1. Record Nr. UNINA9910140877203321

Titolo	Artificial receptors for chemical sensors [[electronic resource] /] / edited by Vladimir M. Mirsky and Anatoly K. Yatsimirsky
Pubbl/distr/stampa	Weinheim, Germany, : Wiley-VCH, 2011
ISBN	1-283-14054-3 9786613140548 3-527-63250-6 3-527-63248-4 3-527-63249-2
Edizione	[4th ed.]
Descrizione fisica	1 online resource (487 p.)
Altri autori (Persone)	MirskyVladimir M YatsimirskyAnatoly K
Disciplina	546.0284 612.86
Soggetti	Chemical detectors Electronic books.
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 and index.
Nota di contenuto	Artificial Receptors for Chemical Sensors; Contents; Preface; List of Contributors; 1 Quantitative Characterization of Affinity Properties of Immobilized Receptors; 2 Selectivity of Chemical Receptors; 3 Combinatorial Development of Sensing Materials; 4 Fluorescent Cyclodextrins as Chemosensors for Molecule Detection in Water; 5 Cyclopeptide Derived Synthetic Receptors; 6 Boronic Acid-Based Receptors and Chemosensors; 7 Artificial Receptor Compounds for Chiral Recognition; 8 Fullerene Receptors Based on Calixarene Derivatives; 9 Guanidinium Based Anion Receptors 10 Artificial Receptors Based on Spreader-Bar Systems11 Potential of Aptamers as Artificial Receptors in Chemical Sensors; 12 Conducting Polymers as Artificial Receptors in Chemical Sensors; 13 Molecularly Imprinted Polymers as Artificial Receptors; 14 Quantitative Affinity Data on Selected Artificial Receptors; Index
Sommario/riassunto	The first to provide systematically organized information on all three important aspects of artificial receptor design, this book brings

together knowledge on an exceptionally hot and multidisciplinary field of research. Strong emphasis is placed on the methodology for discovering artificial receptors, with both definitions for chemosensitivity as well as experimental setups supplied. There follows coverage of numerous classes of artificial receptors, including synthesis, immobilization on surfaces, and quantitative data on properties. The third part of the book focuses on receptor arrays for