1. Record Nr. UNINA9910299858503321

Titolo	Carbon for Sensing Devices / / edited by Danilo Demarchi, Alberto Tagliaferro
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015
ISBN	3-319-08648-0
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (270 p.)
Disciplina	620 620.5 621.3815
Soggetti	Electronic circuits Nanotechnology Circuits and Systems Electronic Circuits and Devices Nanotechnology and Microengineering
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.
Nota di contenuto	Section 1 Carbon Materials and their preparation -- Introduction to Carbon materials -- Technologies of Carbon Materials. Syntheses and preparations -- Section 2 Functionalization of carbon materials and surfaces -- Enhancing the surface sensitivity and selectivity: functionalization of carbon nanomaterials -- Section 3 Applications and devices -- Hybrid and nano-composite carbon sensing platforms -- Carbon nanomaterials for electrochemical and electrochemiluminescent medical sensors -- Silicon Carbide Materials for Biomedical Applications -- PiezoResistance Strain and Pressure sensing using CNT+Polymers -- Diamond sensors.
Sommario/riassunto	This book reveals why carbon is playing such an increasingly prominent role as a sensing material. The various steps that transform a raw material in a sensing device are thoroughly presented and critically discussed. The authors deal with all aspects of carbon-based sensors, starting from the various hybridization and allotropes of carbon, with specific focus on micro and nanosized carbons (e.g., carbon nanotubes,

graphene) and their growth processes. The discussion then moves to the role of functionalization and the different routes to achieve it. Finally, a number of sensing applications in various fields are presented, highlighting the connection with the basic properties of the various carbon allotropes. Readers will benefit from this book's bottom-up approach, which starts from the local bonding in carbon solids and ends with sensing applications, linking the local hybridization of carbon atoms and its modification by functionalization to specific device performance. This book is a must-have in the library of any scientist involved in carbon based sensing application. • Provides comprehensive coverage of carbon for sensing devices, from molecular bonding and its modification by functionalization to device application; • Discusses all forms of carbon for sensing devices, including carbon nanotubes and graphene, and explains applications to numerous fields; • Includes coverage of the most sophisticated and up to date fabrication methodologies.

2. Record Nr. UNINA9910768197903321

Titolo	Biomarkers in Neuropsychiatry : A Primer / / edited by Antonio L. Teixeira, Natalia P. Rocha, Michael Berk
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2023
ISBN	9783031433566 3031433564
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (363 pages)
Disciplina	616.8
Soggetti	Neurosciences Psychiatry Neurology Psychology Neuroscience Behavioral Sciences and Psychology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia

Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1. Biomarkers in medicine and psychiatry: an overview -- 2 -- Genetic biomarkers of psychiatric disorders -- 3 -- Neurophysiological biomarkers -- 4 -- Structural neuroimaging biomarkers in psychiatry -- 5 -- Functional neuroimaging biomarkers -- 6 -- PET biomarkers in psychiatry -- 7 -- Digital markers of mental health problems: phenotyping across biological, psychological and environmental dimensions -- 8 -- Staging biomarkers in psychiatry -- 9 -- Biomarkers of delirium and cognitive impairment -- 10 -- Fluid-based biomarkers of Alzheimer's disease -- 11 -- Neuroimaging biomarkers in Alzheimer's disease and related disorders -- 12 -- Biomarkers of cognitive decline and dementia in Down's syndrome -- 13 -- Biomarkers of schizophrenia -- 14 -- Biomarkers for bipolar disorder -- 15 -- Biomarkers in anxiety disorders -- 16 -- Biomarkers in obsessive-compulsive spectrum disorders -- 17 -- Sleep disorders: identifying biomarkers and clinical applications -- 18 -- Biomarkers in substance use disorders -- 19 -- Biomarkers of traumatic brain injury and related neuropsychiatric disorders -- 20 -- Biomarkers in psychiatry: conceptual and methodological challenges -- 21 -- Ethical issues related to biomarkers in psychiatry.
Sommario/riassunto	This book presents the 'state of the art' of biomarkers research in neuropsychiatric conditions, from dementia to eating disorders, as well as providing methodological, practical and ethical issues related to the development of biomarkers. Biomarkers have revolutionized clinical research and practice in most fields of medicine, but psychiatry has lagged behind. However, in the last decade, there has been a growing expectation that biomarkers will advance and, ultimately, reframe psychiatry research and practice. Biomarkers might inform about diagnosis, therapeutics, prognosis, contributing to a 'personalized medicine'. Understanding their meaning, possibilities and limitations will help clinicians, researchers and students in the related areas navigate and excel in the challenging and ever changing field of neuropsychiatric disorders.