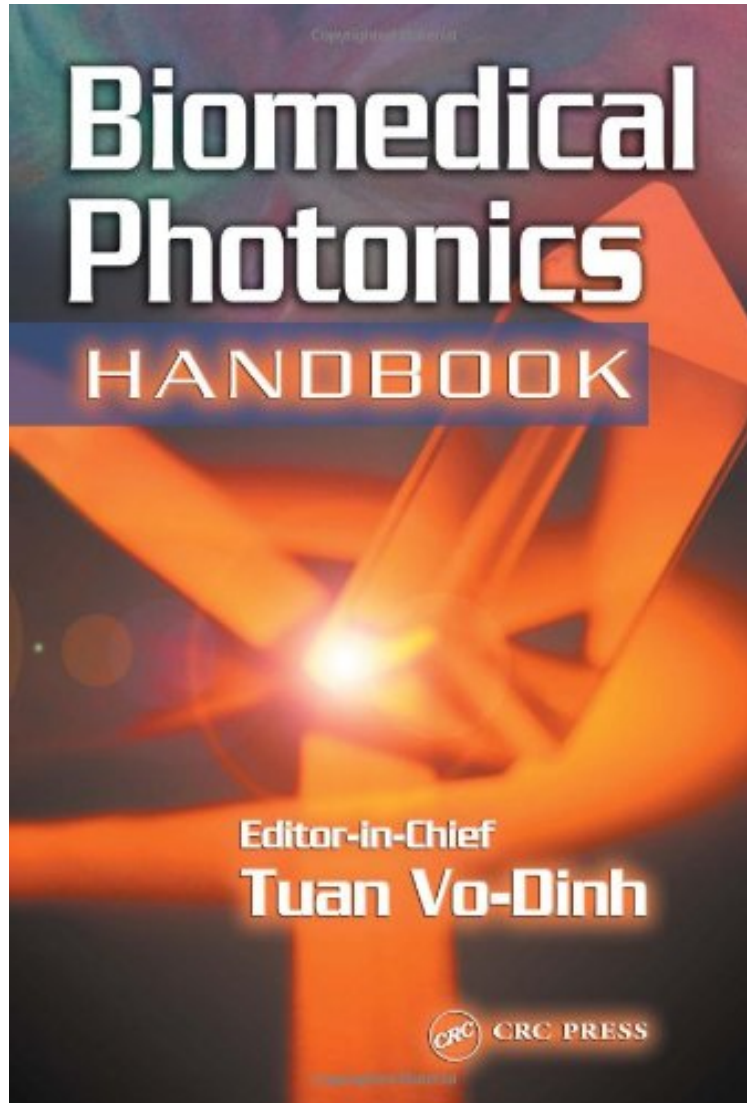


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5 of 6 people found the following review helpful. Intelligent, Useful Handbook By Kenneth J. Dillon Biomedical applications of light are expanding dynamically. This handbook does a good job of organizing a mass of information on dozens of cutting-edge technologies. The articles by leading experts are aimed at professionals but do not, in most cases, require specialized knowledge to understand. The clear graphics appropriately support the text, while the chapter bibliographies are extensive. So this handbook can be recommended to any scientist, medical doctor, engineer,

or graduate student in this or related fields. However, this book suffers from certain flaws that it shares with many other English-language books in this field. Scientists in Russia and other East European countries are very competitive in certain areas of biomedical photonics. They lead the world in the centrally important field of low-intensity laser therapy (LILT). Yet the book's discussion of biophotonics and its almost totally monoglot bibliographies do not come close to incorporating their findings. Even the sole article on LILT states that it will not discuss whole body responses to this therapy. Why not? They are very relevant in a handbook of this sort. What's more, this article omits any mention of Biophotonic Therapy (Photoluminescence, Quantum Hemotherapy), the treatment of the blood with a low-intensity laser via an intravenous waveguide or, in extracorporeal mode, with UV and visible light. The reader would never learn from this handbook that thousands of practitioners throughout the world use Biophotonic Therapy every day for a wide range of indications. The mechanisms of BT are well characterized, and more than 400 scientific articles and a dozen books are devoted to BT's clinical track record. These are unfortunate omissions in an otherwise admirable handbook.

A wide variety of biomedical photonic technologies have been developed recently for clinical monitoring of early disease states; molecular diagnostics and imaging of physiological parameters; molecular and genetic biomarkers; and detection of the presence of pathological organisms or biochemical species of clinical importance. However, available information on this rapidly growing field is fragmented among a variety of journals and specialized books. Now researchers and medical practitioners have an authoritative and comprehensive source for the latest research and applications in biomedical photonics. Over 150 leading scientists, engineers, and physicians discuss state-of-the-art instrumentation, methods, and protocols in the Biomedical Photonics Handbook. Editor-in-Chief Tuan Vo-Dinh and an advisory board of distinguished scientists and medical experts ensure that each of the 65 chapters represents the latest and most accurate information currently available.

New optical technologies, many involving lasers or nanotechnologies providing sensitive and compact electronic-like devices, are revolutionizing many fields. Applications of new optical technologies to biology and medicine might be described as in an adolescent stage, where their power and potential can be recognized but are still developing rapidly, and much is yet to come. The Biomedical Photonics Handbook provides outstanding coverage of basic ideas, present applications of these new technologies, and future potentials. The manifold aspects of the field are discussed by a remarkable selection of experts. This handbook can be expected to be a much used and standard reference during the inevitably rapid development of biological and medical photonics. -Charles H. Townes, Nobel Prize in Physics, 1964, Co-inventor of the Laser This straightforward, well-organized book is an excellent reference that consolidates a wealth of information of interest to anyone involved in biophotonics research, teaching, learning or practice. - Optics and Photonics News, Vol. 15, No. 12, December 2004