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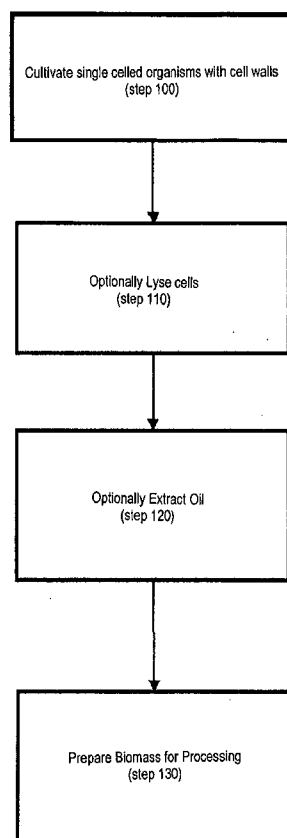


Fig. 1

(57) Abstract: Provided are biomass-based materials and valuable uses of microalgal bio-
mass including: (i) acetylation of microalgal biomass to produce a material useful in the pro-
duction of thermoplastics; (ii) use of triglyceride containing microalgal biomass for produc-
tion of thermoplastics; (iii) combination of microalgal biomass and at least one type of plant
polymer to produce a material useful in the production of thermoplastics; (iv) anionization
of microalgal biomass to form a water absorbant material; (v) cationization of microalgal
biomass, and optional flocculation, to form a water absorbant material; (vi) crosslinking of
anionized microalgal biomass; (vii) carbonization of microalgal biomass; and (viii) use of
microalgal biomass in the making of paper.



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