

CONTENTS

| | |
|---|-----|
| 1. Basic electricity | 1 |
| 2. Instrumentation systems : modular approach | 29 |
| 3. Light sources and sensors | 43 |
| 4. Instruments that use exciter lamps | 65 |
| 5. Instruments that use flame excitation | 87 |
| 6. Measurement of electrolyte and water balance | 99 |
| 7. Ion – selective electrodes | 111 |
| 8. Particle counters | 131 |
| 9. Nuclear counting | 141 |
| 10. Automated chemistry analyzers | 149 |
| 11. Chromatography | 159 |
| 12. Electrophoresis | 181 |
| 13. Laboratory safety | 197 |
| 14. Troubleshooting | 211 |
| 15. Accuracy , standards , and related matters | 227 |
| Appendix : exponentials , logarithms , and graphs | 241 |
| Bibliography | 249 |
| Index | 251 |