Colorimetry, the science of quantitively describing color, is essential for color reproduction technology. This is because it creates standards by which to measure color, using mathematical techniques and software to ensure fidelity across media, allow accurate color mixing, and to develop color optimization.

This book is a comprehensive and thorough introduction to colorimetry, taking the reader from basic concepts through to a variety of industrial applications. Set out in clear, easy-to-follow terminology, Ohta and Robertson explain fundamental principles such as color specification, the CIE (International Commission on Illumination) system, and color vision and appearance models. They also cover the following topics:

- the optimization of color reproduction;
- uniform color spaces and color difference formulae, including the CIEDE 2000 formula;
- applications of metamerism, chromatic adaptation, color appearance and color rendering;
- mathematical formulae for calculating color mixing, maximising luminous efficacy, and designing illuminants with specific properties.

*Colorimetry: Fundamentals and Applications* is an ideal reference for practising color engineers, color scientists and imaging professionals working on color systems. It is also a practical guide for senior undergraduate and graduate students who want to acquire knowledge in the field.
ABOUT THE AUTHOR

Noboru Ohta earned his B.Sci., and Dr.Eng. from the University of Tokyo. In 1968, he joined Fuji Photo Film and From 1973, he spend three years under Gunter Wyszecki at the National Research Council of Canada.

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Alan Robertson earned his B.Sc and Ph.D. from the University of London, where he studied under David Wright. He then joined Gunter Wyszecki at the National Research Council of Canada and Spent 35 years there before retiring in 2000. He has published over 50 papers in journals and conference proceedings and has given more than 60 invited talks in 10 countries. He is former President of the International Color Association (AIC) and Vice President of the International Commission on Illumination (CIE). In 2005, he received the Godlove Award of the Inter-Society Color Council (ISCC) for long-term contributions in the field of color.

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