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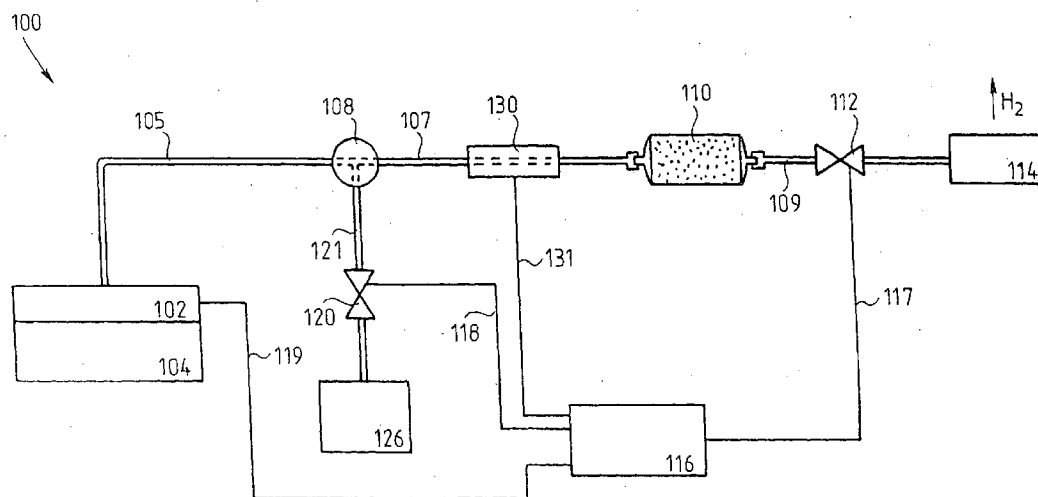
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(54) Title: A FLOW-TYPE LABORATORY HYDROGENATION APPARATUS AND A LABORATORY HYDROGENATION PROCESS USING THE APPARATUS.



(57) Abstract: A flow-type laboratory hydrogenation apparatus (100) comprises a reservoir (104), a feed pump (102), a mixing element (108) with two inlets and an outlet, a hydrogenation reactor (110) and a pressure-adjusting unit (112), all connected into a flow path. The apparatus (100) also comprises a hydrogen source (126) and a one-way valve (120) arranged between the hydrogen source (126) and the second inlet of the mixing element (108). The feed pump (102) is realized by a pump providing a constant volume rate. The reservoir (104) contains at least the solvent, as base solution, of the sample to be hydrogenated. The hydrogenation reactor (110) is connected into the flow path by means of detachable connections and is formed as a replaceable cartridge which contains a packing which increases the flow resistance and facilitates mixing of the liquid and gaseous components. The pressure-adjusting unit (112) is connected into the flow path after the hydrogenation reactor (110) and is provided with a regulation controlled electrically.

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