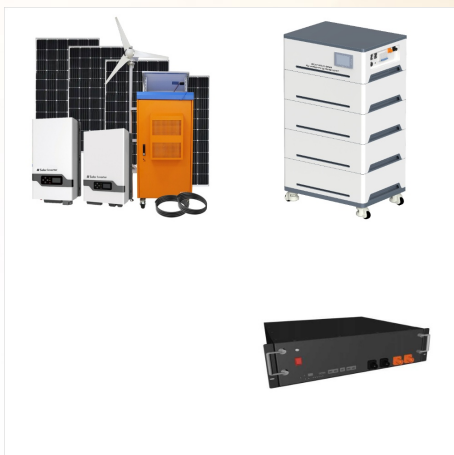




History. Research on rechargeable Li-ion batteries dates to the 1960s; one of the earliest examples is a CuF_2/Li battery developed by NASA in 1965. The breakthrough that produced the earliest form of the modern Li-ion battery was made by British chemist M. Stanley Whittingham in 1974, who first used titanium disulfide (TiS_2).



Whittingham took a chance way ahead of time, in the 1970s, by developing and later commercialising (via Exxon) the first lithium-based rechargeable battery. It relied on the compound titanium



The first iteration, developed by M. Stanley Whittingham at Exxon in 1972, didn't get far. It was manufactured in small volumes by Exxon, appeared at an electric vehicle show in Chicago in 1977, and served briefly as a coin cell battery. But then Exxon dropped it.



In 2019, Dr. Akira Yoshino was awarded the Nobel Prize for his work in inventing the world's first lithium-ion battery. Dr. Yoshino talks about the challenges he overcame in developing lithium-ion batteries and the role that strategic use of patent rights has played in the commercialization of these power packs.



s: Much of the basic research that led to the development of the intercalation compounds that form the core of lithium-ion batteries was carried out in the 1960s by Robert Huggins and Carl Wagner, who studied the movement of ions in solids. [1] .



Its inventor, A. Yoshino, describes the process by which the lithium-ion battery was first developed (picture shows the first test-tube cell) and made commercially practical. Successful safety tests marked the turning point in this work.



Nobel Laureate John B. Goodenough, one of the inventors of the lithium-ion battery, died on 25 June at age 100. Goodenough, a professor of electrical and computer engineering at the University of Texas at Austin, authored more ???



Goodenough was able to expand upon previous work from M. Stanley Whittingham on battery materials, and found in 1980 that by using Li x CoO_2 as a lightweight, high energy density cathode material, he could double the capacity of lithium-ion batteries.