1. Record Nr. UNIBAS000014630

Autore	Australian conference on combinatorial mathematics : <4. : ; 1975
Titolo	Combinatorial mathematics 4. : proceedings of the Fourth Australian conference, held at the University of Adelaide, August 27-29, 1975 / edited by Louis R. A. Casse, Walter D. Wallis
Pubbl/distr/stampa	Berlin [etc.] : Springer, 1976
ISBN	3-540-08053-8
Descrizione fisica	VI, 249 p. ; 25 cm.
Collana	Lecture notes in mathematics ; 560
Disciplina	511.6
Soggetti	Analisi combinatoria - Congressi
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia

2. Record Nr. UNINA9910367241803321

Titolo	Catalytically Active Nucleic Acids / / edited by Harald Seitz, Frank Stahl, Johanna-Gabriela Walter
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
ISBN	3-030-29646-6
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (VII, 123 p. 38 illus., 12 illus. in color.)
Collana	Advances in Biochemical Engineering/Biotechnology, , 0724-6145 ; ; 170
Disciplina	574.87328
Soggetti	Biochemical engineering Nucleic acids Enzymology Biochemical Engineering Nucleic Acid Chemistry
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	RNA G-Quadruplexes as key Motifs of the Transcriptome -- Challenges and Perspectives in Nucleic Acid Enzyme Engineering -- Strategies for Characterization of Enzymatic Nucleic Acids -- Bioanalytical Application of Peroxidase Mimicking DNAzymes: Status and Challenges -- Hemin/G-Quadruplex Horseradish Peroxidase-Mimicking DNAzyme: Principle and Biosensing Application -- Aptazymes: Expanding the Specificity of Natural Catalytic Nucleic Acids by Application of In Vitro Selected Oligonucleotides.
Sommario/riassunto	This volume reviews numerous reaction mechanisms and applications of nucleic acids with catalytic activity. Written by an interdisciplinary team of authors, it provides an essential overview of these acids' fundamental aspects, while also addressing associated methodologies such as nucleic acid enzyme engineering, peroxidase-mimicking DNAzymes and Aptazymes. After the discovery of natural ribozymes – RNA molecules that mediate the cleavage and formation of phosphodiester bonds and the formation of peptide bonds – numerous artificial ribozymes with altered catalytic activities were produced by in vitro and in vivo selection. Unlike ribozymes, DNAzymes do not occur

in nature. Although the catalytic activity of nucleic acid enzymes is usually much slower than that of proteins, nucleic acid enzymes with comparable catalytic activity have been obtained using stringent selection processes. The key advantages of these enzymes: they are e. g. smaller, easier to produce and purify than proteins, and can withstand denaturation, e.g. by heat. Over the last few years, the number of publications on the applications of enzymatic nucleic acids has grown steadily. Summarizing the fundamentals and applications of these acids, this book will not only be an excellent resource for experts in the field but will also guide young researchers just starting out in this significant area.