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Battelle Number(s):

11985-E

Patent(s) Issued

Available for licensing in all fields

Available Technologies

Automated Flow Through Electrode Liquid Monitoring System

SUMMARY

Flow through electrodes are used extensively for monitoring industrial processes as well as geochemical conditions of surface water or ground water. To ensure accurate measurements, these electrodes require routine calibration that typically call for manual disconnection of the monitoring system from the sample flow. These sampling interruptions and the labor costs associated with the manual calibrations significantly drive up the operational costs of such monitoring.

This patented technology is an automated flow through electrode monitoring system consisting of a self-contained calibration system. The technology is ideally suited for applications that require extensive or continuous monitoring at remote locations or frequent recalibration in laboratory settings. Example systems are pH, electrical conductivity, oxidation-reduction potential, and dissolved oxygen electrodes automatically recalibrated every 8 h over a 1500 h laboratory flow experiment.

ADVANTAGES

- * This technology offers greater data accuracy with frequent calibration data.
- * This technology offers greater data accuracy with fully automated calibration. (Manual calibration of sensitive electrodes can alter calibration.)

Patents & Intellectual Property

- » Patent # 6,438,501

Technology Portfolio(s)

- » Monitoring

Potential Industry Applications

- » Agriculture & Mining
- » Oil & Gas
- » Recycling & Waste Management

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