
The French Service facility for Total Alkalinity and Dissolved Inorganic Carbon analyses (SNAPO-CO₂).

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Résumé

Since 2004, about 17000 samples have been collected for total alkalinity (TA) and dissolved inorganic carbon (CT) from research vessels, VOS lines, time-series stations (both coastal and open ocean) and during mesocosm experiments. The samples were analyzed in Paris at LOCEAN/SNAPO-CO₂ facility supported by INSU (Institut National des Sciences de l'Univers) and OSU-Ecce-Terra (Observatoire des Sciences de l'Univers at University Paris VI). All analyses (500 ml samples) are performed using a potentiometric method (in a closed cell developed at LOCEAN) and calibrated with Certified Reference Standards (CRMs) provided by Pr. A.Dickson laboratory (Scripps, USA). Based on CRMs and several duplicates the precision and accuracy for TA and CT range between 1 and 3 $\mu\text{mol/kg}$. Those analyses have been used in more than 55 peer-review publications and many \sim 20 PhD thesis. The poster will present the instruments, locations and examples of recent results, including topics such as, pCO₂ long-term trends, air-sea CO₂ fluxes, ocean process studies and acidification relevant for ICOS.

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