Special Issue

Recent Progress in Biomimetic Membranes

Message from the Guest Editor

The bilayer lipid membrane is one of the essential constituents of the living cell. Many important proteins are incorporated or attached to it, their function closely depending on their electrical and other properties including fluidity. However, the investigation of these membrane proteins in their natural environment, for example in mitochondria or chloroplasts, is often hampered because the membranes are tightly packed with different proteins interacting with each other. Therefore, with the isolation and in vitro preparation of membrane proteins, artificial bilayer lipid membrane systems were sought early on. The specifications of these systems include high electrical (gigaohm) resistance of the lipid membrane, mechanical robustness, fluidity, and aqueous layers accessible from both sides of the lipid membrane. The ultimate test is the demonstration of the function of a membrane protein in the artificial environment opening new methods of investigation for this important group of proteins.

Guest Editor

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Deadline for manuscript submissions

closed (31 July 2021)

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/si/50273

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mdpi.com/journal/applsci

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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.

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