Zeon and Sino Applied Technology join hands to expand single-walled carbon nanotube conductive paste product line and promote the application of next-generation lithium batteries in electric vehicles



TOKYO – Zeon Corporation (Zeon) and Sino Applied Technology (SiAT) are thrilled to announce the signing of a strategic partnership in Taoyuan, Taiwan. As part of this collaboration, Zeon will lead a \$20 million USD Series C fundraising round in SiAT to support the expansion of its production capacity for single-walled carbon nanotube (SWCNT) conductive paste, a critical nanomaterial for next-generation battery technologies.

The global demand for lithium-ion batteries is surging across consumer applications—such as electric vehicles, drones, and EVTOL aircraft—as well as industrial sectors, including AI server BBUs, renewable energy ESS, and automated robotics. This growth has intensified the need for SWCNTs, which can significantly enhance battery energy density and cycle life. Unlike traditional conductive agents like carbon black or multi-walled carbon nanotube slurries, SWCNT conductive paste offers superior electrical conductivity, mechanical strength, and chemical stability, making it increasingly vital for advanced battery formulations.



ZEONANO®, Single-Walled Carbon Nanotube produced by Zeon Super Growth Method

Mass production of SWCNT powder presents significant challenges due to the high-temperature chemical vapor deposition (CVD) process, which requires precise control of catalysts and reaction conditions to achieve both high yield and high purity. Zeon is the first company globally to achieve mass production of SWCNTs in 2015. Utilizing its proprietary Super Growth technology, Zeon produces ZEONANO[®], SWCNT product characterized by high aspect ratio, high purity, and large surface area.

Another key challenge in SWCNT adoption is dispersion. SWCNTs tend to bundle and exhibit poor dispersibility in both aqueous and non-aqueous media, complicating their uniform integration into electrode slurries during battery manufacturing. SiAT team, with over 20 years of expertise in battery nanomaterials, brings proprietary

know-how to this partnership, enabling the even dispersion of SWCNTs into stable conductive paste product tailored for battery electrodes.

Since 2024, Zeon and SiAT have successfully collaborated to introduce well-dispersed SWCNT conductive pastes—LSC2102 (NMP-based) and LSC1101 (water-based). These products have undergone rigorous evaluation by battery manufacturers, demonstrating that incorporating a very small amount of SWCNTs into lithium battery cathodes and anodes can enhance energy output and cycle life, which is particularly critical for silicon anodes and other high-capacity, high-rate performance applications.

Zeon is the lead investor in SiAT's \$20 million Series C funding round, joined by other prominent Taiwanese venture partners. With this funding, SiAT aims to scale its annual conductive paste production capacity to 25,000 tons by 2030. Concurrently, Zeon will fulfill its role as the primary supplier to SiAT.

Beyond battery applications, SWCNTs hold transformative potential across multiple industries, including metal, rubber, and plastic composites, semiconductors, and more. Their unique properties enable innovations in high-conductivity functional rubber, high-thermal-conductivity materials, structural reinforcements, and high-performance membranes. SiAT will continue working alongside Zeon to expand SWCNT applications across industries. Through Zeon's world-leading innovations and SiAT's industry expertise, the partnership aims to contribute to environmental sustainability and technological progress for global green transition.

About Zeon

Zeon (Zeon Corporation, TYO:4205) is a world leader in specialty elastomers, polymers, and specialty chemicals. With over 75 years in business and consolidated sales of over U.S. \$2.5 billion, Zeon has both the experience and the expertise in C4 and C5 chemistry to offer a wide range of products. Zeon Corporation employs over 4,000 people worldwide, with global headquarters in Tokyo and regional headquarters in the United States, Singapore, and Germany.

About SiAT

<u>SiAT</u> (Sino Applied Technology) is a Taiwan manufacturer of advanced nanomaterials for next-generation batteries. Established in 2018, SiAT's core mission is to accelerate green transition by increasing battery performance through its innovative nanomaterials. SiAT owns several US & Europe patents in nanomaterial production. SiAT is scaling its technology at its manufacturing facility in Taiwan, and now offers innovative products including CNT conductive paste, LMFP paste, CNT-coated aluminum foil and nano silicon anode.