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(54) Title: A SYSTEM FOR 3D CULTIVATION OF PLANT CELLS AND METHODS OF USE

(57) Abstract: This invention is directed to a method for three-dimensional cultivation of proliferating plant cells in a packed bed bioreactor, the bioreactor comprising at least one packed bed chamber configured to confine said proliferating plant cells within it such that the proliferating plant cells become a three-dimensional stationary biomass phase; and At least one container comprising a fluid media, the fluid media is configured to flow through said proliferating plant cells stationary biomass phase, wherein, the flow of the fluid media through the proliferating plant cells stationary biomass phase allows transfer of compounds from the fluid media into the cells and vice versa in low shear forces within the at least one packed bed chamber thereby imitating natural growth environment of the proliferating plant cells within the 3D bioreactor.



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