

3D-New Lithium Battery Technology Platform

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Thin film technology (2D) producing lithium ion accumulators has nearly been optimized. The capacity limits are given and the production cost is high. In addition, ultimate safety of this type of batteries cannot be provided.

It has been demonstrated that a significant increase of lithium battery capacity is feasible by removing organic binders and extending the electrode thickness from micrometers (2D) to millimeters (3D).

The HE3DA[®] concept of several millimeters thick electrodes gives the battery incomparable safety and brings a number of new attributes, which are not achievable by the existing thin film technology.

3D electrodes provide a significant volumetric capacity increase. Recently developed internal cooling system, with electrolyte as the cooling media, radically shrinks the battery pack size and extends battery life. during operations,

The safe, robust construction with a multifunctional frame, easy degassing and possibility of electrolyte exchange and regeneration provides a new lithium accumulator technology platform ideal for large energy storage modules.

