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(54) Title: 3D PRINTED DIELECTRIC ELASTOMER ACTUATOR

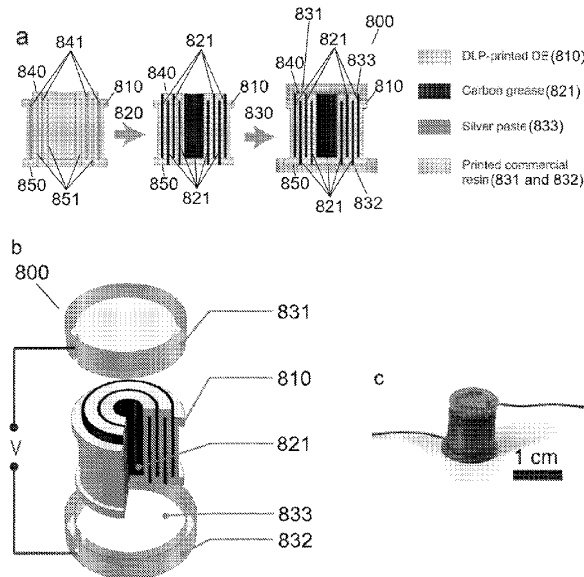


Fig. 6

(57) Abstract: Disclosed herein is a method of manufacturing a dielectric elastomer actuator, the method comprising: (a) providing an additive-manufactured dielectric structure formed from a dielectric elastomer that comprises a first and second plurality of channels; and (b) inserting into the first and second plurality of channels an electrically conductive material to provide the dielectric elastomer actuator, wherein the dielectric elastomer is formed from a resin that comprises an aliphatic urethane diacrylate and an epoxy aliphatic acrylate. Also disclosed herein is a dielectric elastomer actuator comprising: an additive-manufactured dielectric structure formed from a dielectric elastomer that comprises a first and second plurality of channels; and an electrically conductive material within the first and second plurality of channels, wherein the dielectric elastomer is formed from a resin that comprises an aliphatic urethane diacrylate and an epoxy aliphatic acrylate.

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