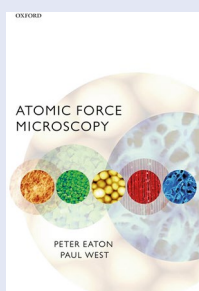


Printing of Graphene and Related 2D Materials

By Leonard W. T. Ng, Guohua Hu, Richard C. T. Howe, Xiaoxi Zhu, Zongyin Yang, Christopher G. Jones and Tawfique Hasan

SPRINGER: 2019. 220PP. £109.99.

This book discusses the state of the art of 2D material production technologies that can be carried out at the industrial scale for functional ink formulation. Within the six chapters, formulations of 2D materials and their potential for various applications including in electronics, optoelectronics, energy, sensing and composites are described. Also detailed are the main graphics printing technologies and conventional commercial printing processes that can be used for printing 2D material inks, as well as their specific strengths and weaknesses. The highlight of the book is the forecast of the commercial market for printed graphene and related 2D materials based on the current state of technologies and existing patents.



Atomic Force Microscopy

By Peter Eaton and Paul West

OXFORD UNIVERSITY PRESS: 2018. 256PP. £35.00.

Containing eight chapters, this practical guide to atomic force microscopy (AFM) covers everything you need to know about AFM, from its instrumental aspects and its modes to how to measure and process AFM images and how to recognize and avoid image artefacts. This book discusses the latest techniques such as multi-frequency AFM, high-speed AFM and small cantilevers, and showcases examples of AFM applications in physical sciences, materials science, life sciences, nanotechnology and industry.

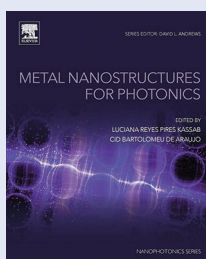


The Secret Life of Science

By Jeremy J. Baumberg

PRINCETON UNIVERSITY PRESS: 2018. 248PP. £24.00.

This provocative book uncovers the mechanisms of how science works and how it influences the thinking of scientists. It explains how the complex scientific ecosystem and its hypercompetitive environment are impacting the diversity of research and the resiliency of science itself. The book attempts to answer questions that puzzle most scientists, if not all, at different stages of their research lives. For instance, are there too few scientists in the world or too many, do some fields expand at the expense of others, who determines what the public gets to hear about, and what is the future of science. In our opinion, it is an interesting read for both young and established researchers.



Metal Nanostructures for Photonics

Edited by Luciana Reyes Pires Kassab and Cid Bartolomeu De Araujo

ELSEVIER: 2018. 346PP. £155.00.

This first edition provides an update on the development of materials with enhanced optical properties and on the demand for novel metal-dielectric nanocomposites and nanostructured materials. The book is divided into three main sections: nanocomposites with enhanced luminescence properties due to contributions of metal nanoparticles hosted in photonic glasses; near- and far-field optical phenomena; and the optical response of single nanoparticles that reveals quantum phenomena at the nanoscale. Various aspects of metal-dielectric nanocomposites and metallic nanostructures are discussed, as well as the pros and cons of using different metallic nanostructures for different photonics applications. Techniques used to prepare and characterize the nanocomposites and nanostructured materials, as well as their physical properties, are also described.

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