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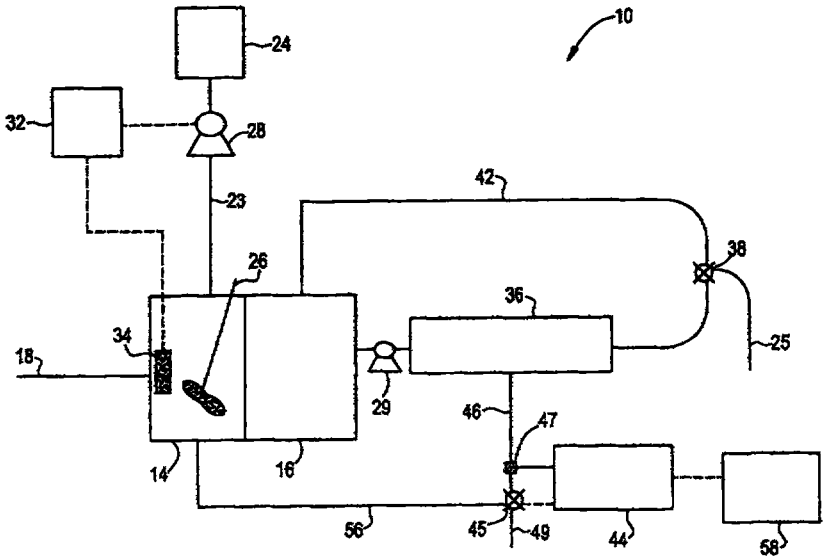
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(54) Title: DETECTION AND REMOVAL OF COPPER FROM WASTEWATER STREAMS FROM SEMICONDUCTOR AND PRINTED CIRCUIT BOARD PROCESSING



(57) Abstract

A fluorescence quenching reaction is used to detect copper in a semiconductor or printed circuit board wastewater stream (18) using a fluorometer (44). A polymer precipitant is added to a tank (14) which contains a sensor (34) for determining the amount of unreacted polymer. The stream is passed to a separator (36) to remove the solids. The purified stream (46) flows into the fluorometer (44). The signal from the fluorometer (44) can be used to control a recycle valve (45) and the signal from the polymer sensor (34) can be used to control the polymer addition pump (28). In an alternate embodiment, the fluorometer is used in conjunction with an ion exchange purifier.