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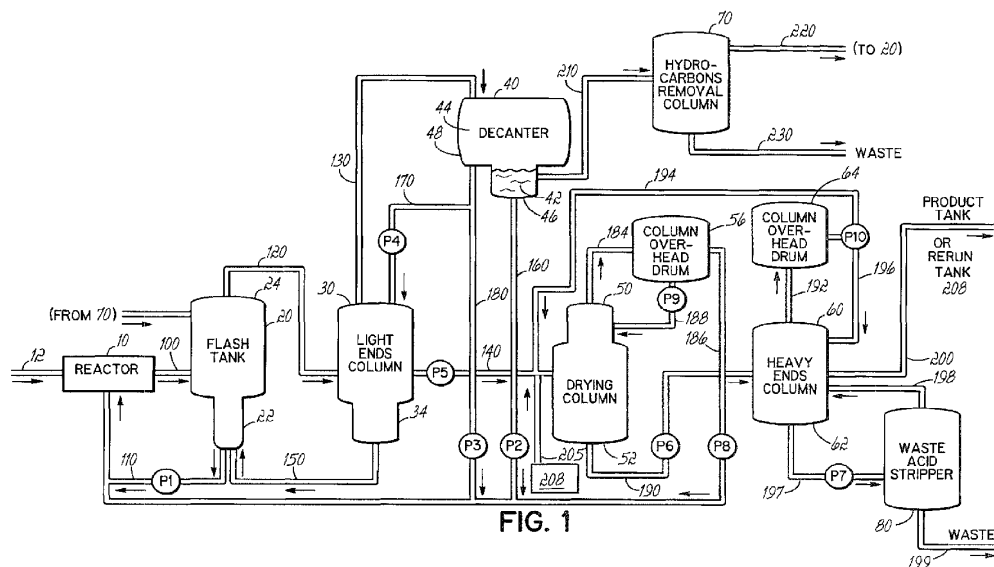


FIG. 1

(57) Abstract: A method for measuring component concentrations. The method including providing a system (10, 20) configured for contacting a first component, a second component, and a third component; determining a concentration of the second component in a reactor (10); determining a concentration of the third component in the reactor; determining a temperature and a pressure of a first apparatus (20) downstream of the reactor; and calculating a first concentration of the first component in the reactor based on (i) the concentration of the second component in the reactor, (ii) the concentration of the third component in the reactor, and (iii) the temperature and the pressure of the first apparatus.

[Continued on next page]

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