

CHEMICAL COMPOSITION OF THE MEDITERRANEAN SEA, NEAR ORAN
ALGERIAN COAST

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RESUME

On présente des données préliminaires concernant les analyses chimiques de l'eau marine prélevée dans la région d'Oran (Kristel). On a constaté : une oxydabilité variant entre 7.2 et 16 mg O₂/l ; la substance organique (consom. KMnO₄) 40,015.1 et 39,357.5 mg/l en mai et respectivement en juin ; l'absence d'iode, de nitrates, nitrites, sulfures et d'arsenic. Le potassium atteignait 485 mg/l, le magnésium 1848.3 mg/l et le calcium 457 mg/l. On a pu observer que la minéralisation de l'eau marine, le long du littoral sur le lieu de la prise des échantillons, a été en légère hausse pendant le mois de mai.

SUMMARY

Mediterranean sea water samples near Oran littoral site, by usual analytical chemistry methods was investigated for macro and microelements. Preliminary results shown that the iodine, nitrates, nitrites, arsenic, were lack. The organic substance varied between 40.015.1 et 39.357.5 mg/l KMnO₄ in May and June respectively. It must be outlined during May, a very light increasing mineralisation of seawater has been observed.

MATERIAL AND METHODS

In previous paper it has been shown, that from a radioecological point of view the study of stable elements in natural systems such a sea is important since radioisotopes introduced into sea follow similar pathways to the stable elements already present in nature (1).

Upper sea water samples in May and June 1984 at Kristel littoral for macro and microelements were analysed by analytical methods based on chemical ones while Na and K by means of a flame photometer PERKIN-ELMERS type (1).

RESULTS AND DISCUSSION

Iodine, nitrates, nitrites, HS^- , arseniates, copper, lead, zinc and silver were under the detection limit of the method used and considered lack of the sample. Cl^- was 21.276 while Br^- 4 mg/l and SO_4^{--} 4128 mg/l. Natrium 11.562.3 mg/l, potassium 485 mg/l (determined in a sodium matrix), calcium 457 mg/l, magnesium 1848.4 mg/l. The total hardness of water was 468.8° German degree. Organic substance- KMnO_4 consumed - in mg/l was high, i.e. 40.015.1 in May while in June 39.357.5 mg/l. A very light increasing in mineralisation in May has been observed. The data mentioned above are of the seawater sampled during May 1984.

REFERENCES

- (1) GEORGESCU, I.I., LUPAN, S., SALAGEAN, M. and OANCEA, M., *Chemical composition of Danube water, sea water, algae and sediments of the Black Sea determined by analytical methods and instrumental neutron activation analyses. Thalassia Jugosl.*, 9(1/2), 87-99 (1973).