

## Lithium-ion batteries

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In the 1970s, Stanley Whittingham produced the first working lithium battery. The anodes he used were made of metallic lithium, but these could be short-circuited, which could causes fires. John Goodenough then found a better cathode material that gave the battery a higher voltage. In 1986, Akira Yoshino changed the anode to a carbon-based material. This battery was much more stable.



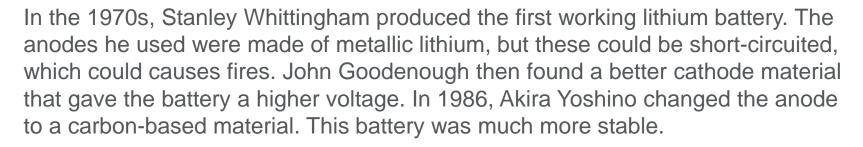




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- 1. What are the two main factors that affect the voltage of a cell?
- 2. Suggest why lithium-ion batteries are lightweight.
- 3. Explain the difference between rechargeable and non-rechargeable batteries. Refer to chemical reactions in your answer.



