



Question 20: How do you accurately measure the concentration of hydrogen peroxide in the sterilization chamber? Is the sensor manufactured by ABI or someone else?

Answer: The following companies provide hydrogen peroxide gas monitoring systems at high concentration levels (sterilization concentrations normally in the 500-2000 ppm range). You can link to each of these companies by visiting the ETIC website at www.isolationinfo.com

Most of ABC's experience has been with the Guided Wave NIR units. The NIR technology tends to have less drift and is quite repeatable from cycle to cycle, and the added advantage of concurrent water vapor measurement is an important factor for sterilant efficacy.

There are several important factors for locating these sensors for access and accuracy of measurement. If you have any specific questions after reviewing these web sites, please contact the ABC corporate office in Cary, NC and one of our associates would be happy to answer your questions.

Dräger

Dräger markets mobile gas detection technology for both short- and long-term measurements. The Dräger family of products includes tubes and sensors, which can be used to measure the quantity of hydrogen peroxide vapor either inside an isolator/enclosure or in the surrounding room. The electrochemical DrägerSensors® are designed to be used with the Dräger Polytron 2 transmitter.



Guided Wave produces and markets a turn-key solution for real time measurement of Hydrogen Peroxide and Water Vapor concentrations during the decontamination process in the isolator/enclosure. Guided Wave also produces other NIR-based monitoring instrumentation for monitoring multiple locations along with other gases and liquids. Gas cells and fiber optic instrument cable links provides flexibility for in-situ measurement location.

 **Molecular Analytics**

Molecular Analytics is a leading edge scientific, engineering and production firm with more than 15 years experience in ion mobility spectrometry (IMS) and other direct measurement technologies. The firm specializes in gas monitoring systems optimized for a wide variety of markets including continuous emission, process control, ambient air, and semiconductor airborne contamination. A document discussing the real-time detection of hydrogen peroxide gas using IMS can be downloaded from the website. The Dual-range ProSentry-IMS™ Analyzer can detect between 0.1 and 20 ppm, as well as 20-2000 ppm of hydrogen peroxide. The oxidant must be in the vapor phase and delivered to the analyzer at atmospheric pressure at a minimum of 200 cc/min.



Rosemount Analytical markets the AOTF (Acousto-Optic Tunable Filter)-NIR analyzer that will measure the vapor concentrations of hydrogen peroxide and water during the decontamination process inside an isolator/enclosure.