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## **New water-miscible mountant for palynology**

### **ABSTRACT**

A water-miscible mounting medium consisting of gelatin, gum arabic, glycerin, phenol or formaldehyde, and water has been found satisfactory for most palynological work when speed of slide preparation and permanence of retention of fossils are desired.

When speed of slide production is necessary in palynological studies, it is generally desirable to use a water-miscible medium for the preparation of permanent slides. Several media of this type are currently being used but are not easily obtainable outside the United States. During the past year, a series of experiments have been made with new plastic materials and organic compounds that have potential uses as water miscible mountants for palynology. The medium described below has proved to be the most satisfactory. It has the closest physical resemblance to Clearcol, the palynologic use of which has been described (Wilson, 1959).

The preparation of the mounting medium is as follows :

- 1) Thoroughly dissolve 20 grams of refined gelatin in 120 cc. of hot water and add 140 cc. of glycerin. Keep solution warm.
- 2) Thoroughly dissolve 100 grams of gum arabic (tears) in 1,000 cc. of hot distilled water.
- 3) Combine the two solutions while warm, add 20 cc. of formaldehyde or phenol, thoroughly mix, and filter through fine linen or silk. If a more fluid mountant is desired, an additional several hundred cubic centimeters of distilled water and enough preservative to be detected by odor may be added.
- 4) Store in a capped jar and use from small dropper bottle dispensers. If this medium is kept at a low temperature, it may gel, and it then becomes necessary to place the jar or the dispenser bottle in hot water until the mounting medium is again fluid.

The following program for the preparation of microscope slide mounts is probably the most satisfactory for general practice :

- 1) Lay out alcohol-cleaned slides and cover glasses on the laboratory table.
- 2) Place several cubic centimeters of palynological preparation in a watch glass. The aqueous solution should be neutral.
- 3) Place a drop or two of warm mounting medium on the center of a cover glass, add a small amount of palynological concentrate, and, with a glass rod, carefully and uniformly mix until the microfossils are well dispersed. Leave approximately  $\frac{1}{8}$  inch of glass margin around the edges. Rapid mixing may cause development of bubbles in the medium. These may be removed by touching them with a hot needle.