Thin-layer gel filtration with Sephadex SUPERFINE

The advantages of both Sephadex gel filtration and thin-layer chromatography can now be utilized with the Sephadex Superfine. Sephadex Superfine is an important complement to other analytic methods, particularly where only small quantities of experimental material are available. It is useful also (1) for determining the optimum conditions for column experiments (2) in place of normal Sephadex in gel filtration columns when very high resolution is required (3) as a supporting medium in column electrophoresis and in partition chromatography.

Correlation between the molecular weight of 9 proteins and their migration rate in thin-layer gel filtration on Sephadex Superfine G-100 was investigated. Measurements from separate experiments were correlated by expression on the common basis of 6 cm. migration by cytochrome c. (Andrews, P., Biochim. 1 (1964) 91,222, by permission of the author.)

Sephadex Superfine gels can be applied to glass plates with ordinary TLC equipment. They adhere easily to the plates. Addition of a binder is not necessary.

Six types of Sephadex from G-25 to G-200 are available in the SUPERFINE grade. The small particle size of Sephadex Superfine (between 10 and 40 microns) permits preparation of thin layers, even with the more porous gels.

<table>
<thead>
<tr>
<th>Type</th>
<th>Approximate fractionation range</th>
<th>Poly saccharides</th>
<th>Proteins</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sephadex G-25</td>
<td>100—5,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sephadex G-50</td>
<td>500—10,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sephadex G-75</td>
<td>1,000—50,000</td>
<td>3,000—70,000</td>
<td></td>
</tr>
<tr>
<td>Sephadex G-100</td>
<td>1,000—100,000</td>
<td>4,000—150,000</td>
<td></td>
</tr>
<tr>
<td>Sephadex G-150</td>
<td>1,000—150,000</td>
<td>5,000—400,000</td>
<td></td>
</tr>
<tr>
<td>Sephadex G-200</td>
<td>1,000—200,000</td>
<td>5,000—600,000</td>
<td></td>
</tr>
</tbody>
</table>

For additional technical information on Sephadex Superfine, including booklet Thin-Layer Gel Filtration, write to:

PHARMACIA FINE CHEMICALS INC.
300 Comentorial Avenue, Piscataway, N. J. 08854
(Pharmacia (Canada) Ltd., 110 Place Cremaize Suite 412, Montreal 11 P. Q)

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from the patient's verbalizations, but confirm and verify its controls from ego and superego material. However, he would be presumptuous were he to anthropomorphise animal behavior.

In keeping with Tinbergen's extrapolations to groups perhaps one might remark that there is today no worldwide Institute for Interpopular Ideals.

HERMAN M. SEROTA
55 East Washington Street,
Chicago, Illinois 60602

More on Forest Defoliation

Newton's statement "High forest is not particularly good habitat for many animals, birds, and insects..." ("Defoliation effects on forest ecology," Letters, 12 July) has no relevance to his conclusion that the use of herbicides and defoliants in Vietnam should not be criticized on the basis of ecological considerations.

It may well be true, as he implies, that the clearing or defoliation of near pure-stand temperate forests (by "game biologists") might lead to development of second growth or undergrowth vegetation which is more diverse than the forest and is thus a more suitable and more available habitat for many "animals." However, the situation is quite different in the tropical forests of Vietnam. There it is again true that "High forest is not particularly good habitat for many animals, birds, and insects..." but it is also true that the tropical forest canopy, with its diversity of tree species, is the only habitat for countless more species of insects, birds, arboiral reptiles, mammals, and epiphytes. In short, most of the life in a tropical forest is connected with the canopy in some vital way. For the most part these organisms are not an important part of the naturally occurring second growth vegetation (river clearings, land slides) or of man-made clearings choked with second growth. These organisms have their specific food plants, nectar sources, nests, and territories in the canopy. They cannot be expected to move successfully into adjacent second growth (or even adjacent forest) when their part of the canopy is defoliated.

The life functions of tropical forest organisms take for granted, so to speak, the predictability of tropical climate. Defoliation or killing of vast areas of forest is an event unprecedented in the

A point of view on

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