

ABSTRACT

SOLID STATE HYDROGEN STORAGE TANK

A hydrogen storage tank is disclosed. It includes an outer shell, an inner shell, several heating plates, several hydrogen pipes, several heat exchange coolant pipes, several heating tubes and magnesium-based hydrogen alloy powder. The heat exchange coolant pipes and the shell combination of the present invention form two different heat dissipation designs, which are easy to operate and can quickly achieve the expected heat dissipation effect. At the same time, the design of the heating tubes and heating plates allows the magnesium-based hydrogen alloy powder to be heated faster and more evenly. In addition to making hydrogen storage operations safer and more efficient, it is also easier to take out stored hydrogen.

Fig. 1