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(54) Title: SYSTEM FOR ADDITIVE MANUFACTURING OF THREE-DIMENSIONAL STRUCTURES AND METHOD FOR SAME

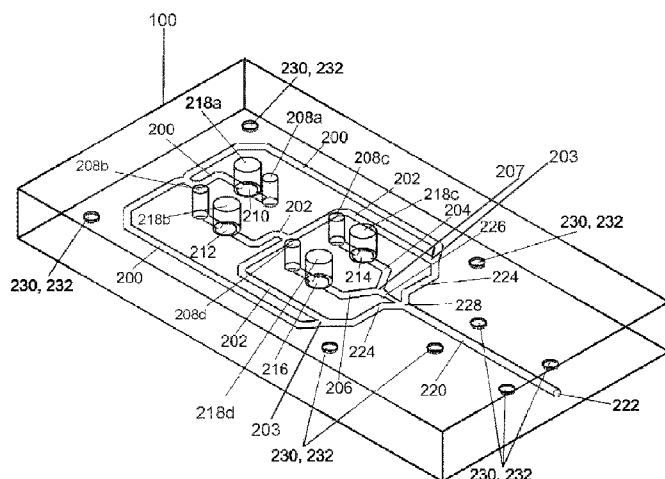


FIG. 3

(57) Abstract: A system and method for additive manufacturing of three-dimensional structures, including three-dimensional cellular structures, are provided. The system comprises at least one print head for receiving and dispensing materials, the materials comprising a sheath fluid and a hydrogel, the print head comprising an orifice for dispensing the materials, microfluidic channels for receiving and directing the materials, fluidic switches corresponding to one of the microfluidic channels in the print head and configured to allow or disallow fluid flow in the microfluidic channels; a receiving surface for receiving a first layer of the materials dispensed from the orifice; a positioning unit for positioning the orifice of the print head in three dimensional space; and a dispensing means for dispensing the materials from the orifice of the print head.



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