June 3, 2024

# ASP Isotopes Inc. Receives Purchase Order from a Leading Global Industrial Gases Company for the Supply of Highly Enriched Electronic Gases

***- Purchase order covers supply of highly enriched silicon-28, which is expected to be supplied in 2024.***

***- This purchase order is the second order for the supply of enriched electronic gases in 2024.***

***- The Company is in discussions with multiple potential customers regarding the supply of highly enriched isotopically pure electronic gases for next-generation semiconductors, anticipated to enable technologies such as quantum computing and artificial intelligence.***

WASHINGTON, June 03, 2024 (GLOBE NEWSWIRE) -- ASP Isotopes Inc. NASDAQ: ASPI ("ASP Isotopes" or the "Company"), an advanced materials company dedicated to the development of technology and processes for the production of isotopes for use in multiple industries, today announced that it has received a purchase order from a leading global industrial gases company to supply highly enriched silicon-28. The product is expected to be supplied from the Company's South African production facility and shipped to the customer in the USA during 2024.

ASP Isotopes expects highly enriched silicon-28 to be required by manufacturers of next-generation semiconductors. Naturally occurring silicon has three isotopes – 28, 29 and 30. The 29 isotope has a ½ positive spin, which is an intrinsic form of angular momentum carried by elementary particles. In contrast, highly enriched silicon-28 is spin-free where qubits are protected from sources of decoherence that causes loss of quantum information(1). In addition to its potential to process superior information such as qubits, it is believed that highly enriched silicon-28 can conduct heat 150% more efficiently(2) than natural silicon, which will potentially allow for chips to become smaller, faster and cooler.

ASP Isotopes' proprietary technology can enrich isotopes of low atomic mass (such as silane ($SiH_4$), molecular mass of 32), as well as isotopes of heavier masses. Other companies developing methods to enrich silicon generally either enrich silicon tetrafluoride ($SiF_4$) or a halo silane. Neither of these chemicals can be used directly by a semiconductor company and require chemical converting processes that potentially harm the purity of the final product. By processing silane directly, the Company believes that its finished product will be a higher quality and may be used by semiconductor companies without the need for additional chemical conversion processes.

"*To create faster, smaller next-generation semiconductors, the world is likely going to require materials that are currently not available in commercial quantities*", said Paul Mann, ASP Isotopes' Chairman and Chief Executive Officer. "*ASP Isotopes is currently working on many isotopically pure elements that we believe will help semiconductor companies create the chips that the world will require in the future to enable technologies such as quantum computing and artificial intelligence.*"

ASPI's South African multi-isotope production facility is expected to be capable of producing up to 10 Kgs of highly enriched silicon-28 per annum. To meet the anticipated demand later this decade, the Company anticipates constructing a larger silicon-28 production facility as part of the proposed Icelandic cluster, slated to start production during 2026. The Company expects to start the construction of its Icelandic facilities during 2024 with first production of medical isotopes expected in 2025. The Company is in discussions with many companies, both in the semiconductor industry as well as healthcare industries regarding their requirements for products that might be produced from the Icelandic cluster.

(1) Isotopically Enriched Layers for Quantum Computers Formed by 28Si Implantation and Layer Exchange, Schneider, E and England, J; ACS Appl. Mater. Interfaces 2023, 15, 17, 21609–21617

(2) Penghong Ci, Muhua Sun, Meenakshi Upadhyaya, Houfu Song, Lei Jin, Bo Sun, Matthew R. Jones, Joel W. Ager, Zlatan Aksamija, and Junqiao Wu Phys. Rev. Lett. 128, 085901 – Published 23 February 2022

**About ASP Isotopes Inc.**

ASP Isotopes Inc. is a pre-commercial stage advanced materials company dedicated to the development of technology and processes to produce isotopes for use in multiple industries. The Company employs proprietary technology, the Aerodynamic Separation Process ("ASP technology"). The Company's initial focus is on producing and commercializing highly enriched isotopes for the healthcare and technology industries. The Company also plans to enrich isotopes for the nuclear energy sector using Quantum Enrichment technology that the Company is developing. The Company has isotope enrichment facilities in Pretoria, South Africa, dedicated to the enrichment of isotopes of elements with a low atomic mass (light isotopes).

There is a growing demand for isotopes such as Silicon-28, which will enable quantum computing, and Molybdenum-100, Molybdenum-98, Zinc-68, Ytterbium-176, and Nickel-64 for new, emerging healthcare applications, as well as Chlorine-37, Lithium-6, and Uranium-235 for green energy applications. The ASP Technology (Aerodynamic Separation Process) is ideal for enriching low and heavy atomic mass molecules. For more information, please visit www.aspisotopes.com.

**Forward Looking Statements**

This press release contains "forward-looking statements" within the meaning of the safe harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995, including, without limitation, statements about the importance and implications of the purchase orders from its customers, statements relating to the development of new technology for the enrichment of nuclear isotopes, the commencement of supply of isotopes to customers, and

the construction of additional enrichment facilities. Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based only on our current beliefs, expectations, and assumptions regarding the future of our business, future plans and strategies, projections, anticipated events and trends, the economy, and other future conditions. Forward-looking statements can be identified by words such as “believes,” “plans,” “anticipates,” “expects,” “estimates,” “projects,” “will,” “may,” “might,” and words of a similar nature. Examples of forward-looking statements include, among others but are not limited to, statements we make regarding expected operating results, such as future revenues and prospects from the potential commercialization of isotopes, future performance under contracts, and our strategies for product development, engaging with potential customers, market position, and financial results. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks, and changes in circumstances that are difficult to predict, many of which are outside our control. Our actual results, financial condition, and events may differ materially from those indicated in the forward-looking statements based upon a number of factors. Forward-looking statements are not a guarantee of future performance or developments. You are strongly cautioned that reliance on any forward-looking statements involves known and unknown risks and uncertainties. Therefore, you should not rely on any of these forward-looking statements. There are many important factors that could cause our actual results and financial condition to differ materially from those indicated in the forward-looking statements, including our reliance on the efforts of third parties; our ability to complete the construction and commissioning of our enrichment plants or to commercialize isotopes using the ASP technology or the Quantum Enrichment Process; our ability to obtain regulatory approvals for the production and distribution of isotopes; the financial terms of any current and future commercial arrangements; our ability to complete certain transactions and realize anticipated benefits from acquisitions; contracts, dependence on our Intellectual Property (IP) rights, certain IP rights of third parties; and the competitive nature of our industry. Any forward-looking statement made by us in this press release is based only on information currently available to us and speaks only as of the date on which it is made. We undertake no obligation to publicly update any forward-looking statement, whether as a result of new information, future developments or otherwise. This press release includes market and industry data and forecasts that we obtained from internal research, publicly available information and industry publications and surveys. Industry publications and surveys generally state that the information contained therein has been obtained from sources believed to be reliable. Unless otherwise noted, statements as to our potential market position relative to other companies are approximated and based on third-party data and internal analysis and estimates as of the date of this press release. We have not independently verified this information, and it could prove inaccurate. Industry and market data could be wrong because of the method by which sources obtained their data and because information cannot always be verified with certainty due to the limits on the availability and reliability of raw data, the voluntary nature of the data-gathering process and other limitations and uncertainties. In addition, we do not know all of the assumptions regarding general economic conditions or growth that were used in preparing the information and forecasts from sources cited herein. No information in this press release should be interpreted as an indication of future success, revenues, results of operation, or stock price. All forward-looking statements herein are qualified by reference to the cautionary statements set forth herein and should not be relied upon.

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