

CHEMICAL NOMENCLATURE AND PRONUNCIATION.*

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The attention of educators is frequently called to the responsibility of secondary schools in the matter of preparing students for institutions of higher learning. Slow progress in college is attributed to lack of proper training in the student's preparatory life and not infrequently failure in later life is ascribed to faults of secondary schools. A well-known research director, in writing of the lack of observation among chemists, states that "until a conscious effort is made in our primary education to meet this requirement our advance in science will not be as speedy as it should."² A prominent educator implies this same lack of adequate preparation when he says, "And even if a freshman is somewhat dulled by his previous training, that seems scarcely a good reason for going on with the dulling process."³ Not only as regards preparation in science is deficiency laid at the door of the secondary school, but the poor English employed by so many college graduates is likewise charged to the same source. "A university graduate's inaptitude in the art of writing may be due, however, not to faults in his university course; more likely it is due in part to inefficient methods employed in the schools in which he obtained his earlier training in English."⁴

Granting the fact that the lower schools are responsible for deficiencies which handicap the individual later on, it will be agreed that in secondary schools, method is of great importance. If we are to utilize the scientific method in teaching science, then it follows that in English-speaking countries good English, both with regard to spelling and pronunciation, should be used to convey our thoughts regarding science.

Although perhaps not a vital matter, it nevertheless appears to the writer that in teaching chemistry, the nomenclature used in secondary schools, so far as chemical words and terms are concerned, should agree with that employed in the higher institutions of learning. Dean Wilbur in speaking of good use in language, with particular reference to national use, says, "There is a law of national use that restricts us to those words that are in good use throughout the land. . . . A word that is not in good current use throughout the land is inefficient. Misunderstanding and perplexity and vagueness follow in the track of such a word."⁵ In instances where chemical facts have been conveyed to the preparatory school student through the medium of corrupt English, confusion is bound to follow when his teacher in college uses pure English. And a change from pure English to corrupt forms is equally confusing. Certainly, there should not be any confusion in

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² Robert E. Rose, "The Education of the Research Chemist," *Jour. Ind. and Eng. Chem.*, 12, 948, 1920.

³ C. G. MacArthur, "The Scientific Teaching of Science," *Science*, new series, 52, 350, 1920.

⁴ George McLane Wood, "Suggestions to Authors," *U. S. Geological Survey*, p. 52, 1916.

⁵ William Allen Wilbur, "English Rhetoric," Judd and Detweiler, Inc., Washington, 1917, p. 260.

this regard and greater uniformity should obtain both as to terminology and pronunciation.

If it is correct to spell the word phosphorus with "ph," why should not the same principle in orthography be followed when writing the word sulphur? Good English would require that the names of the members of the halogen group be spelled with the final "e," as "fluorine," "chlorine," "bromine," and "iodine," and that they be pronounced as they are spelled and not as though the termination were "in." Likewise good English demands that the names of the chemical compounds known as the halides be spelled with the final "e,"¹ and that they be pronounced as they are spelled. The names of analogous compounds should terminate in "ide," as for example: Carbide, oxide, sulphide, phosphide, nitride, selenide. The names of these compounds should not be pronounced as though they terminated in "id." Acids, bases, and salts should be written and pronounced with a proper regard for good English.² In naming salts, the negative terminations should be "ate" and "ite" and the names should be pronounced as they are spelled and not as though they terminated in "at" and "it."

We must conclude with Dr. Crane that "good English in chemical literature, particularly in naming compounds, needs cultivation."³ Its choice is based on a proper regard for derivation and good usage, and this latter desideratum requires the use of pure English by English-speaking people, both in writing and pronunciation. Elimination of un-English terminology in chemical literature may be brought about by following Dean Wilbur's injunction: "Cultivate your own heritage. Cast away your mannerisms and discard your provincialisms, but cherish as a trust your own style and express it in our common language for the common good." Let those who teach chemistry in our schools and colleges observe good usage and adhere strictly to real English rather than to individual preferences.

NOTE ON THE NEW ALCOHOL TABLE OF THE ASSOCIATION OF OFFICIAL AGRICULTURAL CHEMISTS.

BY A. B. LYONS.

No better certificate of authority could be found than that implied in the statement that the figures of the new alcoholimetric table, given in the recently revised edition of the official publication of the Association of Official Agricultural Chemists, were calculated by the U. S. Bureau of Standards from its experimental results. Yet it is quite possible that erroneous conclusions may be reached under the use of these authentic figures.

In comparing the table with others in general use, we note in the first place that the standard temperature adopted is 20° C. instead of either 15° or 15.56°—the latter employed in all English-speaking countries by manufacturing chemists as well as by Collectors of Customs. In the second place the standard of comparison is water, not at the same temperature, but at maximum density, the

¹ Consult "Inorganic Nomenclature" in the introduction to a "German-English Dictionary for Chemists," by Austin M. Patterson, published by John Wiley & Sons, Inc., New York, 1917.

² Examples of good chemical nomenclature are to be found in "A Dictionary of Chemical Terms," by James F. Couch, published by D. Van Nostrand Co., New York, 1920.

³ E. J. Crane, "Chemical Nomenclature," *Jour. Ind. and Eng. Chem.*, 11, 72, 1919.