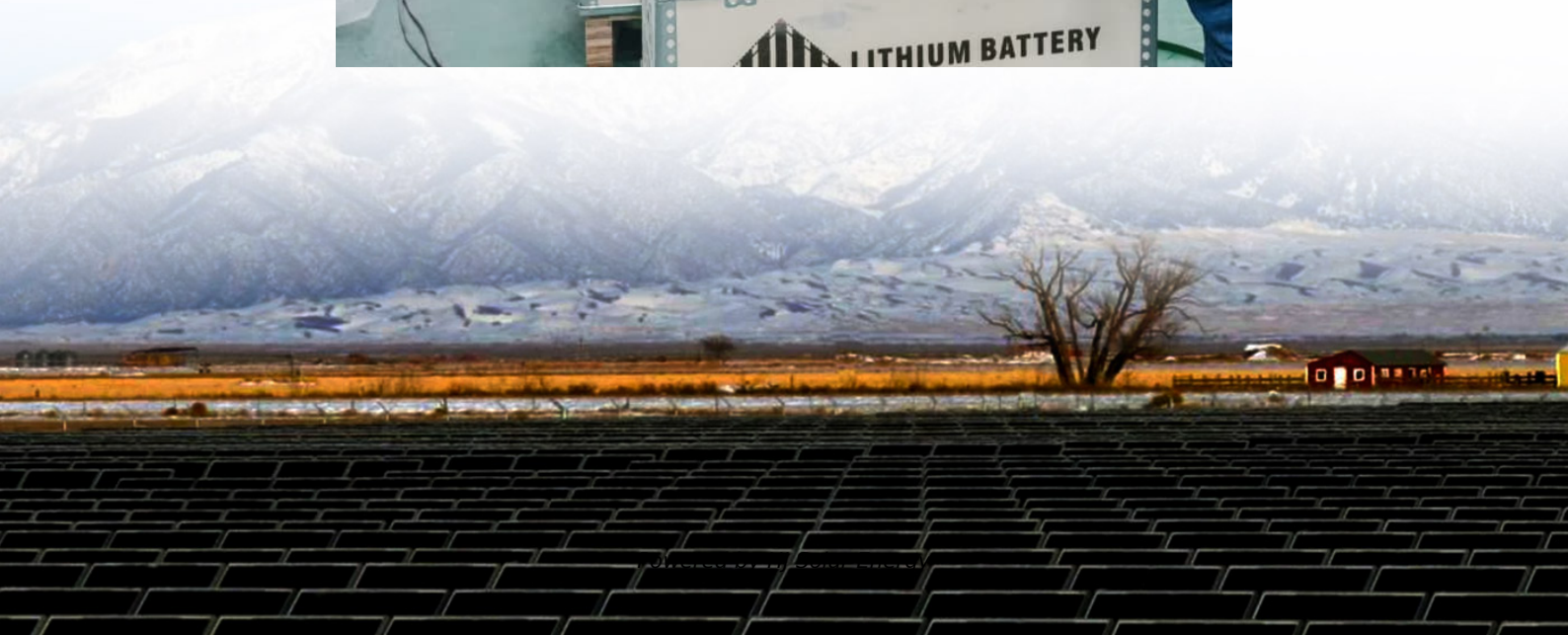


# Battery life is solid if not spectacular





## Overview

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Kalnaus et al. reviewed our understanding of the mechanics of solid-state batteries and the effect of having multiple solid-solid interfaces. They also looked at ways to alleviate stresses through additional materials and designs to improve the lifetime and performance of these batteries.

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Separate myths from truths about cell phone battery life. Get insights into optimizing battery performance and debunking common misconceptions. Read more!.

Solid-state electrolytes could be “a real game-changer,” Ceder says, creating “almost a perfect battery, solving most of the remaining issues” in battery lifetime, safety, and cost. Costs have already been coming down steadily, he says.

The truth is that battery life for most smartphones is pretty bad. Unless you're using a super-mega-ultra model---such as the iPhone 14 Pro Max or Samsung Galaxy S22 Ultra ---you're probably keeping a close eye on the battery level, and maybe even juicing up before the end of the day.

