

Nano Science, Technology and Industry Scoreboard

On 2D Fab and Its Graphene-based Li-ion Battery Anode Technology

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Enhancing the performance of batteries is one of the main challenges as we aim to increase EV range, reduce our dependence on oil and increase mobility. Graphene has been considered a leading material that could improve the capacity, charge time, safety and other aspects of different battery technologies. The following article is an excerpt from our Graphene Batteries Market Report, that details the graphene battery developments being carried out at Sweden-based 2D Fab.

2D Fab was established in 2013 as a spin-off from Mid Sweden University in Sweden. The company produces graphene flakes using graphite from the Swedish Woxna Graphite (owned by the Canadian company Flinders Resources). 2D Fab received venture funding from Miun Venture in 2015.



Graphene powder, 2D Fab.

In June 2020, <u>Sweden</u>-based 2D fab closed a new share issue of approximately €700,000. The company stated that this capital will primarily be used for developing the organization and for commercializing the Company's graphene products. The share issue was directed to a limited number of investors, having received the offer either via the company's executive management or via G&W Fondkommission. Through this transaction 2D fab received eleven new owners, among them Malmö based Polynom Investment.

2D Fab used these new funds primarily to commercialize its graphene-enhanced battery anode material, which theoretically can increase the storage capacity by 8 times compared to graphite, commonly used in today's li-ion battery anodes. Parts of the capital raised will also be used for strengthening the company's sales and executive positions.

"We see a great potential in our graphene-based anode material, that we now have the means to commercialize. We will immediately proceed with a collaboration project, where we join forces with a listed company, for the development and commercialization of paper-based battery anodes" explains CEO Sven Forsberg.

In 2020 the company updated that its graphene batteries R&D work is ongoing, but it cannot give any new details at this stage.

In 2021, the Company spun off a new company called Granode Materials, to develop a method for producing a new graphene-based anode material for lithium-ion batteries. These batteries are meant to be cheaper and lighter with better storage capacity, creating a more sustainable alternative to today's lithium-ion batteries.

Granode Materials received its investment in 2021, when it was spun out of 2D Fab. A rights issue of 12 million SEK (around \$1,327,000 USD) was carried out. The funds were designated for product development and marketing. Investors include former head of SEB, Lars Thunell, and Almi Invest.

Read the <u>original article</u> on Graphen info.