1.	Record Nr.	UNINA9910809876103321
	Titolo	Essentials of machine olfaction and taste / / Takamichi Nakamoto
	Pubbl/distr/stampa	Solaris South Tower, Singapore : , : John Wiley & Sons Incorporated, , 2016
	ISBN	1-5231-1069-4 1-118-76851-5 1-118-76850-7
	Descrizione fisica	1 online resource (343 p.)
	Classificazione	TEC008000
	Disciplina	681/.754
	Soggetti	Chemical detectors Intelligent sensors Olfactory sensors Smell - Simulation methods Taste - Simulation methods
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Description based upon print version of record.
	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	2.3.1.2 Transduction of Odor Signals2.3.1.3 Molecular Biology of Olfaction; 2.3.2 Taste; 2.3.2.1 Anatomy of Taste; 2.3.2.2 Transduction of Taste Signals; 2.3.2.3 Molecular Biology of Taste; 2.4 Cell-Based Sensors and Receptor-Based Sensors ; 2.4.1 Tissue-Based Sensors ; 2.4.2 Cell-Based Sensors ; 2.4.3 Receptor-Based Sensors ; 2.4.3.1 Production of Odorant Receptors; 2.4.3.2 Immobilization of Odorant Receptors; 2.4.3.3 Measurement from Odorant Receptors; 2.4.4 Summary of the Biosensors; 2.5 Future Prospects; References; Chapter 3 Large-Scale Chemical Sensor Arrays for Machine Olfaction 3.1 Introduction3.2 Overview of Artificial Olfactory Systems; 3.3 Common Sensor Technologies Employed in Artificial Olfactory Systems; 3.3.1 Metal-Oxide Gas Sensors ; 3.3.2 Piezoelectric Sensors; 3.3.3 Conducting Polymer Sensors; 3.4 Typical Application of "Electronic Nose" Technologies; 3.5 A Comparison between Artificial and the Biological Olfaction Systems; 3.6 A Large-Scale Sensor Array ; 3.6.1 Conducting Polymers; 3.6.2 Sensor Interrogation Strategy; 3.6.3 Sensor Substrate; 3.7 Characterization of the Large-Scale Sensor Array

3.7.1 Pure Analyte Study: Classification and Quantification Capability3. 7.2 Binary Mixture Study: Segmentation and Background Suppression Capability; 3.7.3 Polymer Classes: Testing Broad and Overlapping Sensitivity, High Level of Redundancy; 3.7.4 System Robustness and Long-Term Stability ; 3.8 Conclusions; Acknowledgment; References; Chapter 4 Taste Sensor: Electronic Tongue with Global Selectivity; 4.1 Introduction; 4.2 Electronic Tongues; 4.3 Taste Sensor; 4.3.1 Introduction; 4.3.2 Principle; 4.3.3 Response Mechanism; 4.3.4 Measurement Procedure; 4.3.5 Sensor Design Techniques

4.3.6 Basic Characteristics4.3.6.1 Threshold; 4.3.6.2 Global Selectivity; 4.3.6.3 High Correlation with Human Sensory Scores; 4.3.6.4 Definition of Taste Information; 4.3.6.5 Detection of Interactions between Taste Substances; 4.3.7 Sample Preparation; 4.3.8 Analysis; 4.4 Taste Substances Adsorbed on the Membrane; 4.5 Miniaturized Taste Sensor; 4.6 Pungent Sensor; 4.7 Application to Foods and Beverages; 4.7.1 Introduction; 4.7.2 Beer; 4.7.3 Coffee; 4.7.4 Meat; 4.7.5 Combinatorial Optimization Technique for Ingredients and Qualities Using a GA; 4.7.5.1 Introduction; 4.7.5.2 GA

4.7.5.3 Constrained Nonlinear Optimization

2.	Record Nr.	UNINA9910966246703321
	Autore	Vaaler Leslie Jane Federer
	Titolo	Mathematical interest theory / / Leslie Jane Federer Vaaler, James W. Daniel, The University of Texas at Austin
	Pubbl/distr/stampa	Washington, DC : , : Mathematical Association of America, , [2009] ©2009
	ISBN	9781614446002
		1614446008
		9780883857540
		0883857545
	Edizione	[Second edition.]
	Descrizione fisica	1 online resource (xvii, 475 pages) : illustrations
	Collana	MAA textbooks, , 2577-1213 ; ; v. 14
	Disciplina	332.801/513
	Soggetti	Interest rates - Mathematical models
		Interest rate futures - Mathematical models
		Risk management - Mathematical models
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia

Nota di bibliografia	Includes bibliographical references (page 463) and index.
Nota di contenuto	; 0 An introduction to the Texas Instruments BA II Plus -- ; 1 The growth of money -- ; 2 Equations of value and yield rates -- ; 3 Annuities (annuities certain) -- ; 4 Annuities with different payment and conversion periods -- ; 5 Loan repayment -- ; 6 Bonds -- ; 7 Stocks and nancial markets -- ; 8 Arbitrage, term structure of interest rates, and derivatives -- ; 9 Interest rate sensitivity -- Appendices -- ; A Some useful formulas -- ; B Answers to end of chapter problems.
Sommario/riassunto	"We hope you enjoy this book and nd it useful. Those who understand interest theory can be informed borrowers, making intelligent choices about mortgages and other loans, and they can also be wise investors. We anticipate that the majority of our readers will be interested in exploring actuarial careers. However, among our enthusiastic students, we have counted many who just felt that this was material they would like to understand; they found it interesting and applicable. Interest rates affect us all! The authors have frequently been told that the course for which the book was designed was a student's "favorite" in his or her college career — and this was not just by students in the University of Texas' actuarial program! With this in mind, we have tried to write a book that will be appealing to any student who wishes to become familiar with how investments grow over time, and who appreciates this being carried out in a mathematically precise manner." --page xiii, Preface.