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Sommario/riassunto

This handbook provides comprehensive and up-to-date information on the topic of scientific, industrial and legal metrology. It discusses the state-of-art review of various metrological aspects pertaining to redefinition of SI Units and their implications, applications of time and frequency metrology, certified reference materials, industrial metrology, industry 4.0, metrology in additive manufacturing, digital transformations in metrology, soft metrology and cyber security, optics in metrology, nano-metrology, metrology for advanced communication, environmental metrology, metrology in biomedical engineering, legal metrology and global trade, ionizing radiation metrology, advanced techniques in evaluation of measurement uncertainty, etc. The book has contributed chapters from world’s leading metrologists and experts on the diversified metrological theme. The internationally recognized team of editors adopt a consistent and systematic approach and writing style, including ample cross reference among topics, offering readers a user-friendly knowledgebase greater than the sum of its parts, perfect for frequent consultation. Moreover, the content of this volume is highly interdisciplinary in nature, with insights from not only metrology but also mechanical/material science, optics, physics, chemistry, biomedical and more. This handbook is ideal for academic and professional readers in the traditional and emerging areas of metrology and related fields.