

Table of Contents

SI Units in Electricity and Magnetism	vi
Preface	vii
How to Use this Book	viii
A Note to the Instructor	1
1. Charge and Matter	2
2. The Electric Field	18
3. Gauss's Law	44
4. Electrical Potential	76
5. Capacitors and Dielectrics	118
6. Current and Resistance	142
7. Electromotive Force and Circuits	162
8. The Magnetic Field	192
9. Ampere's Law and the Magnetic Fields of Currents	218
10. Faraday's Law and Electromagnetic Induction	238
11. Inductance	254
12. Electromagnetic Oscillations	272