

Chemical Components of Marine Waters and Taste of the derived Salts

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Summary

Approaching the full liberation of salt-production and -trade in Japan, various small sized local salt producing factories started their operations at sea shores priding on their clean sea water. They are declaring that their products are more natural, healthy and tasty than that of Japan Salt Monopoly Cooperation using the electrodialysis ion-exchanging membrane procedure in salt manufacturing. Although their declaration is lacking in scientific base or evidence, it seems that they are getting public acceptance because of the recent people's natural favorite tendency.

In this report we were discussing

1. the local and seasonal variations of contents of inorganic materials of sea water at the 6 sampling points,
2. the instrumental scores of the taste sensor with 8 channels(ANRITU SA-402), reacting to the above sampled sea waters,
3. the taste evaluation scores of sea water in the sensory tests
and
4. the factors influencing on the evaluation score in the sensory test of sea water.

These results indicated that

1. the saltiness of sea waters was almost directly proportional to their K^+ concentrations and dislike for them was parallel to the saltiness
and
2. the instrumental scores of the taste sensor were strongly correlated to the concentrations of inorganic materials of sea water and they were useful to estimate the sensory test scores of the saltiness.