Record Nr.	UNINA9910816272403321
Titolo	Basic neurochemistry : molecular, cellular, and medical aspects / / editor-in-chief, George J. Siegel ; editors, R. Wayne Albers, Scott T. Brady, Donald L. Price
Pubbl/distr/stampa	Amsterdam ; ; Boston, : Elsevier, c2006
ISBN	1-281-18982-0 9786611189822 0-08-047207-9
Edizione	[7th ed.]
Descrizione fisica	1 online resource (1020 p.)
Altri autori (Persone)	SiegelGeorge J
Disciplina	612.8/042
Soggetti	Neurochemistry
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	Basic Neurochemistry; Basic Neurochemistry; Contents; Section Editors; Contributors; Acknowledgments and History; Preface to the Seventh Edition; Pierre Morell, Ph.D. 1941-2003; Cellular Neurochemistry and Neural Membranes; Neurocellular Anatomy; UNDERSTANDING NEUROANATOMY IS NECESSARY TO STUDY NEUROCHEMISTRY; CHARACTERISTICS OF THE NEURON; CHARACTERISTICS OF NEUROGLIA; ACKNOWLEDGMENTS; REFERENCES; Cell Membrane Structures and Functions; PHOSPHOLIPID BILAYERS; MEMBRANE PROTEINS; BIOLOGICAL MEMBRANES; REFERENCES; Lipids; PROPERTIES OF BRAIN LIPIDS; COMPLEX LIPIDS; ANALYSIS OF BRAIN LIPIDS BRAIN LIPID BIOSYNTHESISGENES FOR LIPID-SYNTHESIZING ENZYMES; LIPIDS IN THE CELLULAR MILIEU; GENERAL REFERENCES; REFERENCES; Myelin Formation, Structure and Biochemistry; THE MYELIN SHEATH; CHARACTERISTIC COMPOSITION OF MYELIN; DEVELOPMENTAL AND METABOLIC ASPECTS OF MYELIN; ACKNOWLEDGMENTS; REFERENCES; Membrane Transport; INTRODUCTION; PRIMARY ION TRANSPORTERS; Ca2+ PUMPS; V0V1- PROTON PUMPS; ATP-BINDING CASSETTES; SECONDARY ACTIVE TRANSPORT; PHYSIOLOGICAL ASPECTS OF THE NEUROTRANSMITTER TRANSPORTERS; CATION ANTIPORTERS; FACILITATORS; REFERENCES; Electrical Excitability and Ion Channels MEMBRANE POTENTIALS AND ELECTRICAL SIGNALS IN EXCITABLE CELLS

1.

	ACTION POTENTIALS IN ELECTRICALLY EXCITABLE CELLS; FUNCTIONAL PROPERTIES OF VOLTAGE- GATED ION CHANNELS; THE VOLTAGE- GATED ION CHANNEL SUPER FAMILY; THE MOLECULAR BASIS FOR ION CHANNEL FUNCTION; ION CHANNEL DIVERSITY; ACKNOWLEDGMENTS; REFERENCES; Cell Adhesion Molecules; OVERVIEW; THE IMMUNOGLOBULIN GENE SUPER FAMILY; THE CADHERIN FAMILY; CELL ADHESION MOLECULES AND AXONAL OUTGROWTH; CELL ADHESION MOLECULES IN MYELINATION; SUMMARY; REFERENCES; The Cytoskeleton of Neurons and Gia; MOLECULAR COMPONENTS OF THE NEURONAL CYTOSKELETON ULTRASTRUCTURE AND MOLECULAR ORGANIZATION OF NEURONS AND GLIACYTOSKELETAL STRUCTURES IN THE NEURON HAVE COMPLEMENTARY DISTRIBUTIONS AND FUNCTIONS; CONCLUSIONS; REFERENCES; Intracellular Trafficking; GENERAL MECHANISMS OF INTRACELLULAR MEMBRANE TRAFFICKING IN MAMMALIAN CELLS INCLUDE BOTH UNIVERSAL AND HIGHLY SPECIALIZED PROCESSES; FUNDAMENTALS OF MEMBRANE TRAFFICKING ARE BASED ON A SET OF COMMON PRINCIPLES; THE BIOSYNTHETIC SECRETORY PATHWAY INCLUDES SYNTHETIC, PROCESSING, TARGETING AND SECRETORY STEPS; THE ENDOCYTIC PATHWAY PLAYS MULTIPLE ROLES IN CELLS OF THE NERVOUS SYSTEM SYNAPTIC VESICLE TRAFFICKING IS A SPECIALIZED FORM OF REGULATED SECRETION AND RECYCLING OPTIMIZED FOR SPEED AND EFFICIENCY ACKNOWLEDGMENTS; REFERENCES; Intercellular Signaling; Synaptic Transmission and Cellular Signaling: An Overview; SYNAPTIC TRANSMISSION; CELLULAR SIGNALING MECHANISMS; ACKNOWLEDGMENTS; REFERENCES; Acetylcholine; CHEMISTRY OF ACETYLCHOLINE; ORGANIZATION OF THE CHOLINERGIC NERVOUS SYSTEM; FUNCTIONAL ASPECTS OF CHOLINERGIC NEUROTRANSMISSION; SYNTHESIS, STORAGE AND RELEASE OF ACETYLCHOLINE; ACETYLCHOLINESTERASE AND THE TERMINATION OF ACETYLCHOLINE ACTION; NICOTINIC RECEPTORS
Sommario/riassunto	Basic Neurochemistry: Molecular, Cellular and Medical Aspects, the outstanding and comprehensive classic text on neurochemistry, is now newly updated and revised in its Seventh Edition. This well-established text has been accepted worldwide as a resource for postgraduate trainees and teachers in neurology, psychiatry, and basic neuroscience, as well as for graduate and postgraduate students and instructors in the neurosciences. It is an excellent source of current information on basic biochemical processes in brain function and disease for qualifying examinations and continuing medical