

## **DISPLAY/PRINTING TECHNOLOGIES**

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*Albuquerque Symposium Explored Recent Advances  
In A Wide Range Of Display And Printing Technologies*

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Five sessions of the symposium, "Materials for Display and Printing Technologies," were devoted to materials for displays, including liquid crystals, flat panel phosphor displays, PLZT displays and imaging devices, electrophoretics, electrochromics, and thin film electroluminescent displays.

### **Liquid Crystals**

The field of liquid crystal displays was surveyed with respect to display element resolution in three excellent papers. New developments in conventional liquid crystal displays and in liquid crystal-photoconductor optical data processing and large screen projection displays were discussed in two of these papers, and the third described new high-resolution, thermally writable, electrically erasable smectic liquid crystals for display and optical memory applications.

Two papers were presented on flat panel phosphor

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CO-CHAIRMEN CECIL LAND (LEFT) AND DEREK DOVE

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## **DATA STORAGE MATERIALS**

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*The Albuquerque Symposium On Optical And Magnetic  
Materials Demonstrated Great Vigor In This Exciting Area*

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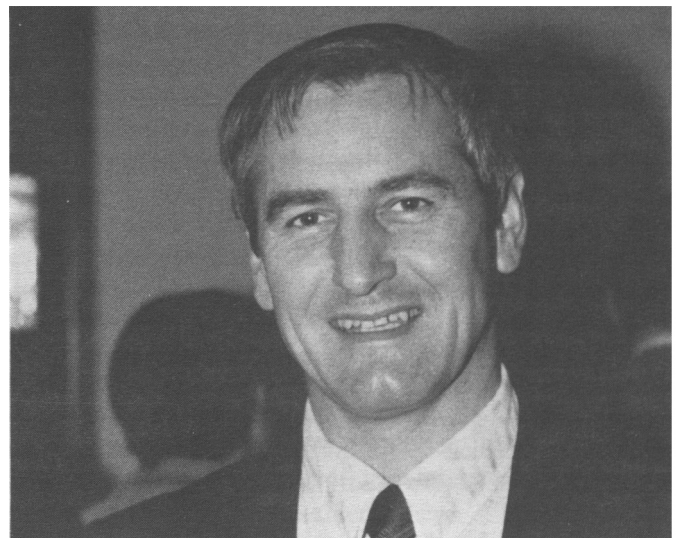
The symposium, "Optical and Magnetic Data Storage Materials," at the 1984 Spring Meeting, began with the problem common to sessions at this conference—there were more participants outside the meeting room than could be accommodated inside. Fortunately, additional space was quickly arranged and exciting series of talks got under way.

In the introductory session, D. Speliotis reported that heightened interest in magnetic data storage is pushing forward research in density and performance, especially with vertical recording. G. Bate followed with an instructive—and amusing—complexity diagram of magnetic recording, and drew the symposium's attention to the seemingly ordinary problem of the media substrate. J. Lemke reviewed particulate media showing impressive results of isotropic particulate coatings. New process technologies will provide extremely fine and uniform particles.

### **Optical Recording**

The session on "Optical Recording I" began (in a more

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CO-CHAIRMAN MARTIN BOSCH

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## DATA STORAGE

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comfortable room) with E. Rothchild presenting an overview of the future of optical data storage. He predicted a surge in small disk applications, and a multi-billion-dollar market by the end of this decade. Both D. Davies and J. Cornet reminded us that the materials problems for the first-generation media have been brought under control, in excellent reviews of commercial products. N. Imamura outlined magneto-optical recording in a session which made apparent that very significant research and development efforts are under way in Japan.

### Vertical Recording

The session, "Magnetic Recording II" was dedicated to vertical recording. J. Judy gave an overview of this emerging field buttressed with a wealth of data—a delight for the materials scientist. That vertical recording is maturing was demonstrated by the in-depth studies of successive speakers.

### Chairmen

Geoffrey Bate, Verbatim Corporation  
Martin A. Bosch, AT&T Bell Laboratories  
Nobutake Imamura, KDD R&D Laboratories

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## DISPLAY/PRINTING

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displays, one on the gas-electron-phosphor display and the second on new developments in flat panel, color, guided electron-beam displays. An excellent survey of color phosphors for cathode ray tubes was also presented.

### PLZT Displays

Three papers described new developments in PLZT displays, new techniques for increasing the photosensitivity of PLZT for imaging devices and a new approach to production of atmosphere-sintered, transparent PLZT for displays and other optical applications. An excellent survey of the state of the art in electrophoretic materials, new developments in electrochromic displays and materials aspects of current thin film electroluminescent displays were presented by leading researchers in these fields.

### Printing Technologies

Three sessions of the symposium were devoted to papers on printing technologies. Papers were presented on the major non-impact printing technologies, including a detailed discussion of high-speed laser printers, descriptions of advances in photoconductor and toner development, and surveys of alternative magnetic and ion jet high-speed printing technologies.

### Chairmen

D.B. Dove, International Business Machines Corporation  
C.E. Land, Sandia National Laboratories

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## CONFERENCES

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### NOVEMBER 1984

- 12-14 8th Conference on the Application of Accelerators in Research and Industry  
Denton, TX  
J. L. Duggan  
Physics Dept., North Texas State Univ., NT Box 5368,  
Denton, TX 76203  
(817) 565-3252
- 25-30 AIChE Annual Meeting  
San Francisco, CA  
AIChE, Meetings, Dept., 345 E. 47 St., New York, NY 10017  
(212) 705-7320
- 26-30 **MATERIALS RESEARCH SOCIETY ANNUAL MEETING**  
**Boston Marriott Hotel/Copley Place**  
**Boston, MA**  
**J.B. Ballance, Executive Director**  
**Materials Research Society**  
**9800 McKnight Road, Suite 327**  
**Pittsburgh, PA 15237 (412) 367-3003**
- 27-30 30th Annual Conference on Magnetism and Magnetic Materials  
San Diego, CA  
J.T. Scott, AIP, 335 E. 45th St., New York, NY 10017

### DECEMBER 1984

- 4-7 31st National Vacuum Symposium  
Reno, NV  
N. Hammond, 335 E. 45 St., New York, NY 10017

### JANUARY 1985

- 20-24 American Physical Society/AAPT General Meeting  
Toronto, ONT

### MARCH 1985

- 24-28 AIChE Spring National Meeting  
Houston, TX  
AIChE, Meetings Dept., 345 E. 47th St., New York, NY 10017  
(212) 705-7320

- 25-29 American Physical Society General Meeting  
Baltimore, MD  
W. Havens, Jr., 335 E. 45 St., New York, NY 10017

### APRIL 1985

- 15-18 **MATERIALS RESEARCH SOCIETY SPRING CONFERENCE**  
**San Francisco, CA**  
**J.B. Ballance, Executive Director**  
**Materials Research Society**  
**9800 McKnight Road, Suite 327**  
**Pittsburgh, PA 15237 (412) 367-3003**

- 25-27 American Physical Society Spring Meeting  
Washington, DC  
W. Havens, Jr., 335 E. 45th St., New York, NY 10017