

Now in bead form for chromatography of biologic substances...

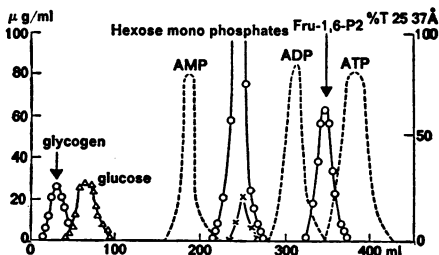
# Sephadex® Ion Exchangers



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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

Type	Grade	Ionic Form	Capacity (meq/g)	Bed Volume <sup>1</sup> (ml/g)
QAE-Sephadex A-25	40-120μ	Cl <sup>-</sup>	3.0 ± 0.4	5-8
QAE-Sephadex A-50	40-120μ	Cl <sup>-</sup>	3.0 ± 0.4	30-40
DEAE-Sephadex A-25	40-120μ	Cl <sup>-</sup>	3.5 ± 0.5	5-9
DEAE-Sephadex A-50	40-120μ	Cl <sup>-</sup>	3.5 ± 0.5	25-33

## Cation Exchangers

Type	Grade	Ionic Form	Capacity (meq/g)	Bed Volume <sup>2</sup> (ml/g)
CM-Sephadex C-25	40-120μ	Na <sup>+</sup>	4.5 ± 0.5	6-10
CM-Sephadex C-50	40-120μ	Na <sup>+</sup>	4.5 ± 0.5	32-40
SE-Sephadex C-25	40-120μ	Na <sup>+</sup>	2.3 ± 0.3	5-9
SE-Sephadex C-50	40-120μ	Na <sup>+</sup>	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=0.05.  
For additional technical information, including booklet on Sephadex Ion Exchangers, write to:

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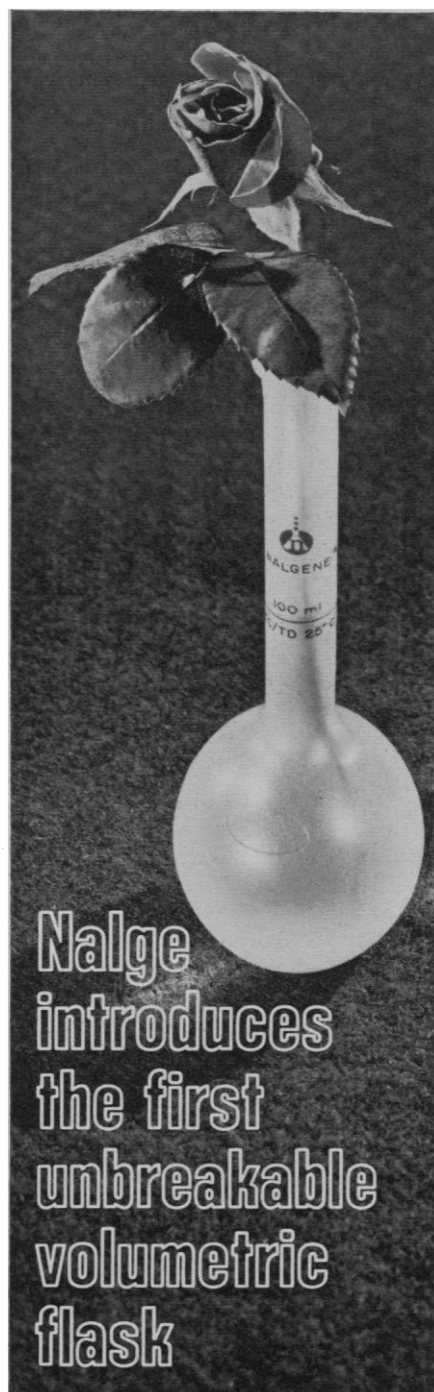
which Carter reports was singularly unfortunate—a reaction to disapproval of a particular road project in the Senator's state rather than a well-considered contribution to the public debate on park policy. Our legislators, too, must learn to evaluate park programs on qualitative grounds—admittedly a more difficult matter than relying on travel statistics and road mileage. Moss titled his speech "Parks Are for People," a too oft-quoted trite phrase which F. Fraser Darling and Noel D. Eichhorn (in a major study of park policy for the Conservation Foundation) dismiss as "inappropriate huckstering."...

DOUGLAS W. SCOTT

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## Ballast Overboard!

Our report about the transportation of European Cretaceous flint to North America largely in the form of ship ballast (1) prompted several readers to report additional localities. The vicinity of New York City appears to have been a favorite dumping area for ship ballast, in view of its history as a great seaport. An article by Rose (2) described flint pseudoartifacts on Glen Island in Long Island Sound near New Rochelle, and traces the derivation of other kinds of ballast found in the New York area. I. G. Sohn (U.S. Geological Survey, Washington, D.C.) reported collecting flint nodules in the Bronx at Hunts Point in the early 1930's. W. S. Newman (Queens College) mentioned European Cretaceous flint in landfill of Flushing Meadows. E. A. Weiss (Sun Oil Co., Philadelphia) reported heaps of large flints on the tidal flats of the Hackensack River south of Bayonne and Jersey City. H. G. Richards (Academy of Natural Sciences of Philadelphia) described flint with West Indian coral near Woodbury, N.J., south of Camden. W. A. Price (Corpus Christi, Tex.) told of having been tested by his geology professor with Dover flint in track ballast of the Northern Central Railroad near Baltimore, Md. C. G. Holland (Charlottesville, Va.) sent specimens of European Cretaceous flint that he had found on the beach of the Mataponi River near Newington, Va., and one nodule from Tar Bay about 10 miles down the James River from Hopewell, Va. Frederick Johnson (R. S.



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Peabody Foundation, Andover, Mass.) described flint ballast stones at Strawberry Bank in Portsmouth, N.H., and the presence of small chips in the lower levels of the recently excavated Fort Constitution in Portsmouth harbor that are suggestive of local manufacture of gunflints. Lastly, V. K. Prest (Geological Survey of Canada, Ottawa) reported the presence of English flint at an old sailing-ship port near the southeastern end of Prince Edward Island, Canada.

Although the quantity of European Cretaceous flint brought to North America as ship ballast can never be known, it must easily exceed 100,000 tons, considering the large number of ships that carried it as ballast and the very large number of known points of discharge.

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#### References

1. K. O. Emery, C. A. Kay, D. H. Loring, D. J. G. Nota, *Science* **160**, 1225 (1968).
2. F. P. Rose, *Amer. Antiquity* **33**, 240 (1968).

#### Scoundrelly Fellow

The allusion to "The groves of academe" in Nelson's excellent article ("University of Hawaii," 16 Aug., p. 673), is apposite, but is inaccurate in some respects. The character (Henry Mulcahy) in the novel is not an "out-spoken professor," but a "self-pitying," incompetent, and lazy instructor in literature. Confronted with a letter terminating his appointment, he decides to fabricate a story that he had long been a member of the Communist Party. This falsehood he exploits successfully as a form of job insurance by leaking the lie to sympathetic fellow faculty members. They rally vigorously to the cause of academic freedom and, without attempting to get the facts, they fight for the right of Henry to be a Communist. Mulcahy's cause snowballs as he invents more lies, and as more intellectuals join the battle against the forces of reaction.

Mary McCarthy, as a novelist, is, of course, entitled to poetic license in creating a fictional situation which is remote from reality. Any resemblance to persons living or dead is purely coincidental.

THOMAS H. JUKES

*Space Sciences Laboratory,  
University of California, Berkeley 94720*

18 OCTOBER 1968



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