1.

Record Nr.	UNISALENTO991001383579707536
Titolo	Stochastic volatility : selected readings / edited by Neil Shephard
Pubbl/distr/stampa	Oxford ; New York : Oxford University Press, c2005
ISBN	0199257205 (pbk)
Descrizione fisica	viii, 525 p. : ill. ; 25 cm
Collana	Advanced texts in econometrics
Classificazione	AMS 91-06 AMS 91B28 AMS 91B70 AMS 60-06 AMS 62-06 LC QA274.S824
Altri autori (Persone)	Shephard, Neil
Disciplina	519.23
Soggetti	Stochastic processes Finance - Mathematical models Money market - Mathematical models Capital market - Mathematical models
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and indexes

2. Record Nr. UNINA9910298627303321

Autore	Yetisen Ali Kemal
Titolo	Holographic Sensors / / by Ali Kemal Yetisen
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015
ISBN	3-319-13584-8
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (175 p.)
Collana	Springer Theses, Recognizing Outstanding Ph.D. Research, , 2190-5053
Disciplina	54 610724 615.19 660
Soggetti	Chemical engineering Pharmaceutical chemistry Diagnosis, Laboratory Industrial Chemistry/Chemical Engineering Medicinal Chemistry Laboratory Medicine
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.
Nota di contenuto	Introduction -- Materials and Methods -- pH-Responsive Holograms -- Divalent Metal Cation Selective Holographic Sensors -- Glucose-Responsive Holograms and Clinical Trials on Diabetic Patients -- A Smartphone Algorithm for the Quantification of Colorimetric Assays -- Final Discussion.
Sommario/riassunto	This thesis presents a theoretical and experimental approach for the rapid fabrication, optimization and testing of holographic sensors for the quantification of pH, organic solvents, metal cations, and glucose in solutions. Developing non-invasive and reusable diagnostics sensors that can be easily manufactured will support the monitoring of high-risk individuals in any clinical or point-of-care setting. Sensor fabrication approaches outlined include silver-halide chemistry, laser ablation and photopolymerization. The sensors employ off-axis Bragg diffraction gratings of ordered silver nanoparticles and localized

refractive index changes in poly (2-hydroxyethyl methacrylate) and polyacrylamide films. The sensors exhibited reversible Bragg peak shifts, and diffracted the spectrum of narrow-band light over the wavelength range peak 495-1100 nm. Clinical trials of glucose sensors in the urine samples of diabetic patients demonstrated that they offer superior performance compared to commercial high-throughput urinalysis devices. Lastly, a generic smartphone application to quantify colorimetric tests was developed and tested for both Android and iOS operating systems. The sensing platform and smartphone application may have implications for the development of low-cost, reusable and equipment-free point-of-care diagnostic devices.