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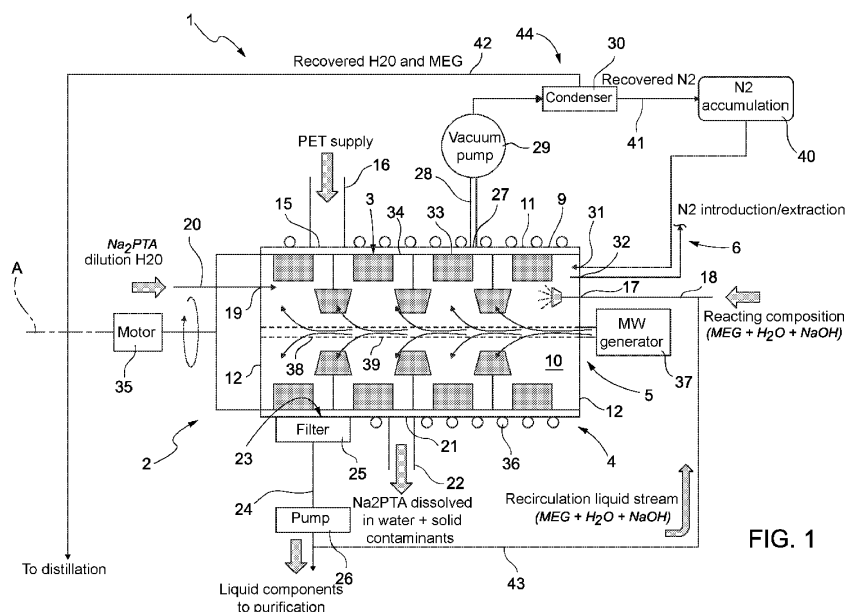


FIG. 1

(57) Abstract: An apparatus (1) for depolymerization of polymers, in particular polyesters, polyamides, polyurethanes and polycarbonates, comprises a microwave depolymerization reactor (2) having a reaction chamber (10); a microwave generation and transport system (5) to send microwaves into the reaction chamber (10) and comprising a microwave generator (37) and a guide device (38) housed in the reaction chamber (10) to convey and distribute microwaves in the reaction chamber (10); a mixing device (3), rotating around the axis (A) in the reaction chamber (10) and configured so as to dynamically distribute inside the reaction chamber (10) a mixture of liquids and solids contained in the reaction chamber (10); and a pressurization system (6) configured to vary the pressure within the reaction chamber (10).

[Continued on next page]

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