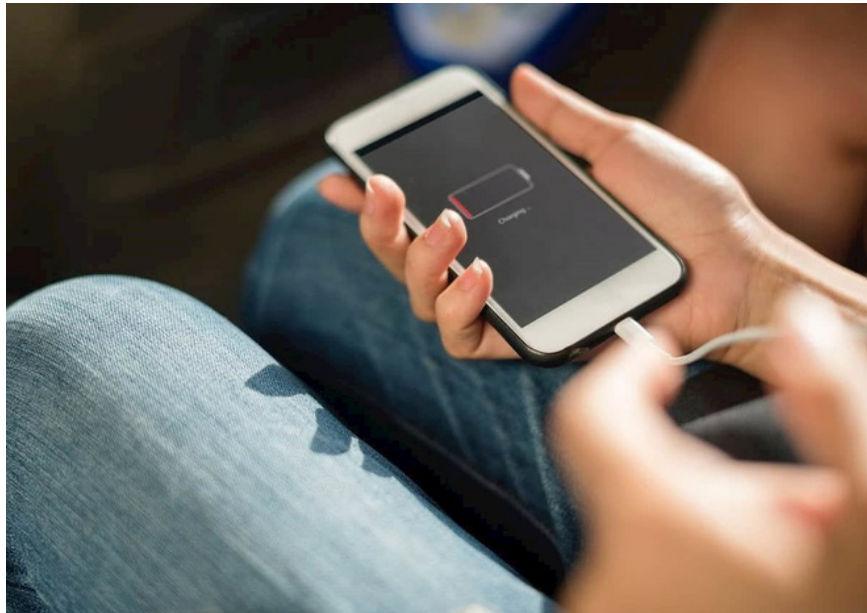


# Australia makes batteries that 'like' heat and never explode

An Australian university has just created an interesting lithium metal battery prototype, in contrast to today's lithium batteries.



Artwork: Internet

In 2016, Deakin University of Australia established a center for research and development of battery technology, mainly focusing on improving energy storage technology. Recently, the center announced that it has built a prototype lithium metal battery with some very interesting properties.

Each cell (cell) is constructed as a flat-cell cell with a capacity of 1Ah, using lithium metal anodes, which is appreciated for its ability to provide up to 50% more energy storage. The cell is used today. It also uses ionic liquid electrolyte, which is a liquid salt at room temperature, which has several advantages over today's main technology.

Professor Patrick Howlett, director of the research center, said: "The ionic liquids are not volatile and are not flammable which means unlike the electrolytes being used in lithium-ion cells. "Not only that, they also work better when heated, so there's no need for expensive and bulky cooling systems to prevent the battery from overheating."

In theory, this could lead to a battery being charged and discharged at high speeds, in contrast to what we are told to do with today's lithium batteries.

Warming batteries can have less impact on handhelds or laptops, but it can be a very dangerous problem in some electric vehicles, where heat loss is a big problem.

"The use of lithium metal electrodes in lithium metal batteries is uncommon in the battery industry, so little is known about the best way to produce cells," said Dr Robert Kerr, lead researcher. After years of paying attention to the manufacturing processes and details, the team has reached a benchmark that will surely surprise and interest the battery industry. Buffered on the way to produce 1.7 Ah cells in the near future, it is a milestone in the battery world to demonstrate a new technology. "

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