Special Issue

Neural Microelectrodes: Design and Applications

Message from the Guest Editors

Neural electrodes enable the recording and stimulation of bioelectrical activity from the nervous system. This technology provides neuroscientists with the means to probe the functionality of neural circuitry in both health and disease. In addition, neural electrodes can deliver therapeutic stimulation for the relief of debilitating symptoms associated with neurological disorders such as Parkinson's Disease and may serve as the basis for the restoration of sensory perception through peripheral nerve and brain regions after disease or injury. Lastly, microscale neural electrodes recording signals associated with volitional movement in paralyzed individuals can be decoded for controlling external devices, prosthetic limbs, or driving the stimulation of paralyzed muscles for functional movements. This Special Issue will address the state-of-the-art knowledge and emerging opportunities for the development and demonstration of advanced neural electrodes.

Guest Editors

Prof. Dr. Joseph Pancrazio

Department of Bioengineering, University of Texas at Dallas, Richardson, TX 75080, USA

Prof. Dr. Stuart Cogan

Department of Bioengineering, University of Texas at Dallas, Richardson, TX 75080, USA

Deadline for manuscript submissions

closed (31 July 2018)



Micromachines

an Open Access Journal by MDPI

Impact Factor 3.0 CiteScore 6.0 Indexed in PubMed



mdpi.com/si/12584

Micromachines
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
micromachines@mdpi.com

mdpi.com/journal/micromachines





an Open Access Journal by MDPI

Impact Factor 3.0
CiteScore 6.0
Indexed in PubMed



About the Journal

Message from the Editor-in-Chief

You are invited to contribute research articles or comprehensive reviews for consideration and publication in *Micromachines* (ISSN 2072-666X). *Micromachines* is published in the open access format. Research articles, reviews and other contents are released on the internet immediately after acceptance. The scientific community and the general public have unlimited free access to the content as soon as it is published. As an open access journal, *Micromachines* is supported by the authors or their institutes by payment of article processing charges (APC) for accepted papers. We are pleased to welcome you as our authors.

Editor-in-Chief

Prof. Dr. Ai-Qun Liu

Department of Electrical and Electronic Engineering, The Hong Kong Polytechnic University, Hong Kong, China

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Ei Compendex, dblp, and other databases.

Journal Rank:

JCR - Q2 (Instruments and Instrumentation) / CiteScore - Q1 (Mechanical Engineering)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 17.2 days after submission; acceptance to publication is undertaken in 1.9 days (median values for papers published in this journal in the first half of 2025).

