

Title (en)
ADIABATIC TANK FOR METAL HYDRIDE

Title (de)
ADIABATISCHER TANK FÜR METALLHYDRID

Title (fr)
RESERVOIR ADIABATIQUE D'HYDRURE METALLIQUE

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Application
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Abstract (en)
[origin: WO2010076415A1] The invention relates to a safe hydrogen-storing tank that is easy to manufacture and enables the quick kinetic absorption of hydrogen, which reduces the variations in volume and has a low cost in terms of material and energy. The invention has the aim of providing a tank for storing hydrogen, including a hydrogen inlet (21) and a hydrogen outlet (22) in fluid communication with at least one solid body (10-11) capable of the exothermal absorption and endothermal desorption of hydrogen, wherein said at least one solid body (10-11) is made of a compacted material containing light metal hydride and a heat-conducting matrix, and wherein said at least one solid body (10-11) is in heat-transfer relation with at least one heat recovery material (42) free from salt or molten-salt compounds and capable of absorbing the heat generated by the hydrogen absorption and of releasing said absorbed heat so as to provide heat for hydrogen desorption.

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