Special Issue

Fusing Biology and Engineering: Manufacturing, Applications, and Future Trends in Bio-Hybrid Systems

Message from the Guest Editor

Biohybrid systems are emergent technologies that merge living and non-living materials and can be realized with multiscale designs, ranging from microsized to cm-scale systems. Biointegrated and bio-interactive devices can be applied to various biomedical applications.

Incorporating living cells in controllable and intelligent man-made systems requires notable efforts to protect the cells from dysfunction, damage, and death. Nevertheless, biohybrids promise to capture the unique properties of living cells into human-made devices for diverse applications, including biosensing, medical simulation, imaging, robotics, biomedical models, and others. Here, we invite contributions about novel engineered systems that borrow live materials from nature and use them for specific tasks. Expected topics include (but are not limited to) processes and products involved in tissue engineering, biosensors, robotics, bioelectronics, medical devices, and organ-on-a-chip systems that focus on exploiting the unique properties of living cells.

Guest Editor

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Deadline for manuscript submissions

closed (30 September 2024)

Micromachines

an Open Access Journal by MDPI

Impact Factor 3.0
CiteScore 6.0
Indexed in PubMed

mdpi.com/si/176783

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