

Contents :

Preface

- Foreword
- Symposium Organization
- Contributors

Part I – Multiprocessing and RTCVD

1. Single Wafer Rapid Thermal Multiprocessing

Krishna C. Saraswat et al.

Advanced Single-Wafer Sequential Multiprocessing Techniques for Semiconductor Device Fabrication

Mehrdad M. Moslehi and Cecil Davis

Chemical Vapor Deposition of Polycrystalline Silicon in a Rapid Thermal Processor

Jimmy C. Liao, John L. Crowley, Ted I. Kamins

Silicon Carbide Structures Prepared by Rapid Thermal Chemical Vapor Deposition

J. L. Crowley, J. C. Liao, P. H. Klein, G. J. Campisi

Low-Pressure Chemical Vapor Deposition of Polycrystalline Silicon and Silicon Dioxide by Rapid Thermal Processing

Mehmet C. Ozturk et al.

GeSi Layers Grown by Rapid Thermal Processing CVD

Additional papers on:

- RTCVD reactor design
- Epitaxial silicon growth
- Silicon-germanium heterostructures
- Thin-film deposition kinetics
- Process integration strategies

Part II – Silicides and Metallization

8. Papers on titanium silicide formation
9. Refractory-metal silicides
10. Contact resistance and interface engineering
11. Self-aligned silicide (salicide) technologies
12. Rapid thermal silicidation processes

Part III – Process Integration

13. Rapid Thermal Process Integration

I. D. Calder and A. A. Naem

- Thermal-budget optimization
- Junction formation and activation
- Reliability considerations
- Oxide integrity and device performance
- Integrated manufacturing approaches for VLSI devices

Part IV – Modeling and Characterization

19. Thermal modeling of RTP systems

20. Temperature uniformity studies

21. Radiation and emissivity effects

22. Wafer-heating simulations

23. **Simulation of Temperature Effects During Rapid Thermal Processing**

R. Kakoschke and E. Bußmann

Part V – Advanced RTP Applications

24. Rapid thermal oxidation

25. Rapid thermal nitridation

26. Dielectric formation

27. Advanced semiconductor materials processing

28. Device fabrication applications

29. Future directions for single-wafer integrated processing