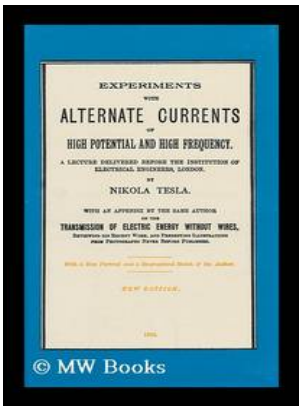
Experiments with alternate currents of high potential and high frequency

Omni Pubs - Experiments With Alternate Currents of High Potential and High Frequency



Description: -
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Amateur plays.
Drama in Christian education.
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Electric currents.
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-Experiments with alternate currents of high potential and high frequency
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The Beautiful Legacy of Nikola Tesla

I will now endeavor to show you some of the most noteworthy of these discharge phenomena.

NIKOLA TESLA LECTURES

Returning to the subject, and bearing in mind that the existence of two electricities is, to say the least, highly improbable, we must remember, that we have no evidence of electricity, nor can we hope to get it, unless gross matter is present. If the spheres be quite close and the spark be playing between them, by interposing a thin plate of ebonite between the spheres the span: instantly ceases and the discharge spread; into an intensely luminous circle several inches in diameter, provided the spheres are sufficiently large. Here, attached to a leading wire, is another bulb, winch, as I touch its metallic socket, is filled with magnificent colors of phosphorescent light.

Tesla's Writings

One single layer of ordinary magnet wire, and not too thin at that, will be generally sufficient, the number of turns necessary for the particular use for which the coil is intended being easily ascertained by a few trials. In the present systems of electrical distribution, the employment of the iron with its wonderful magnetic properties allows us to reduce considerably the size of the apparatus; but, in spite of this, it is still very cumbersome. One may make the induced circuit of a dynamo machine or transformer of such high resistance that when operating devices of considerably smaller resistance within very wide limits a nearly constant current is maintained.

Nikola Tesla

Next some simple ways of maintaining the circulation, as by rotating a body of mercury, presented themselves. Such superimposed vibrations are impossible when we work with an alternate current machine. Again, any further increase in current is wasted.

Experiments with Alternate Currents of High Potential and High Frequency by Nikola Tesla

Tesla used an incandescent-type lamp globe with a single internal conductive element and excited the element with high voltage currents from a , thus creating the brush discharge emanation.

Experiments with Alternate Currents of High Potential and High Frequency

Incandescence may also be produced in this manner in a simple closed filament. The discharge of a condenser affords us a means of obtaining frequencies by far higher than are obtainable mechanically, and I have accordingly employed condensers in the experiments to the above end.

Plasma globe

In consequence of this two-fold tendency, it is possible to produce by means of points, effects identical to those produced by capacity. With a perfectly symmetrical and polished wire such motions would probably not occur.

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