

CONTENTS

1. Objectives	1
2. Unit Processes and Unit Operations	9
3. Water Conditioning and Waste – Water Treatment	44
5. Fuels, Power, and Air Conditioning	63
6. Coal Chemicals	80
7. Fuel Gases	104
8. Industrial Gases	125
9. Industrial Carbon	152
10. The Ceramic Industries	173
11. Cements, Calcium and Magnesium Compounds	199
12. Glass Industries	229
13. Potassium Salts and Mixed Fertilizers	253
14. Salt and Miscellaneous Sodium Compounds	271
15. Soda Ash, Caustic Soda, and Chlorine	285
16. Electrolytic Industries	312
17. Electrothermal Industries	330
18. Phosphorus Industries	338
19. Sulfur and Sulfuric Acid	362
20. Nitrogen Industries	394
21. Hydrochloric Acid and Miscellaneous Inorganic	420
22. Explosives, Pyrotechnics, and Chemical Warfare	449
23. The Photographic Industry	480
24. Paint, Varnish, Lacquer, and Allied	494
25. Leather, Gelatine, and Glue	528
26. Pesticides	550
27. Perfume and Flavoring Industries	569
28. Oils, Fats, Waxes	595
29. Soap, Detergents, and Related Compounds	615
30. Sugar and Starch Industries	640
31. Fermentation Industries	664
32. Wood Chemicals	700
33. Pulp and Paper Industries	720
34. Synthetic Fibers	743
35. Plastics	766
36. Natural and Synthetic Rubber	797
37. The Petroleum Industries	820

38. Intermediates, Dyes, and Their Application	861
39. Organic Chemicals, Not Otherwise Classified	930
40. Appendix Problems	961
41. Name Index	975
42. Subject Index	987