

Special Issue

Electric, Magnetic, and Electromagnetic Fields in Biology and Medicine: From Mechanisms to Biomedical Applications: 2nd Edition

Message from the Guest Editors

Electric, magnetic, and electromagnetic fields (EMF) are widely used in everyday life and in specific occupational environments. Exposure to these fields raises concerns about the possible effects on human health, especially due to the diffusion of 5G networks, which are expected to have a major impact on exposure scenarios. On the other hand, biomedical applications of non-ionizing radiations are successfully employed for diagnosis and therapy (e.g., electroporation-based treatments, microwave hyperthermia, etc.). There is great interest in evaluating the associated interaction mechanisms, which are also relevant to foster the development of new biomedical applications or the optimization of the existing ones. This Special Issue is open to scientific studies addressing in vitro, in vivo, and epidemiological investigations on electric, magnetic, and electromagnetic exposure aimed at evaluating possible health effects, the beneficial potential of such fields for diagnosis and therapy, and studies focusing on interaction mechanisms. It includes work in any frequency range, and covers exposure assessment, dosimetry, risk assessment, communication, and management.

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