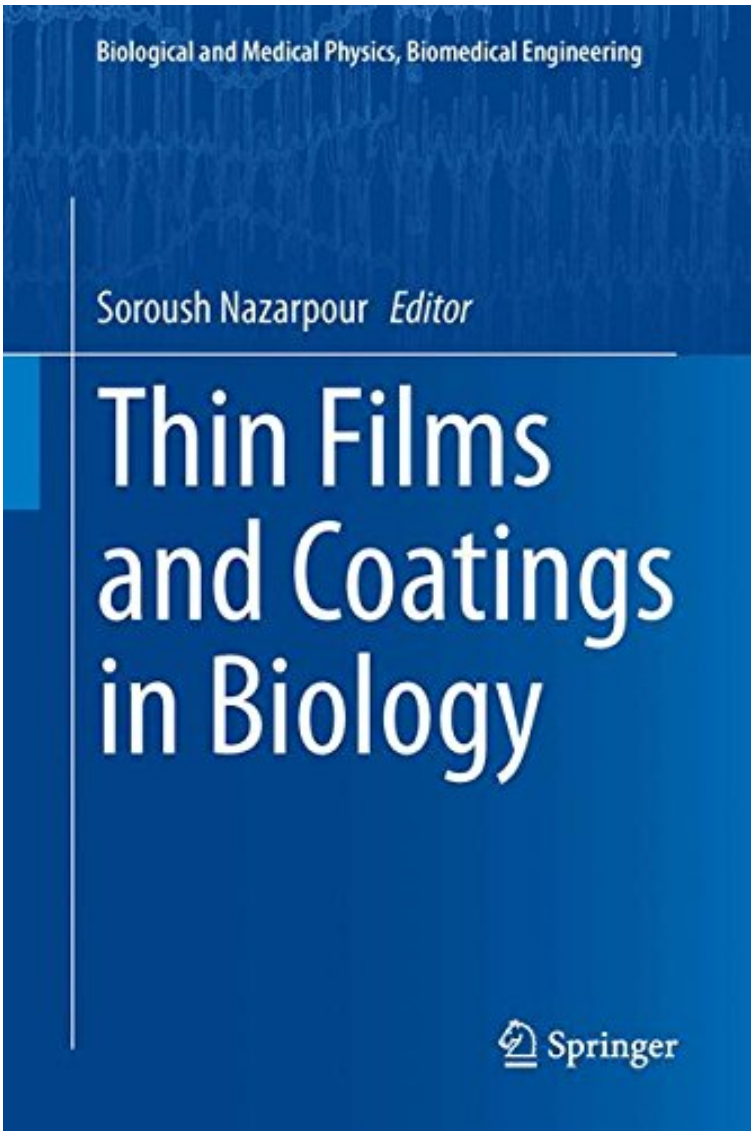
Thin Films and Coatings in Biology (Biological and Medical Physics, Biomedical Engineering)



#5574863 in Books Ingramcontent 2014-04-14 2012-08-17Original language:EnglishPDF # 1 9.25 x .88 x 6.10l, 1.15 #File Name: 9400792476365 pagesThin Films and Coatings in Biology | File size: 17.Mb

From Ingramcontent : Thin Films and Coatings in Biology (Biological and Medical Physics, Biomedical Engineering) before purchasing it in order to gage whether or not it would be worth my time, and all praised Thin Films and Coatings in Biology (Biological and Medical Physics, Biomedical Engineering):

The surface of materials is routinely exposed to various environmental influences. Surface modification presents a technological challenge for material scientists, physicists, and engineers, particularly when those surfaces are subjected to function within human body environment. This book provides a comprehensive coverage of the major issues and topics dealing with interaction of soft living matter with the surface of implants. Fundamental scientific concepts are embedded through experimental data and a broad range of case studies. First chapters cover the basics on biocompatibility of many different thin films of metals, alloys, ceramics, hydrogels, and polymers, following with case studies dealing with orthopedic and dental coatings. Next, a novel and low-cost coating deposition technique capable of production of several types of nanostructures is introduced through simple calculations and several illustrations. Moreover, chapter 6 and 7 present important topics on surface treatment of polymers, which is a subject that has seen many developments over the past decade. The last chapters target mainly the applications of coatings in biology such as in bio-sensing, neuroscience, and cancer detection. With several illustrations, micrographs, and case studies along with suitable references in each chapter, this book will be essential for graduate students and researchers in the multidisciplinary field of bio-coatings.

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