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(54) **Title:** FILTER CAKE-BASED SYSTEMS AND METHODS FOR THE CULTIVATION OF CELLS AND CELL BIOMASS

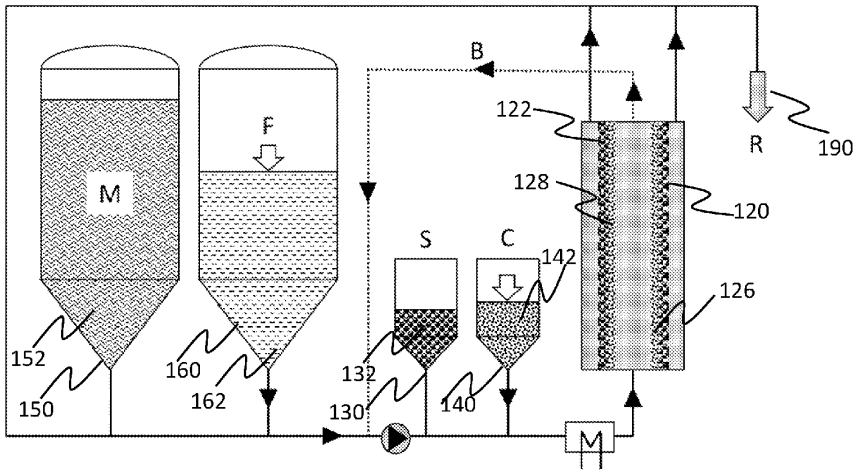



FIG. 1C

(57) **Abstract:** Provided herein are filter cake-based systems and methods for cultivating cells and cell biomass therefrom. Provided herein is a system for cultivating cells and cell biomass comprising a filter chamber comprising at least one inlet and at least one outlet, at least one filter support located within the filter chamber, and a filter cake located on the filter support, wherein the filter cake comprises at least one filter aid and a plurality of cells. Provided herein is a method for optimizing the cultivation of cells and cell biomass, comprising providing a filter support, adding at least one filter aid to the filter support, adding a plurality of cells to the filter aid, wherein the cells and the filter aid together comprise a filter cake, growing the cells into a cell biomass in the filter cake, wherein the filter cake is at least partially compressible.

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