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(54) Title: HYDROGELS, METHODS OF FABRICATION AND USES THEREOF

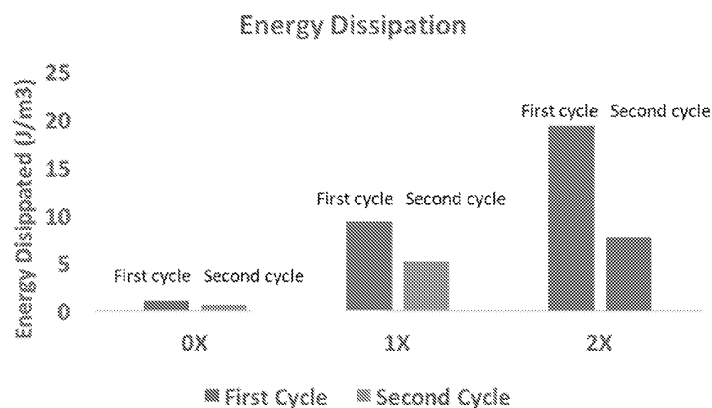


Figure 6

(57) Abstract: The present invention relates, in general terms, to hydrogels and their uses thereof. The hydrogels demonstrate toughness; i.e. the ability to absorb energy and plastically deform without fracturing. The present invention also relates to methods of fabricating hydrogels. In particular, the method of fabricating a tough hydrogel comprises polymerising a plurality of charged monomers in the presence of multivalent ions in order to form an ion impregnated hydrogel and exposing the ion impregnated hydrogel to heat in order to form the tough hydrogel.

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