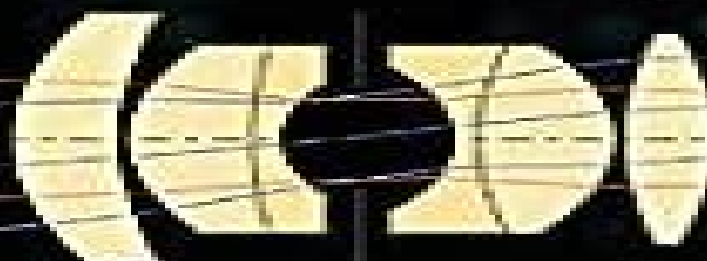


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THIRD EDITION

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Applied Microphotonics Wes R. Jamroz, Roman Kruselecky, Emile I. Haddad, 2018-12-14 As the limits of electrical performance come within sight photons are poised to take over for the electron But the search continues for the materials topologies and fabrication technologies capable of producing photonic devices at a reasonable speed and cost Taking a fundamental look at the development of photonic technology from the macro to the microscale *Applied Microphotonics* introduces the major principles and technologies underlying the field Following an overview of historical and commercial driving forces the authors briefly review the underlying physics emphasizing the practical and design implications for photonic systems This general discussion lays the foundation for the remainder of the book where the authors first introduce the photonic node and then discuss each subsystem in detail including transmitters couplers and switches multiplexers and demultiplexers receivers amplifiers and compensators The following chapters explore new

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Polarized Light, Revised and Expanded Dennis Goldstein, Dennis H. Goldstein, 2003-06-13 Polarized Light Second Edition explores polarized light its production and its use facilitating self study without prior knowledge of Maxwell's equations This comprehensive second edition includes more than 2500 thoroughly updated figures and equations for easier understanding and application across various industries It features new chapters on polarization by refraction and reflection polarization elements anisotropic materials Stokes polarimetry Mueller matrix polarimetry the mathematics of the Mueller matrix This edition also offers updated and expanded material on the derivation of the Fresnel equations with plots of the magnitude and phase of the reflection coefficients

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overcome them This comprehensive reference provides up to date information on component and subsystem technologies fundamental limitations and approaches to reach those limits It covers basic concepts and state of the art technologies emphasizing device technology implementation techniques and system trades The authors discuss hardware technologies and their applications and also explore ongoing research activities and those planned for the near future The analytical aspects of laser communication have been covered to a great extent in several books However a detailed approach to system design and development including trades on subsystem choices and implications of the hardware selection for satellite and aircraft telecommunications is missing Highlighting key design variations and critical differences between them this book distills decades worth of experience into a practical resource on hardware technologies

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