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Nota di contenuto	TITLE PAGE; TABLE OF CONTENTS; PREFACE; ABOUT THE COMPANION WEBSITE; 1 PRINCIPLES OF PHYSICS AND THE RELEVANCE TO MODERN TECHNOLOGIES; 1.1 CM, EM, AND QM: THE BACKBONE OF PHYSICS; 1.2 PHOTONICS AND ELECTRONICS; 2 EVERYDAY HOME APPLIANCES; 2.1 THE AIR CONDITIONER; 2.2 MICROWAVE OVENS; 2.3 SMOKE DETECTORS; 2.4 COMPACT DISCS, DIGITAL VERSATILE DISCS, AND BLU- RAY DISCS; 2.5 PHOTOCOPIERS AND FAX MACHINES; 3 DEVICES ENCOUNTERED IN MODERN LIFE; 3.1 METAL DETECTORS FOR AIRPORTS AND TRAFFIC LIGHTS; 3.2 BARCODE SCANNERS, QUICK RESPONSE CODES, AND RADIO-FREQUENCY IDENTIFICATION READERS 3.3 GLOBAL POSITIONING3.4 TRANSPORTATION TECHNOLOGIES; 4 VACUUM SYSTEMS: ENABLING HIGH-TECH INDUSTRIES; 4.1 VACUUM CHAMBER TECHNOLOGY; 4.2 PHYSICS OF SOME VACUUM GAUGES; 4.3 LOW VACUUM VIA VENTURI, MECHANICAL, OR SORPTION PUMPS; 4.4 HV VIA DIFFUSION, TURBOMOLECULAR, OR CRYOGENIC PUMPS; 4.5 UHV VIA ION PUMPS; 5 CLEANROOMS, AN ENABLING TECHNOLOGY; 6 SOLID-

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