Metadata

Standardized Instrument Name	
Scheme URI	
Term URI	
Instrument DOI	
Instrument Unique ID	38-533-81
ID Type	Serial number
Model No.	CO2-Pro FT
Instrument Type	External
Description	Ship-based pCO2 underway system provides CO2 mixing ratio data for near-surface water that can be used to calculate seawater CO2 partial pressure (pCO2)
Manufacturer	Pro-Oceanus
Manufacturer type	Organizational
Notes	The sensor operates through rapid diffusion of dissolved gas from water through a semi-permeable membrane to a non-dispersive infrared (NDIR) gas analyzer. The sensor was factory calibrated (February 2020) prior to deployment on the RV William Kennedy using gas traceable to international standards at the NOAA ESRL GMD Central Calibration Laboratory. Declared accuracy is 0.01 ppm or ± 0.5%. Long-term stability is achieved through an automated zeroing routine that periodically removes CO2 from the system establishing a new zero CO2 baseline value. Seawater was continuously pumped through the system at a rate of approximately 1 L/min from a clean water intake located approximately 2 m beneath the surface aboard the RV William Kennedy. Through sensor programing the pCO2 was sampled at ~7 min increments during the 2021 James Bay expedition.
Sensor Details	
Sensor Details 1	
Instrument Sensor Name	CO2-Pro FT
Instrument Sensor Serial No.	38-533-81
Sensor Range	0 – 1000 ppm

Sensor Sensitivity	Declared accuracy is 0.01 ppm or ± 0.5%.
Sensor Units	ppm
Last Calibration Date	2020-02-01