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NEI Introduces NANOMYTE® SSE-10 (Li₁₀SnP₂S₁₂) – A Solid State Electrolyte Powder for Lithium-ion Batteries

Somerset, New Jersey – <u>NEI Corporation</u> announced today that it is making $Li_{10}SnP_2S_{12}$ – Lithium-Tin-Phosphorous-Sulfide (LSPS) available for sale in powder form. LSPS belongs to a family of "superionic" solids which conduct lithium-ions at room temperature. Commercial Lithium-ion batteries usually contain an electrolyte that is dissolved in flammable solvents. The use of a solid state electrolyte, such as LSPS, will eliminate the flammability issue associated with currently used liquid electrolytes.

Sulfide compounds with high Li-ion conductivity are not commonly available, and as such, the development of solid state electrolyte—based Li-ion batteries has been plagued by the lack of widespread availability of these difficult-to-produce materials. NEI has utilized its extensive background in the synthesis of advanced materials to develop a process for producing sulfide materials in a form that allows them to be used in Li-ion cells.

"By making solid state electrolyte powders readily available in test quantities, our intent is to make it easy for Liion battery researchers to develop the next generation of all-solid-state Li-ion batteries," said Dr. Ganesh Skandan, CEO of NEI Corporation. He added, "The NEI process is amenable to synthesizing variants of LSPS, such as compositional changes."

A materials specification sheet for **NANOMYTE® SSE-10** (Li₁₀SnP₂S₁₂) can be found here.

About NEI Corporation: NEI Corporation is an application driven company that utilizes nanotechnology to develop and produce advanced materials. The company's core competencies are in synthesizing nanoscale materials and prototyping products that incorporate the advanced materials. NEI Corporation offers cathode and anode materials (both powders and coated electrodes), and solid state electrolytes for use in lithium-ion batteries. We produce battery materials through our scalable and economical solid state synthesis process, which is adaptable to different materials compositions and particle morphologies.

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