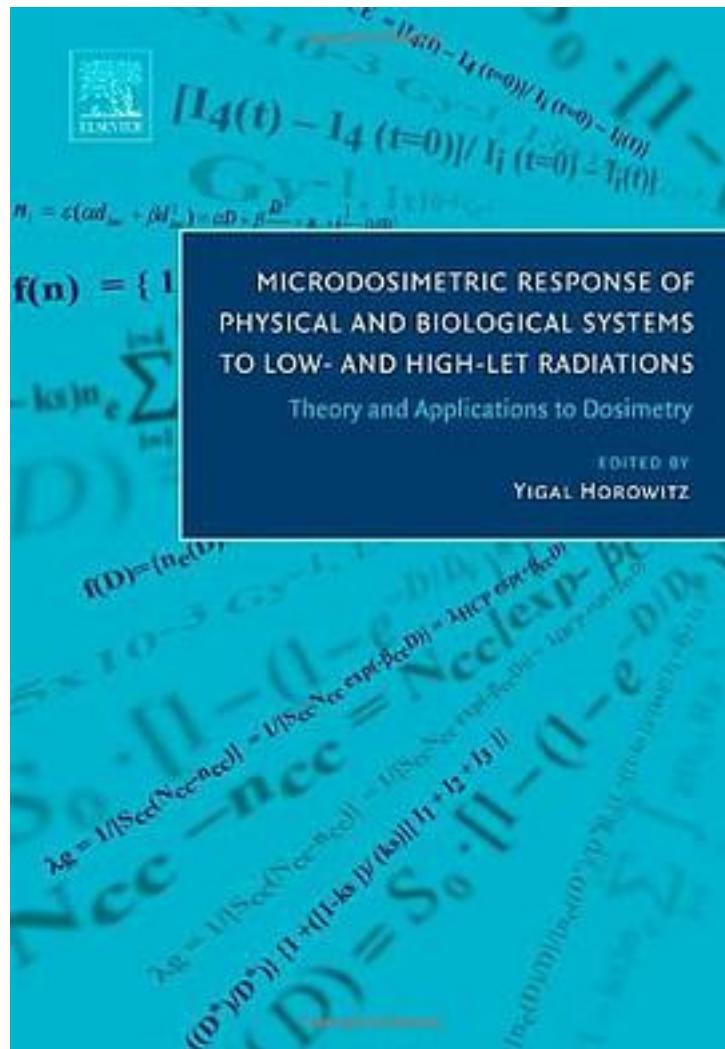


Microdosimetric Response of Physical and Biological Systems to Low and High Let Radiations



[Microdosimetric Response of Physical and Biological Systems to Low and High Let Radiations](#) [下载链接1](#)

著者:Horowitz, Yigal 编

出版者:Elsevier Science Ltd

出版时间:2006-6

装帧:HRD

isbn:9780444516435

One of the aims of this book was to focus the attention of specialists to the diversity of the effects of the ionising radiation on biological and physical systems. Special emphasis has been placed on the exquisite complexities/differences introduced by high ionisation density versus low ionisation density irradiation in both biological and physical systems (Scholz Chapter 1, Horowitz Chapter 2, Olko Chapter 3). As well we wanted to point out the need for novel experimental and theoretical approaches required to advance the important fields of micro and nanodosimetry. Important first steps have already been taken, for example, the accelerated application of semiconductor detectors in their various forms to microdosimetry and as well to practical, important applications in the radiation dosimetry of oncological procedures (Rosenfeld Chapter 6). The vast number of applications of TLD to radiation dosimetry are not neglected; a special chapter is devoted to the application of TLDs to medical dosimetry applications (Mobit and Kron Chapter 7) as well as a tutorial approach in an additional chapter to the cavity theories required to extrapolate dose from the detector medium to the tissue medium (Mobit and Sandison - Chapter 5). One of the major features of this book is the intensive, in depth, coverage of the theory and modelling of TL both from the solid state physics point of view (Chen Chapter 4) and the microdosimetic point of view (Horowitz Chapter 2 and Olko Chapter 3). The many puzzling, quaint, quizzical features of TL science can now be understood in the framework of these advanced theoretical models, explained in straightforward, understandable terms. It quantifies/unifies the effects of ionising radiation in both the biological and physical systems. It provides the authoritative treatment of applications of semiconductor detectors and thermoluminescence dosimeters in medical radiation dosimetry. It covers basic and advanced aspects of microdosimetry applied to both biological and physical systems. It includes in-depth review of the effects of the density of ionising radiation in tsl and osl. It provides concise and elegant treatment of cavity theory in medical oncological dosimetry.

作者介绍:

目录:

[Microdosimetric Response of Physical and Biological Systems to Low and High Let Radiations](#) [下载链接1](#)

标签

评论

[Microdosimetric Response of Physical and Biological Systems to Low and High Let Radiations 下载链接1](#)

书评

[Microdosimetric Response of Physical and Biological Systems to Low and High Let Radiations 下载链接1](#)