

A Summary on Progress in Materials Development for Advanced Lithium-ion Cells for NASA's Exploration Missions

NASA Technical Reports Server (NTRS), Concha M. Reid



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By Concha M. Reid

Bibliogov. Paperback. Book Condition: New. This item is printed on demand. Paperback. 22 pages. Dimensions: 9.7in. x 7.4in. x 0.1in.Vehicles and stand-alone power systems that enable the next generation of human missions to the moon will require energy storage systems that are safer, lighter, and more compact than current state-of-the-art (SOA) aerospace quality lithium-ion (Li-ion) batteries. NASA is developing advanced Li-ion cells to enable or enhance future human missions to Near Earth Objects, such as asteroids, planets, moons, libration points, and orbiting structures. Advanced, high-performing materials are required to provide component-level performance that can offer the required gains at the integrated cell level. Although there is still a significant amount of work yet to be done, the present state of development activities has resulted in the synthesis of promising materials that approach the ultimate performance goals. This paper on interim progress of the development efforts will present performance of materials and cell components and will elaborate on the challenges of the development activities and proposed strategies to overcome technical issues. This item ships from La Vergne, TN. Paperback.



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