

appointments in other governmental agencies or in industry.

This dual program will operate on a very flexible basis, to take care of all individual cases, involving individuals whose academic training and professional experience to date lie within a rather wide range. It will be fitted also to individual desires, to allow for academic training only, for Survey experience only, or for both, depending on the qualifications and wishes of the individual.

W. H. BRADLEY, *Chief Geologist*

Washington, D. C.

Plea for Change in Regular Time of Meeting of the AAAS

Now that the regular meetings of the AAAS are to be resumed, it seems appropriate to consider anew the best time for holding them. There would seem to be three leading possibilities which have been, or are about to be utilized, *i.e.* the traditional Christmas holiday period; the early spring, to be tried this year; and the early fall, shortly following Labor Day, which was tried at Cleveland.

First, as to the traditional Christmas holiday period, the following considerations seem to be pertinent: To reach the meeting at this time it is often necessary to leave home on Christmas night or, at the latest, the day following. This frequently disrupts family gatherings and makes what should be an event to be looked forward to a disagreeable task. It is quite commonly made more disagreeable by extremely inclement weather, late trains, stuffy sleeping cars, and the seasonal presence of the virus of the common cold, not to mention more serious respiratory ailments.

Second, as to the early spring, this may be said: The general conditions at this season, it is true, are no doubt better than those at Christmas, *i.e.* if the time chosen is sufficiently late or "spring" is sufficiently early. Granting, however, that weather conditions are entirely propitious, irregularities in the dates of the spring recesses in the various colleges and universities are bound to make attendance impossible for many, no matter what particular time is set. Incidentally, also, even if the meeting should happen to coincide with one's own recess period, it would consume virtually all of this brief time of respite in the long winter-spring term, a respite often sorely needed to catch up with various odds and ends of work.

Third, in favor of a period shortly following Labor Day the writer would like to urge the following arguments: At this time of year summer vacations for almost everyone have ended, while the fall terms of most institutions on peacetime schedules have not yet started, thus leaving a convenient interim. Also, contrary to the condition at the Christmas season, no holiday celebrations are interrupted, the trains, if one wishes to use them, are reasonably on time, and the weather is such as to make trips by car possible and often pleasurable. It is the writer's belief that all who attended the recent Cleveland meeting held at this time of year will agree that the conditions indicated were fulfilled. Unfortunately, however, wartime exigencies prevented as large an attendance at this meeting as is customary. Why, therefore, not try

this time of meeting again under more normal conditions?

It is hoped that this note may stimulate others who favor the view herein expressed to urge favorable consideration of this change upon those concerned in the scheduling of this important event. Indeed it seems as though the matter is of enough significance so that in case of doubt as to the extent of opinion in favor of such a change, a mail ballot of the membership might well be undertaken.

ROBERT S. McEWEN

Oberlin College, Oberlin, Ohio

The Law of Precharged Luminescence

According to the excitation processes which occur in a light-emitting system, the resulting luminescence may originate in one of several mechanisms: (a) direct excitation, (b) indirect or sensitized excitation, (c) translocated excitation, and (d) precharged excitation (J. De Ment. *Fluorochemistry*. New York: Chemical Publishing Co., 1945). The present communication relates to (d), the precharged luminescence, in which the luminescent system retains the effect of a history of radiation for considerable periods of time (e.g. months or years) and at a later time emits light when subjected to low-temperature heat, friction, and similar agents. The best-known examples of precharged luminescence include the family of thermoluminescences, certain of the triboluminescences, and a number of sundry phenomena.

In a recent study and compilation of the known types of luminescence, in which some two hundred varieties were listed, the present writer (*Fluorescent chemicals*, Vol. 3: *Dictionary of luminescent substances*. New York: Chemical Publishing Co., in press) noticed a rather obvious characteristic common to all of the precharged luminescences, to which attention does not seem to have been directed before this time. This common feature can be formulated into a law covering the known types, since no violation has been discovered by the writer in the many examples he has studied. Consequently, the law of precharged luminescence is as follows:

"In a system exhibiting precharged luminescence, the energy responsible for the radiation history in that system is always greater than that energy required for the release of the luminescence."

While it is not possible to list here every known case of precharged luminescence to corroborate the foregoing statement, certain well-known examples suffice to clarify what it means. Thus, in the family of thermoluminescences, the agents which provide the radiation history or precharging include radioelement radiations, cathode rays, X-rays, ultraviolet light, visible light, and a number of miscellaneous corpuscular radiations like neutrons. The thermoluminescence takes place when the previously irradiated system is then subjected to such low-energy agents as infrared rays (heat), pressure disturbances (e.g. scratching and grinding), as well as radiations like visible light which are of less energy than that employed for the irradiation.

JACK DE MENT

Fluorescence Laboratories, Portland, Oregon