

Calibration Methods for Mercury Detection

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Energy, Environment, and AerospaceEnvironmental Regulation

Abstract

Mercury detection is important in heavy-industry operations and environmental measurements. Mercury is a toxic substance released in multiple industries. Calibration ensures accuracy in mercury detection, so mercury levels can be reported correctly. Researchers at USU have developed a technology that releases a constant stream of diluted mercury gas into detection machines for effective and precise calibration.

This invention builds on Dr. Seth Lyman's other patented inventions in mercury detection, leading to an improved sensing system.

What It Is

An improved calibration system for mercury detection machines.

Value Proposition

This innovation improves the quality of mercury detection for better environmental protection and industry regulation.

Applicable Markets

Mercury detection, environmental protection, environmental regulation, environmental sensing systems, the mining industry, and the oil and gas industry.

Benefit

Several industries can release mercury, a toxic gas, into the atmosphere. To effectively regulate the environment, scientists require a reliable method that accurately reports on mercury levels. Mercury detection systems are somewhat effective, but calibration is always necessary.

This system improves mercury detection calibration through a constant known stream of diluted gaseous mercury, resulting in improved precision and accuracy in reported mercury levels. These results will provide a basis for long-term environmental protection and industry compliance.

Researchers

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Intellectual Property

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