

## If Not Grades, What Criteria?

Schagrin's letter (15 Nov.), proposing a system in which grades would be used internally at the college but not transmitted to graduate schools, prospective employers, and others, and would be replaced by "letters of recommendation or perhaps evaluation forms," seems at least a trifle naïve. No sensible person attributes more than modest importance to grades, but they do have value, particularly in some fields of study, in giving some indication of mastery of the subject matter—a point of some interest to institutions with which the student might like to become associated. It is obvious that if grades, as now constituted, are not made available, the letter of recommendation will perform exactly the same function under another name.

Schagrin's solution is reminiscent of the Midwestern legislator who observed that railway accidents often involved the last car on the train, and introduced a bill requiring the omission of the last car.

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Schagrin's proposed solution to the difficulties and dilemmas of grading interest me greatly and should interest many others as well. I would especially like to know about the other criteria for selection (besides grades) that he is suggesting for institutions, such as business, government, and the military, to use which have demonstrably higher correlations than grades with subsequent performance. On what basis, if not on the basis of performance in college, is he suggesting that letters of recommendation be written, and on what basis would evaluation forms be executed if not on the basis of performance in college? On what basis are grades assigned if not on the basis of performance in college? If grades cannot be trusted to be anything more than "tokens to purchase favors for graduates," how can letters of recommendation and the ratings that appear on evaluation forms be trusted to do more?

Is Schagrin suggesting (perish the thought!) that scores on standardized tests be used as a substitute for grades for evaluating students' performance?

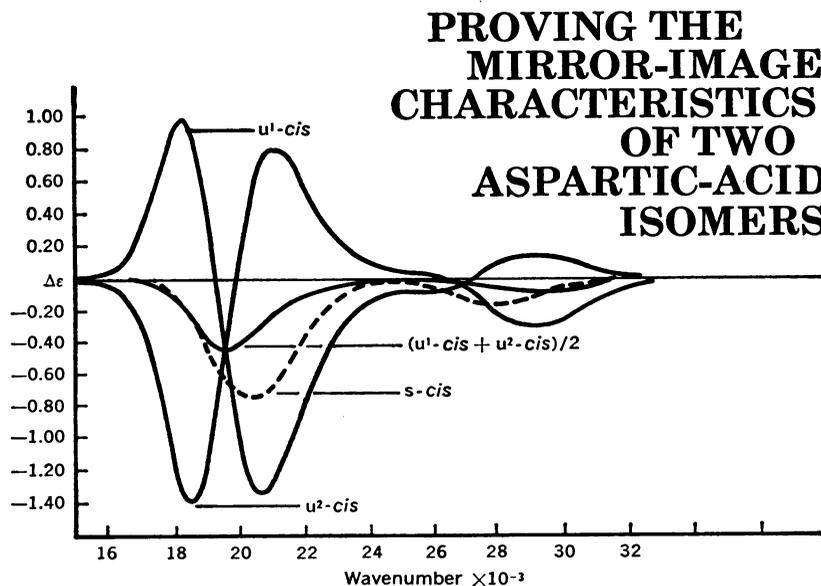
WILLIAM H. ANGOFF

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## CHEMICAL PROFILES

... drawn by Durrum

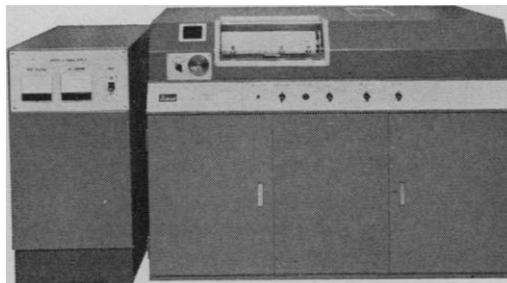


Aspartic acid, with its three donor sites, can form a variety of hard-to-identify chelate isomers. The circular-dichroism profiles drawn here, plotted from data gathered by a Durrum-Jasco CD recorder, are typical of the molecular detective work\* that can be achieved with this versatile instrument.

The steric requirements of aspartic acid indicate that in a cobalt-diethylenetriamine complex, three isomers will predominate: one *s-cis* (symmetrical), shown as a dashed-line profile in the drawing above, and two *u-cis* (unsymmetrical) isomers, shown in color. The latter are essentially mirror images of each other, and the Durrum-Jasco instrument provides a way to identify one from the other.

The configurational contributions to the CD traces of the two mirror-image isomers should, in theory, cancel out, leaving an "average" trace that approximates that of the *s-cis* isomer where there are no configurational contributions. As seen here, a very close correlation is achieved, proving that the two *u-cis* isomers are indeed pseudo-mirror images and providing clues as to their specific forms.

The Durrum-Jasco CD recorder is a powerful analytical tool, used throughout the world to classify and identify complex organic and biochemical compounds. In addition to detailing the conformation and configuration of such substances as steroids, alkaloids, proteins, nucleic acids and synthetic polymers, the instrument can serve to measure their concentrations, kinetic properties, and stereochemical characteristics. Durrum-Jasco CD prices start at \$29,600.



\*AS REPORTED BY J. IVAN LEGG AND DEAN W. COOKE IN THE DECEMBER 20, 1967 ISSUE OF JOURNAL OF THE AMERICAN CHEMICAL SOCIETY.



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