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	Autore	Solymar Laszlo
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	Altri autori (Persone)	WalshDonald
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	Soggetti	Energy-band theory of solids
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	Nota di contenuto	Contents; Data on specific materials in text; Introduction; 1 The electron as a particle; 2 The electron as a wave; 3 The electron; 4 The hydrogen atom and the periodic table; 5 Bonds; 6 The free electron theory of metals; 7 The band theory of solids; 8 Semiconductors; 9 Principles of semiconductor devices; 10 Dielectric materials; 11 Magnetic materials; 12 Lasers; 13 Optoelectronics; 14 Superconductivity; 15 Artificial materials or metamaterials; Epilogue; Appendix I: Organic semiconductors; Appendix II: Nobel laureates; Appendix III: Physical constants Appendix IV: Variational calculus. Derivation of Euler's equationAppendix V: Suggestions for further reading; Answers to exercises; Index
	Sommario/riassunto	An informal and highly accessible writing style, a simple treatment of mathematics, and clear guide to applications, have made this book a classic text in electrical and electronic engineering. Students will find it both readable and comprehensive. The fundamental ideas relevant to

the understanding of the electrical properties of materials are emphasized; in addition, topics are selected in order to explain the operation of devices having applications (or possible futureapplications) in engineering.The mathematics, kept deliberately to a minimum, is well within the grasp of a second-year stud