CONTENTS

		Page
1.	Measurement of High Voltage and High Current	1
	1.1 High Voltage	1
	1.2 Current in High Voltage Circuits	17
2.	Generation of the High Voltage Circuits	19
	2.1 Alternating Voltage, Power Frequency	19
	2.2 Alternating Voltage, Medium Frequency	24
	2.3 Direct Current Voltages	26
	2.4 Impulse Generators	31
3.	Gaseous Discharge	45
	3.1 Fundamentals	45
	3.2 Charge Transport	49
	3.3 Discharges	57
	3.4 Events in Non-Uniform Fields	64
	3.5 Ignition Delay	68
	3.6 Flashover Voltage/Time-to-Flashover Curves	68
	3.7 Electric Are and Stability of Discharges	69
	3.8 Lightning	72
4.	1	74
	4.1 Species and Quality	74
	4.2 Breakdown	75
5.	Solid Insulators	77
	5.1 Species and Quality	77
	5.2 Breakdown and Dielectric Losses	77
6.	Combined Insulators	81
	6.1 Air and Solid Insulators	82
	6.2 Cavities in Solid Dielectrics	83
	6.3 Oil and Solid on Insulators and Conductors	84
7.	Electrical Stress on Insulators and Conductors	84
	7.1 Some Fields and Stresses	84
	7.2 Earthing Systems	101
	7.3 Circuit-Breakers	109
	7.4 Travelling Waves	118
	7.5 Design Based on Overvoltages	127