

Nano Science, Technology and Industry Scoreboard

CVD Equipment Corporation Receives System Order for the Production of High Performance Nanomaterials Used in Electric Vehicle Batteries

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CVD Equipment Corporation (CVV), a leading provider of chemical vapor deposition and thermal process equipment, announced that they received a second production system order from U.S. based, electric vehicle battery material technology provider, OneD Battery Sciences, for a PowderCoat1104TM system and components for approximately \$1.8 million in May 2023.

The system is planned to ship to the customer in Europe during the second half of 2023. The system will be used to fuse high-performance silicon nanowires into particles of EV-grade graphite powders for use in the battery anode to enable longer range, faster charging, more affordable electric vehicles (EVs). Currently, most electric vehicles are either too expensive for the broad mass of customers or their range is too prohibitive.

The reasons for this are the limited energy density and the high cost of batteries. OneD's SINANODE platform aims to remove these hurdles and eliminates the inherent challenges of silicon stability and expansion by unleashing silicon's full potential. Enabling direct accessibility to lithium ions, these silicon nanowires remain pliant when charged, allowing these materials to deliver a fourfold increase in charging speed while simultaneously decreasing the cost per kWh. OneD's SINANODE platform helps reduce the cost of e-car batteries.

Vincent Pluvinage, CEO of OneD, noted, "More than a decade ago, our CTO Yimin Zhu invented a manufacturing process that is technically and economically ultra-efficient at reducing costs and at scaling-up fast. The ordering of a second CVD (chemical vapor deposition) machine from a proven established supplier proves that OneD can quickly respond to market demand in any region to deploy safe and cost-effective manufacturing solutions."

CVD Equipment Corporation, along with our partner OneD Battery Sciences, is committed to driving innovation to improve battery performance. CVD continues to be a key manufacturing process used to make next generation battery materials. Leveraging its extensive 40+ years of CVD experience, CVD Equipment Corporation designs and manufactures CVD and CVI (chemical vapor infiltration) systems to advance the state of the art in nanotechnology materials.

"Significant growth in EV sales is projected over the next decade. We are dedicated to help our customers scale up production and accelerate adoption to meet current and future market demand by providing best-in-class turnkey equipment solutions enabling cost-effective manufacturing of EV battery electrode materials. We are very pleased to continue the strong customer supplier relationship with OneD Battery Sciences. This order expands our installed base into Europe of our production systems for lithium-ion battery nanomaterials." said Emmanuel Lakios, President and CEO of CVD Equipment Corporation.

Read the original article on Business Wire.