



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : B01J 8/02, B01D 11/02, 47/16		A1	(11) International Publication Number: WO 95/35159
			(43) International Publication Date: 28 December 1995 (28.12.95)
(21) International Application Number: PCT/US95/07574		(81) Designated States: AU, CA, JP, KR, MX, SG , European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).	
(22) International Filing Date: 14 June 1995 (14.06.95)			
(30) Priority Data: 08/262,715 20 June 1994 (20.06.94) US		Published With international search report.	
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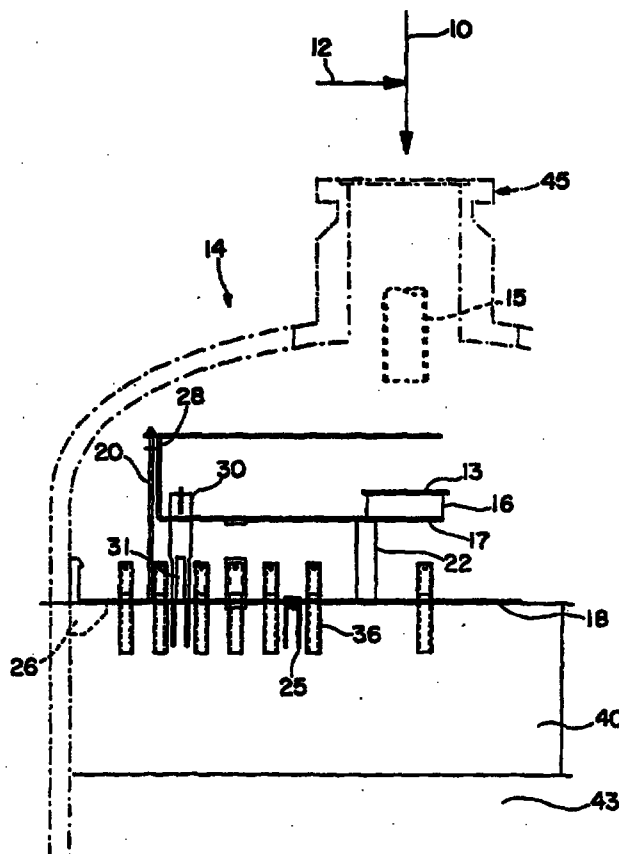
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(54) Title: TWO-PHASE DISTRIBUTOR SYSTEM FOR DOWNFLOW REACTORS

(57) Abstract

A distributor system (18, 36) for uniformly directing vapor and liquid across the surface of a fixed bed (42) of solids in a downflow reactor (14). A first array of open-ended downpipes (33) has a plurality of vertically spaced elevations of holes (39, 40) above the level of a distributor tray (18). A second array of the downpipes (34) has at least one elevation of holes (41) but no elevation of holes as the same height as the lowermost elevations of holes (40) in the first array (33). The absence of holes causes the liquid flow rate through the distributor tray (18) at a given height to be reduced when that liquid height falls below the elevation of holes (39) second from the bottom in the first array (33).



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