

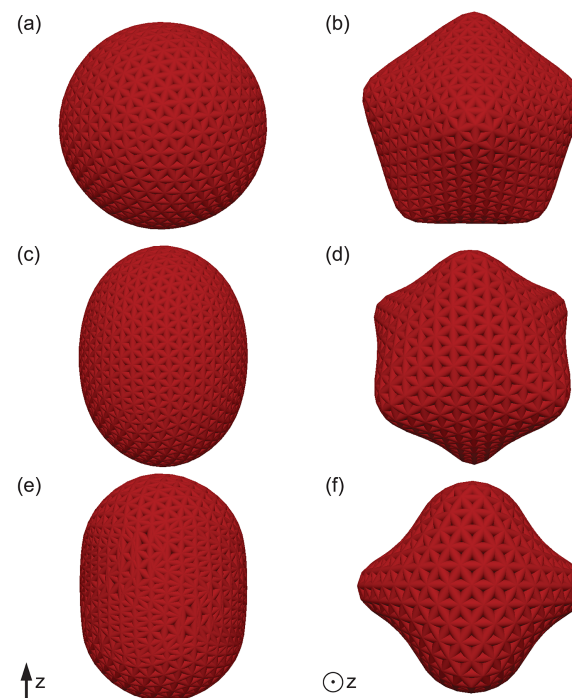
# Crystalline membrane morphology beyond polyhedra

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Design of magnetically responsive micro-containers is a challenging task for targeted delivery system in therapeutic applications. Our work show that crystalline magnetoelastic membranes are prospective materials for such applications, which can

- form concave membrane morphologies
- change the symmetry of membrane morphologies by controlling external magnetic fields.

Furthermore, morphological changes which squeeze the membranes can facilitate the release of cargos inside the membranes in the targeted regions labelled by external magnetic fields.



**Figure.** A collection of representative morphologies of closed crystalline magnetoelastic membranes. (a) spherical shape; (b) icosahedral shape; (c) ellipsoidal shape; (d) star shape with six ridges; (e) cylindrical shape; (f) star shape with four ridges. Arrows indicate the direction of external magnetic field.