METHOD AND APPARATUS FOR Z-FOLDING OF BATTERIES

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HINTERGRUND

The electrification of drives is an enormous challenge as well as an opportunity for the automobile industry and its suppliers to provide competitive and affordable technologies to participate within this technology change. The high costs of battery systems, the limitations of the range of electric vehicles and the presently insufficient charging network are three of the main reasons, why the realization of this change is still troublesome. To realize a cost-efficient production of battery systems, a high degree of automation and an increased production throughput is necessary. Current handling methods are characterized by pick-and-place operations. Their productivity is limited by necessary sequential setting and resetting movements.

LÖSUNG

The aim of the invention developed at TU Berlin is to provide a method and an apparatus for z-folding a separator material to enable a continuous folding with the highest possible throughput. The approach pursued is the shifting from discrete pick-and-place operations to a continuous process flow, enabling a cost-efficient production of electrode-separator compounds and finally the production of lithium-ion batteries.

Technische Universität Berlin

Jeanne Trommer
+49 30 314 24472
jeanne.trommer@tu-berlin.de
www.zfge.tu-berlin.de

ENTWICKLUNGSSTAND

Prototyp

PATENTSITUATION

DE anhängig
PCT anhängig

CATEGORIES

//Maschinen- und Anlagenbau
//Automotive //Fertigungstechnik
VORTEILE

- High production throughput
- Continuous folding
- Applicable for state of the art battery technology
- Reduction of production costs

ANWENDUNGSBEREICHE

The concept represents a major step towards a competitive manufacturing process in the production of batteries.

SERVICE

Chances for Collaboration:

- R&D Cooperation
- Patent Purchase
- Licensing