Special Issue

Polyphase Insulation and Discharge in High-Voltage Technology

Message from the Guest Editors

High-voltage devices play a pivotal role in the realms of electric and electronic engineering. The dire requirement for mechanical support and for isolation among distinct gas or liquid chambers necessitate the adoption of polyphase insulation structures within these devices. These structures encompass gas-solid, liquidsolid, or solid-solid interfaces with diverse materials or phases. Moreover, advantages such as compact geometry and better cooling also encourage researchers and engineers to design and incorporate polyphase insulation structures into their novel prototypes. We welcome submissions of original research articles and reviews in areas including (but not limited to) the following:

- Novel design methods of polyphase insulation structures;
- Electrical, mechanical, and thermal properties of polyphase dielectrics;
- Fundamental characteristics of polyphase discharge and resultant plasma;
- Innovative diagnosis methods of polyphase insulation structures;
- Simulation and experimental approaches for polyphase insulation;
- Utilization of advanced polyphase insulation in high voltage technology.

Guest Editors

Dr. Wendong Li

Dr. Junbo Deng

Dr. Daning Zhang

Deadline for manuscript submissions

15 August 2025



Electronics

an Open Access Journal by MDPI

Impact Factor 2.6 CiteScore 6.1



mdpi.com/si/185782

Electronics Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 electronics@mdpi.com

mdpi.com/journal/ electronics





an Open Access Journal by MDPI

Impact Factor 2.6 CiteScore 6.1



electronics



About the Journal

Message from the Editor-in-Chief

Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guest-edited by leading experts in selected topics of interest.

Editor-in-Chief

Prof. Dr. Flavio Canavero Department of Electronics and Telecommunications, Politecnico di Torino, 10129 Torino, Italy

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), CAPlus / SciFinder, Inspec, Ei Compendex and other databases.

Journal Rank:

JCR - Q2 (Engineering, Electrical and Electronic) / CiteScore - Q1 (Electrical and Electronic Engineering)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.8 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).