Journal of the Minnesota Academy of Science

Volume 23 | Number 1 Article 15

4-1955

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Recommended Citation

Hansen, H. W. (1955). The Wedge Interference Filter for the Examination of Plant Pigments. *Journal of the Minnesota Academy of Science, Vol. 23 No.1*, 87-88.
Retrieved from https://digitalcommons.morris.umn.edu/jmas/vol23/iss1/15

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Arctic Norway is one of the earth's oldest continental land masses. The basic rock was laid down in Archean times and consists of such eruptives as granite, syenite, gabbro, gneiss, and crystalline schists. Sediments were laid down in the Cambrian-Selurian Period. In the early Quaternary Period, the land was enveloped by ice and remained slightly depressed until recent times. The erosive ice swept mountains away, leveled vast areas, ground up rock, and scattered debris over large areas. V-shaped valleys were changed to U-shaped valleys. Deep fiords and hanging valleys are numerous.

At present, the climate is influenced by the warmth of the North Atlantic Drift. Records for several recent years gave Tromso an average January temperature of 25.7° F. and an average July temperature of 52.5° F. Vardo, on the Barents Sea and definitely in the Arctic Region, had an average January temperature of 24.3° F. and an average July temperature of 46.7° F. during the same period. Arctic Norway has a short but intense growing season. Barley will ripen in some places in sixty days although one hundred days are required in the Oslo area.

About 35,000 people live in Arctic Norway. This region has the lowest density of population in Europe. The inhabitants are concentrated along the coast in small towns, some of them completely rebuilt since the end of the Nazi occupation. The general appearance is one of modern comfort and prosperity. Few people live on isolated farmsteads. Agricultural activities are similar to those pursued in Norway south of the Arctic Region. Hydroelectric power stations furnish the area with electricity. The waters off the coast of the Arctic Region teem with fish and the fishing industry is the major economy.

THE WEDGE INTERFERENCE FILTER FOR THE EXAMINATION OF PLANT PIGMENTS

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One of the topics frequently included in the laboratory work of a beginning course in botany is the absorption of light by a solution of chlorophyll. A number of difficulties may be encountered in this type of experiment. A relatively expensive piece of apparatus, the spectroscope, is required; the equipment probably remains unused for the rest of the year. Considerable time of the instructor is also required as the students are not familiar with the apparatus and only one student is able to use it at a time.

A filter holder was constructed of thin sheet aluminum and wood in such a way that an entering beam of light passes through a square glass absorption cell and then through a Wedge Interference Filter (Bausch and Lomb Optical Company). The cell is oriented in such a way that it covers half of the filter, thus per-

mitting a view of the normal spectrum adjacent to the absorption spectrum provided by an acetone or alcoholic extract of chlorophyll placed in the cell. A piece of frosted glass may be used as a viewing screen, placed directly in front of the exposed surface of the filter. This addition is especially helpful when a powerful artificial light source is used. No wave length scale is provided on the filter, but an idea of the scale may be obtained by using a fluorescent desk lamp which emits blue, green, and yellow mercury lines at 435, 546, and 758 millimicrons respectively. The locations of these lines and any other marks may conveniently be made on the surface of the frosted glass screen.

The apparatus was built at a cost of about fifteen dollars. For those who do not consider themselves adept at construction, a simpler model may be made using a cardboard microscope slide box and a few pieces of cellophane tape to hold the items together. The device may be used by several students at one time; the instructor may point out various features with the full assurance that the student and the instructor are observing the same region of the spectrum. Finally, the normal and the absorption spectra are displayed side by side so that comparisons are easily made.

TRENDS IN SCIENCE COURSES

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Frequently the question arises as to what is being done in high school and college science courses. This paper attempts to bring out some of the more important aspects of three factors which are relevant to the question: trends in enrollment; characteristics of science instruction offered; and recent innovations and their implications.

Trends in Enrollment. What we teach depends, in part, upon whom we teach. Since 1870 high school enrollments have been rapidly increasing, and though the general population has also increased, the *percentage* of students of high school age enrolled reflects the remarkable increase in high school attendance. In Figure 1 we see that the rapid increase in the percentage of students attending high school is now leveling off. However, the number of students that enter high school will continue to rise. The increase in school attendance has meant that the students may differ in some ways from those who attended earlier schools. For example, they differ in their aspirations—in 1880 about three-fourths of the youth in high school went on to college, whereas in 1950, less than one-fourth of high school graduates entered college (EPC, 1952).