-10
A	US 2005-0238548 A1 (COR F. VAN EGMOND et al.) 27 October 2005 See abstract, claims 1, 8, 25-27	1-10



Further documents are listed in the continuation of Box C.



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