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(54) Title: EXTRACTION OF NEUTRAL LIPIDS BY A TWO SOLVENT METHOD

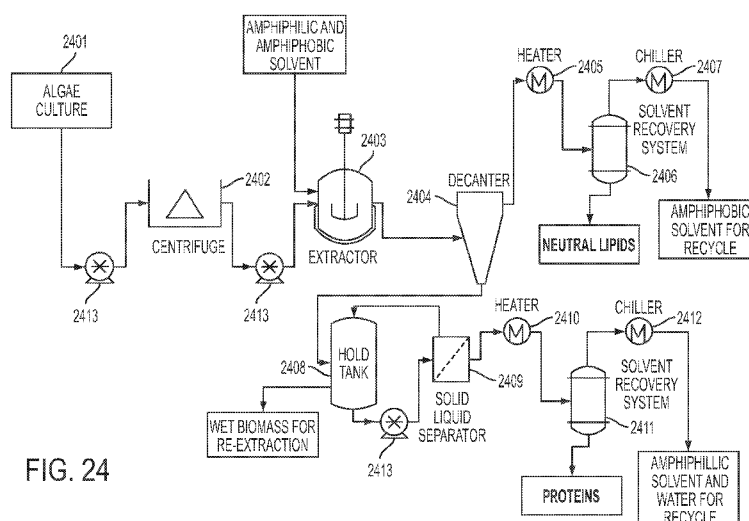


FIG. 24

(57) Abstract: A method for separating neutral lipids from plant material, in particular, intact algal cells, using an amphipathic solvent set and a hydrophobic solvent set. Some embodiments include dewatering intact algal cells and then extracting neutral lipids from the algal cells. The methods provide for single and multistep extraction processes which allow for efficient separation of algal neutral lipids from a wet algal biomass while avoiding emulsification of extraction mixtures. The neutral lipids are removed after first removing a polar lipid fraction and a protein fraction. These neutral lipids can be used to generate renewable fuels as well as food products and supplements.

