

# **ELECTRICITY AT HIGH PRESSURES AND FREQUENCIES**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649569823

Electricity at High Pressures and Frequencies by Henry L. Transtrom

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**HENRY L. TRANSTROM**

**ELECTRICITY AT  
HIGH PRESSURES  
AND FREQUENCIES**





A PERSON CHARGED WITH HIGH POTENTIAL CURRENT.

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**ELECTRICITY AT HIGH  
PRESSURES AND  
FREQUENCIES**

BY

**HENRY L. <sup>Ph.D.</sup> TRANSTROM**

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**THE JOSEPH G. BRANCH PUBLISHING COMPANY,  
CHICAGO.**

1913.

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THE HENRY O. SHEPARD CO., PRINTERS, CHICAGO.

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Referred 1-23-42 MJD

## PREFACE.

The trend of modern electrical work is in the direction of high potentials. It has been only a few years since a potential of 2,000 volts was considered unusually high, but at the present time we are using pressures as high as 110,000 volts, while that of 60,000 volts is not at all uncommon.

This is largely due to the locating of power plants at great distances from the district of distribution, requiring consequently high-potential transmission.

The author has also treated to a considerable extent of high-frequency currents, in order that the reader may not only have a clearer conception of its use in wireless telegraphy, telephony and electrotherapy, but also that he may more fully understand the peculiar surges produced on long transmission lines by lightning.

While the author does not believe that the use of high-frequency currents will supersede those of lower frequencies, yet such currents should be understood even in practical work.

With high-frequency currents transmission becomes difficult, owing to the enormous inductive reactance and capacity effects, which makes transmission over long distances impossible. Although currents of almost inappreciable quantity can be transmitted by means of electromagnetic waves, the current so transmitted is not sufficient for any practical use, notwithstanding popular opinion to the contrary.

This work is necessarily a brief treatise only of some of the principles and wonders of high-frequency currents at high and other potentials, owing to the limited space and the high technical knowledge required to completely fathom the problems of this as yet new field.



1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for ensuring transparency and accountability in financial operations. This section also highlights the role of internal controls in preventing fraud and errors.

2. The second part of the document outlines the various methods and techniques used for data collection and analysis. It covers both qualitative and quantitative approaches, providing a comprehensive overview of the research methodology. The text discusses the strengths and limitations of different data collection methods and how they can be effectively combined to gain a deeper understanding of the subject matter.

3. The third part of the document presents the results of the study, including a detailed analysis of the data collected. It discusses the key findings and trends observed, as well as the implications of these findings for the field of study. The text also addresses any limitations or challenges encountered during the research process and offers suggestions for future research.

4. The final part of the document provides a conclusion and summary of the main points discussed. It reiterates the importance of the research and the value of the findings presented. The text also includes a list of references and a bibliography, providing a clear and concise overview of the sources used in the study.

## LIST OF ILLUSTRATIONS

FIG.		PAGE
<b>A</b>		
78.	Adjustable Plate Condenser.....	138
8.	Ampere Turn, The.....	19
15.	Attraction Between Parallel Currents Flowing in the Same Direction.....	29
64.	Average and Maximum E. M. F., Relation Between .....	115
<b>B</b>		
128.	Brush Discharge from Ring to Point.....	215
122.	Brush Discharge from Coil to Face.....	208
<b>C</b>		
49.	Calculated Current Curves in Two Inductive Circuits .....	96
28.	Close Coupling of Primary and Secondary. ....	52
80.	Coil-winding Machine .....	141
50.	Components of Current and E. M. F. in an Inductive Circuit .....	98
38.	Condenser, Adjustable Plate.....	219
140.	Condenser, Crate for Adjustable Plate.....	236
85.	Condenser, Diagram of.....	154
93.	Condenser Discharge Through High Resistance .....	170
95.	Condenser Discharge Through Low Resistance .....	172
97.	Condenser Discharge with Long Air Gap..	174
96.	Condenser for High Potentials.....	173
139.	Condenser Plate, Method of Coating.....	235

vi ELECTRICITY AT HIGH PRESSURES

FIG.		PAGE
59.	Conductor Moving at Right Angles to Magnetic Field .....	110
48.	Conventional Curves of Current in Two Inductive Circuits .....	90
79.	Core of Transformer, in Construction.....	139
78.	Core of Transformer, One Leg of.....	138
33.	Creation of E. M. F. by Conductor Moving at an Angle Across Magnetic Field.....	61
24.	Creation of Induced Current in a Closed Adjacent Conductor. Current Stopped.	46
43.	Cross-section of Inductor Alternator.....	73
88.	Current, Leading of, Diagram of.....	163
26.	Curve of Density of Magnetic Field Surrounding Conductor .....	49
60.	Curve of E. M. F. Produced in Figure 59..	111
62.	Curve of Erratic Moving Conductor.....	113
	Curves of Magnetic Induction, Chart of....	22

**D**

47.	Determination of Inductance of Helix Having Widely Separated Turns.....	83
109.	Diagram for Producing Experiment in Figs. 107 and 108.....	191
110.	Lighting Lamp Through Coil and Mouth...	191
102.	Diagram of Connections for Fig. 100.....	183
103.	Diagram of Connections for Fig. 100.....	184
121.	Discharge of One Hundred Thousand Volts Between Two Persons.....	206
118.	Divided Circuits Used in Charging Body, Diagram of .....	202

**E**

72.	Eddy Currents in Laminated Core.....	129
71.	Eddy Currents in Solid Iron, Representation of .....	128