1. Record Nr. UNINA9910624303203321

Titolo	Single Molecule Mechanics on a Surface : Gears, Motors and Nanocars / / edited by Francesca Moresco, Christian Joachim
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2023
ISBN	3-031-16930-1
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (197 pages)
Collana	Advances in Atom and Single Molecule Machines, , 2193-9705
Disciplina	547.7
Soggetti	Nanoelectromechanical systems Nanotechnology Self-assembly (Chemistry) Surfaces (Technology) Nanoscale Devices Nanoscale Design, Synthesis and Processing Molecular Self-assembly Surface patterning
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Unidirectional Motion of Single Molecules at Surfaces -- DMBI — from n-type Dopant to Molecular Machines -- Assembly, Diffusion and Rotation of Organic Molecules on a Gold Surface -- From Early Prototypes to On-surface Drivable Single Molecule Nano-Vehicles -- On-surface Translational Activity of Porphyrin Chromophore Molecules -- Controlled Driving of a Single-molecule Anthracene-based Nanocar on a Metal Surface -- Azulene Based Nanocars -- Towards a Molecular Mechanical Calculator -- Atomistic Modelling of Energy Dissipation in Nanoscale Gears -- Molecular Networks and Surface Engineering for Single Molecule Studies: From Spatial Separation to Emergent Properties.
Sommario/riassunto	Written by the leading experts of this field, this book results from the International Symposium on “Single Molecule Machines on a Surface: Gears, Train of Gears, Motors, and Cars” which took place in Toulouse, France on November 24th - 25th, 2021. The different chapters focus

	on describing the use of single molecule mechanics on a surface and analyze the different steps leading to the design of a single molecule nanocar. The authors present how a single molecule is rotating, how a single molecule gear can participate to a train of molecule gears to propagate motion and how this knowledge is used for the design of nanocars. The way energy is provided to a single molecule and how this energy drives it onto the surface is also analyzed. A large portion of this volume is written by the eight teams selected to participate in the Nanocar Race II event. This book is of great use to graduate students, post-doctoral fellows and researchers who are interested in single molecule mechanics andwho want to know more about the fundamentals and applications of this new research field. .

2.	Record Nr.	UNINA9910383828003321
	Titolo	Fundamentals and Clinics of Deep Brain Stimulation : An Interdisciplinary Approach / / edited by Yasin Temel, Albert F.G. Leentjens, Rob M.A. de Bie, Stephan Chabardes, Alfonso Fasano
	Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
	ISBN	3-030-36346-5
	Edizione	[1st ed. 2020.]
	Descrizione fisica	1 online resource (XII, 307 p. 62 illus., 43 illus. in color.)
	Disciplina	617.48
	Soggetti	Nervous system - Surgery Neurology Psychiatry Clinical psychology Neurosciences Nursing Neurosurgery Clinical Psychology Neuroscience
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia

Nota di contenuto	Part I General Section -- 1. The History of Deep Brain Stimulation -- 2. Anatomy of Targets for Deep Brain Stimulation -- 3. Mechanisms of Deep Brain Stimulation -- 4. Surgical and Technical Aspects of Deep Brain Stimulation -- 5. Future Perspectives: Adaptive Deep Brain Stimulation -- 6. Neurophysiology of the Basal Ganglia and Deep Brain Stimulation -- 7. Anaesthesia for Deep Brain Stimulation Surgery -- 8. Programming: General Aspects -- 9. Neuropsychological Assessment -- 10. Ethical Considerations -- 11. Organisation of Care for Patients Treated by Deep Brain Stimulation -- Part II Neurology -- 12. Deep Brain Stimulation for Parkinson's Disease -- 13. Tremor -- 14. Dystonia -- 15. Epilepsy -- 16. Gilles de la Tourette syndrome -- Part III Psychiatry -- 17. Deep Brain Stimulation in Obsessive-Compulsive Disorder -- 18. Deep Brain Stimulation for Depression -- 19. Other Indications for Deep Brain Stimulation.
Sommario/riassunto	This book deals with a rapidly growing field of medical science: deep brain stimulation (DBS). Influencing deep brain networks by electrical stimulation through implanted electrodes is increasingly applied, and DBS has become a popular treatment for neurological and psychiatric indications. Professionals in the field of DBS are expected to understand classical subjects as disease mechanisms, brain anatomy and function, and clinical symptomatology of the diseases they treat. In addition, they are required to be familiar with specific patient management skills and treatment strategies. A third dimension is hardware and software-related knowledge. Depending on the degree of involvement, professionals need to understand basic or advanced concepts of stimulation protocols. All these aspects of DBS are discussed in this book. Authors from many different disciplines, from many different countries, have contributed their expertise and personal experience tothis book. Their contributions reflect the multidisciplinary nature of DBS treatment. This book is written for a wide readership that involves many different professionals and disciplines, including neurologists, neurosurgeons, psychiatrists, neurophysiologists, neuroanatomists, psychologists, rehabilitation specialists, nurses, speech therapists, physiotherapists, engineers and other paramedical disciplines. In our society, where sharing expertise and experience, and global knowledge has become the new standard, patients want the best possible DBS therapy. One prerequisite for this is the presence of a well-integrated and dedicated multidisciplinary team, with up-to-date knowledge of the possibilities of DBS treatment. .