

Shin-Etsu on verge of breakthrough in smartphone battery life

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Shin-Etsu Chemical Co. has developed a material for lithium ion batteries that would increase their capacity by up to 10 times, with an eye on starting mass production in three or four years, The Nikkei learned Wednesday.

The company drew on its technologies for processing semiconductor wafers to produce silicon sheets that store the electricity charge inside the batteries, an alternative to the carbon-based materials typically used. Although considerably more expensive, silicon has a storage capacity 10 times greater. This material would help reduce the hassle of recharging smartphones frequently.

Shin-Etsu has begun shipping prototypes to domestic and foreign battery manufacturers. It plans to build a testing facility for battery materials in Gunma Prefecture by 2014. Leading up to mass production, it will work with battery makers and others to tackle such issues as production costs and battery degradation stemming from materials deforming through repeated use.

The global lithium ion battery market will total 1.7 trillion yen in 2017, up 50% from 2012, according to a projection by research firm Fuji Keizai Co. Panasonic Corp. and South Korea's Samsung SDI Co. are among the leaders in this field.

Japanese manufacturers control almost half of the global market for materials used in lithium ion batteries. Hitachi Chemical Co. is developing a technology for increasing battery capacity using alloys. Japanese firms have an edge not just in technologies for boosting capacity but also for improving safety, such as cutting the risk of batteries catching fire. But with Chinese and South Korean firms closing in, development of new materials is seen as essential for Japanese companies to stay ahead in this growing market.

SOURCE : *Nikkei Report*