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Battelle Number(s):

14351-B

Patent(s) Issued

Available for licensing in all fields

Available Technologies

Real-Time Gas Sampling Manifold

SUMMARY

Researchers at PNNL have developed a technology that provides a fully adjustable means of controlling gas flows into a mass spectrometer depending upon the characteristics of the sample that you are analyzing. Through the coordinated operation of the manifold's valve system, the flow into the manifold can be adjusted to match the flow rate of the sample while simultaneously adjusting the vacuum flow rate into the mass spectrometer instrument to maximize the response to the desired analyte of interest.

The new gas sampling manifold has been demonstrated to be markedly superior to available commercial inlet devices in terms of meeting sample flow requirements and providing improved detection limits. The sampling manifold is capable of providing improved analysis in both oxygen rich (those having an oxygen content of greater than 20% by volume) and oxygen poor (those having an oxygen content of less than 20% by volume).

ADVANTAGES

* provides real-time, high volume sampling
* less expensive and more reliable method for sampling

U.S. DEPARTMENT OF ENERGY

Patents & Intellectual Property

» Patent #: 7,288,760

Technology Portfolio(s)

» Mass Spectrometry Instrumentation

Potential Industry Applications

» Computers & Electronics

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