

Nano-batteries as Heart of Electric Automobiles

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As one of the largest companies in the production of batteries in China, Sinlion Battery Tech produces various types of batteries based on nanotechnology, which can be used in electric automobiles. At present, this company has succeeded in taking successful steps towards the development of batteries by focusing on strategic cooperation and development of business outside China.

[Sinion Battery Tech](#) is one of the Chinese companies active in the production of batteries, and it was established by Chinese Academy of Science and [Suzhou Institute of Nano-tech and Nano-bionics](#). This company produces nanotechnology-based batteries and presents them to the markets. The use of this technology improves the performance of batteries and increases their capacity. The company has registered many patents in this field.

F10115128A Nano-battery is one of the products of the company. It is a lithium ion battery of 10 Amp hour, which has been designed to be used in automotive industry. Another nano-battery has been produced by this company under the title F27124150A, which is a 20 Am hour battery.

Sinion Battery Tech has also invested on the production of lithium iron phosphate (LFP) batteries, and has dedicated a section of its R&D to this subject. After two decades of carrying out research, this company is now able to provide various services such as LFP raw materials and cells to customers. The investment of this company on FLP technology has resulted in publication of 100 patents.

According to the company, Sinlion Battery Tech is looking forward to cooperate with other companies, to the extent that it has one or two partners in each market. The policy has been realized very well in the past two decades.

The major mission of this company is to become one of the pioneers in the field of lithium ion batteries. Employment of efficient and innovative human resources is the main strategy of

the company to achieve this goal. Numerous companies have so far cooperated with Sinlion Company, such as Panasonic, Texas Instruments, [Canada](#) Solar, and VacuumSchmelze. This company has branches in 5 continents, and it has 20 offices all over the world.

There are 55 nanotechnology products of batteries in [NPD](#) produced by 22 companies from 9 countries. Among these products, 35 belong to [China](#) and 15 belong to the [United States](#). [Canada](#) and the [UK](#) possess the next ranks by having 2 products each. Studies on these products show properties such as increasing the battery life, biocompatibility, and non-toxicity are the most common properties used in these products by being used in 21, 16, and 8 products, respectively. This fact shows that increasing the life of batteries is a priority for the producers of batteries. Applications of these products are mostly in energy storage (13 products) and automotive (12 products). Sinlion Battery Tech has the highest number of products in NPD by having 18 products, while [Long Power Systems](#) ranks the second by having 7 products.

According to Market & Market report, batteries will have a market of about \$17.26 billion in 2021. At present, about 40% of batteries in the markets are lithium ion batteries, and most of them are used in consuming goods. It is predicted that almost 30% of batteries will be used in electric cars by 2020.