

# The ocean saline monitoring activities in the high school classes and science club activities as the ocean science education

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Ocean water quantity has the most value in the earth surface and environment. And saline was known as 3.5 vol% which contains mainly chlorides and sulfates.

In the educational scene, we need to inform school students not only authoritatively published text's digit but also in situ observational experiments which can mention actual geoscience data. Therefore, now I attempt to construct short term continuously ocean saline measuring program in the geoscience class.

### (1) Seeking activity where is the best suitable place to ocean saline measuring

At the science club, students used the regional coastal map which influenced with / without land water. Several seasons in the year scale duration might mention some global tidal tendencies. And the students constructed ocean water gathering system with used bottles and balls to collect saline contains with higher accuracy.

### (2) Concentrated measuring saline-contains

In fact, the saline contains chlorides and alkali metallic cations, it is important what the apparatus measure. Therefore, the measuring activities includes also in-situ salinity evaporation. By the activities, students and teacher found some new knowledge about ocean saline contains which has also another tendency facts between  $\text{Na}^+$  and  $\text{K}^+$ .

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