

New book bridges the gap between theory and practice in photoacoustic imaging

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A new [book](#) published by Springer Nature, "Biomedical Photoacoustics: Technology and Applications," invites you into the dynamic realm of photoacoustic imaging and sensing, an exciting field where optics, acoustics, and biomedical sciences converge.

Photoacoustic imaging, or optoacoustic imaging, is a technique that uses

light interacting with tissue to produce high-resolution, anatomical, molecular, and functional images with impressive depth.

This method, which uses [light pulses](#) or modulated light to create ultrasound waves, is a strong combination of both optical and ultrasound technologies. The rapid growth of [photoacoustic imaging](#) over the last 20 years highlights its game-changing potential in [biomedical research](#) and health care.

Born out of a collective aspiration to bridge the gap between theory and practice, Dr. Xia says this book aims to meet the growing demand for a comprehensive resource encapsulating the latest technologies, methodologies, and applications in [photoacoustic](#) imaging.

"I am inspired by the rapid pace of innovation and the expanding horizons in this field, recognizing the necessity of consolidating this wealth of knowledge into a single volume that can serve as a guiding beacon for researchers, practitioners, and students alike," says Dr. Xia.

"Biomedical Photoacoustics: Technology and Applications" is tailored for a diverse audience encompassing postgraduate students and researchers across physics, engineering, [biomedical sciences](#), and clinical disciplines. This book serves as a vital link between theoretical understanding and practical application in photoacoustic imaging.

"It is my sincere hope that 'Biomedical Photoacoustics: Technology and Applications' will serve as a catalyst for further exploration, collaboration, and innovation in photoacoustic imaging, ultimately leading to advancements that enhance health care outcomes and improve the quality of life for patients worldwide," says Dr. Xia.

Provided by King's College London

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