the mitochondria of animal cells. We came to the same theoretical conclusions as Graffi but from an entirely different approach, in that, in our studies, we were able to show that in plants modified mitochondria (plastids) induce diseases that are fundamentally like those induced by plant viruses. Also, on the basis of chemical and physiological observations, we were led to the concept that certain viruses have evolved from mitochondria or their constituents, implying that similarly modified mitochondria of animal origin can reasonably be expected to be disease causing and that these diseases might be represented by the neoplastic diseases. It is interesting to note that two entirely independent groups of research workers arrived at identical concepts although starting from different points. We regret that our oversight has prevented us from giving due credit to the considerations of Graffi, who terminates his article with the following sentence, which we translate:

"May it however once more especially be emphasized that at the present these trains of thought are still purely speculative and that they have already partially been expressed by other authors in one way or another. However, it might pay to follow them experimentally in one case or another."

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## A Note on "Radioactive Hydrocarbons"

In a letter describing the synthesis of mesitylene from radiocarbon dioxide by A. V. Grosse and S. Weinhouse (*Science*, 1946, **104**, 402), an error in representation has been introduced which may be very misleading to those inexperienced in the use of isotopic materials in the synthesis of organic substances.

The two cyclic products obtained, namely, mesitylene and the corresponding trimethyl cyclohexane, must be labeled with Carbon 14 in all three positions in the ring on the carbons bearing the methyl groups. The mixing of inactive acetone with the carbonyl-labeled acetone in Step 4 merely accomplishes a dilution of the resulting activity.

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## A Designation for Micronutrients

In a letter entitled "Quantification of Micronutrients" (*Science*, 1946, **104**, 303), Harold N. Simpson recommends that the micronutrients (vitamins and trace minerals) be reported in micrograms per gram.

I have found this designation to be undesirable for the following reasons: The technician making up rations does not ordinarily actually weigh in micrograms and must recalculate to some practical unit, usually milligrams. It is surprising how frequently an error can be made in this process. Furthermore, the term "microgram" is difficult to visualize as a definite quantity, but everyone knows approximately what a "milligram" looks like.

For this reason I have found the most suitable designation for micronutrients to be "milligrams per kilogram." Quantities so expressed can be stated interchangeably as "mg. per kilo." or as "ppm."

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## Reprint Filing—Perennial Problem

L. R. Richardson recently described a system of filing reprints alphabetically by author (*Science*, 1946, **104**, 181). He uses manila envelopes for the reprints of each author, and a cross-reference by subject is maintained on index cards. Richardson also quoted Smith (*Guide to the literature of the zoological sciences.* Burgess Publishing Co., 1943), who advocated filing all reprints numerically as received. With this latter method a card index for both subject and author must be maintained—a distinct disadvantage to those not having secretarial help—and, as Richardson points out, it is an unnatural method. An objection to filing by author is that, unless the author's name is remembered, the subject index card must first be consulted. Considerable time is also involved in extracting from the file several papers on the same subject unless they happen to be by the same author.

Although the filing system to be described may not be suited to all subjects or to special cases, it has been found very satisfactory for the subject of pharmacology (including papers on the closely related biological sciences) and should be adaptable to many other fields. The reprints are filed by subject and are given code numbers analogous to the Dewey decimal system used by libraries. An author index is maintained on index cards. A few examples will be given to illustrate how the system is applied.

The subjects were first separated into several classes of code numbers. Numbers 00. to 09. include all papers dealing with drugs acting on the central nervous system; numbers 10. to 19., those dealing with the autonomic nervous system; 20. to 29., those dealing with circulation; and so on to 90. to 99., which is a miscellaneous classification.

Within the classes individual subjects were assigned code numbers. For example, number 00. represents analeptics and convulsants; number 01., centrally acting nonopiate analgesics; 02., the general anesthetics; and so on.

Occasionally it was found that the use of subgroups was necessary. For example, the subject of vitamins was assigned to the 60.–69. class. Group 61. contains general papers on vitamin B, while number 61.1. is for papers on thiamine; 61.2., papers on riboflavin; 61.3., papers on pyridoxine; etc.

Individual reprints under each subject are numbered serially as received. The code and serial numbers are combined and placed in the upper right-hand corner in red ink; thus, for example, 02.1, 02.2, 02.3, etc., or, as with subgroups, 61.1.1, 61.1.2, 61.1.3, etc.

The same numbers are also placed on the author index cards, which contain only the author's name, the title