

contacts with colleagues from "underprivileged" countries. I have just returned from a visit to Russia, where computer technology is essential for scientific survival and where they have e-mail contact with colleagues all over the world, but have no money for sending fax letters. My colleagues at Indonesian universities do not have yet e-mail connections because their institutes have no reliable telephone connections. But in every city quarter and on every university campus there are private telephone offices with 24-hour service for telephone and telefax connections all over the world. It is just a matter of time before e-mail and other Internet connections will be used as much as in current high-income countries.

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### Nile Delta Erosion

The main reason for the erosion of the coast of the Nile delta is even more simple than that presented in the Random Samples item "Irrigation speeds Nile delta erosion" (8 Mar., p. 1369) and is known in Egypt. In 1983, I was on a United Nations advisory

panel that looked into the shore erosion of the Nile delta. Our activities included a site visit, the review of many studies, and discussions with Egyptian engineers and scientists. It was known at that time that the causes were not directly related to the Aswan high dam. Many years ago, a low dam was built a few miles upstream from the Nile's Damietta mouth, and another one was built a few miles upstream from its other mouth (Rosetta). We were told that no water flows into the Mediterranean Sea through either of the two mouths, except for a week or so each year when water is discharged to flush wastes from the river in this region. Thus, very little sediment can be transported to the littoral. It was our understanding that all of the water in the Nile River is either used or lost as a result of evaporation or leakage through the bottom and sides of the irrigation systems (1).

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### References

1. R. L. Wiegel, *Civ. Engineer*, **62**, 30 (January 1992).

### New Database

The development and approval by the Food and Drug Administration of several drugs that are inhibitors of human immunodeficiency virus-1 (HIV-1) protease (J. Cohen, *News*, 9 Feb., p. 755) (1) is arguably the most significant success of structure-assisted drug design thus far. The initial, and very crucial, step of this process was the determination of the structure of HIV-1 protease in complex with inhibitors. The first such structure was published just over 6 years ago (2), and the extent of involvement of protein crystallographers in subsequent studies has been unprecedented. It was estimated that more than 160 structures of such complexes were solved in at least 20 laboratories by the end of 1993 (3), and the number of structures has probably tripled by now. Because the vast majority of these structures were solved in pharmaceutical companies, only a small fraction of them are publicly available. This extraordinary collection of structures of a single protein [and of its variants, such as HIV-2 and simian immunodeficiency virus (SIV) database proteases, as well as drug-resistant mutants] could provide a unique source of information about ligand-enzyme interactions that might be useful in future drug design efforts.

If you've ever developed a purification strategy by yourself, you know there is a lot to consider. Creating media screening schemes; designing buffer preparation routines; selecting which columns to use—even listing the tasks takes careful consideration. But now there's a better way of working.

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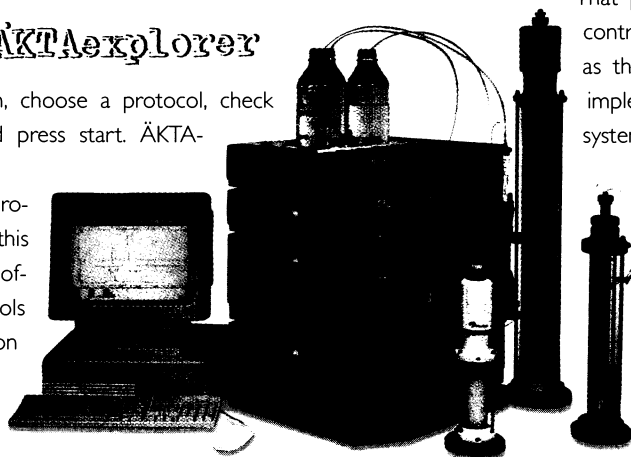
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