



crystals

**IMPACT
FACTOR
2.061**

Special Issue Reprint

Thin Film Transistor

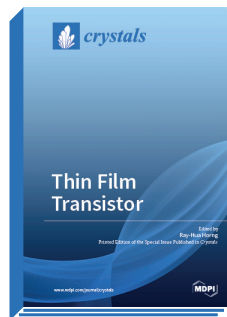
Edited by

Ray-Hua Horng

mdpi.com/books/pdfview/book/1567

ISBN 978-3-03921-526-3 (Pbk)

ISBN 978-3-03921-527-0 (PDF)



Thin film transistors are a type of field effect transistor made by depositing thin films of an active semiconductor layer as well as the dielectric layer. There exists a wide variety of applications for such transistors, such as in active-matrix liquid-crystal displays, active-matrix organic light-emitting displays, photodetecting devices, and biosensors. The application of solution-processed organic semiconductors is promising due to their low cost, facile solution process, easy functionalization, mass production, low temperature, large area manufacture, and flexibility. However, conductive polymers have low conductivity and organic materials degrade in moisture, prohibiting the suitable application of OTFTs in ambient conditions. OTFTs have a higher on-off ratio, however, suffer from poor field-effect mobility as compared to inorganic semiconductor-based thin film transistors.

Recently, new wide-energy bandgap semiconductors can be grown by MOCVD. They have a great potential for the fabrication and applications to TFTs. Inorganic semiconductors have good stability against environmental degradation over their organic counterparts.

For this Special Issue, we have invited researchers to discuss the development of new functional and smart materials, and inorganic as well as organic semiconductor materials and their potential applications in display drivers, radio frequency identification tags, e-paper, gas, chemical and biosensors applications.



Order Your Print Copy

Print copies (170x244 mm, Pbk) can be ordered at:

► www.mdpi.com/books/pdfview/book/1567

MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.



Open Access

Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.



Author Focus

Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.



High Quality & Rapid Publication

MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.



High Visibility

Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), the Verzeichnis lieferbarer Bücher (VLB).



Print on Demand and Multiple Formats

MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.