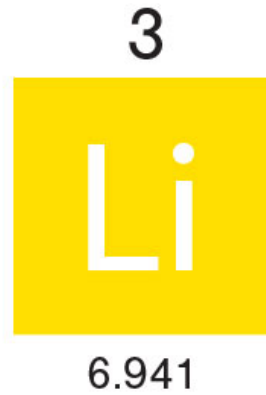


Technology > Safety

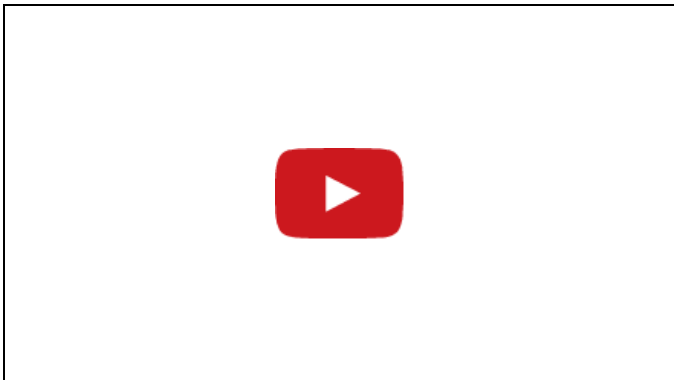
When the use of Li metal may be risky...

Conventional electrochemical wisdom holds that the use of Lithium metal is risky. Indeed, even Li-ion batteries suffer major safety concerns associated with the growth of spiky Lithium dendrites resulting in an internal short circuit, followed by uncontrolled energy release. A common belief is that any rechargeable Lithium metal system would sooner or later generate uncontrolled dendritic Lithium.



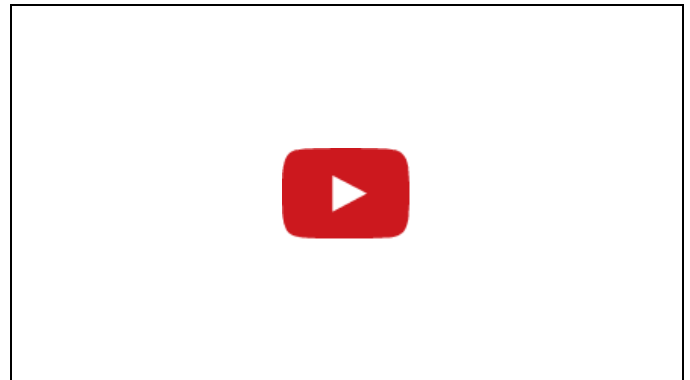
In contrast, OXIS technology is inherently safe!

The Li-S battery of OXIS Energy can withstand the following tests with no adverse reaction:



Nail penetration

When punctured by an iron nail, OXIS Li-S cell continued to operate (voltage at 98%) with a temporary temperature variation of only +1.4°C.



Bullet penetration

A 5.56mm bullet was shot at a 10 meter range on a fully charged cell. The cell continued to operate at a reduced capacity and no fire or any noticeable temperature variation was observed.

Short circuit

OXIS patented cell can withstand short-circuit without catching fire. Meets

Overcharge

When charged for 24 hours at a C/10 rate (0.16 A), no explosion or fire

Crush

When subjected to a 13kN force, the cell did not disassemble and it only

Shock

18 shocks with a 150gn acceleration (6ms) were applied to our test cell and

11/13/2014

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UN38.3/UL1642 specifications.

were observed and the cell reached a maximum temperature of 53°C. Meets IECG2133.

observed a temperature variation of 2°C. Meets UN38.3.

there was no rupture, venting or mass loss. Meets UN38.3.



Meet zippy!

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