

Special Issue

Integrated Circuits and Systems for Biochemical Sensing

Message from the Guest Editors

As biochemical sensing platforms move beyond laboratory demonstrations toward wearable, portable, and embedded systems, challenges such as ultra-low signal acquisition, robust signal conditioning, energy-efficient operation, and long-term system stability must be addressed primarily through circuit- and system-level solutions. This Special Issue will highlight integrated circuits and systems as the central drivers of innovation in biochemical sensing rather than sensing materials or biochemical assays alone. We particularly seek contributions that showcase how analog, mixed-signal, and system-on-chip (SoC) architectures, including sensor interface circuits and low-noise front-end electronics, play a defining role in system performance. Other topics of interest include embedded signal processing, hardware–software co-design, wireless and battery-less system integration, and fully integrated sensing platforms. The collected works will highlight how advances in circuit architecture and system integration enable reliable, scalable, and deployable biochemical sensing solutions for biomedical, environmental, and point-of-care applications.

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Chemosensors continues to grow as a forum for all manners of sensing that encompass chemistry. *Chemosensors* is published in open access format – all articles and content are released on the internet immediately following acceptance, thus allowing unlimited access to the content as soon as it is published. We would be happy to have you join our growing list of authors.

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