Lithium-ion batteries by the numbers

0.0007
The percentage of lithium in the Earth's crust

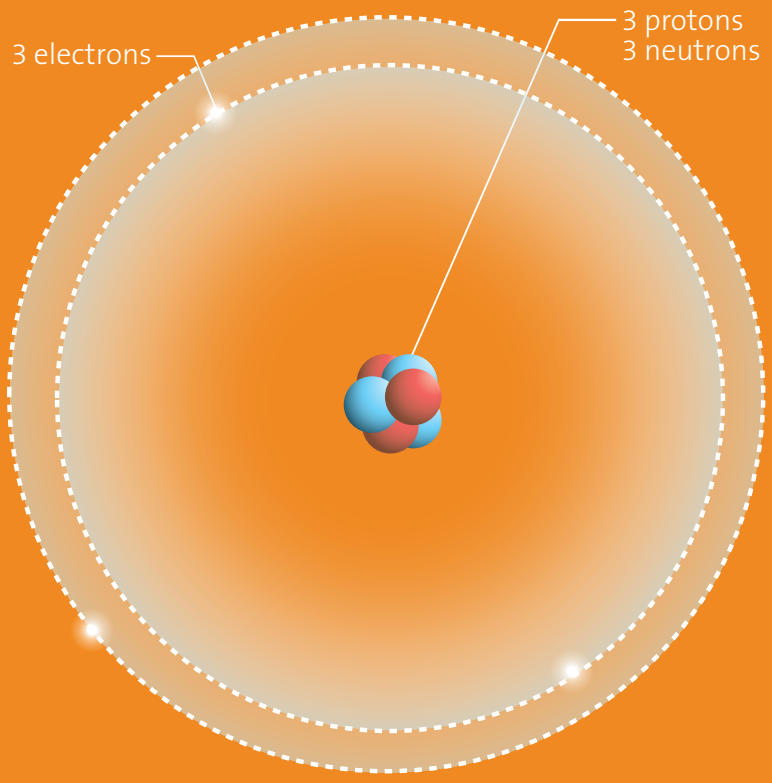
80 Percentage of total power lithium-ion batteries maintain after 1,000 cycles. A cycle is the charging and discharging of a battery's energy load.

1,330 Degrees, in Celsius, at which lithium boils. Water, by comparison, boils at 100 degrees Celsius.

1991 The year lithium-ion batteries were introduced to the market by Sony and Japanese chemical company Asahi Kasei.

10 million
Number of batteries recalled by Sony in 2006, due to structural issues that could cause a short-circuit and damage the devices they were powering. The batteries were used in products produced by Sony, Dell, Sharp, Apple, Panasonic, Lenovo, Hitachi, Toshiba and Fujitsu.

Lithium atom - Li



General properties

Name: Lithium
Symbol: Li
Appearance: silvery-white
Atomic number: 3
Element category: Alkali metal

Physical properties

Phase: Solid
Melting point: 356.9 °F
Boiling point: 2,426 °F

3 The atomic number of lithium, making it the lightest metal on the periodic table. By comparison, lawrencium, the heaviest metal, has an atomic number of 103.

$150 Cost per kilowatt for lithium-ion battery cells, down from $400/kWh in 2012.

1817 The year Swedish scientist Johan August Arfwedson identified lithium while analyzing the mineral petalite.

30,000 Number of homes that can use energy provided by Tesla's Powerpack battery for one hour. Powered by wind-farm energy, the 129-megawatt unit is the world's largest lithium battery, which was turned on in December 2017 in South Australia to help during blackouts.

46 million Number of batteries recalled by cellphone manufacturer Nokia in 2007 due to a malfunction that could cause phones to overheat and explode.

1 billion Number of lithium-ion batteries transported through the air each year.

33.9 million Miles separating Earth from Mars, where the rover Curiosity is powered by lithium-ion batteries.

Sources: Scientific American; Los Alamos National Laboratory; Clean Technology; the International Air Transport Association; NASA