serves. Its acceptance by the Society's Council was predicated on the facts that not only are the initial premium rates lower than those provided under the IEEE plan, but also that other group plans issued by the APS insurer to similar nonprofit organizations' members have achieved dividends as high as 40%, as opposed to the IEEE-plan dividends of 20%. The Society would hope that, after its plan has been established, a dividend record at a much higher rate than 20% will be achieved. As to how these dividends would be applied, as was discussed by the Trustees in the *Bulletin* article, it could have the effect of providing not only a lesser net premium rate but also increased value to the now $10 000 units.

MELVIN R. DOWNES
Trustee, APS Group Insurance Trust

Amorphous versus crystalline

I should like to clarify one of the remarks in my (1969) review of the Amorphous Semiconductor Conference published in the October 1969 issue of PHYSICS TODAY. At the beginning of the review, I referred to the need for structural work on all experimental samples, citing the facts that early optical measurements seemed to suggest that important details of the crystalline band structure remained applicable to the amorphous state and that recent density measurements had found densities for "amorphous" material very close to that of the bulk crystal. I suggested that this "invited the interpretation that the 'amorphous germanium' was composed of small crystallites small enough to escape detection as ordered arrays in x-ray examination, but large enough to yield the optical properties of the crystalline material." I then added "Such a possibility clouds the interpretation made from William Spicer's photoemission studies that the energy-band structures of amorphous and crystalline germanium are similar but that the disorder breaks down the *k* selection rules."

I wish to make clear that I have no reason to doubt the accuracy of Donovan and Spicer's photoemission measurements. Furthermore, these authors emphasize that, in their view, their results denote importantly different optical properties and band structures for crystalline and amor-

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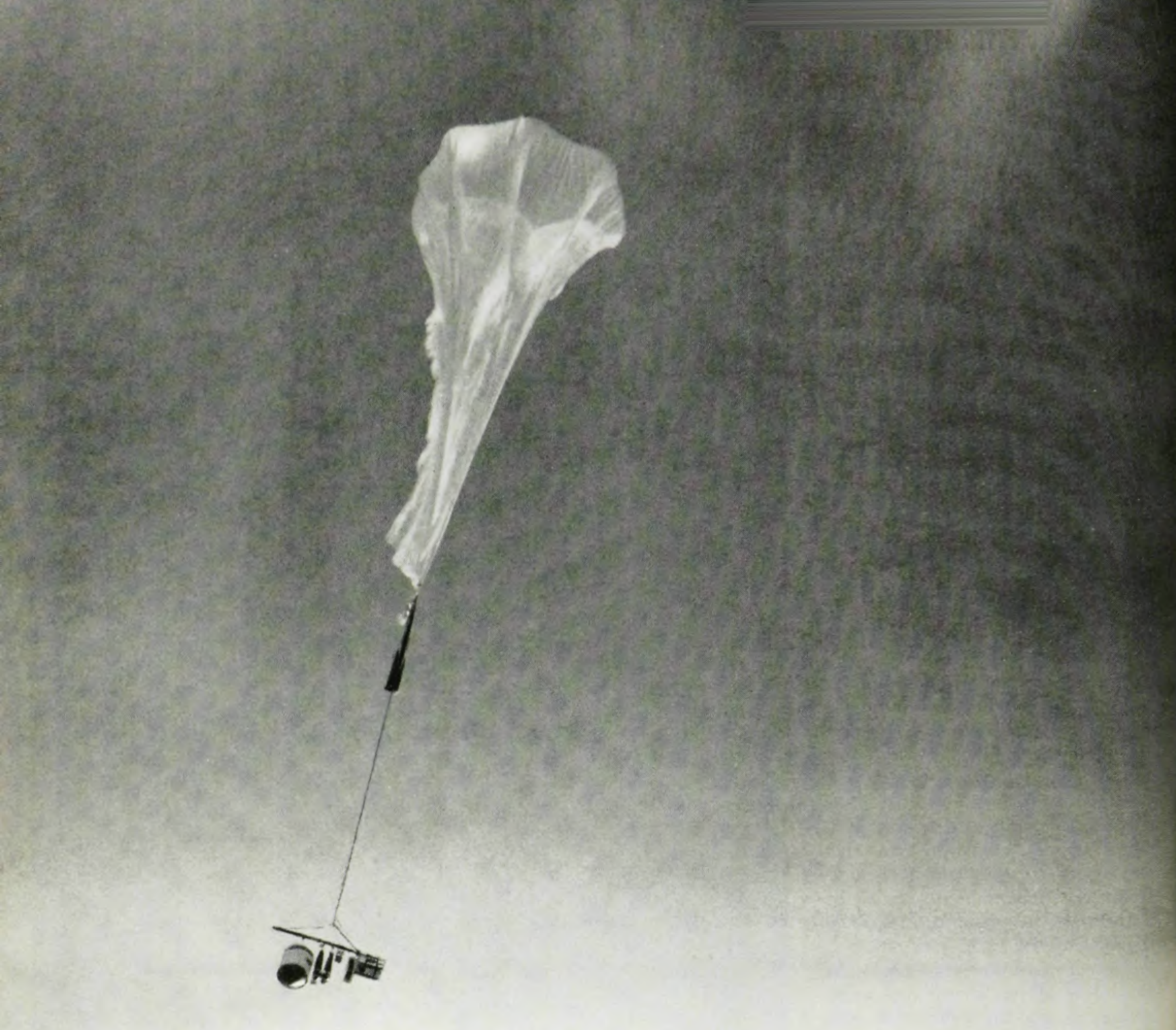

