

NEO Battery Materials Files 9th Silicon Anode Patent for Major Manufacturing Innovation

written by Raj Shah | January 11, 2024

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- Files 9th Patent Regarding Major Silicon Anode Manufacturing Innovation
- Additives Employed to Prevent Agglomeration Effect of Silicon Particles During Manufacturing
 - Enhances Production Yield to Reduce Manufacturing Costs
 - Greater Uniformity in Particle Size Distribution for Quality Control
- Targets to Expand Portfolio to 20+ Patents Issued or Pending in 2024
- 6 NDAs Secured with Global Chemical Material, Automotive OEM, and Battery Cell Manufacturers

NEO Battery Materials Ltd. (“**NEO**” or the “**Company**”), a low-cost silicon anode materials developer that enables longer-running, rapid-charging lithium-ion batteries, is pleased to announce that the Company has filed the 9th patent regarding a significant development in the silicon anode manufacturing process.

NEO Battery Materials has submitted the 9th patent entitled *Silicone composite manufacturing method* to the Korean Intellectual Property Office (KIPO). This patent protects a

significant innovation in the manufacturing process of NEO's proprietary silicon anode materials, NBMSiDE®. Unique additives that are effectively adsorbed on silicon particle surfaces have been employed to prevent silicon particles' agglomeration or clustering effect by acting as an interparticle buffer layer during manufacturing. This technological advancement enhances (i) the production yield to directly reduce manufacturing costs and (ii) the particle size distribution to allow increased uniformity and quality control.

Dr. J. H. Woo, Chief Science Officer of NEO, commented, "We are committed to developing a robust IP portfolio to safeguard the continuing, critical innovations of the Company. As we near double-digit patents, our engineering team intends to grow the portfolio to 20+ patents issued or pending this year. We aim to create comprehensive protection that precludes any replication attempt from final silicon anode products, nanocoating materials, and value-added projects. Our R&D Scale-Up Centre in South Korea will continue efforts to realize the commercialization of low-cost, high-performance NBMSiDE® produced by NEO's efficient single-step process."

Recently, NEO Battery Materials has secured 6 non-disclosure agreements (NDA) including a France-based global chemical material company and a battery cell developer, an Asian automotive original equipment manufacturer (OEM), a US-based materials equipment manufacturer, an Indian-based e-mobility OEM, and a UK-based battery recycling company. With the R&D Scale-Up Centre relocation complete, NEO will augment production and testing to clear backlog and advance evaluations with NDA partners.

About NEO Battery Materials Ltd.

NEO Battery Materials is a Canadian battery materials technology

company focused on developing silicon anode materials for lithium-ion batteries in electric vehicles, electronics, and energy storage systems. With a patent-protected, low-cost manufacturing process, NEO Battery enables longer-running and ultra-fast charging batteries compared to existing state-of-the-art technologies. The Company aims to be a globally-leading producer of silicon anode materials for the electric vehicle and energy storage industries. For more information, please visit the Company's website at: <https://www.neobatterymaterials.com/>.

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