

however, to having these cherished beliefs treated with insolence. Nihilists are making the most of this fact. In addition, well-meaning students and faculty have too often confused the lofty concept of freedom of expression with freedom to give pointless, or even pernicious, insult and offense. To me, "performing in a manner which pleases the majority of the electorate" does not mean conforming to popular whims or beliefs, but it does mean approaching our task with dignity and understanding.

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PULSE in the City of the Future

In his article "Science and the city: The question of authority" (28 Feb., p. 902), Carroll has presented a comprehensive picture of the Department of Housing and Urban Development research activities. Also his reference 67 alluded to "HUD's most substantial technological study to date," the New Systems Study of Urban Transportation which is summarized in a HUD publication "Tomorrow's Transportation" (May 1968). Among the new technological developments suggested in the study is the Public Urban Locator Service (PULSE), a system which can automatically and rapidly report the location of many moving objects (people, vehicles, or goods), wherever they might be, to a central point where they can be rerouted if necessary to meet an emergency or changed requirements. This system could improve the functions of police operations, public transit, ambulance service, fire control, and movements of goods, to name a few.

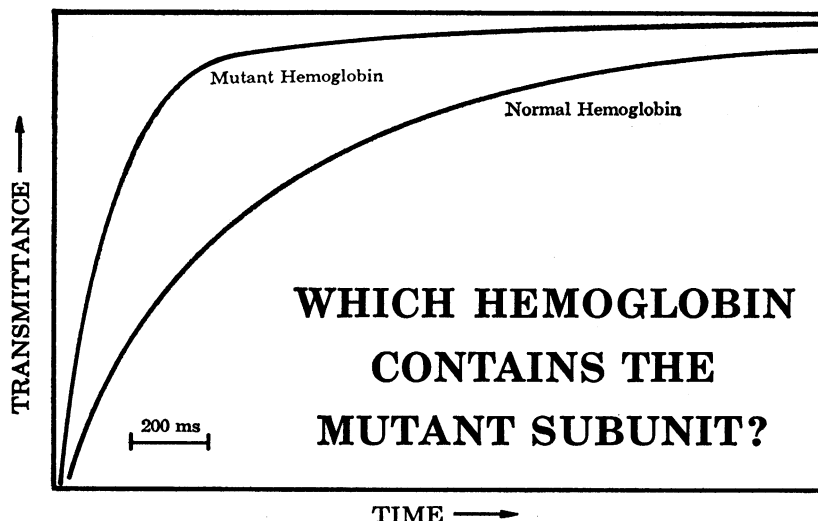
PULSE is being developed under HUD leadership, assisted by the departments of Justice, Post Office, Health, Education, and Welfare, and Transportation, the Federal Communications Commission, and private industry; and it is hoped that it can be tested in the near future. This is an example of an urban utility which can jointly serve the needs of municipal agencies, commercial interests, and private individuals and illustrates the value of HUD research in nonhousing areas.

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CHEMICAL PROFILES

... drawn by Durrum

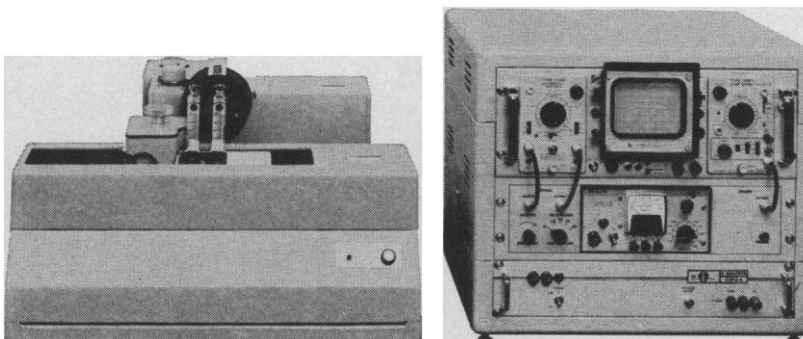


Even a minor molecular rearrangement can have a dramatic effect on chemical activity. These profiles* recorded by a Durrum-Gibson Stopped-Flow Spectrophotometer reveal a 40-fold difference in azide-hemoglobin reaction rates. One reaction is with normal hemoglobin, the other with a mutant containing alpha-chain tyrosine residues in place of the usual proximal histidines.

Equilibrium constants would not have hinted at this difference; only kinetic tests with the Durrum-Gibson instrument permit the use of this new technique for classifying mutant types.

The Stopped-Flow Spectrophotometer is a versatile, general-purpose system that is widely used to determine the kinetic characteristics of reactions with half-times in the 5-millisecond to 50-second range. A temperature-jump accessory is available for studies involving even faster reactions, down to 10 microseconds or less. The accessory is uniquely designed to allow combination T-Jump/stopped-flow studies of pseudo-equilibrium reactions.

For complete information on the D-100 Series Stopped-Flow Spectrophotometer and its applications, contact . . . **Durrum Instrument Corporation, 3950 Fabian Way, Palo Alto, California 94303, Phone (415) 321-6302.**



*AS REPORTED BY HENRY F. EPSTEIN AND LUERT STRYER IN VOLUME 32 (1968) OF THE JOURNAL OF MOLECULAR BIOLOGY.



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