

海水中の全炭酸測定のための標準化手法の開発

小埜 恒夫* 角皆 静男**

Abstract

Some recent works in Japan on the standardization of the measurement of total carbonate (TCO_2) are reviewed. The measurement method and the standard are needed to set consistent and traceable among each labs to keep uncertainties of the data within few $\mu\text{mol/kg}$ in worldwide scale. An experimental work to make a standard of total carbonate based on natural sea water is introduced. The results of the time series measurement improve that the sea water standard keeps its concentration of TCO_2 over 80 days with the variability of $\pm 1.4 \mu\text{mol/kg}$. Some examples of the intercalibration works in Japanese labs show that there are complex and unique systematic offsets between each lab's data. Thus it is recommended that a consistent program of the intercalibration study for total carbonate is needed to put forward.