CHEMICAL NOMENCLATURE[1]

1. IN naming a compound so as to indicate that oxygen is replaced by sulfur the prefix *thio* and not *sulfo* should be used (sulfo denotes the group SO_3H); thus, HCNS, *thio*cyanic acid; H_3AsS_4, *thio*arsenic acid; $Na_2S_2O_3$, sodium *thio*sulfate; $CS(NH_2)_2$, *thio*urea. The only use of *thio* as a name for sulfur replacing hydrogen is in cases in which the sulfur serves as a link in compounds not suitably named as mercapto derivatives; thus, $H_2NC_6H_4SC_6H_4NH_2$, thiobisaniline. *Hyposulfurous acid,* not hydrosulfurous acid, should be used to designate $H_2S_2O_4$.

2. The word *hydroxide* should be used for a compound with OH and *hydrate* for a compound with H_2O. Thus, barium hydroxide, $Ba(OH)_2$; chlorine hydrate, $Cl_2.10H_2O$.

3. Salts of chloroplatinic acid are *chloroplatinates* (not platinichlorides). Similarly salts of chloroauric acid are to be called *chloroaurates.*

4. Hydroxyl derivatives of hydrocarbons are to be given names ending in *—ol,* as glyc*erol,* resorcin*ol,* pinac*ol* (not pinacone), mannit*ol* (not mannite), pyrocatech*ol* (not pyrocatechin).

5. The names of the groups NH_2, NHR, NR_2, NH or NR should end in *—ido* only when they are substituents in an acid group, otherwise in *—ino;* thus, MeC(:NH)OEt, ethyl im*ido*acetate; $NH_2CH_2CH_2CO_2H$, β-am*ino*propionic acid (not am*ido*propionic acid); NHPh-$CH_2CH_2CO_2H$, β-anil*ino*propionic acid; CH_3-$C(:NH)CO_2H$, α-iminopropionic acid.

6. Hydroxy—, not oxy—, should be used in designating the hydroxyl group; as *hydroxy*acetic acid, $CH_2(OH)CO_2H$, not *oxy*acetic acid. *Keto—* is to be preferred to *oxy—* to designate oxygen in the group —CO—.

7. The term *ether* is to be used in the usual modern acceptation only and not as an equivalent of *ester.*

8. Salts of organic bases with hydrochloric acid should be called *hydrochlorides* (not hydrochlorates nor chlorhydrates). Similarly hydrobromide and hydroiodide should be used.

9. German names ending in *—it* should be translated *—ite* rather than *—it;* as permut*ite.* If it seems desirable to retain the original form of a trade name it should be placed in quotations, as "Permutit." Alcohols such as dulcitol (German Dulcit) are exceptions.

10. German names of acids should generally be translated by substituting *—ic acid* for "—säure." Some well-established names are exceptions, as Zuckersäure (saccharic acid), Milchsäure (lactic acid), Valeriansäure (valeric acid), etc. When the name ends in "—insäure" the translator *may* substitute *—ic acid* unless another acid already bears the resulting name; thus, Acridinsäure, acridic acid, but Mekoninsäure, meconinic acid, because meconic acid (Mekonsäure) is different. Names ending in "carbonsäure" are to be translated —carboxylic acid (not —carbonic acid).

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[1] Adopted by the Nomenclature Committee of the American Chemical Society and that of the London Chemical Society.

FISHERIES RESEARCH

THE British delegates to the International Council for the Exploration of the Sea, Mr. H. G. Maurice, assistant secretary of the Board of Agriculture and Fisheries, and Professor D'Arcy Thompson, scientific member of the Fishery Board for Scotland, have presented their report on the meeting of the International Council held in Copenhagen last September.

According to a report in the London *Times* their instructions were to press for the development of the work of the Council along practical lines, with a definite bearing on fisheries, to try to assign problems to the countries which could deal with them most effectively, and to ask for some definite pronouncement on the plaice question. They report success in each of these directions, and state that in view of the financial difficulties, the preceding year's work had been very encouraging.

