

# Are Lithium Car Batteries Overhyped?

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Toyota believes that lithium batteries do not justify the higher cost, and that current hybrid battery technology—nickel metal hydride—is best suited for conventional hybrids. The company came to that conclusion after conducting three years of “secret tests” on 126 [Toyota Priuses](#) equipped with lithium ion batteries, according to [Bloomberg](#).

The road tests in the US, Japan and Europe, which ended last month, showed “durability, stability and safety are assured for a conventional hybrid,” said Kazuo Tojima, the carmaker’s senior staff engineer for batteries.



Nickel metal hydride battery pack in 2010 Toyota Prius.

Menahem Anderman, president of Calif.-based consulting firm Advanced Automotive Batteries, told [Bloomberg](#), “We now know that a lithium ion battery can work. That’s not really the question.” He added, “Cost is critical, and we still don’t know enough about long-term durability.”

Anderman’s comments echo the sentiment of former Honda president Takeo Fukui. “Lithium ion batteries are still not usable from our perspective,” Fukui said last year in an interview with [Automotive News](#). “In terms of reliability and

durability, I must say there still remain some concerns. I don't think they are necessarily best suited for mass-produced vehicles."

Most automakers see lithium ion batteries as the next step because they are smaller, lighter, and can produce more power and store more energy. Toyota, Nissan, Ford, and General Motors are expected to begin selling plug-in cars with lithium batteries in the coming years. Mercedes will introduce the first production hybrid, the [S400 mild hybrid](#), which uses lithium batteries, later this year.

Christian Mordieck, the Mercedes-Benz engineer who led battery development for the car, admitted that, "'the cost is much higher than we would like."

Toyota apparently is hedging its bets. Last month, *Nikkei* reported that Toyota will [start buying lithium batteries from Sanyo](#), which currently supplies hybrid batteries to Ford, General Motors and Honda. Sanyo signed a deal with Volkswagen to produce lithium ion batteries for vehicles to be introduced in 2010.

"The problem with lithium is that it was overhyped and brought to market in the minds of the engineers and marketing guys way too soon," said Jack Lifton, an expert in the raw materials that go into batteries. In an interview with HybridCars.com, he said, "It's been oversold. It is nowhere near ready. It's still in development."