

# Oxygen Sensors

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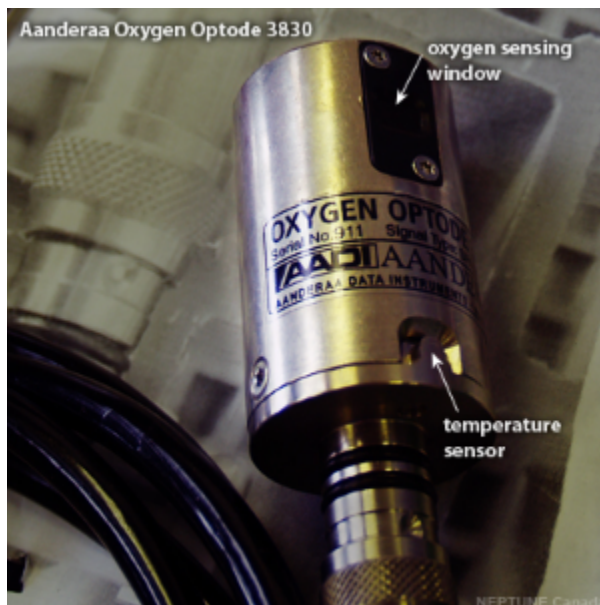
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### Oxygen Measurements at Folger

Oxygen sensors at Folger Deep show seasonal trends. The optode at Folger Deep records maximum oxygen levels in the winter when downwelling of the oxygen-rich water occurs, and records minimum oxygen levels in the summer when upwelling of nutrient-rich but oxygen-depleted water occurs.

### Aanderaa Optodes

The [Aanderaa](#) Oxygen Optodes measures oxygen concentrations by shining modulated blue light at a gas permeable foil containing platinum porphyrin. This blue light excites the foil, causing it to emit red light at various phases, depending on the amount of oxygen present. The phase shift indicates oxygen concentration. These instruments generate measurements of temperature, oxygen saturation (%) and oxygen concentration (mol/l). They can operate at temperatures between 0-40C to depths of 6000m.



*(Click the picture to enlarge it.)*

### Sea-bird SBE63 Oxygen Sensors

Sea-bird SBE63 Oxygen Sensors are designed to be integrated with Sea-bird CTD such as the 16plus V2, 37SIP and 19plus models. The SBE 63 is designed for use in the CTD's pumped flow path. Water does not freely flow through the plumbing between samples, allowing anti-foul concentration inside the system to maintain saturation and eliminating exposure of the sensor to light, maximizing bio-fouling protection. The elapsed time between the CTD and associated oxygen measurement is easily quantified, and corrected for in post-processing.