

recognize the "quantum jump" brought about by the people who got the award. The last example is a case in point. The fine structure of x-ray absorption edges has been a topic of interest for some forty or fifty years. Yet, there is no question that the new impetus with which EXAFS is now pursued in numerous laboratories around the world is a direct result of Stern, Lytle, and Sayers' contribution.

In the case of the phase problem in crystallography, the idea has been around for a long time (as your article points out), and it is not clear where the "quantum jump" is that the article purports to present to the readers.

The real reason why *n*-beam diffraction has recently received a new impetus for possible applications to the phase problem is that it requires computers, which were not available in the past. In fact, the first contribution in this direction has been my 1974 paper in *Acta Crystallographica*, mentioned in passing in your article, which antedates by three years the first of the articles for which Ben Post received the Warren award.

For the sake of completeness, your article should also have mentioned the important concept of "virtual Bragg scattering," developed by our group at Purdue, and described in our 1981 *Physical Review Letter*, which makes dynamical theory applicable to mosaic crystals.

Your article conveys the false notion that now we have a new method for solving the phase problem in crystallography, which was not available, say, four or five years ago. *This would be true if some new unknown structure had been solved using the n-beam diffraction method.*

It is possible that this will be done in the future, by Ben Post or somebody else in the game, using the methods described in the article.

However, until this is experimentally demonstrated to be feasible, I do not think that we have a breakthrough at hand.

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12/82

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Physics at chemistry meeting

I'd like to bring attention to a one-and-a-half-day symposium entitled "New Angles in NMR" which will be part of the National American Chemical Society Meeting in Seattle, 24-25 March 1983. The unique feature of the symposium of possible interest to PHYSICS TODAY readers is that it will be substantially physics-oriented, with some internationally renowned physicists and

chemists making presentations. The speakers and titles include:

Myer Bloom, physics, Vancouver

"Nuclear magnetic resonance and lipid protein interactions"

Sunney Chan, chemistry, Pasadena

"Two-dimensional deuterium nmr of bilayer membranes"

William Doane, physics, Kent State Liquid Crystal Institute

"Nuclear magnetic resonance of exotic liquid crystalline phases"

Gary Drobny, chemistry, Seattle

"Multiple quantum nmr study of oriented chains"

Maurice Goldman, C.E.N., Saclay

"Nuclear magnetic ordering"

Robert Griffin, chemistry, M.I.T.

"Two-dimensional nmr in rotating solids"

Erwin Hahn, physics, Berkeley

"The ebb and flow of atomic chaos"

Sven Hartmann, physics, Columbia

"Laser generation of elliptical billiard balls"

Melvin Klein, Lawrence Berkeley Laboratory

"Optically enhanced nuclear cross polarization"

Gary Maciel, chemistry, Colorado State

"The development and application of new high-resolution solid-state nmr experiments"

Roger McFarlane, IBM San Jose

"Optically detected nmr in insulators"

Michael Mehring, physics, Stuttgart

"High-resolution nmr in one-dimensional solids"

Constantino Yannoni, IBM San Jose

"Chemical applications of high-resolution C^{13} nmr in solids at low temperature"

ALEX PINES

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12/82

Photo correction

The caption of the photograph reproduced on page 29 in October is in error. The photograph shows the lowering of the first cross lamina of the 184" magnet yoke, not the erection of the building.

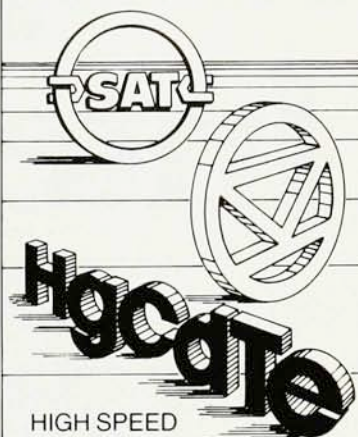
I was pleased not only to read Rob Varney's reminiscences of physics in Berkeley but also to see this photograph in print, because I made it. One day in the spring, shortly after our marriage, my wife (who stands in the foreground; our cocker spaniel has been clipped off) and I walked up the Hill to see what was going on. We arrived just as the lamina was being maneuvered into position.

RONALD GEBALLE

University of Washington
Seattle, Washington □

11/82

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J. T. Fraser is the author of *Of Time, Passion and Knowledge* and *Time as Conflict*. He edited *The Study of Time I-IV* and *The Voices of Time*.

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