



an Open Access Journal by MDPI

New Advances in Electrochemical Motion Sensors

Guest Editors:

Dr. Vadim Agafonov

Moscow Institute of Physics and
Technologydisabled,
Dolgoprudny, Russia

Prof. Dr. Junbo Wang

Director of the State Key
Laboratory of Transducer
Technology, Aerospace
Information Research Institute,
Chinese Academy of Sciences,
Beijing 100190, China

Deadline for manuscript
submissions:

closed (31 December 2023)

Message from the Guest Editors

Electrochemical motion sensors use mass and charge transfer in miniature liquid-based electrochemical cell as a readout mechanism to transduce mechanical motions to variations in the interelectrode current. Based on these operating principles, highly sensitive motion sensors have been created to be used in various fields, such as seismic sensors, accelerometers, and angular velocity sensors. New applications of electrochemical motion sensors assume the use of sensors integrated with actuators as a part of integrated microfluidics system. Papers are invited to contribute which revolve areas below (not limited to these):

- Studies of fundamental physical and electrochemical processes that determine conversion of signals in electrochemical motion sensors;
- New designs of electrochemical cells and technological aspects related to manufacturing of sensors;
- New engineering approaches to expand technological possibilities by combining sensors with signal conditioning, control, power electronic circuits and built-in actuators;
- Use of new electrolytes and materials to build electrodes;
- Application examples from various fields.



mdpi.com/si/162974

Dr. Vadim Agafonov
Prof. Dr. Junbo Wang
Guest Editors

Special Issue



sensors



an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Vittorio M. N. Passaro

Dipartimento di Ingegneria
Elettrica e dell'Informazione
(Department of Electrical and
Information Engineering),
Politecnico di Bari, Via Edoardo
Orabona n. 4, 70125 Bari, Italy

Message from the Editor-in-Chief

Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. *Sensors* organizes Special Issues devoted to specific sensing areas and applications each year.

Author Benefits

Open Access : free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

High Visibility: indexed within [Scopus](#), [SCIE \(Web of Science\)](#), [PubMed](#), [MEDLINE](#), [PMC](#), [Ei Compendex](#), [Inspec](#), [Astrophysics Data System](#), and [other databases](#).

Journal Rank: JCR - Q2 (*Chemistry, Analytical*) / CiteScore - Q1 (Instrumentation)

Contact Us

Sensors Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/sensors
sensors@mdpi.com
[X@Sensors_MDPI](#)