Press Release

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Progression, Inc. Enables On-Line, Real-Time Elemental Analysis

HAVERHILL, MA (January 27, 2005)—Progression, Inc. is pleased to announce the introduction of iPulse®, the latest process control technology from Progression, a world leader in the development and implementation of process Nuclear Magnetic Resonance (NMR) technologies, Laser Induced Breakdown Spectroscopy (LIBS) techniques, and Laser Induced Fluorescence (LIF) analyzers for use in the mining, petrochemicals, and polymer/polyolefin industries.

iPulse is a compact versatile tool that provides remote on-line, real-time elemental analysis of minerals, ores, slurries, and aerosols. Due to LIBS, a simple, rapid, and highly advanced optical (spectral) technique that measures the elemental (atomic) composition of a laser induced plasma plume sample, iPulse requires NO nuclear source, minimal operator training, and is effectively non-destructive due to the miniscule amount of material consumed during measurement. It can be mounted directly above a conveyor belt or in a process or effluent stream line, negating the need for manual or automated sampling.

iPulse uses one or two neodymium yttrium garnet (Nd:YAG) lasers generating up to 200mJ of energy to produce a plasma plume on the process stream of interest. After a suitable time delay, nominally 10ns, an optical spectrometer analyzes the plasma plume (atomic emissions) for the specific elemental fingerprints present in the sample.

For greater sensitivity and lower detection limits, iPulse can be configured with a laser induced fluorescence analyzer that selectively excites metal atoms in the plasma plume.

About Progression, Inc.
Progression, Inc. (www.progression-systems.com) has an extensive background in the development and implementation of process NMR and holds a broad intellectual property portfolio in its use and application. In addition, the company provides custom sampling systems, two-phase mass flow monitors and electrostatic charge measurement devices for monitoring unique applications within the chemical process industry. The world's leading polymer manufacturers rely upon Progression products to improve process efficiency and product consistency.