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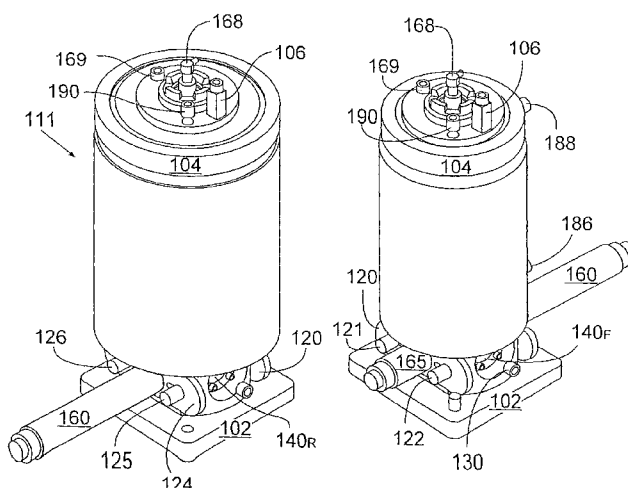
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(54) Title: AUTOMATED LOW-VOLUME TANGENTIAL FLOW FILTRATION PROCESS DEVELOPMENT DEVICE



(57) Abstract: An automated process development device providing flexibility and accuracy for the investigative development of tangential flow filtration (tff) processes and used for evaluating the process parameters of a laboratory scale tff process with an eye towards developing a commercial scale process. The device operable to a recirculation volume of less than 20 milliliters includes: a reservoir having a distinct mixing zone; a tff module; conduits defining a fluid process stream through which a liquid sample is recirculated; pumps for driving and valves for regulating the flow of the liquid sample through the stream; sensors for acquiring data about the sample as it flows through the stream; and an electronic data processing network capable of receiving, transmitting, processing, and recording data associated with the operation of the pumps, valves, and sensors, the recorded data being sufficiently comprehensive to determine the conduct of the tangential flow filtration process at a substantially larger scale.

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