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*Invited Paper
SYMPOSIUM J

PREFACE

This proceedings contains papers presented at Symposium J, "Texture and Microstructure in Electronic and Magnetic Films," held April 1-3 at the 2002 MRS Spring Meeting in San Francisco, California. The presentations reflected the growing interest in textural and microstructural control in thin film technology. The materials systems in which links between crystallographic texture, microstructure and properties were studied included metal films (with particular emphasis on copper), electronic films including ferroelectrics and transparent conducting oxides. Magnetic films research was presented in a joint session with Symposium E. The work presented displayed a significant variation in the sophistication of texture measurement techniques, depending on which application the information was about and equipment availability. The technique of electron backscatter diffraction (EBSD), which yields spatially specific information on texture, microstructure and microtexture, was strongly featured. Recent advances in characterization techniques, novel applications of texture control, and application to new materials systems were discussed.

The organizers gratefully acknowledge the contributions made by every author and presenter in making the symposium a success. We also acknowledge the generous financial support from the following companies:

- Bruker AXS, Inc.
- HKL Technology, Inc.
- Hypernex, Inc.
- TSL/EDAX, Inc.

Patrick W. DeHaven
David P. Field
John A. Sutliff
Jerzy A. Szpunar
Mark D. Vaudin

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SYMPOSIUM E

PREFACE

This proceedings contains papers presented at Symposium E, "Nanostructural Magnetic Materials for Data Storage," held April 2–4 at the 2002 MRS Spring Meeting in San Francisco, California.

This symposium is the latest in a series held at the MRS Spring Meeting which focuses on magnetic materials with relevance to the storing of data. The importance of new materials in magnetic data storage is underlined by the accelerating pace of areal density growth, which for the last five years has exceeded 100% per annum. The symposium covered a wide range of novel materials with data storage potential, as well as the latest research in more conventional materials for head and media applications. In particular, new work on lithographically defined nano-structures and nanowires showed exciting possibilities for the future including patterned media and magnetic logic operations. New work on chemical methods to produce ferromagnetic particles less than 10 nm in diameter with extremely narrow size distributions showed that this area is very promising, but that much more basic research remains to be done.

The excellent attendance at many of the oral sessions demonstrates the continuing interest in novel magnetic materials and bodes well for the future of magnetic data storage.

The organizers are pleased to acknowledge the financial contribution of the following companies whose generous support contributed to the success of the symposium:

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