Special Issue

Wearable Biosensors: From Materials to Systems

Message from the Guest Editors

Wearable biosensing systems are revolutionizing healthcare by enabling continuous, non-invasive monitoring of physiological and biochemical markers for both clinical and remote diagnostics. Current research focuses on overcoming material, fabrication, and integration challenges to develop comfortable vet accurate devices, exemplified by flexible capacitive electrodes with durable nanocoatings for monitoring vital signs like heart rate, respiration, and temperature. These systems rely on sophisticated biosensors capable of real-time, accurate detection of diverse health indicators, enabling early diagnosis and personalized treatment strategies. This Special Issue invites contributions highlighting innovations in biosensor design, including novel functional materials. advanced fabrication methods, self-sustaining power solutions, and integrated system development. We welcome original research, comprehensive reviews, and technical reports that demonstrate progress in wearable biosensor technology from fundamental material discoveries to clinical implementations, with the shared goal of enhancing patient outcomes and advancing healthcare delivery.

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Deadline for manuscript submissions

15 March 2026



Micromachines

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Impact Factor 3.0 CiteScore 6.0 Indexed in PubMed



mdpi.com/si/246830

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