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(54) Title: STRUCTURED PACKING AND ELEMENT THEREFOR

(57) Abstract

A low pressure drop, highly efficient structured packing (2) comprises sheet material (4) formed into vertical preferably square channels (54, 56, 58) containing vortex generators (24) formed from the sheet material (4). The channels (54, 56, 58), while vertically linear, are periodically interrupted by the vortex generators (24) providing tortuous fluid paths along the channels (54, 56, 58). The thus formed vortex generators (24) form openings between adjacent channels (54, 56, 58) providing fluid communication between and uniform flow within the different channels (54, 56, 58). The packing (2) can be utilized in fluid mixing or those operations that require multiphase mass transfer, such as absorption or distillation. The addition of a catalyst makes the structure suitable for catalytic distillation. Turbulence is provided the fluids by the tortuous vertical path with low pressure drops transversely and vertically, with optimum liquid holdup.

