

## CONTENTS

Contributors vii

Preface ix

Acknowledgments xi

<b>Chapter 1</b>	<b>The Cellular Basis of EEG . . . . .</b>	<b>1</b>
	Catherine A. Schevon and Andrew J. Trevelyan	
<b>Chapter 2</b>	<b>Cortical Generators and EEG Voltage Fields . . . . .</b>	<b>28</b>
	John S. Ebersole	
<b>Chapter 3</b>	<b>Engineering Principles . . . . .</b>	<b>45</b>
	Douglas Maus and Brian Litt	
<b>Chapter 4</b>	<b>Recording Techniques . . . . .</b>	<b>78</b>
	Saurabh R. Sinha	
<b>Chapter 5</b>	<b>Normal Adult EEG . . . . .</b>	<b>90</b>
	William O. Tatum IV	
<b>Chapter 6</b>	<b>Normal Pediatric EEG: Neonates and Children . . . . .</b>	<b>125</b>
	Robert R. Clancy, A.G. Christina Bergqvist, Dennis J. Dlugos and Douglas R. Nordli Jr.	
<b>Chapter 7</b>	<b>Generalized Encephalopathy . . . . .</b>	<b>213</b>
	Elizabeth Waterhouse	
<b>Chapter 8</b>	<b>EEG in Focal Encephalopathies: Cerebrovascular Disease, Neoplasms, and Infections . . . . .</b>	<b>238</b>
	Joseph I. Sirven	
<b>Chapter 9</b>	<b>Progressive Childhood Encephalopathy . . . . .</b>	<b>258</b>
	Douglas R. Nordli Jr. and Darryl C. De Vivo	

<b>Chapter 10</b>	<b>Pediatric Epilepsy Syndromes . . . . .</b>	<b>283</b>
Douglas R. Nordli Jr.		
<b>Chapter 11</b>	<b>EEG in Adult Epilepsy . . . . .</b>	<b>315</b>
Mohamad Z. Koubeissi and Elson L. So		
<b>Chapter 12</b>	<b>EEG Voltage Topography and Dipole Source Modeling of Epileptiform Potentials . . . . .</b>	<b>338</b>
John S. Ebersole		
<b>Chapter 13</b>	<b>Subdural Electrode Corticography . . . . .</b>	<b>367</b>
James Tao and John S. Ebersole		
<b>Chapter 14</b>	<b>Intracerebral Depth Electrode Electroencephalography (Stereoencephalography) . . . . .</b>	<b>393</b>
Philippe Kahane and François Dubeau		
<b>Chapter 15</b>	<b>Evoked Potentials Overview . . . . .</b>	<b>442</b>
Aatif M. Husain		
<b>Chapter 16</b>	<b>Neurophysiologic Intraoperative Monitoring . . . . .</b>	<b>488</b>
Aatif M. Husain		
<b>Chapter 17</b>	<b>Continuous EEG Monitoring in the Intensive Care Unit . . . . .</b>	<b>543</b>
Saurabh R. Sinha and Lawrence J. Hirsch		
<b>Chapter 18</b>	<b>Sleep Disorders: Laboratory Evaluation . . . . .</b>	<b>599</b>
Rodney A. Radtke		

Index 631