

Contents

List of Important References and Their Abbreviations	ix
1. Introduction to the Chemical Industry: An Overview	1
2. Sulfuric Acid and Its Derivatives	36
3. Industrial Gases	55
4. Inorganic Nitrogen Compounds	69
5. Chemicals from Limestone	80
6. Sodium Chloride Derivatives and Miscellaneous Chemicals	94
7. Petroleum Refining Processes	113
8. Basic Organic Chemicals	137
9. Derivatives of Ethylene	162
10. Chemicals from Propylene and Butylene	188
11. Aromatic Chemicals	214
12. Chemicals from Methane	234
13. The Second Fifty Chemicals	244
14. Basic Polymer Chemistry: Thermoplastics	271
15. Basic Polymer Chemistry: Thermosets	290

16. Plastics	311
17. Fibers	341
18. Elastomers	356
19. Coatings and Adhesives	371
20. Pesticides	389
21. Fertilizers	418
22. Pulp, Paper, and Other Wood Products.....	426
23. The Pharmaceutical Industry	442
24. Surfactants, Soaps, and Detergents	476
25. The Chemical Industry and Pollution	490
Appendix: Possible Subjects for Further Study	511
Index	513