

Toward nano-powered cars

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How can electric cars increase their driving range before they need to stop and recharge? Traditional batteries cannot keep up with the high storage demand but the complete redesign of lithium ion batteries open up new possibilities

In the last five years 25 European research institutions have joint forces to develop a [rechargeable battery](#) which uses lithium nano-particles. Within the ALISTORE (Advanced Lithium energy Storage system) research project the scientists have improved the electrical conductivity and managed to reduce the charging time to a few minutes instead of several hours. Today, the new [lithium ion battery](#) is the most advanced system of [electrochemical energy storage](#) and opens a range of possibilities for industrial applications.

For example, during the ALISTORE project the French car manufacturer Renault developed the concept car ZE – for "zero emission" which is powered by these nano-particle lithium ion batteries. The car will be produced in limited quantities and its range has been increased to up to 160 kilometers per charge.

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