1. Record Nr. UNINA9910806871903321

Titolo	A handbook for DNA-encoded chemistry : theory and applications for exploring chemical space and drug discovery / / edited by Robert A. Goodnow, Jr. ; contributors Raksha A. Acharya [and twenty five others]
Pubbl/distr/stampa	Hoboken, New Jersey : , : Wiley, , 2014 ©2014
ISBN	1-118-83267-1 1-118-83273-6 1-118-83269-8
Descrizione fisica	1 online resource (497 p.)
Disciplina	615.1/9
Soggetti	Combinatorial Chemistry Techniques DNA - chemical synthesis Drug Discovery Gene Library - Small Molecule Libraries Small Molecule Libraries - chemical synthesis
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Just enough knowledge? -- A brief history of the development of combinatorial chemistry and the emerging need for DNA-encoded chemistry -- A history of DNA-encoding -- DNA-compatible chemistry -- Foundations of a DNA-encoded library (DEL) -- Practices for synthesizing DNA-encoded libraries -- Chemical gene design for DNA-encoded libraries -- Analytical challenges for DNA-encoded library systems -- Information technology: functionality and architectures for DNA-encoding -- Theoretical considerations of the application of DNA-encoded libraries to drug discovery -- Begin with the end in mind : the hit-to-lead process -- Enumeration and visualization of large combinatorial chemical libraries -- Screening large compound collections -- Reported applications of DNA-encoded library chemistry -- Dual-pharmacophore DNA-encoded chemical libraries -- Hit identification and hit follow-up -- Using DNA to program chemical

	synthesis, discover new reactions, and detect ligand binding -- An outlook and the changing feasibility and economics of chemical diversity exploration with DNA-encoded combinatorial approaches -- Keeping the promise? an outlook on dna chemical library technology.
Sommario/riassunto	This book comprehensively describes the development and practice of DNA-encoded library synthesis technology. Together, the chapters detail an approach to drug discovery that offers an attractive addition to the portfolio of existing hit generation technologies such as high-throughput screening, structure-based drug discovery and fragment-based screening. The book: Provides a valuable