



US 20230231200A1

(19) **United States**(12) **Patent Application Publication****LIU et al.**(10) **Pub. No.: US 2023/0231200 A1**(43) **Pub. Date: Jul. 20, 2023**(54) **MIXED ELECTROLYTE FOR LI-S BATTERY****Publication Classification**(71) Applicant: **THE REGENTS OF THE  
UNIVERSITY OF CALIFORNIA,**  
Oakland, CA (US)(51) **Int. Cl.**  
*H01M 10/0569* (2006.01)  
*H01M 10/0525* (2006.01)  
*H01M 10/0567* (2006.01)(72) Inventors: **Gao LIU**, Piedmont, CA (US); **Thanh-  
Nhan TRAN**, Berkeley, CA (US)(52) **U.S. Cl.**  
CPC ..... *H01M 10/0569* (2013.01); *H01M 10/0525*  
(2013.01); *H01M 10/0567* (2013.01); *H01M*  
*2300/0034* (2013.01);  
*H01M 2300/0037* (2013.01)(21) Appl. No.: **18/064,187**(22) Filed: **Dec. 9, 2022****Related U.S. Application Data**(60) Provisional application No. 63/361,385, filed on Dec.  
15, 2021.(57) **ABSTRACT**

The present invention provides for an electrolyte composition comprising an ether solvent, an amphiphilic molecule, an electrolyte solvent, and a lithium salt.

