

# Autoresonant Ion Trap Mass Spectrometry (ART MS)

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ART MS technology was first disclosed at the 7th Workshop on Harsh Environment Mass Spectrometry. Small size, fast sampling, low power consumption, light weight and rugged construction make ART MS technology the ideal candidate for in-situ mass spectrometry in a wide variety of remote gas analysis applications including harsh sampling environments. We will explain the principles of operation of ART MS instrumentation and compare its operation against legacy mass spectrometry sensors. We will also describe the basic performance specifications of its first commercial implementation, the VQM 830 Vacuum Quality Monitor. The new instrument provides a flexible platform for basic mass spectrometry research as well as fast and easy incorporation into fieldable instrumentation.