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(54) Title: STRUCTURAL MATERIAL FOR MOLTEN SALT REACTORS

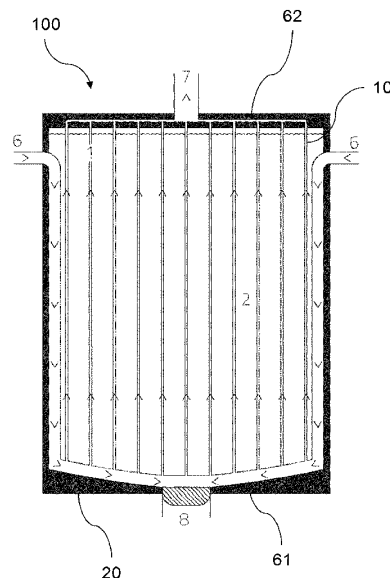


Fig. 4

(57) Abstract: The present invention relates to a device adapted for producing energy by nuclear fission, the device comprising a core container of a core container material, which core container encloses an inner tubing of an inner tubing material, the inner tubing and/or the core container having an inlet and an outlet, the device further comprising a molten halide salt located in the core container or in the inner tubing, wherein the inner tubing comprises one or more sections consisting of single crystal corundum. The invention further relates to methods of controlling nuclear fission processes using the device and to the use of a corundum tube as a structural material in a nuclear fission device. The invention provides improved economy in molten salt nuclear fission processes.

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