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| Nota di contenuto | Cover; Intraoperative Neurophysiological Monitoring for Deep Brain Stimulation; Copyright; Dedication; Contents; Preface; 1 Importance of intraoperative neurophysiological monitoring; 2 Preparations for intraoperative neurophysiological monitoring; 3 Basic concepts of electricity and electronics; 4 Electrode recordings: Neurophysiology; 5 Microelectrode and semi-microelectrode recordings: Electronics; 6 Noise and artifact; 7 Microelectrode recordings: Neuronal characteristics and behavioral correlations; 8 Microstimulation and macrostimulation; 9 The subthalamic nucleus 10 The globus pallidus interna nucleus 11 The ventral intermediate nucleus of the thalamus; 12 Clinical assessments during intraoperative neurophysiological monitoring; 13 Cases; 14 Future intraoperative neurophysiological monitoring; Appendix A Subthalamic nucleus deep brain stimulation algorithm; Appendix B Ventral intermediate thalamic deep brain stimulation algorithm; Appendix C Globus pallidus interna deep brain stimulation algorithm; Appendix D Microelectrode recording form for subthalamic nucleus deep brain stimulation Appendix E Microelectrode recording form for globus pallidus interna Appendix F Microelectrode recording form for ventral intermediate thalamus; Appendix G Intraoperative macrostimulation for |

clinical effect in Parkinson's disease; Appendix H Intraoperative macrostimulation for clinical effect in tremor disorders; Appendix I Intraoperative macrostimulation for clinical effect on dystonia; Appendix J Intraoperative macrostimulation for clinical effect on tics; Appendix K Intraoperative macrostimulation for clinical effect on dyskinesia; Index

Sommario/riassunto

Thorough understanding of electricity, electronics, biophysics, neurophysiology, and neuroanatomy renders more tractable otherwise complex electrophysiologically-based targeting. The textbook integrates these subjects in a single resource. Ultimately, electrophysiological monitoring required controlling the movement of electrons in electronic circuits. Thus, the textbook begins with fundamental discussions of electrons, the forces moving electrons, and the electrical circuits controlling these forces. The forces that allow recording and analysis also permeate the environment producing interfer
