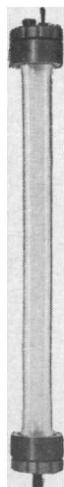


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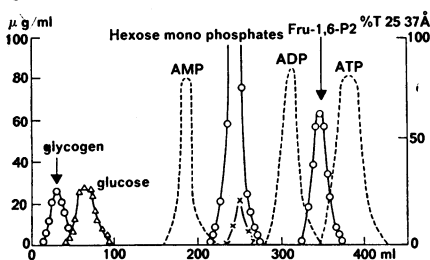


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Model experiment with glycogen, glucose, sugar phosphates and adenosine phosphates on a column of DEAE-Sephadex A-25. (From *Biochim. Biophys. Acta* 74 (1963) 588, by permission of the author)

Anion Exchangers (Bead Form)

Type	Grade	Ionic Form	Capacity (meq/g)	Bed Volume ¹ (ml/g)
DEAE-Sephadex A-25	40-120μ	Cl ⁻	3.5 ± 0.5	5-9
DEAE-Sephadex A-50	40-120μ	Cl ⁻	3.5 ± 0.5	25-33

Cation Exchangers (Bead Form)

Type	Grade	Ionic Form	Capacity (meq/g)	Bed Volume ² (ml/g)
CM-Sephadex C-25	40-120μ	Na ⁺	4.5 ± 0.5	6-10
CM-Sephadex C-50	40-120μ	Na ⁺	4.5 ± 0.5	32-40
SE-Sephadex C-25	40-120μ	Na ⁺	2.3 ± 0.3	5-9
SE-Sephadex C-50	40-120μ	Na ⁺	2.3 ± 0.3	30-38

1. In Tris-HCl buffer, pH=8.3, ionic strength=0.05.

2. In sodium phosphate buffer, pH=6, ionic strength=0.06.

For additional technical information, including booklet on Sephadex Ion Exchangers, write to:



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listening, and chatting with colleagues and with visitors. After all, the outstanding feature of a great university is that it provides a way of life favoring the activities of self-education, as well as the tools of research. Therefore, granting agencies will not be astonished that self-education is a major and honorable consumer of their investigator's time. The availability of this category will remove a part of the ambiguity and outright dishonesty in filing the effort report.

WILLIAM G. VAN DER KLOOT
Department of Physiology,
New York University Medical Center,
550 First Avenue, New York 10016

Subpoenas: Show Probable Cause

Readers of *Science*, including especially Stamler and Hall ("Un-American activities: Court rule aids Stamler in contempt case," 1 Dec., p. 1249) and Glass and Pond (Letters, 1 Mar.), may be interested in a "Note" in the *Minnesota Law Review* [52, 665 (1968)] entitled "The application of the Fourth Amendment to congressional investigations." Brief excerpts will suffice:

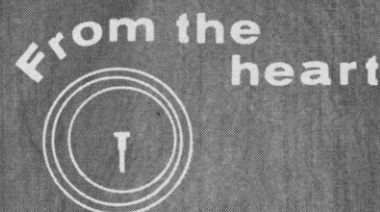
It is suggested that the (Supreme) Court should require a showing of probable cause, as required by the fourth amendment, before allowing the issuance of a subpoena requiring an appearance before a congressional investigation.

The whole philosophical basis for the fourth amendment's protection against searches and seizures without probable cause is the notion that the individual has the right to keep the affairs of his life private. While this right is admittedly not absolute . . . it is a right so basic to our concept of limited government that it should not be lightly disregarded.

Furthermore, the right of privacy must protect the individual's mind as well as his possessions. The Court has protected certain contents of the mind from governmental invasions in criminal proceedings under the fifth amendment. However, the basic recognition that a person's mind is his most sacred possession and should be accorded the greatest protection from governmental invasion is equally applicable to all forms of governmental action. Moreover, the individual's mind should be accorded as much, if not more, protection than his possessions for he therein keeps his most private possessions—his memory and his thoughts.

The protection which this requirement would afford the witness, in comparison with the burden it imposes upon Congress, is significant. The individual will be able to force investigators to show reason to believe that he will be able to provide useful information before they can interrupt this life. This will force the investigation to

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evaluate its need for his testimony before going to the trouble of subpoenaing him. Once subpoenaed, the individual will have a basis upon which to contest his duty to testify. He will not have to risk criminal prosecution in order to contest this duty for he will be able to challenge the probable cause for his subpoena prior to testifying. If the court finds that the individual does have a duty to testify, he will either have to rely on the fifth amendment, risk criminal prosecution for contempt, or provide the information required.

E. S. FETCHER

Laboratory of Physiological Hygiene,
University of Minnesota, Minneapolis

A Just View of Systematics

When a systematist talks to his own set, a congratulatory tone is expected. But publication of Mayr's address, "The role of systematics in biology" (1), exposing it to the nonsystematic public, irresistibly invites a rejoinder! Systematists may not have received due credit for their great contributions to biology but neither perhaps have they got just treatment for abetting biologists in the mistaken belief that taxonomic aggregates, such as populations, are substantial objects-in-nature.

Every ecologist, for example, who sets it down in chapter one that *population and community* are levels-of-integration (and hence "systems") comparable in status to, though midway in complexity of organization between, individual organisms and individual ecosystems is a victim of taxonomy. The levels-of-integration that are demonstrable in nature and those that exist in the minds of systematists are rarely if ever discriminated. Some of the resulting problems were adumbrated in Ehrlich and Holm's article "Patterns and populations" (2) where the authors wrote (unfortunately at the end rather than at the beginning): "The basic units of population biology (*sic*) are not communities, species or even populations, but individual organisms," and in a footnote that should be pondered: "... if historically we had begun to think about biology in ecological rather than taxonomic terms we would now deal with biological 'facts' very differently."

J. S. ROWE

Department of Plant Ecology,
University of Saskatchewan,
Saskatoon, Canada

References

1. E. Mayr, *Science* 159, 595 (1968).
2. P. R. Ehrlich and R. W. Holm, *ibid.* 137, 652 (1962).

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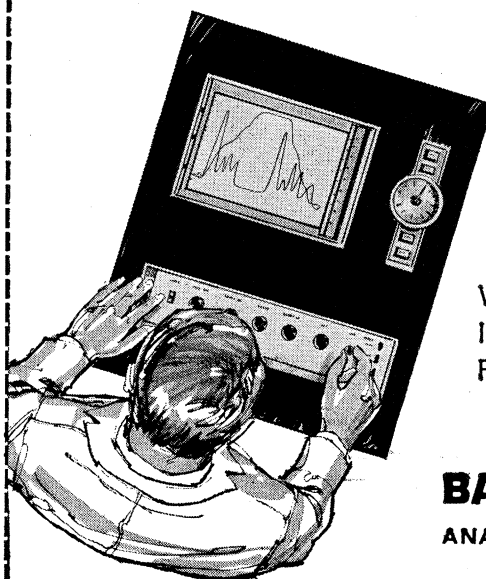
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