Thin Films — Interfaces and Phenomena

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Preface

This volume contains papers presented at the symposium on *"**Thin Films - Interfaces and Phenomena**"* which was part of the Fall1985 Meeting of the Materials Research Society. The meeting was held in Boston, Massachusetts, from December 2 through 7. This symposium was the third in a series which has addressed the problems of understanding the properties of thin films with respect to the interactions with interfaces.

The symposium took place on all five days of the conference, and it was well attended from the first talk on Monday morning through the last talk late Friday afternoon. In addition to the oral sessions with invited and contributed papers, contributed posters were presented on Tuesday and Thursday evenings; these sessions served as opportunities for lively discussions. We would like to acknowledge the attendees for their interest in the various topics presented at the symposium, and for their contributions during discussions. Throughout the week more than 130 papers were presented at the symposium.

The symposium was organized in conjunction with the symposium on *"Layered Structures and Epitaxy"* with a combined session which covered Schottky barriers and epitaxial silicides. In addition to the combined session, the symposium addressed the traditional areas of interface reactions and kinetics, ion beam mixing, and silicide formation. New methods of analysis, characterization and thin film growth were described, and it became apparent that these subjects are strongly correlated. Epitaxial layers of various types and combinations attracted much interest. The papers on VLSI interconnects and metallization served to highlight the scientific issues that are most relevant to semiconductor technology. While many talks concentrated on materials related to silicon technology, one of the largest groups of papers addressed the properties of compound semiconductor interfaces. In addition, a session on oxidation, oxides and nitrides bridged some of the issues.

Many participants expressed the opinion that both research and technology issues of interface properties are becoming more sophisticated and complex. However, researchers are using increasingly refined growth, measurement and theoretical techniques to address the problems.

Symposium Co-Chairmen

Paul S. Ho

S. S. Lau

Robert J. Nemanich

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