

- 1 Introduction to the Semiconductor Industry
- 2 Characteristics of Semiconductor Materials
- 3 Device Technologies
- 4 Silicon and Wafer Preparation
- 5 Chemicals in Semiconductor Fabrication
- 6 Contamination Controls in Wafer Fabs
- 7 Metrology and Defect Inspection
- 8 Gas Control in Process Chambers
- 9 IC Fabrication Process Overview
- 10 Oxidation
- 11 Deposition
- 12 Metallization
- 13 Photolithography: Vapor Prime to Soft Bake
- 14 Photolithography: Alignment and Exposure
- 15 Photolithography: Photoresist Development and Advanced Lithography
- 16 Etch
- 17 Ion Implant
- 18 Chemical Mechanical Planarization
- 19 Wafer Test
- 20 Assembly and Packaging
- Appendices
- Glossary
- Index