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FIGURE 2



(57) Abstract: The present application relates to hydrogel substrates for growing biological materials, including but not limited to plants, fungi, and bacteria. In some embodiments, the present application provides a platform for optimizing growth of a biological material using a hydrogel substrate in various forms. In other embodiments, the present application provides methodology and compositions for growing a biological material, such as a plant, in a hydrogel substrate blend comprising hydrogel substrate and one or more of soil, coco coir, peat moss, rock wool, wood, wood chips or mulch, wood fiber, processed wood fiber, tree fibers, hemp, bamboo, tree bark, sand and grit, perlite, pumice, clay, vermiculite, biochar, natural or processed raw material, and/or synthetic material. In other embodiments, the present application provides methodology and compositions for growing a biological material, such as a plant, in a hydrogel bonded plug, wherein said hydrogel bonded plug does not contain any synthetic adhesive or glue.

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