

**Dataset Expocode** 91AH20131201

**Primary Contact** **Name:** Warren Ryan Joubert  
**Organization:** CSIR SOCCO  
**Address:** 11 Jan Cillierstreet, Stellenbosch, 7600, Republic of South Africa  
**Phone:** +27218882555  
**Email:** wjoubert@csir.co.za

**Investigator** **Name:** Monteiro, Dr. Pedro M.S.  
**Organization:** CSIR SOCO  
**Address:** CSIR, Lower Hope Street, Rosebank, Cape town, 7700  
**Phone:** +27216583990  
**Email:** pmonteir@csir.co.za

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**Initial Submission (yyyymmdd):** 20160202  
**Revised Submission (yyyymmdd):**

**Campaign/Cruise** **Expocode:** 91AH20131201  
**Campaign/Cruise Name:** SOSCEXIII\_WINTER2015  
**Campaign/Cruise Info:**  
**Platform Type:**  
**CO2 Instrument Type:** Equilibrator-IR or CRDS or GC  
**Survey Type:** Research Cruise  
**Vessel Name:** SAAgulhasII  
**Vessel Owner:**  
**Vessel Code:** 91AH

**Coverage** **Start Date (yyyymmdd):** 20131201  
**End Date (yyyymmdd):** 20150814  
**Westernmost Longitude:** 40 W  
**Easternmost Longitude:** 18 E  
**Northernmost Latitude:** 33 S  
**Southernmost Latitude:** 72 S  
**Port of Call:** Cape Town

**Sea Surface Temperature** **Location:** 5m below surface, ships hull  
**Manufacturer:** SBE  
**Model:** SBE-38  
**Accuracy:** 0.001 (°C if units not given)  
**Precision:** 0.001 (°C if units not given)  
**Calibration:** Serialnumber: 38425330275  
**Comments:**

**Sea Surface Salinity** **Location:**  
**Manufacturer:**  
**Model:**  
**Accuracy:**  
**Precision:**  
**Calibration:**  
**Comments:**

**Atmospheric Pressure** **Location:** Ship bridge  
**Normalized to Sea Level:** yes  
**Manufacturer:** Vaisala

**Model:** Baro Pressure  
**Accuracy:** 0.15hpa (hPa if units not given)  
**Precision:** 0.2hpa (hPa if units not given)  
**Calibration:** yes, calibration number CSANAS1956.998  
**Comments:**

**Atmospheric CO2**

**Measured/Frequency:**  
**Intake Location:**  
**Drying Method:**  
**Atmospheric CO2 Accuracy:** 0.5 uatm  
**Atmospheric CO2 Precision:** 0.5 uatm

**Aqueous CO2  
Equilibrator Design**

**System Manufacturer:**  
**Intake Depth:** 5  
**Intake Location:** ship hull  
**Equilibration Type:** spray/shower  
**Equilibrator Volume (L):** 3  
**Headspace Gas Flow Rate (ml/min):** 100  
**Equilibrator Water Flow Rate (L/min):** 3  
**Equilibrator Vented:** Yes  
**Equilibration Comments:**  
**Drying Method:** >99%

**Aqueous CO2  
Sensor Details**

**Measurement Method:** IR  
**Method details:**  
**Manufacturer:** LICOR  
**Model:** LICOR-7000  
**Measured CO2 Values:** xCO2(dry)  
**Measurement Frequency:** 60  
**Aqueous CO2 Accuracy:** 1 uatm  
**Aqueous CO2 Precision:** 0.5 uatm  
**Sensor Calibrations:** LICOR IR sensor is calibrated using a range 4 of calibration gases calibrated by the Global Atmospheric Watch station at Cape Point, traceable to reference standards from NOAA  
**Calibration of Calibration Gases:** Ship  
**Number Non-Zero Gas Standards:** 3  
**Calibration Gases:**  
Cape Point Weather Station (South African Weather Services),  
**Comparison to Other CO2 Analyses:**  
**Comments:**  
**Method Reference:**

**Equilibrator  
Temperature Sensor**

**Location:** Resistance Thermometer, inserted inside the equilibrator  
**Manufacturer:** Fluke  
**Model:** Fluke 1521 (5610-6)  
**Accuracy:** 0.01 (°C if units not given)  
**Precision:** 0.01 (°C if units not given)  
**Calibration:** Yes, documentation available  
**Comments:**

**Equilibrator  
Pressure Sensor**

**Location:** Attached to equilibrator cap/lid  
**Manufacturer:** SETRA  
**Model:** SETRA239  
**Accuracy:** 74 (hPa if units not given)  
**Precision:** 20 (hPa if units not given)

**Calibration:** yes,

**Comments:**

**Suggested QC flag from Data Provider:** NA

**Additional Comments:**

**Citation for this Dataset:**

**Other References for this Dataset:**

**Additional  
Information**