

Special Issue

Silicon and Metal Oxide Thin Film Transistors: Materials, Process Technology, Device Physics, and Reliability

Message from the Guest Editor

The flat panel display (FPD) market is expected to further expand at a higher growth rate in upcoming years, due to the demand for high-resolution, compact, lightweight, and flexible displays. The thin film transistor (TFT) is a key component for controlling picture quality of FPDs. TFT is a type of field-effect-transistor (FET), which is commonly used for large-area electronics. These transistors are produced by depositing different types of thin films, such as active semiconductors, dielectrics and metals, over a non-conducting substrate. The significant advantage of the TFT is a low fabrication temperature. The main application of TFTs is in active-matrix liquid-crystal displays (AM-LCDs) or organic light emitting diode (AM-OLED) displays, in which each pixel is controlled by one or several TFTs. In addition to AM-LCDs and OLED displays, TFTs are also used in X-ray imaging devices, various sensors (e.g., fingerprint, biomedical, pH, temperature sensors), and radio-frequency identification (RFID) chips. For more information, please click the following link:

https://www.mdpi.com/journal/materials/special_issues/thin_film_transistors

Guest Editor

Prof. Dr. Mamoru Furuta

Environmental Science and Engineering, Kochi University of Technology, Kami 782-8502, Japan

Deadline for manuscript submissions

closed (30 September 2020)



Materials

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed



[mdpi.com/si/19953](https://www.mdpi.com/si/19953)

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

[mdpi.com/journal/
materials](https://www.mdpi.com/journal/materials)





Materials

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed



[mdpi.com/journal/
materials](https://mdpi.com/journal/materials)



About the Journal

Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

Editor-in-Chief

Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

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, PMC, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

Journal Rank:

JCR - Q2 (Metallurgy and Metallurgical Engineering) /
CiteScore - Q1 (Condensed Matter Physics)