

---

## News letter - on making the difference.

*New batteries technologies and rare earth minerals...*

---

1. [A Battery That Charges in Seconds](#) “Imagine being able to charge your cell phone in a matter of seconds or your laptop in a few minutes. That might soon be possible, thanks to a new kind of nanostructured battery electrode developed by scientists at the University of Illinois, Urbana-Champaign. The researchers found that their electrode can charge and discharge up to 100 times faster than existing devices while holding the same amount of energy.” [news.sciencemag.org](#)
2. ['Nanoscoops' Could Spark New Generation of Electric Automobile Batteries](#)—“An entirely new type of nanomaterial developed at Rensselaer Polytechnic Institute could enable the next generation of high-power rechargeable lithium (Li)-ion batteries for electric automobiles, as well as batteries for laptop computers, mobile phones, and other portable devices” [sciencedaily](#)
3. [New battery technology may allow for complete recharging within minutes](#)- “conventional batteries are able to charge or discharge can be dramatically increased by changing the form of their active material into a thin film, but such films have typically lacked the volume to be able to store a significant amount of energy. In the case of Braun's batteries, however, that thin film has been formed into a three-dimensional structure, thus increasing its storage capacity” [gizmag.com](#)
4. [Upgrading the vanadium redox battery](#) “So much so that the upgraded battery could improve the electric grid's reliability and help connect more wind turbines and solar panels to the grid.” [esciennews.com](#)
5. [New battery can recharge itself using sunlight](#) “A team of scientists are hoping to give those old school re-chargeable batteries a solar-powered makeover.” [smartplanet.com](#)
6. [Squeezing More Energy Out of Batteries](#) “Xerox's Palo Alto Research Center (PARC) has developed a new printing technology that promises to pack more energy into batteries for electric vehicles. By printing a striped pattern of energy storage materials and highly conductive materials, researchers at PARC are making electrodes that are much thicker than those in conventional batteries” [technologyreview.com](#)
7. [New Military Mission: Invent Better Batteries](#)— “The Department of Defense has teamed up with Department of Energy's ARPA-E (Advanced Research Projects Agency-Energy) on two energy storage projects that could change that [scenario for the U.S. military](#), according to Mabus. The joint partnership is requesting \$25 million for each of the efforts.” [msnbc.msn.com](#)
8. [The power game over power](#) “Lithium is a scarce mineral, unevenly spread around the world. As the demand for battery power skyrockets, lithium is increasingly becoming a strategic asset in the market.” [ericsson.com](#)
9. [Novel Ionic Liquid Batteries](#)—“Scientists at the NRL Materials Science and Technology Division are providing solid evidence that there is a new route towards developing novel, lightweight energy storage devices. By moving away from centuries of caustic, hazardous aqueous-based battery cells and instead using non-volatile, thermally-stable ionic liquids, scientists predict multiple new types of batteries. “ [sciencedaily.com](#)
9. [Manganese is being used in a new batteries technology](#)— “With the addition of manganese to lithium-ion batteries, energy density and recharge rates are improved dramatically. These factors can lower the cost of production making the economic viability of electric cars and a host of other technologies, a reality. [Even more incredible is a breakthrough from researchers at Stanford that contains the ability to produce electrical power from fresh and salt water, which could provide clean, cheap energy for the world. which could provide clean, cheap energy for the world.](#) “ [laptopsviews.com](#)