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Sanyo Chemical Industries, Ltd.

Starting Sample Work with the New Lithium-Ion Battery

Sanyo Chemical Industries, Ltd. (HQ: Kyoto, Japan, President: Takao Ando) announced that it has started sample work of the new lithium-ion battery (LIB) system for laboratory scale trial. This new LIB has been developed through a joint study with some research institutes such as universities.

Sanyo Chemical has developed the new LIB with joint partners including Ph.D. Hideaki Horie of Keio University. This LIB is epoch-making and completely different from known one. In a typical lithium ion battery manufacturing, the electrode is made by coating slurry including active materials onto a metal foil as a current collector, and drying to form electrode layer. The greatest feature of the newly developed LIB is that the all of current collector, separator and electrode are composed of resin-based matrix by using specialized surface control technology of Sanyo Chemical. It is thus possible to be easily designed to larger cell, thick electrodes, high power and laminate. Also our technology can reduce the number of the parts such as connectors, which are occupying a large portion of the volume in the conventional battery system. It is also expected to develop the new application such as a flexible battery by taking advantage of resin.

Since the elemental technologies establishment last year, Sanyo Chemical has conducted concept testing and technical feasibility study to identify issues for various consumer products, such as large batteries for stationary systems in commercial buildings or factories. Now, the laboratory prototype is almost complete, and we start sample work to accelerate development toward various practical applications.