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Titolo	High Sensitivity Magnetometers / / edited by Asaf Grosz, Michael J. Haji-Sheikh, Subhas C. Mukhopadhyay
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Collana	Smart Sensors, Measurement and Instrumentation, , 2194-8402 ; ; 19
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Soggetti	Electronics Microelectronics Signal processing Image processing Speech processing systems Physical measurements Measurement Electronics and Microelectronics, Instrumentation Signal, Image and Speech Processing Measurement Science and Instrumentation
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
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Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Induction Coil Magnetometers -- Parallel Fluxgate Magnetometers -- Orthogonal Fluxgate Magnetometers -- Giant Magneto-Impedance Magnetometers -- Magnetoelectric Magnetometers -- Anisotropic Magnetoresistance (AMR) Magnetometers -- Planar Hall Effect Magnetometers -- MEMS Lorentz Force Magnetometers -- Superconducting Quantum Interference Device (SQUID) Magnetometers -- Planar Magnetometers -- Nonlinear Magneto-Optical Rotation Magnetometers -- Spin Exchange Relaxation Free (SERF) Magnetometers -- Helium Magnetometers -- Microfabricated Optically-Pumped Magnetometers.
Sommario/riassunto	This book gathers, for the first time, an overview of nearly all of the magnetic sensors that exist today. The book is offering the readers a thorough and comprehensive knowledge from basics to state-of-the-

art and is therefore suitable for both beginners and experts. From the more common and popular AMR magnetometers and up to the recently developed NV center magnetometers, each chapter is describing a specific type of sensor and providing all the information that is necessary to understand the magnetometer behavior including theoretical background, noise model, materials, electronics, design and fabrication techniques, etc.
