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Nota di contenuto	Contents -- About authors -- Table of terminology and definitions -- List of frequently used acronyms and abbreviations -- Parameters -- 1. Introduction -- 2. Design strategies -- 3. CMOS electrodes -- 4. CMOS capacitive biosensors -- 5. CMOS voltammetric and impedimetric biosensors -- 6. Bio-voltage recording -- 7. CMOS Bio/Chem field-effect transistor (Bio/ChemFET)-based biosensors -- 8. CMOS-based optical biosensors -- 9. CMOS-based magnetic biosensors -- 10. CMOS-based NMR sensors -- 11. Thermal sensors -- 12. CMOS-based actuators -- 13. Microfluidic packaging techniques -- 14. Life science protocols and applications -- 15. State-of-the-art and future works -- Appendix A: Deposition of gold on aluminum electrodes -- Appendix B: Test bench details for a two-electrode capacitive sensor -- Appendix C: Test bench details for an array of core-CBCM capacitive sensors -- Appendix D: Micro-hotplate -- References -- Index
Sommario/riassunto	CMOS technologies and their ongoing downscaling trend have opened an avenue to developing integrated systems for life sciences. This book explores the theoretical and practical aspects of CMOS biosensors and discusses the fundamentals of biological applications and microfabrication.

