

## CONTENTS

	Page
<b>Intermetallic Compounds—Practice</b>	
List of Contributors	ix
Preface	xv
List of Acronyms	xvii
Crystal Structure Nomenclature	xxiii
<b>I. STRUCTURAL APPLICATIONS</b>	<b>1</b>
1. Ni <sub>3</sub> Al in Nickel-Based Superalloys	3
2. Ni <sub>3</sub> Al and its Alloys	17
3. NiAl and its Alloys	53
4. Gamma TiAl and its Alloys	73
5. Ti <sub>3</sub> Al and its Alloys	91
6. Zr <sub>3</sub> Al: A Potential Nuclear Reactor Structural Material	133
7. Al <sub>3</sub> Ti and its L12 Variations	147
8. Al-Rick Intermetallics in Aluminum Alloys	175
9. FeAl and Fe <sub>3</sub> Al	199
10. Silicides: Science, Technology and Applications	211
11. Miscellaneous Novel Intermetallics	237
12. Intermetallics as Precipitates and Dispersoids in High-Strength Alloys	257
13. Intermetallic Composites	287
<b>II. ELECTROMAGNETIC APPLICATIONS</b>	<b>301</b>
14. Magnetic Applications	303
15. Semiconductor Applications	323
16. Superconductor Applications	351
17. Magnetostriction: Materials and Applications	389
18. Optical Applications	407
19. Magneto-Optical Applications	435
20. Thermoelectric and Electrical Applications	453
<b>III. CHEMICAL AND METALLURGICAL APPLICATIONS</b>	<b>473</b>
21. Intermetallic Hydrides and their Applications	475
22. High-Temperature Coatings for Gas Turbines	489
23. Electrochemical Applications	501
24. Process Metallurgy Applications	515
<b>IV. MISCELLANEOUS APPLICATIONS</b>	<b>527</b>
25. Shape-Memory Alloy Applications	529
26. Applications in Gold Jewelry	559
27. Dental Amalgam	575
28. Intermetallics in Tribology	591
29. Diffusion Barriers	603
30. Heat Storage at Elevated Temperatures	637
31. Miscellaneous Applications	645
<b>INDEXES</b>	
Author Index	657
Subject Index	707
Compound Index	741