

A CALL FOR PAPERS

COMPUTERS IN PHYSICS

*A new periodical
from the
American Institute
of Physics*

Computers in Physics, a combination magazine and peer-reviewed journal published bimonthly by the American Institute of Physics, is soliciting papers on computer use in physics and astronomy.

We are interested in papers which describe novel ways physicists have applied computers to their work in the lab or the classroom, as well as details of original research about computer applications in related fields such as optics, acoustics, geophysics, rheology, crystallography, vacuum science, and medical physics.

Please address all papers for this new publication to Robert R. Borchers, Editor, **Computers in Physics**, PO Box 5512, Livermore, CA 94550. Papers should be organized according to the American Institute of Physics Style Manual.

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pete in our new positions. Rather, our departures resulted from a severe deterioration in the climate of the lab, as well as a desire to have at least a part of our support based upon hard money, as is the practice throughout the academic world.

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7/88

Nobelists Overprized

In Herbert York's article (April 1988, page 40) there is a group photograph sited at the 86-inch magnet at Berkeley. After identifying the author of the article, W. B. Reynolds, the business manager, and Ernest O. Lawrence, the caption locates Luis W. Alvarez, Emilio Segrè and Edwin McMillan. They seem to have been picked out because they were "future Nobel Prize winners."

There seems to be a quite ridiculous tendency on the part of modern scientists to revere the Nobel Prize. This was most egregiously evident in James Watson's book *The Double Helix*, but seems to be quite general. Don't you think AIP could aspire to value scientists for their contributions to science rather than for the prizes they have received?

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YORK REPLIES: I singled out those particular people partly to show how adept Ernest O. Lawrence was at identifying and gathering such scientists around him *before* they won their Nobel Prizes. Anybody can identify them and try to recruit them afterwards. No offense meant to more ordinary mortals, including the other hundred-odd in the picture!

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Na-NH₃ and High T_c: The Ogg Couple

The letter by Alan L. Rockwood (March 1988, page 13) does not elaborate on the further contributions of Richard A. Ogg Jr beyond the suggestion of "Ogg pairs" as an indicator of Ogg's insights into high-T_c superconductivity. In 1982 Ogg's 1946 paper on the sodium-liquid ammonia system as a possible high-T_c superconductor¹ was brought to my attention, as well as the apparent validation of this system by Russian² and French³ scientists.

It appeared to me and the members of a scientific team under my direc-

tion that because of the difficulty of reproducing Ogg's observations due to the critical nature in the freeze cycle dependence of this difficult system, not enough attention had been paid to his work. Since 1983 we have continuously proposed work on this system, but we have received limited support. The recent flurry of activity following the discoveries of the much-lower-T_c ceramic systems has overshadowed Ogg's findings in another way. If Ogg's concepts have merit, superconductivity is a rather general phenomenon requiring only the correct electron pair states in a wide variety of structures. These states need to extend over long ranges in the material, most likely on the order of at least ten to hundreds of atoms. Based on these concepts, titanium-oxygen, zirconium-oxygen and sodium-ammonia are a few of the many systems in addition to copper-oxygen that should exhibit "Ogg pairs."

I hope some acknowledgment of Ogg's foresight will be made by the physics community. His ideas were simply 40 years premature.

References

1. R. A. Ogg Jr, *Phys. Rev.* **69**, 243 (1946).
2. I. M. Dmitrenko, I. S. Shchetkin, *Zh. Eksp. Teor. Fiz.* **18**, 497 (1973). A. B. Vinogradova, I. A. Garifullin, I. G. Zamailev, B. M. Kozyrev, E. G. Kharkhash'yan, F. G. Cherkasov, *Zh. Eksp. Teor. Fiz. Pis'ma Red.* **20**, 706 (1974).
3. P. Arendt, *Z. Phys. Chem.* **263**, 689 (1982).

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3/88

Publishing Solid-State Theory: Series Business

Although I thoroughly enjoyed Spencer Weart's article "The Birth of the Solid-State Physics Community" (July 1988, page 38), it was very disappointing to me that he failed to mention McGraw-Hill as the publisher of Frederick Seitz's text *The Theory of Modern Solids*, referred to throughout the article. *The Theory of Modern Solids* was part of McGraw-Hill's International Series of Pure and Applied Physics, a series that was part of every physicist's education. Almost every physicist mentioned in the article—John Slater, Edward Condon, Henry Smyth—was also an author in the series. Many of the books in the series, including Seitz's text, no other major publisher was willing to publish at the time. The risks were too great; the rewards were too small.

JOHN ZUMERCHIK
McGraw-Hill Book Company
New York, New York

8/88