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(19) **United States**(12) **Patent Application Publication**  
**ZHENG**(10) **Pub. No.: US 2024/0235228 A1**(43) **Pub. Date: Jul. 11, 2024**(54) **BATTERY WAKE-UP CIRCUIT IN  
SERIES-PARALLEL BATTERY SYSTEM**(52) **U.S. CL.**  
CPC ..... **H02J 7/0047** (2013.01); **H02J 7/0013**  
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CO.,LTD**, Huizhou (CN)(21) Appl. No.: **18/495,065**(22) Filed: **Oct. 26, 2023**(30) **Foreign Application Priority Data**

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**H02J 7/00** (2006.01)(57) **ABSTRACT**

Disclosed is a battery wake-up circuit in a series-parallel battery system including a battery core assembly, a battery management assembly, a current-limiting charge-discharge switch assembly, a charge-discharge control and detection assembly and a wake-up detection assembly.

The current-limiting charge-discharge switch assembly is provided in series between the battery core assembly and a power output end; and a controlled end of the current-limiting charge-discharge switch assembly is connected to the battery management assembly. The charge-discharge control and detection assembly is connected to the battery management assembly. A detection end of the wake-up detection assembly is connected to the current-limiting charge-discharge switch assembly; and an output end of the wake-up detection assembly is connected to the battery management assembly.

