

*Special Issue Reprint*

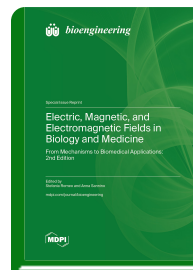
## **Electric, Magnetic, and Electromagnetic Fields in Biology and Medicine**

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Electric, magnetic, and electromagnetic fields (EMFs) are widely used in everyday life, as well as in specific occupational environments and clinical settings. EMF-based technologies employ different parts of the spectrum, from static fields to low- and high-frequency EMFs encompassing millimeter waves and THz.

Exposure to these fields raises concerns about the possible effects on human health. On the other hand, biomedical applications of non-ionizing radiation are successfully employed for diagnosis and therapy (e.g., electroporation-based treatments, microwave hyperthermia, transcranial magnetic stimulation, etc.). There is a significant amount of interest in evaluating the associated interaction mechanisms, which are also relevant in fostering the development of new biomedical applications and the optimization of the existing ones.

This Special Issue, entitled “Electric, Magnetic, and Electromagnetic Fields in Biology and Medicine: From Mechanisms to Biomedical Applications: 2nd Edition”, includes contributions focusing primarily on the therapeutic and diagnostic applications of EMFs. In vitro, in silico, and human studies are presented where the aim was either to optimize technical aspects of the applications, or to provide insights into biological, biophysical, electrical or electrochemical mechanisms. Overall, these contributions present an overview of the broad spectrum of established and potential applications of electromagnetics in the biomedical field.

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