

## KEEPING UP WITH BATTERIES












































We have sifted through 1000s of articles on lithium-ion batteries for you! We have captured pretty much everything new and important that came out in *December 2017*. We have selected and categorized commercially-relevant articles, added some interesting news, and squeezed all this content into our comprehensive review.

Hope it makes your work easier and keeps you in touch with the battery literature!





*The Research Interfaces Team*







### APPLICATIONS, RECYCLING & POLICY



					
<b>Development of duty cycles for high-performance EV applications</b>	<a href="#">link</a>				★
Assessing driving pattern for specific energy use of EVs	<a href="#">link</a>				
LCA of ICE and EV drivetrains	<a href="#">link</a>				
LCA model of energy consumption and gas emissions of EVs	<a href="#">link</a>				
Component sizing optimization of supercapacitor-battery PHEV	<a href="#">link</a>				
Impact of EV penetration in interconnected smart city	<a href="#">link</a>				
Role of EVs in future road transport	<a href="#">link</a>				Book
Viability of off-grid PV-battery storage system for charging EVs	<a href="#">link</a>				
Integration of EVs in Internet of Energy	<a href="#">link</a>				
Reuse of EV batteries in European electricity grid	<a href="#">link</a>				
<b>Stationary battery storage systems for modern power grid</b>	<a href="#">link</a>				🔍 ★
Economic model for residential clean energy management	<a href="#">link</a>				
Simulated potential of BSS for grid balancing	<a href="#">link</a>				
Economics of electrical storage to manage intermittent generation	<a href="#">link</a>				
Cost metrics of energy storage technologies in power systems	<a href="#">link</a>				
Wearable self-charging power systems	<a href="#">link</a>				
Battery safety information on e-cigarette packages	<a href="#">link</a>				
Sprinkler protection guidance for warehouse battery storage	<a href="#">link</a>				
<b>Recycling of Li-ion batteries</b>	<a href="#">link</a>				Book ★
Management and recycling of spent Li-ion batteries	<a href="#">link</a>				🔍
<b>Review and analysis on recycling of spent Li-ion batteries</b>	<a href="#">link</a>				🔍 ★
Electrochemical leaching of metals from spent NMC batteries	<a href="#">link</a>				
Recovery of metals from spent NMC batteries using malic acid	<a href="#">link</a>				
Acidic leaching process for recycling of spent Li-ion batteries	<a href="#">link</a>				
Reuse of anode graphite as cathode in electro-Fenton system	<a href="#">link</a>				
Bacterial bioleaching of spent Li-ion laptop batteries	<a href="#">link</a>				
Microbial recovery of metals from Li-ion battery waste	<a href="#">link</a>				Book

## LEGEND

-  – link to the article or website
-  – collaboration with industry
-  – application / Li-ion chemistry
-  electric vehicles/EVs

-  grid storage
-  wearables & healthcare
-  recycling
-  policy
-  – open access
-  – review article or perspective

\*Other abbreviations are chemistry or engineering specific and commonly used throughout the field. If you are unclear, please click on the link and see.

\*\*Mistakes are unavoidable, so please forgive us if you find any.

 NEWS BOX

Toyota Plans to Roll Out 10 All-electric Vehicles ([Fortune](#))



Toyota Deepens Panasonic Battery Ties in Electric-car Rush ([Bloomberg](#))

*"While Nissan Motor Co. has sold some 300,000 of the all-electric Leaf since 2010 and Tesla Inc. has delivered more than 250,000 EVs since the first Roadster rolled out in 2008, neither Toyota, Mazda nor Suzuki offer battery-powered passenger cars."*

Ford Ramps up Electric Vehicle Push in China Amid Slowing Sales ([Reuters](#))

*"China is pushing automakers toward electric and hybrid petrol-electric vehicles, setting tough quotas for new energy vehicles that come into play in 2019, and has signaled a longer-term shift away from traditional ICE cars."*

Tesla Isn't the Only Company Creating Cool Electric Vehicles Anymore ([The Washington Post](#))

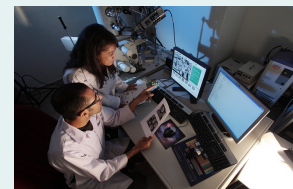
The Latest Bull Case for Electric Cars: the Cheapest Batteries Ever ([Bloomberg](#))

*"Lithium-ion battery packs are selling at an average price of \$209 a kilowatt-hour, down 24 percent from a year ago and about a fifth of what it was in 2010, a Bloomberg New Energy Finance survey shows."*

Autonomous Cars Need Tougher Batteries, Lithium-ion Pioneer Says ([Bloomberg](#))

Honda and Nissan Said to Be Developing Next-generation Solid-state Batteries for Electric Vehicles ([The Japan Times](#))

*"Last week, Toyota said it is in talks with Panasonic Corp. to team up on developing and producing lithium ion and next-generation solid-state batteries."*



Solid Power, BMW Partner to Develop Next-generation EV Batteries ([Reuters](#))

Akasol Opens up Europe's Largest Battery Production Facility for Commercial EVs ([Greentech Media](#))



Tesla mega-battery in Australia activated ([BBC](#))

*'Mr Musk said that if the 100-megawatt battery wasn't built within 100 days, the state would receive it for free. The countdown began on 30 September after a plan was approved by the state government and regulators. Tesla finished the battery in about 60 days.'*

Honda Is Working on Bi-directional Charging Technology for Its Electric Vehicles ([Electrek](#))