

Contents

PREFACE	v
Introduction	1
Chapter I. Surface Methods	
1. Crystal Growth	3
2. Evaporation	13
3. Etching	15
4. Cleavage Steps	50
5. Slip Steps	51
5a. Etch Spirals	53
Chapter II. Bulk Methods	
6. Decoration Technique	55
7. X-Ray Diffraction Methods	90
8. Birefringence	105
Chapter III. Thin Film Methods	
9. Electron Microscopy in Transmission: Theory	109
10. Electron Microscopy in Transmission: Applications	242
11. Direct Resolution of the Crystal Lattice	405
12. Moiré Patterns	414
Chapter IV. Field Emission and Field Ion Microscopy	
13. Principle of the Method	439
14. Dislocations	440

Appendix A. Properties of Stacking Fault Fringes Taking into Account the Anomalous Absorption	441
1. Approximate Expressions for the Amplitudes of Transmitted and Scattered Beam Close to the Foil Surfaces	441
2. The Fringe Pattern Close to the Center of the Foil	447
Appendix B. Symmetry of Dislocation Images for $s \rightarrow 0$, in the Absence of Absorption	463
Appendix C.	465
AUTHOR INDEX	471
SUBJECT INDEX	479
INDEX OF SUBSTANCES	486