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FOR IMMEDIATE RELEASE

Varian Debuts Quadrupole ICP-MS Reaching Gigahertz Sensitivity

Ai Scientific announces the release of one of the most sensitive quadrupole ICP-MS instruments (Inductively Coupled Plasma - Mass Spectrometry) from Varian. The system is designed to achieve gigahertz sensitivity (1000 million counts per second per parts per million of analyte) while delivering improved performance across other criteria. Sensitivity is a key factor in detection limits and with environmental and other regulations calling for increasingly lower detection limits, ICP-MS is becoming the analysis tool of choice in a number of industries.

Customers who require the lowest possible detection limits, including geochemical labs, semiconductor manufacturers, and their chemical suppliers, as well as users of laser ablation techniques, such as researchers in archeology, paleontology, and those who preserve historical artworks, will benefit from the system's increased sensitivity.

A patented ion mirror system enables the increased sensitivity of the new ICP-MS, effectively focusing all ions, regardless of their mass, into the entrance of the quadrupole, resulting in a transfer efficiency up to 20 times better than that of conventional ICP-MS theory.

This innovative design redirects the ion beam through 90 degrees via a parabolic electrostatic field. Photons and neutrals are a major source of background noise in ICP-MS but because they don't react with the electrostatic field of Varian's ion mirror, they pass immediately through to a turbo molecular vacuum pump. By filtering photons and neutrals away from the mass analyzer, background signal is greatly reduced.

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