

Instructions for Cross-interference Coefficient of Electrochemical Sensor

The cross-interference of gases is common in electrochemical sensors, and the cross-interference coefficient of common gases is listed in the specifications of SemeaTech's products. But the coefficient of cross-interference is only for reference, not for calibration of gas sensors.

The reasons for not recommending cross-interference gas for testing and calibration of electrochemical sensors:

1. The cross-interference coefficients shown in each sensor specification are unique as they are developed and validated against the target gas.
2. Sensor electrodes are composed of different catalysts, and there is no long-term data to support the influence of cross-interference gas on the sensor. The calibration of cross-interference gas may cause electrode damage or poisoning, thus affecting the accuracy of the sensor, or even negates the effects.
3. The response of the sensor to the cross-interference gas may not be linear, which causes inaccurate readings.
4. The cross-interference coefficient comes from the average value of a certain number of sensors tested.
5. Sensors are tested with the target gas before delivery, and the data of cross-interference may vary between different batches.

In a word, the coefficient of cross-interference is only referential, not substitutive.