1.	Record Nr. Autore	UNINA9910783132003321 Risk William Paul
	Titolo	Compact blue-green lasers / / W.P. Risk, T.R. Gosnell, A.V. Nurmikko [[electronic resource]]
	Pubbl/distr/stampa	Cambridge : , : Cambridge University Press, , 2003
	ISBN	1-107-12788-2
		0-511-06604-X
		1-280-41741-2
		9786610417414 1-139-14571-1
		0-511-17864-6
		0-511-05973-6
		0-511-30586-9
		0-511-60650-8
		0-511-06817-4
	Descrizione fisica	1 online resource (xii, 540 pages) : digital, PDF file(s)
	Disciplina	621.3661
	Soggetti	Semiconductor lasers
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Title from publisher's bibliographic system (viewed on 05 Oct 2015).
	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	Cover; Half-title; Title; Copyright; Contents; Preface; 1 The need for compact blue-green lasers; 2 Fundamentals of nonlinear frequency upconversion; 3 Single-pass SHG and SFG; 4 Resonator-enhanced SHG and SFG; 5 Intracavity SHG and SFG; 6 Guided-wave SHG; 7 Essentials of upconversion laser physics; 8 Upconversion lasers; 9 Introduction to blue-green semiconductor lasers; 10 Device design, performance, and physics of optical gain of the InGaN QW violet diode lasers; 11 Prospects and properties for vertical-cavity blue light emitters; 12 Concluding remarks; Index
	Sommario/riassunto	William Risk, Timothy Gosnell and Arto Nurmikko have brought together their diverse expertise from industry and academia to write the first fully comprehensive book on the generation and application of blue-green lasers. This volume describes the theory and practical

implementation of three techniques for the generation of blue-green light: nonlinear frequency conversion of infrared lasers, upconversion lasers, and wide bandgap semiconductor diode lasers. In addition, it looks at the various applications that have driven the development of compact sources of blue-green light, and reflects on the recent application of these lasers in high-density data storage, color displays, reprographics, and biomedical technology. Compact Blue-Green Lasers is suitable for graduate-level courses or as a reference for academics and professionals in optics, applied physics, and electrical engineering.