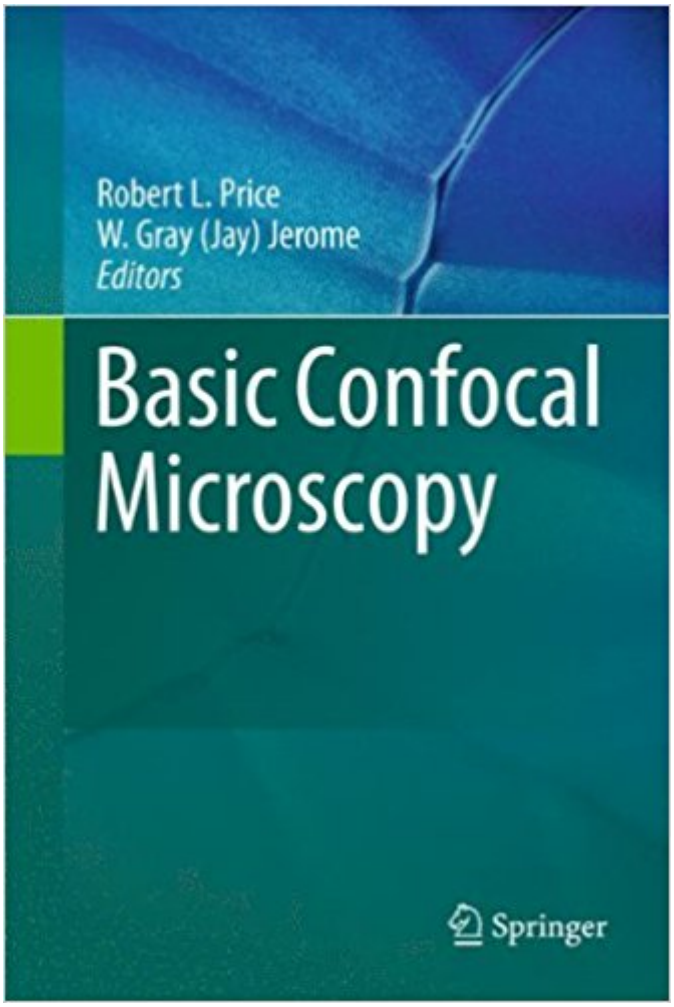
Basic Confocal Microscopy



Synopsis

Most researchers agree that biological confocal microscopy was jump-started by the confocal design first published by White and Amos in 1985 in the Journal of Cell Biology. As a result, this remains a relatively young field. Yet the use of the technique has grown phenomenally since those early efforts, with new users joining the ranks daily. The publication of Basic Confocal Microscopy reflects the burgeoning need to train new students, technologists, and faculty wishing to use confocal microscopy in their research. A direct outgrowth of the authorsÃ¢â ¬â„¢ five-day intensive course in the subject begun in 2005, this book covers the basics and includes all the information required to design, implement, and interpret the results of, biological experiments based on confocal microscopy. Concise yet comprehensive, the volume begins by covering the core issues of fluorescence, specimen preparation and labeling, before moving on to address the analog-to-digital conversion of specimen data gathered using confocal microscopy. Subsequent chapters detail the practicalities of operating confocal microscopes, providing all the information necessary to begin practicing confocal microscopy as well as optimizing the material obtained. The final block of chapters examine 3-dimensional analysis and the reconstruction of data sets, outline some of the ethical considerations in confocal imaging, and then supply a number of resources that the authors have found useful in their own work. Once readers have mastered the information this book presents, the resources found in its pages will be an excellent guide to continued learning about the more advanced forms of confocal microscopy.

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Customer Reviews

From the reviews:Ã¢â ¬Å“This is an eleven chapterÃ¢â ¬â„¢s effort done by a bunch of Authors coordinated by Prof. R.L. Price and W.G. Jerome Ã¢â ¬Â¦ that with great skills are revealing us the secrets of confocal microscopy. Ã¢â ¬Â¦ The chapters devoted to the conversion of analogic into digital data make the book particularly valuable. Ã¢â ¬Â¦ Definitely an excellent book, a must for the microscopists and anyone who is using a microscope and/or is studying biology.Ã¢â ¬Â• (Manuela Monti, European Journal of Histochemistry, Vol. 56 (1), 2012)

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