

thioctic acid per molecule of retinene. The immediate effect of light on rhodopsin then might well be the splitting of the —S—S— bond of 6-8 thioctic acid with the formation eventually of 2 SH groups/molecule of retinene liberated. If this scheme is correct one would expect rhodopsin preparations to contain quantities of lipoic acid. We hope to be able to test this idea and its consequences in the near future.

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### Frozen Mushrooms for Class Study

THE problem of presenting acceptable class material of the fleshy fungi is one that is well known to teachers of elementary botany and mycology. Specimens of these plants, when dried or bottled in the usual fluid preservatives, present a display that can hardly be expected to inspire the beginning student. They are not suited for identification or for study in more advanced classes.

It occurred to me last summer that freezing might result in much more satisfactory class material. Following up this thought, I froze about 15 genera of agarics as well as several species of *Boletus* and *Clavaria*. The agarics included the following genera: *Amanita*, *Lepiota*, *Tricholoma*, *Cantharellus*, *Lactarius*, *Russula*, *Mycena*, and *Cortinarius*.

The specimens were packaged in ordinary quart containers, cellophane bags tightly secured with an elastic, and enclosed in a light-weight cardboard carton. These were placed in an ordinary home freezer; the fungi froze in about an hour. In my own case the specimens were packaged in central New Hampshire and shipped in Dry Ice to St. Louis. If such shipping is necessary, the fungi should be well packed in the containers to prevent breakage of the smaller and more delicate specimens.

The material thus packaged in August was opened for class work the following February, and the specimens were then as colorful and generally fresh looking as when collected. When defrosted, the specimens vary considerably, those with a high water content tending to become quite mushy after half an hour on the laboratory benches. Consequently, for purposes of student identification, the frozen mushrooms were distributed in large laboratory finger bowls with a small piece of Dry Ice in each.

Since one of our primary objectives was to demonstrate to elementary students the diversity of form and color in the fleshy fungi, many were exhibited in wooden boxes lined with Celotex insulation. The boxes used were approximately 30 in. long, 14 in. wide, and 10 in. deep. The fungi were arranged in these boxes

with about 4 cakes of Dry Ice and kept for several hours—a considerable part of the time with the lid removed.

The fungi were so lifelike and the results so encouraging that we intend to make this a regular phase of our teaching procedure in the elementary botany class.

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### Fashions in Science

WHILE the development of fashions in nonscientific pursuits is well known, difficulties in determining what constitutes a fad have obscured such tendencies in the sciences. Recently a rather complete bibliography on a closely delimited subject (1) has provided data on the development and decay of a scientific fashion. The object of this fashion was the biological effects of deuterium compounds. Figure 1 shows the number of

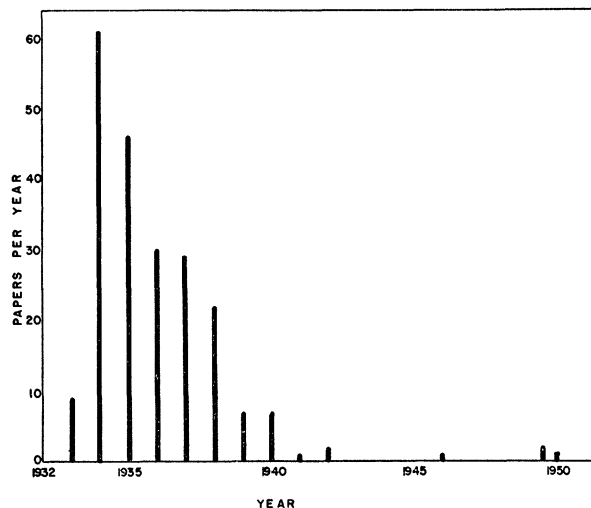


FIG. 1.

papers published per year, on the above mentioned subject, as a function of time. Beginning with the discovery of deuterium in 1932 there was a rapid rise followed by an almost exponential decay, which already had fallen to a low level before war interrupted work of this character.

It is interesting to note the almost complete decay of interest in the subject in spite of the fact that our understanding of the biological effects of deuterium is still very incomplete. The very sudden rise and fall of interest may then be viewed as a fad, a desire for quick and easy results, followed by rapid abandonment of the subject when it was realized that a large amount of work would be necessary to understand the observed effects.

While the data are insufficient to generalize on the occurrence of fads in scientific research, in some cases fashion apparently has a function in directing the