

Secondary Battery Electrolyte Safety - B. Dixon, R.S. Morris, and B. Gall (Phoenix Innovation, Inc.)

Advanced lithium systems are described that combine high power and energy density with superior safety. The continuing evolution of our multi-heteropolymer electrolytes are described, including thermal test data, which are ionically highly conductive, and non-flammable. These novel multi-heteropolymer electrolytes represent a significant advance in the design of high performance rechargeable lithium systems that possess superior safety and handling characteristics. A separate but complimentary line of research has identified novel electrode compositions that have much-improved energy storage capabilities. These two research lines are combined into a superior battery package.