Companies love to tout the performance gains of their newest products. But for me, I don't care: all I'm looking at is battery life. Could a solid-state battery be a solution?

Solid-state batteries are another technology that could be a solution. Conventional batteries have two metal electrodes in a liquid electrolyte substance. Ionic particles move between the electrodes when charging and discharging. As the name implies, solid-state batteries are, well, solid.

Are solid-state batteries safe?



Additionally, it may raise the danger of oxidation and thermal runaway. Solid-state batteries must have reliable and effective sealing mechanisms to stop moisture and air from entering the battery compartment. The stability of the battery can be improved by using solid electrolyte materials that are less vulnerable to moisture and air exposure.

Are solid-state batteries the future of energy storage?

The development of solid-state batteries in energy storage technology is a paradigm-shifting development that has the potential to enhance how batteries are charged and used.

Does battery life really matter?

If you go back a few years, battery life on most gadgets was worse. However, performance gains are going upward way, way faster than battery gains, for no other reason than that's what companies think sells the best. All companies need to do is temper these gains so that battery life keeps a distinct advantage.

What is a solid state battery?

Ionic particles move between the electrodes when charging and discharging. As the name implies, solid-state batteries are, well, solid. The liquid electrolyte is replaced with a solid piece of metal or alloy. The electrodes and electrolyte can be compressed into layers that can be flatter than a typical liquid-based battery.

What is battery life?

Battery 'life' refers to three characteristics: performance, longevity, and capacity. Let's explain the semantics of these words a bit further: Performance life is the run time of a battery on full charge. Longevity refers to the number of charge cycles a battery can take before it no longer charges.



## Battery life is solid if not spectacular

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### **When I'm buying tech, battery life is my concern, not performance**

Companies love to tout the performance gains of their newest products. But for me, I don't care: all I'm looking at is battery life.

### **Here's the Truth Behind the Biggest (and Dumbest) Battery Myths**

To help sort the science from the folklore, we asked a battery expert to give their verdict on some of the most pervasive myths, explain the science behind the rumors and, ...



### [Here's the Truth Behind the Biggest \(and Dumbest\) ...](#)

To help sort the science from the folklore, we asked a battery expert to give their verdict on some of the most pervasive myths, explain the science behind the rumors and, just maybe, offer us

### [Myths About Cell Phone Battery Life vs Truths](#)

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### Solid-state batteries: The critical role of mechanics , Science

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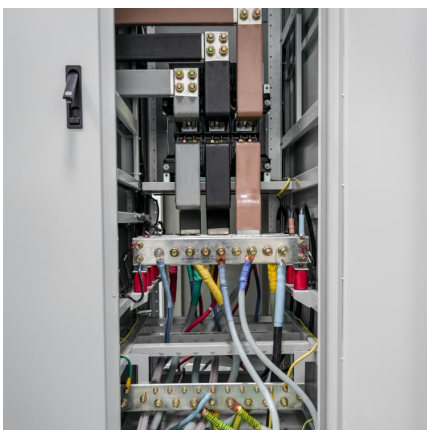
### Going solid-state could make batteries safer and longer-lasting

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**if not spectacular , English examples in context , Ludwig**

High quality example sentences with "if not spectacular" in context from reliable sources - Ludwig is the linguistic search engine that helps you to write better in English

A comprehensive review of solid-state batteries

Finally, this paper gives the direction of improvements to the challenges threatening solid-state battery commercialization. This comprehensive review study offers ...



**Battery life has been solid**

Overall my battery life has been quite solid on beta. I wouldn't say amazing, but more than adequate. I use Bluetooth connected at all times, I have 3 email accounts syncing, ...



### Why Do Phone Batteries Still Only Last a Day?

The truth is that battery life for most smartphones is pretty bad. Unless you're using a super-mega-ultra model----such as the iPhone 14 Pro Max or Samsung Galaxy S22 ...



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