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- (54) **Title: STRUCTURED PACKING FOR CATALYTIC DISTILLATION**

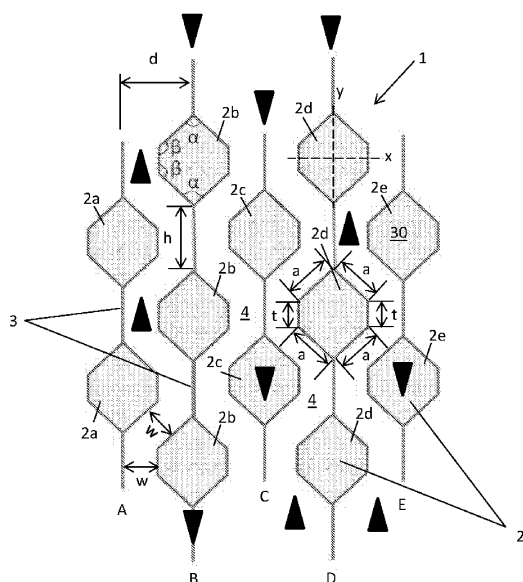


Figure 1

- (57) **Abstract:** A catalytic distillation structure that may include a rigid framework having at least two grids with a plurality of horizontal fluid permeable tubes mounted to said grids to form a plurality of fluid pathways among the plurality of horizontal fluid permeable tubes. Additionally, each horizontal fluid permeable tubes may have a profile of a six-sided polygon. Further, the catalytic distillation structure may include a plurality of vertically plates or wires connecting vertically aligned tubes of the plurality of horizontal fluid permeable tubes. Furthermore, the plurality of vertical plates or wires connects from a corner of one vertically aligned tubes to a corner of an adjacent vertically aligned tube.

**Declarations under Rule 4.17:**

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