

1. Record Nr.	UNINA9910820181403321
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Titolo	Color : an introduction to practice and principles // Rolf G. Kuehni
Pubbl/distr/stampa	Hoboken, NJ, : Wiley, 2012
ISBN	9781118533550 1118533550 9781785393471 1785393472 9781118533567 1118533569 9781283645461 1283645467 9781118533543 1118533542
Edizione	[3rd ed.]
Descrizione fisica	1 online resource (292 p.)
Disciplina	535.6
Soggetti	Color Color in art
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"A Wiley-Interscience publication."
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Title page; Copyright page; Contents; Preface; 1: Sources of Color; Light; Incandescence; Blackbody Radiation; Luminescence; Absorption, Reflection, Scattering, and Transmission; Refraction; Interference; Diffraction; Molecular Orbitals; Crystal-Field Colors; Electrical Conductors and Semiconductors; References; 2: What Is Color and How Did We Come to Experience It?; The Opponent Color System; Genetics, Epigenetics, and the Connectome; What is Color?; References; 3: From Light to Color; Rods and Cones; Color Opponency; References; 4: Color Perception Phenomena; Light as Illuminator Unrelated and Related Colors Lightness and Related Effects; Helmholtz-Kohlrausch Effect; Lightness Crispening Effect; Hue; Bezold-Brucke and Abney Effects; Chroma; Grayness; Additive and Subtractive Stimulus Mixture: Complementary Colors; Adaptation; Color Constancy;

Metamerism; Simultaneous and Successive Contrast: Afterimages; Spreading and Edge Effects: Mach Bands; Volume Colors, Transparency, and Translucency; Metallic Colors; References; 5: Orderly Arrangements of Color; Ordering of Color Percepts; Levels of Color Order; Kinds of Color Order
Uniform Difference Unit Contours in Euclidean Color Space; Impact of Crispness Effect on Color Difference Perception; Observer Variability; Color Space and Color Solid; Kinds of Color Solids; Color Solid Sampling with Equal or Varied Intervals of Stimulus; Swedish Natural Colour System (NCS); Munsell Color System; Optical Society of America Uniform Color Scales (OSA-UCS); Other Color-Order Systems; Color Stimulus Solids; Color Naming; References; 6: Defining the Color Stimulus; Matching Stimuli; The CIE Colorimetric System; The CIE Chromaticity Diagram; Optimal Object Color (Stimulus) Solid
References 7: Calculating Color; Modeling Global Color Space; Small Color Differences; References; 8: Colorants and Their Mixture; Dyes; Pigments; Colorimetric Properties of Colorants; Colorant Mixtures; Special Colorants; Fluorescent Colorants; Metallic, Pearlescent, and Interference Flakes; References; 9: Color Reproduction; Basic Processes in Color Reproduction; Color Television and Other Displays; Graphic Printing; Dyeing and Printing of Textiles and Paper, Coloring with Pigments and Paints, and other Coloration Techniques; Color Management; Colorant Formulation and Color Control
References 10: The Web of Color; Greek Ideas on Color; Medieval and Renaissance Thought on Color; The Revolution of the Prism; Physics and Psychology; Color Order in the Twentieth Century; Color Technology and Color Science; Color in Language; References; 11: Color (Theory) in Art; The Renaissance; From the Seventeenth to the Nineteenth Centuries; Twentieth Century; Optical and Psychological Effects in Painting; References; 12: Harmony of Colors; Color in Fashion; Color and Music; Complementary Colors; Complex Rules of Harmony; Create Your Own Harmonies; References
Appendix: Timetable of Color in Science and Art

Sommario/riassunto

The one-stop reference to the essentials of color science and technology—now fully updated and revised. The fully updated Third Edition of *Color: An Introduction to Practice and Principles* continues to provide a truly comprehensive, non-mathematical introduction to color science, complete with historical, philosophical, and art-related topics. Geared to non-specialists and experts alike, *Color* clearly explains key technical concepts concerning light, human vision, and color perception phenomena. It covers color order systems in depth, examines color reproduction
