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- (71) Applicant: SAFT AMERICA, INC. [US/US]; 13575 Waterworks Street, Jacksonville, FL 32221 (US).
- (72) Inventors: SNYDER, James, G.; 13575 Waterworks Street, Jacksonville, FL 32221 (US). FOOTE, Benjamin, L.; 13575 Waterworks Street, Jacksonville, FL 32221 (US). HENSLEY, Keith, W.; 13575 Waterworks Street, Jacksonville, FL 32221 (US). LIU, Shih-xiang; 13575 Waterworks Street, Jacksonville, FL 32221 (US).
- (74) Agent: VEDANTAM, Sreenivas; Moore & Van Allen PLLC, 430 Davis Drive, Suite 500, P.O. Box 13706, Research Triangle Park, NC 27709 (US).

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(54) Title: BATTERY ELECTRONICS AND CONTROL SYSTEM

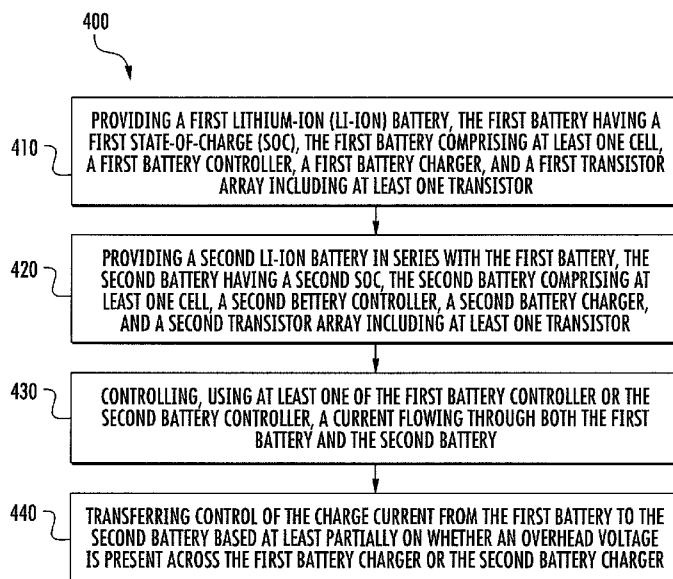


FIG. 4

(57) Abstract: The invention is directed to a system for controlling battery current. In some embodiments, the system comprises a first lithium-ion (Li-ion) battery, the first battery having a first state-of-charge (SOC) and comprising a first battery controller and a first battery charger; and a second Li-ion battery in series with the first battery, the second battery having a second SOC and comprising a second battery controller and a second battery charger. In some embodiments, at least one of the first battery controller or the second battery controller controls a charge current flowing through at least one of the first battery and the second battery, wherein control of the charge current is transferred from the first battery to the second battery based at least partially on whether an overhead voltage is present across the first battery charger or the second battery charger.

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**A. CLASSIFICATION OF SUBJECT MATTER**  
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**B. FIELDS SEARCHED**  
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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
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**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

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Further documents are listed in the continuation of Box C.       See patent family annex.

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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer  Despis, Enguerran
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Information on patent family members

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