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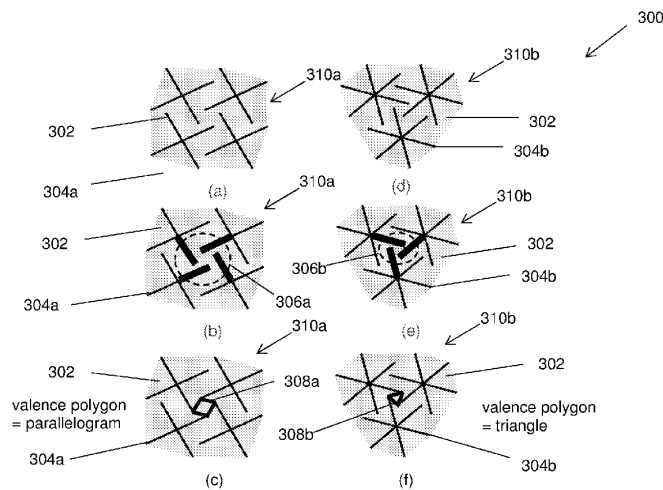


FIGURE 3

(57) Abstract: A structure and method of forming a structure are provided. The structure includes a membrane with tensile properties and a plurality of reciprocal patterning units disposed within the membrane. Each reciprocal patterning unit includes a plurality of struts and each of the plurality of struts are configured to provide tension forces in a plurality of opposing directions to an area of the membrane in each reciprocal patterning unit. The membrane exerts compression forces on each of the plurality of struts and each of the plurality of struts exert the tension forces on the membrane simultaneously to maintain structural integrity of the structure.

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