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(54) Title: LOW PRESSURE DROP PACKING MATERIAL STRUCTURES

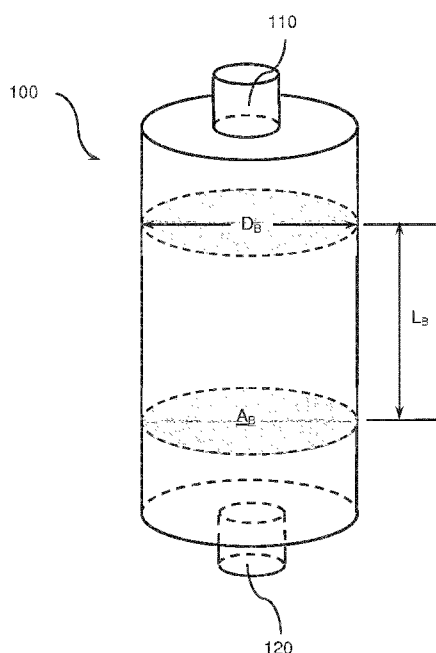


FIG. 1

(57) Abstract: A packed bed includes a vessel including a shell, an inlet, and an outlet, wherein the space inside the shell between the inlet and outlet forms an internal volume; a plurality of packing material structures filling at least a portion of the internal volume thereby forming a packed volume, wherein the packed volume has a void fraction, and the packing material structures provide an aggregate surface area; and the vessel has a pressure drop between the vessel inlet and vessel outlet, wherein the pressure drop is less than 1.0 times that of a packed bed of the non-twisted shapes with the same cross-section.



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