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Kudrna et al.(10) **Pub. No.: US 2024/0224424 A1**(43) **Pub. Date: Jul. 4, 2024**(54) **CONFORMAL WEARABLE BATTERY****H01M 50/502** (2006.01)**H01M 50/519** (2006.01)(71) Applicant: **Inventus Power, Inc.**, Woodridge, IL
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(57)

ABSTRACT

A housing of a conformal wearable battery (CWB) encloses a plurality of battery cells arranged in a grid-like pattern and electrically connected to a printed circuit board (PCB). The PCB includes an electrical connection pad that is electrically coupled to a positive terminal of a battery cell of the plurality of battery cells and a positive conductive region receiving electrical energy from one or more of the plurality of battery cells. A redundant trace fuse circuit is formed on the PCB. The battery cells may be a lithium-ion pouch cell that includes a body portion, a porch section and a battery cell terminal connected to the porch section. A plurality of compressible support members may be located on the flexible PCB at specific locations such that a support member is located between a battery cell terminal of each battery cell and the flexible PCB.