The countries represented were Belgium, Denmark, Finland, France, Great Britain, Holland, Norway, Portugal and Sweden. Full details of the proceedings will be published by the Council; the delegates now direct special attention to the work of the Herring Committee, the Cod and Haddock Committee, the Committee of the Atlantic Slope, in which Great Britain has immediate interest, and to the plaice question, on which the council arrived at a unanimous decision.

The Norwegian Government is to be asked to take responsibility for, and bear the expenses of, the administration of the Herring Committee. The program of researches on herring is divided into eleven groups, which have been allotted to different nations. England is to take a special interest in the collection of statistics, investigation of younger stages of herrings and their distribution, location and characteristics of spawning grounds, and hydrographical and biological observations where fishing is going on and in the spawning grounds. Scotland, which has a deep interest and special opportunities, is to take a share in all the sections of the herring program.

There has been a similar distribution of the researches to be undertaken with regard to cod and haddock. England is to take her share in practically all the sixteen sections of the program, but is to hand over English haddock statistics to be dealt with by Scotland, and in return is to deal with the Scottish cod statistics.

The Atlantic Slope Committee is to investigate the hydrography and biology of the Atlantic Slope area from Gibraltar to Rockall. The work is to be shared by England, Scotland, Ireland, France and Portugal, and is to be carried out chiefly by regular cruises undertaken by research vessels.

Work on plaice has been going on for twenty years, Great Britain having taken a lead in it, with great help from Denmark and Holland, and from Germany before the war. There have also been valuable independent investigations made more recently by Germany. The recommendations adopted by the council were in effect those suggested by the committee.

The council agreed that there was clear evidence as to the possibility of serious depletion of plaice fisheries by fishery operations, and that such had actually taken place before the war. The forced restriction of fishing during the war had been followed by a large increase in average size and in numbers, but there is already evidence of a decline of the stock resulting from the resumption of intensive fishing. This decline is likely to be progressive; protective measures will become necessary in the near future. They recommend, therefore, the prohibition of fishing by steam trawlers and motor vessels of more than 50 h.p. throughout the year along a zone from the Continental coast to the 12-fathom line from about the Hook of Holland to the middle of Denmark, and, except during the months of April, May and June, to a 15-fathom line from Heligoland to the northern limit of the inner zone.

They suggest that measures of restriction should be reviewed three years after their inception, and point out that, although it is a matter for consideration by individual governments, the enforcement of restrictions will be difficult without the sympathetic cooperation of the trade. Finally, they urge a method of improving the fisheries suggested many years ago by Professor Garstang—the transplantation on a very large scale of small plaice from regions where they are overcrowded, to regions such as the Dogger Bank, difficult to reach by natural migration, and yet affording an abundant supply of food and suitable conditions for rapid growth.

The British delegates call special attention to the need of securing the cooperation of the British fishing industry, and advocate a preliminary discussion of the administrative aspects of the question by representatives of the departments concerned, the Admiralty and the Board of Trade, to be followed by conference with the industry. They also point out that when the government had come to a conclusion as to what measures they were prepared to advocate, there should be further conference with the other governments concerned, including Germany.

SPECIAL ARTICLES

CRITICAL POTENTIALS OF THALLIUM VAPOR

THE only published results of direct measurement of critical potentials for elements of the third column of the periodic table are the data on thallium vapor obtained by two of the authors[1] several years ago. The measurements given in Table III and Fig. 3, *l.c.*, showed inelastic collisions without ionization at intervals of 1.07 ± .1 volts and ionization at an *applied* potential of 6.6 volts. At that time the 1.07 volt impact was thought to be related to the infra-red line λ 11513 here designated as $2s—3p_2$. After correcting the 6.6 volt impact for initial velocity, the value 7.3 volts

[1] Foote and Mohler, *Phil. Mag.*, 37, p. 33, 1919.