Portable energy storage sliding stacking patent

Although batteries as an energy storage solution have developed rapidly, portable electronics continue to require frequent recharging. In this regard, various energy harvesting methods such as solar [1], piezoelectric [2], and radio frequency (RF) [3] harvesting generators have demonstrated possibilities to power electronic devices independently.

The present application discloses a stacking device, comprising: a base, a first driving member, and limiting mechanisms. The base is provided with a loading side and an unloading side. An output end of the first driving member is connected to the base. The first driving member is used to drive the base to rotate, so as to switch limiting mechanisms of the loading side and the ...

The Portable Multi-stack Flywheel Energy Storage Assembly stores energy from any electrical grid or other energy source such as wind turbines and photovoltaic solar power to a flywheel assembly. The invention is comprised of a motor/generator with a combination of multi-stacked flywheels, positive locking roller stops and speed activated clutches.

Disclosed are portable energy storage devices and methods for fast charging them using non-isolated power supplies, while maintain... (,),1

Multilayer stacking also allows the integration of nanogenerators with energy storage devices, thereby providing possibilities for the development of self-powered systems [29]. Fig. 6 c schematically illustrates the integration of a nanogenerator and a supercapacitor.

A portable energy system is provided and includes a controller configured to control a two-stage power-saving function that places the portable energy system into a first mode of ...

An example of a system to provide energy storage capacity moveable between multiple locations is provided. The system includes a plurality of docking stations, wherein ...

1,, 200240; 2 ,, 200241 :2015-12-18 :2016-01-01 :2016-01-01 :(1983--),,,?,E-mail:hwang@sinopoly.cn; ...

Energy Vault Inc received a granted US patent US 10,683,851 B2 for their energy storage system that stores and releases energy via the stacking of blocks. In particular, the claims of the patent, which define the scope of the ...

the framework 40 is shown formed of elongated angle-iron sections 42, 44, 46 and 48 which are attached together at the ends thereof by welding or the like and to the roof cap 37 by any suitable means such as screws

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or bolts (not shown). These angle-iron sections are positioned so that the upper surface regions of the roof framework 40 is defined by horizontally inwardly facing or ...

Conclusion: The Future of Portable Power storage Systems. As energy demands grow, portable energy distribution and storage systems will become pivotal in ensuring an uninterrupted power supply. With innovations such as hydrogen cells, smart batteries, and microgrids, the future of energy will be more mobile, sustainable, and resilient.

Better use of storage systems is possible and potentially lucrative in some locations if the devices are portable, thus allowing them to be transported and shared to meet spatiotemporally varying demands. 13 Existing studies have explored the benefits of coordinated electric vehicle (EV) charging, 20, 21 vehicle-to-grid (V2G) applications for EVs 22, 23 and ...

European Patent Office Prior art keywords refrigeration apparatus portable refrigeration portable refrigeration ... Thermal energy storage pallet US11499770B2 (en) 2017-05-09: 2022-11-15: Cold Chain Technologies, Llc ... Sliding window JPS58199268A ...

The present disclosure relates generally to energy storage, for example in the form of a portable battery pack usable for powering electrical devices such as vehicles. ...

a portable storage rack or pallet having foldable end frames used in the shipment and/ or conveying of articles and more particularly to a storage rack or ... W AT TO RN EYS United States Patent 3,499,398 PORTABLE STORAGE RACK OR PALLET John M. Murray, Joliet, Ill., assignor to Cerco Corporation, Joliet, Ill., a corporation of Illinois Filed ...

Thanks to the modular design, which enables users to simply add more "energy blocks" to increase each unit"s storage capacity and power output, the new portable power stations are scalable and more economical to operate than fuel-driven and battery-driven generators with pre-set capacities.

Energy storage systems are required to adapt to the location area"s environment. Self-discharge rate: Less important: The core value of large-scale energy storage is energy management, which inevitably requires energy time-shifting, time-shifting, and self-discharge rate directly affecting the efficiency. Response time: Normal

The invention discloses a portable energy storage device, and relates to the technical field of energy storage devices. The energy storage battery comprises a mounting frame, wherein...

JP7459129B2 JP2021560583A JP2021560583A JP7459129B2 JP 7459129 B2 JP7459129 B2 JP 7459129B2 JP 2021560583 A JP2021560583 A JP 2021560583A JP 2021560583 A JP2021560583 A JP 2021560583A JP 7459129 B2 JP7459129 B2 JP 7459129B2 Authority JP Japan Prior art keywords tile core tiles stack slot

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Prior art date 2019-04-03 Legal ...

US20100319187A1 US12/549,858 US54985809A US2010319187A1 US 20100319187 A1 US20100319187 A1 US 20100319187A1 US 54985809 A US54985809 A US 54985809A US 2010319187 A1 US2010319187 A1 US 2010319187A1 Authority US United States Prior art keywords electrode separation layer electrodes stack lithium ion Prior art date 2009-06-22 ...

A battery lock mechanism includes a first sliding operation member and a second sliding operation member. When the second sliding operation member is operated, a battery is released from a locked condition. Initially, an operation knob of the first sliding operation member is exposed through a rectangular window. When the first sliding operation member is driven in a ...

A hand-sized, disposable device, and its method of use for bundling and transporting a stack of small consumer goods, such as boxes, newspapers and magazines for recycling. The method comprises dispensing a pre-cut loop of twine residing in a prefabricated device made of recyclable paper board or cardboard. The twine crosses itself in the cavity of the device and is free to ...

The application relates to the technical field of energy storage power supplies, in particular to a portable emergency mobile energy storage power supply; the solar photovoltaic power generation box comprises a box body, wherein a battery pack is arranged in the box body, a charge-discharge controller connected with the battery pack is arranged in the box body, and a solar ...

The energy storage system can stack a plurality of blocks to store solar energy as potential energy in the stacked blocks during daylight hours when solar electricity is abundant. ...

A portable charging case, including an unlocking assembly and a push rod, user can push the unlocking assembly in the direction towards the storage space after the portable lighting device is fully charged. The push rod then pushes the magnetic charging device away from the portable lighting device so that the magnetic charging device disconnects from the portable lighting ...

FIGURE 3D shows an example view of the sliding lock lever of FIGURE 1A; ... a portable storage system is disclosed including a first stackable container having a locking system, and a lock status indicator on ... STACKABLE STORAGE CONTAINERS WITH STACKING SELF-LOCK - European Patent Office - EP 4364900 A1 ...

US3349939A - Portable and collapsible stacking bins or crates - Google Patents Portable and collapsible stacking bins or crates Download PDF Info Publication number ... 1964-05-18 Priority to US368034A priority Critical patent/US3349939A/en 1967-10 ...

Scavenging energy from our day-to-day activity into useful electrical energy be the best solution to solve the

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energy crisis. This concept entirely reduces the usage of batteries, which have a complex issue in ...

The utility model relates to a portable fork truck belongs to haulage equipment technical field, including removing frame (1), detachable support column (2) are gone up in removal frame (1), but be equipped with longitudinal motion's load carrier (3) on support column (2), be equipped with two at least fork arms (4) on load carrier (3), each transverse interval between fork arm ...

the present disclosure relates generally to energy storage, for example in the form of a portable battery pack usable for powering electrical devices such as vehicles. Any additional thermal...

The world is rapidly adopting renewable energy alternatives at a remarkable rate to address the ever-increasing environmental crisis of CO2 emissions....

An expandable portable multi-functional energy storage and power supply device includes one or more energy storage and power supply units, wherein adjacent energy storage ...

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