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(54) Title: MULTILAYER EXTENDABLE ACTUATOR

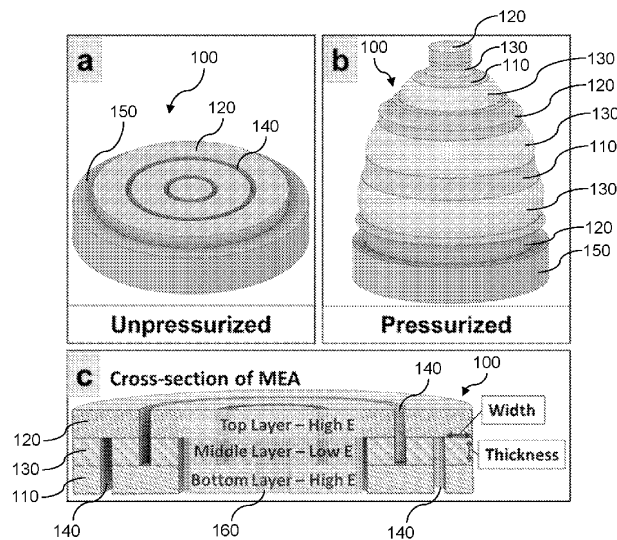


Figure 1

(57) Abstract: The present disclosure generally relates to a multilayer extendable actuator (100). The actuator (100) comprises: a first stiffening elastomeric layer (110); a second stiffening elastomeric layer (120); a set of middle layers disposed between the stiffening elastomeric layers (110, 120), the middle layers comprising an elastic elastomeric layer (130) that is more elastic than the stiffening elastomeric layers (110, 120); and a set of grooves (140) through one or more of the elastomeric layers (110, 120, 130), the grooves (140) arranged such that a cross-section of the elastomeric layers (110, 120, 130) comprises a wave profile around the grooves (140), wherein the actuator (100) is extendable such that the elastomeric layers (110, 120, 130) along the wave profile become alternately arranged along the extended actuator (100).

[Continued on next page]

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