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phous material. The interpretation that recognizes the gross similarities as well as the detailed differences is therefore closer to my point of view than to theirs.

At the time of writing my review I did not know the density of Donovan and Spicer's films but I was aware that films from the same source had shown an absorption edge remarkably similar to the single crystal, and it was in this climate of information that the above-noted comment was written. Spicer tells me that all of the films measured were of the order of 10–15% less dense than crystalline germanium. Their optical data are to be considered appropriate for material that cannot be classified as microcrystalline by routine structural analysis, but must (along with everybody else's) be labelled "amorphous" until some quantitatively measure of amorphicity becomes available.

WILLIAM PAUL
Harvard University

Oversight repaired

In the article "Nuclear Safeguards–2. The U.S. Program" (November, page 33) I carelessly neglected to note that the composite sodium-germanium detector spectra were traced from real curves, laboriously recorded by Chellis Chasman of the Physics Department, Hobart Kraner and Sanford Wagner of the Instrumentation Division of Brookhaven National Laboratory.

WILLIAM A. HIGINBOTHAM
Brookhaven National Laboratory

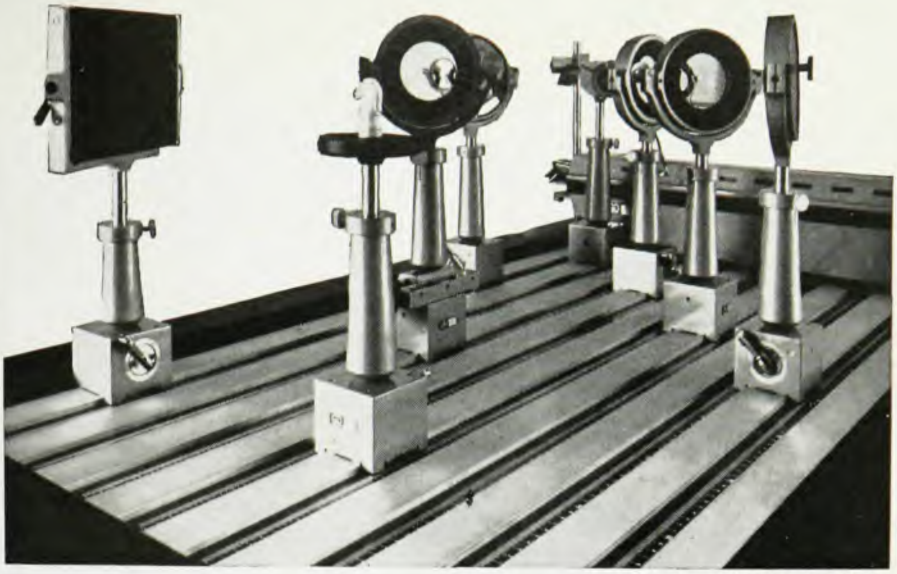
Corrections

OCTOBER 1968, page 77–The bubble-chamber picture shown was not made with the Nimrod accelerator, as the caption claims, but was made much earlier with the Saclay 81-cm bubble chamber at CERN.

DECEMBER 1969, page 67–The new journal *Optics Communications* appears monthly rather than quarterly.

DECEMBER 1969, page 95–Kenneth Fox is an associate professor, not an assistant professor.

JANUARY 1970, page 30–*$400 million*, rather than $300 million, was invested in physics research and development in 1969 compared with the total of *$16 000 million*, rather than $27 000 million, in scientific research and development. □



U. S. Patent #3,214,119; other patents pending.

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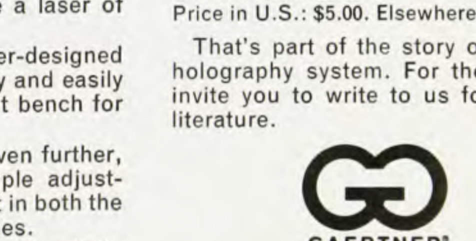

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