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# Review on aqueous lithium Li-ion battery

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With increasing world population, the rate of using fossil fuels to produce energy has also increased rapidly. Because the use of fossil fuels releases green $Co_2$ house gases such as, the development of environmentally friendly energy like the combination of renewable energy with rechargeable Lithium-ion batteries becomes important. Lithium-ion batteries have been commercialized for two decades. These batteries perform well but some problems still remain. Usually rechargeable lithium-ion batteries contain flammable organic electrolyte, which can be a fire hazard and is not environmentally friendly. Another important problem is the high manufacturing cost of these organic electrolytes. In the middle of 1990s, Dahn and his research group published a study which proposed a new type of battery that uses an aqueous electrolyte instead of an organic electrolyte. This new electrolyte does not present a fire hazard and instead is cheap, safe and environmentally friendly. The major problem for developing is that the energy density of this battery is lower than the non-aqueous battery. Although much research has occurred on aqueous Lithium-ion batteries since 1990, none of them have shown properties that are comparable with non-aqueous lithium batteries.

## Biography

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