Special Issue

Cold Atmospheric Plasma (CAP) Treatment in Biological Systems: From Cells to Biomaterials

Message from the Guest Editors

CAP is a near-room-temperature ionized gas composed of complex ionized products including neutral particles such as uncharged atoms/molecules and charged particles such as ions, electrons, and plenty of long- and short-lived reactive species such as reactive oxygen species (ROS) and reactive nitrogen species (RNS). CAP is also referred to as cold plasma, physical plasma, nonthermal plasma, or gas plasma in many references. The physical nature of the non-equilibrium discharge also generates several physical factors, some of which include thermal irradiation, ultraviolet (UV) irradiation, and electromagnetic (EM) emission. CAP treatment exerts complex, interesting, even unique impacts on biological systems, from cells/tissues to biomaterials such as biointerface materials, which is the foundation to understand plasma medicine and other related applications. We focus on interesting and unique biological and chemical effects of CAP treatment on diverse cells (cancer cells, bacteria, etc.), viruses, and important biomaterials. Both original articles (experimental or simulation works) and critical reviews with unique visions are highly recommended for submission.

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Deadline for manuscript submissions

closed (20 January 2023)

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/si/82992

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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