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# Japan's Shimadzu announces launch of Gas Chromatograph FluxEdge GC System

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**FluxEdge is a trace quantity gas sampling/switching mechanism developed based on microfabrication technology**



Japan-based Shimadzu has released the FluxEdge GC System, equipped with FluxEdge, Shimadzu's proprietary trace gas sampling/switching technology. It can be installed in Shimadzu's latest gas chromatographs (GC), to provide high-speed, highly reliable gas analysis with only the smallest of samples.

In recent years, the social implementation of a variety of technologies has progressed across the world, aiming for the realisation of carbon neutrality and a net-zero society. In the research and development of more environmentally-friendly new energies and materials, durable equipment is required that provides high speed and highly accurate analysis performance, in order to monitor changes in the composition of the trace gases produced and reaction gases.

FluxEdge is a trace quantity gas sampling/switching mechanism developed based on microfabrication technology and passivation treatment techniques utilized in semiconductor manufacturing. It is equipped with a microvalve with a 7 mm by 7 mm diaphragm structure designed for trace volumes and to be chemically inert. Attaching it to the Shimadzu Nexis GC-2030 or Brevis GC-2050 gas chromatograph provides high-speed analysis with trace sampling, and high durability. When monitoring reaction compounds in artificial photosynthesis and in catalyst research in the context of decarbonization research, this unit quickly and continuously analyzes trace gas samples, heightening laboratory productivity.

In the future, in addition to continuing to improve FluxEdge, we will expand the applications available, thereby supporting the analysis needs in a wide range of fields including food safety and environmental component analysis.

In addition to designating green transformation and healthcare fields in its medium-term management plan as important domains for creating social value, Shimadzu aims to pursue planetary health (well-being of mankind and the Earth). Through this product, the company will contribute to research and development and quality control in fields including the environment and the life sciences.