sensors

an Open Access Journal by MDPI

IMPACT FACTOR 3.4

Indexed in: PubMed

CITESCORE 7.3

Metal–Organic Framework Thin Films as Advanced Chemical Sensing Materials

Guest Editor:

Dr. Ki-Joong Kim
National Energy Technology Laboratory (NETL)/US Department of Energy (DOE), 626 Cochrans Mill Road, Pittsburgh, PA 15236, USA

Deadline for manuscript submissions:
closed (31 August 2021)

Message from the Guest Editor

Dear Colleagues,

Nanoporous metal organic framework (MOF) materials have been widely investigated as chemical sensing materials due to their periodic porosity, tunable chemical functionalities such as Lewis acid/base sites, and potential conductivity or luminescence. However, most sensor devices require the integration of the sensing material as a thin film, which presents a significant challenge for MOF materials. In this Special Issue, we plan to outline the background on MOFs as excellent candidates for chemical sensing (i.e., VOCs, gases, ions, pH) as well as different techniques for MOF thin film growth and the challenges associated with each method. Examples of different MOF thin film chemical sensor devices will be accepted as well as their various transduction mechanisms: electrical, electrochemical, optical, and acoustic. The Special Issue will present an outlook on potential future innovations for MOF thin film chemical sensors as well as and the remaining challenges associated with real-world implementation.

Dr. Ki-Joong Kim
Guest Editor

sensors

IMPACT FACTOR 3.4 | Indexed in: PubMed | CITESCORE 7.3

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