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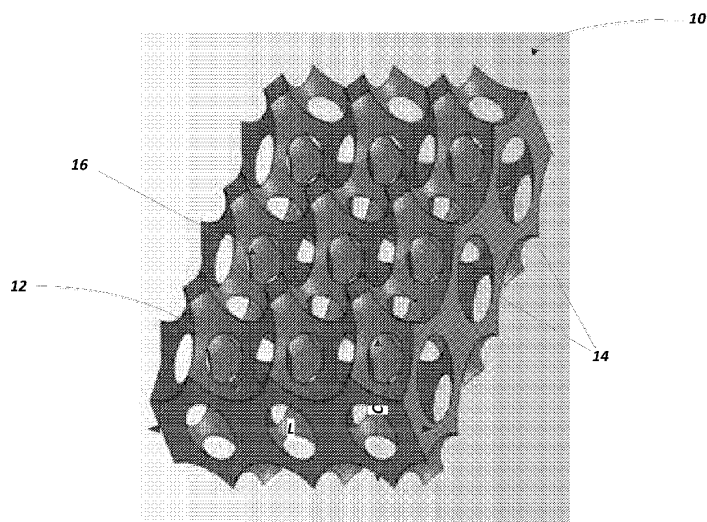


FIG. 1

(57) Abstract: The present invention relates to the design, fabrication and applications of three-dimensional (3D) bioreactor for cell expansion and cell secreted substance production. The bioreactors have relatively low levels of potentially cytotoxic compounds, can be coated with substituted or unsubstituted poly(p-xylylene) type coatings and can also be separately formed from liquid crystal photopolymerizable monomers.

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