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 c. Vol, No., Bln Thn : Vol 89 Artikel No 30801, Maret 2020
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Nilai untuk Pengusul : 60% x 37,75 = 22,65			

Semarang, 4 Februari 2022

Reviewer 1


 Prof. Dr. Agus Subagio, S.Si., M.Si.
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 Unit Kerja: FSM Universitas Diponegoro
 Bidang Ilmu: Fisika

Reviewer 2


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Nilai Pengusul = 60% x 37 = 22,2				

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Artikel yang disusun telah sesuai dengan template jurnal. Bidang ilmu pengusul/anggota penulis sesuai dengan artikel yang dibahas. Isi jurnal sesuai, lengkap dan tepat dengan komponen-komponennya: abstrak, pendahuluan, Metode bahan: model matematika dan teknik eksperimen, hasil, pembahasan dan kesimpulan, dan daftar pustaka.

2. Ruang lingkup dan kedalaman pembahasan:

Makalah membahas tentang perbandingan model matematis dan hasil eksperimen dari karakteristik atau sifat arus tegangan pada lucutan plasma korona dari model electrode Garis-Bidang. Terdapat kesesuaian kedua model matematis dan hasil eksperimen melalui grafik karakteristik arus tegangan.

3. Kecukupan dan kemutakhiran data/informasi dan metodologi:

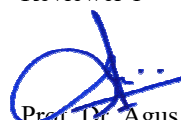
Metodologi yang digunakan cukup baik dan mendukung riset ini. Penelitian ini cukup baik dengan originalitas yang tinggi didukung referensi sebanyak 20 paper dan indeks kemiripan turnitin hanya 2%.

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Semarang, 4 Februari 2022

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d. Kelengkapan unsur dan kualitas terbitan/jurnal (30%)	12			11,6
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2. Ruang lingkup dan kedalaman pembahasan:

Paper ini membahas tentang perbandingan diantara model matematis dan hasil eksperimen dari karakteristik arus tegangan pada kasus lucutan plasma korona dari model electrode Garis-Bidang. Diperoleh tingkat kesesuaian diantara model matematis dan hasil eksperimen melalui grafik karakteristik arus tegangan.

3. Kecukupan dan kemutakhiran data/informasi dan metodologi:

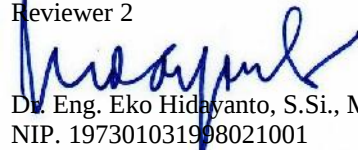
Data-data serta metodologi yang digunakan baik dan mendukung riset ini. Penelitian ini menggunakan metode baru dengan tingkat originalitas yang tinggi (pendekatan geometris electrode bukan pendekatan fisis seperti persamaan Maxwell dengan indeks kemiripan turnitin hanya 2%).

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Research on corona discharges from plasma generators has been studied using the line-plane configurations (L-PC). The purpose of this study is to calculate the comparison of the level of conformity of the voltage current characteristic curve (I-V) from the simulation results of numerical calculations of the electrode geometry function and the results of experimental data. There is an electrode (electrode 1) in the form of a rectangular plate with a very thin thickness which has a length and width of a and b respectively in an upright position (line configuration). Electrode 1 has a distance of c to electrode 2

which is in a lying position (plane configuration) below the electrode 1. Furthermore, by using variation of c of 2.5 cm, 2.8 cm, 3.1 cm and 3.4 cm, the two electrodes are connected to the plasma generating equipment, thus producing a plasma discharge that comes out of the tip of the electrode 1 towards electrode 2. Research results from all variations of c prove that there is a high degree of suitability between numerical calculations with experimental data by taking the value of the fitting for the sharpness shape factor of k in the area with the largest plasma discharge. © 2020 EDP Sciences.

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Formerly known as: Journal De Physique, III
Formerly known as: Microscopy Microanalysis Microstructures

Scopus coverage years: from 1998 to 2022

Publisher: EDP Sciences

ISSN: 1286-0042 E-ISSN: 1286-0050

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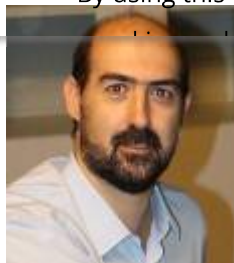


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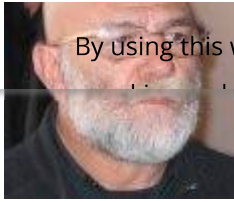
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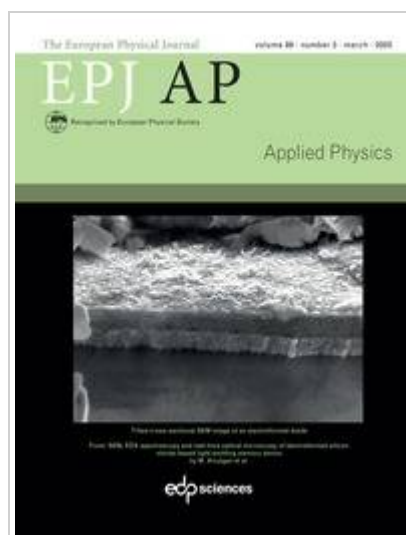


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PZT ceramic particles/polyurethane composites formalism for mechanical energy harvesting

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Received: 27 March 2019 | **Received in final form:** 12 October 2019 | **Accepted:** 1 April 2020
Published online: 23 April 2020

Abstract

More recently, the ferroelectric ceramic/polymer composites have been progressively replacing ferroelectric ceramics and polymers as they combine their interesting properties. Such as high compliance of polymers and high electromechanical coupling of ferroelectric ceramics those are required for piezoelectric transducer applications. At the same time, the ferroelectric ceramic/polymer composites formalism for predicting their energy-conversion capabilities is of both academic and industrial interest. The novelty of this paper is that the electrical power harvested by the PZT/PU polarized composite has been expressed in terms of the effective longitudinal piezoelectric coefficient (d_{33}) of the composite via a parameter p related to the poling ratio. Besides, the parameter p , that is characterizing the PZT/PU composites with different longitudinal piezoelectric coefficients (d_{33}), was evaluated. The

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other parameters of the electrical power expression were calculated using the Yamada

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Regular Article

A study of the effect of temperature on the dielectric breakdown and lifetime of polyethylene materials under applied DC voltages at the nanoscale

Imed Boukhris^{1,2*}, Imen Kebaili^{1,3}, Halima

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Received: 2 March 2019 | Received in final form: 26 August 2019 | Accepted: 24 March 2020
Published online: 23 April 2020

Abstract

The reported simulation results could be considered as one of the firsts modeling of the effect of temperature on the electrical breakdown phenomenon in polyethylene nanoscale. The breakdown begins with an abrupt increase of the external current density without a subsequent saturation. Our results show that the increase of temperature at a constant applied DC voltage leads to a breakdown and to a decrease of the insulator's lifetime. These outcomes are strongly linked to the injection of free charges into the sample and to the temporal evolution of the conduction current.

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