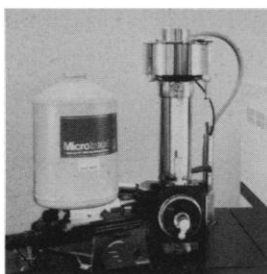
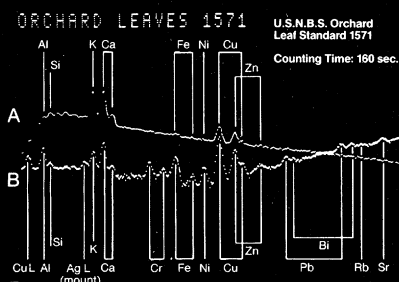


# Six hidden elements revealed by new X-ray analyzer



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Spectrum A above was obtained by MICRO Mode electron excitation. Spectrum B, obtained by BULK Mode X-ray excitation, reveals six more elements: Cr, Ni, Pb, Bi, Rb and Sr.

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## NEWS AND COMMENT

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federal Food and Drug Administration (FDA), had nevertheless recommended that tolerances be reduced to 1 part per billion—the lowest detectable level.

“No matter which decision [the governor] made,” Taylor added, “he was vulnerable to criticism from the opponents of that position, based on the report and recommendations of his advisory panel.” In his view, science advisers should adopt “more of an advocacy position.” As it turned out, Milliken followed the advisory panel’s advice in recommending a drastic lowering of the tolerance level, but the FDA and the state agriculture department refused to change it.

In an interview with *Science*, Taylor said that an ad hoc panel is more likely to render useful advice if it is chaired by the governor’s science adviser, as has been the case with the panels on Seafarer and nuclear wastes (but not with the one on PBB). The Seafarer panel could find no environmental reason why the state should oppose the project out of hand. Accordingly, no final state decision will be made until a final environmental impact statement has been prepared, a National Academy of Sciences report has been completed, and a regional referendum has been held. Milliken has said that his decision whether to oppose the project will be determined by the results of the referendum—a political commitment Taylor now regards as unfortunate.

Since late last winter, Taylor has presided over four meetings of a group of 10 to 20 people—top research administrators and medical and business school deans from Michigan’s major public universities—which may eventually be formally ordained by the governor as his science advisory committee. The committee might play a triple role: validating the competence of the persons to be selected for ad hoc panels, reviewing or commenting on reports from such panels, and advising the governor on long-term problems.

In its initial meetings, this group has tried to identify several problems that can be addressed in a “proactive” (as opposed to a “reactive”) mode. As a result, the Environmental Research Institute of Michigan is taking the lead in preparing a proposal for ERDA to support a project whereby electricity could be generated as a by-product of steam produced to heat a complex of new state buildings outside Lansing. Also, plans are being made for a number of public and private health agencies to investigate the reason for the varying incidence of

cancer among Michigan counties. The committee also hopes to define useful inquiries bearing on the problems of economic diversification and of farm production in an era of increasing energy scarcity.

However promising, the Michigan experience cannot yet be said to conclusively demonstrate the value of science advice. “Like a lot of things, it has not been flexed enough to show how useful it will be,” says John Cantlon, vice president for research at Michigan State University and a member of the science advisory committee. Nevertheless, lessons learned in Michigan and a small number of other states may figure importantly in the next few years, as state governments across the nation, with NSF’s help, try to overcome the present absence of institutionalized science advice at the statehouse.

—LUTHER J. CARTER

## RECENT DEATHS

**Ada H. Arlitt**, 86; professor emeritus of child care and training and psychology, University of Cincinnati; 13 September.

**Merriss Cornell**, 64; professor of social work, Ohio State University; 17 April.

**Savino A. D’Angelo**, 66; professor of histology and embryology, Jefferson Medical College, Thomas Jefferson University; 18 August.

**Walter J. Gale**, 62; former president, Pembroke State University; 9 September.

**Martin E. Hanke**, 78; professor emeritus of biochemistry, University of Chicago; 18 September.

**Mordecai W. Johnson**, 86; former president, Howard University; 10 September.

**Alexander Joseph**, 69; former chairman of science and mathematics, John Jay College, City University of New York; 3 September.

**Walter Riese**, 86; associate professor emeritus of neurology, psychiatry, and the history of medicine, Medical College of Virginia; 9 September.

**Leopold Ruzicka**, 89; retired professor of organic chemistry, Federal Institute of Technology, Zurich; 26 September.

**William M. Sweeney**, 55; director of medical research, Lederle Laboratories, American Cyanamid Company; 6 September.

**Moddie D. Taylor**, 64; former chairman of chemistry, Howard University; 15 September.