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(54) **ENERGY GENERATING APPARATUS AND ENERGY GENERATING METHOD AND CONTROL AS-SEMBLY AND REACTION VESSEL THEREFORE**

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(57) **ABSTRACT**

An environmentally friendly heat energy source suitable for the transportation sector, includes an energy generating apparatus for generating heat energy in an exothermic reaction in the form of a metal lattice supported hydrogen process, advantageously an LENR, comprising: a reaction vessel with a reaction chamber containing a reaction material for performing the exothermic reaction, a field generating device for generating a field in the reaction chamber for activating and/or maintaining the exothermic reaction, a heat transfer device for transferring heat into and/or out of the reaction chamber, and a control which controls the field generating device depending on the reaction chamber temperature, for stabilizing or controlling the exothermic reaction. The control connects to a thermoelectric generator for converting heat from the reaction chamber into electrical energy such that enough energy for generating the field is only available when the temperature is above a critical range, for instance above 500 K.