- Preface p. iii
- Contributors p. vii
- Part 1 Material and Tribological Characterization
- 1. Surface Characterization of Materials Paul J. Pigram and Narelle Brack and Peter D. Hodgson p. 1
- 2. Surface Characterization Techniques: An Overview Kazuhisa Miyoshi p. 33
- 3. Mechanical Behavior of Plastics: Surface Properties and Tribology Nikolai K. Myshkin and Mark I. Petrokovets p. 57
- 4. Visualization and Characterization of Bulk and Surface Morphology by Microthermal Analysis and Atomic Force Microscopy Scott Edwards and Nguyen Duc Tran and Maria Provatas and Namita Roy Choudhury and Naba Dutta p. 95
- 5. Macromechanics and Micromechanics of Ceramics Besim Ben-Nissan and Giuseppe Pezzotti and Wolfgang H. Muller p. 135
- 6. Scuffing and Seizure: Characterization and Investigation Tadeusz Burakowski and Marian Szczerek and Waldemar Tuszynski p. 185
- 7. Wear Mapping and Wear Characterization Methodology Christina Y. H. Lim and S. C. Lim p. 235
- 8. Measuring Technique and Characteristics of Thin Film Lubrication at Nanoscale Jianbin Luo and Shizhu Wen p. 257
- Part 2 Tribological Applications
- 9. Tribology of Metal Cutting Viktor P. Astakhov p. 307
- 10. Tribology in Metal Forming Emile van der Heide and Dirk Jan Schipper p. 347
- 11. Tribology in Textile Manufacturing and Use Stephen Michielsen p. 375
- 12. Biotribology Hong Liang and Bing Shi p. 397
- 13. Biocompatible Metals and Alloys: Properties and Degradation Phenomena in Biological Environments Alexia W. E. Hodgson and Sannakaisa Virtanen and Heimo Wabusseg p. 429
- 14. Epilamization/Barrier Films Zygmunt Rymuza p. 475
- Index p. 491