

DIELECTRIC ELASTOMER ACTUATOR AND METHOD OF FORMING THE SAME

ABSTRACT

Various embodiments may relate to a dielectric elastomer actuator. The dielectric elastomer layer may include a dielectric elastomer actuator including a dielectric elastomer. The dielectric elastomer may include a zwitterionic segment, and a soft segment joined to the zwitterionic segment. The dielectric elastomer actuator may also include a first electrode and a second electrode. The dielectric elastomer actuator may further include one or more structural members. The dielectric elastomer actuator may be configured such that a force is applied on the dielectric elastomer layer due to Maxwell stress in response to a potential difference applied between the first electrode and the second electrode, thereby moving the one or more structural members.

FIG. 1