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NGUYEN et al.(10) **Pub. No.: US 2022/0360091 A1**(43) **Pub. Date: Nov. 10, 2022**(54) **BATTERY CONTROL SYSTEMS AND METHODS***G01R 31/392* (2006.01)*G01R 31/374* (2006.01)*G01R 31/396* (2006.01)(71) Applicant: **Exro Technologies Inc.**, Calgary (CA)(52) **U.S. Cl.**(72) Inventors: **Tung NGUYEN**, Calgary (CA); **Eric HUSTEDT**, Calgary (CA)CPC *H02J 7/007* (2013.01); *H02J 7/0048* (2020.01); *H02J 7/005* (2020.01); *G01R 31/3842* (2019.01); *G01R 31/392* (2019.01); *G01R 31/374* (2019.01); *G01R 31/396* (2019.01)(21) Appl. No.: **17/727,143**(22) Filed: **Apr. 22, 2022****Related U.S. Application Data**

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ABSTRACT

A battery control system includes a plurality of battery cells that are separately controllable as units of individual cells or groups of cells. Each controllable unit may be switchably activated or deactivated in the overall battery circuit, and one or more conditions of each controllable unit may be individually measured. Various techniques are disclosed for operating the battery control system to optimize or improve system performance and longevity.

