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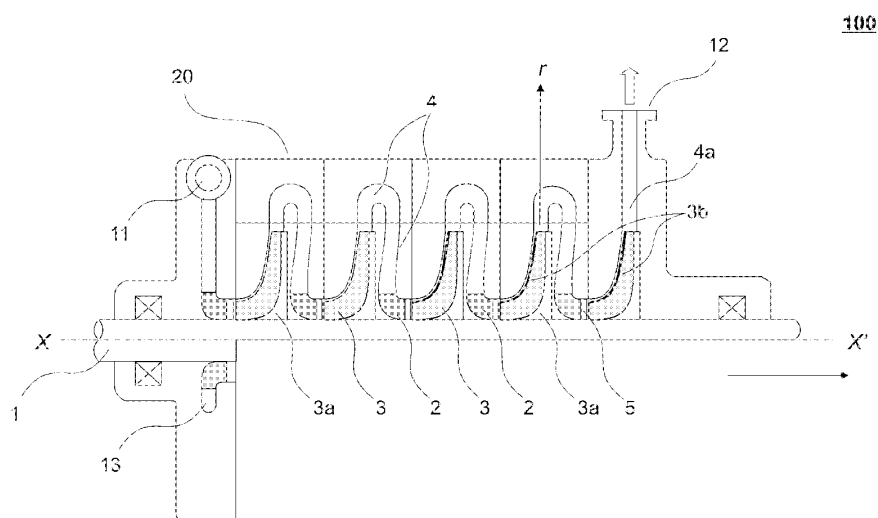


Figure 1A

(57) Abstract: An apparatus 100 for conducting chemical reactions in a process fluid is provided, comprising a central shaft 1 with a number of axial-radial rotors 3 mounted thereon, a plurality of stationary vanes 2 disposed upstream the rotor and a mixing space 4 disposed down stream of the rotor, wherein the mixing space is configured to convert mechanical energy imparted to the process fluid by the rotor into internal energy of said process fluid and to establish conditions for an at least one chemical reaction in the process fluid to occur. Related arrangement, method and uses of the apparatus are further provided.

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