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Collana	Advanced materials research, , 1022-6680 ; ; volume 254
Altri autori (Persone)	KhineLynn TsaiJulius M
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Nota di contenuto	NEMS/MEMS Technology and Devices, ICMAT2011; Preface; Table of Contents; Challenges and Solutions for Fabricating Isolation Trenches for High Aspect Ratio Sensors; Thick-Film Deposition of High-Viscous Liquid Photopolymer; Design and Modeling of Platinum Thin Film Microheater for High Temperature Microtensile Test Application; Optimization of On-Chip Interface Circuit for MEMS Sensor Based on Micro-Cantilever; Microfabrication of a Planar Helix with Straight-Edge Connections Slow-Wave Structure; Separation Gap Estimation in Dynamic Systems Actuated by Casimir Force A Static Micromixer Inspired from Fractal-Like Natural Flow Systems AIN Actuator for Tunable RFMEMS Capacitor; GEMS: A MEMS-Based Way for the Innervation of Materials; On the Way to the Bionic Man: A Novel Approach to MEMS Based on Biological Sensory Systems; Design Consideration of Membrane Structure for Thermal Actuated Micropump; Developing High Sensitivity Biomass Sensor Using Lame Mode Square Resonator; Fabrication of a Peltier Device Based on InSb and SbTe Thin Films; Gapfill Study of Polyimides for MEMS Applications

A Simple Method for Quantification of Beta-Amyloid Using the Photo-Sensitive Thin Film TransistorWireless Imaging Module Assembly and Integration for Capsule Endoscopic Applications; Low Cost and High Resolution X-Ray Lithography for Fabrication of Microactuator; FBAR Resonators with Sufficient High Q for RF Filter Implementation; Evaluation of Piezoelectric Properties of AlN Using MEMS Resonators; Discrete 3D T-Shaped Electrode Arrays for Moving Liquid by AC Electro-Osmosis; Silicon Probes for Cochlear Auditory Nerve Stimulation and Measurement
Focused Ion Beam Fabricated Polystyrene-Platinum Thermal MicroactuatorLead-Free BSZT/Epoxy 1-3 Composites for Ultrasonic Transducer Applications; Design, Fabrication and Characterization of Ultra Miniature Piezoresistive Pressure Sensors for Medical Implants; Tagging for Capsule Endoscopy Localization; The Negative /2 Phase Shift of Total Reflect Light; High Topography Polyimide CMP Process; Hydridosilane Modification of Metals: An Exploratory Study; Multi Degree-of-Freedom Micromotor Utilizing an Electrothermal Actuator Array and a Spherical Rotor
Area-Selective Polymer Deposition on Micro-Area Framed by Trenches with Falling Liquid FilmA New Peltier Device with a Coaxial Thermocouple; A Portable Thermal Cycler Using a PN Sandwich-Structure Peltier Device; Direct Writing of Channels for Microfluidics in Silica by MeV Ion Beam Lithography; Studies on Quasi-Static Au-to-Au Ohmic Contact for MEMS Switches; Double-Step Plasma Etching for SiO₂ Microcantilever Release; Design, Fabrication and Characterization of ZnO Based Thin Film Bulk Acoustic Resonators
Development of Multiple-Step SOI DRIE Process for Superior Notch Reduction at Buried Oxide

Sommario/riassunto

The emphasis of this special collection of 55 peer-reviewed papers was on NEMS/MEMS and microTAS. Particular attention was paid to applications that involve MEMS design, modelling, fabrication processes, lab-on-a-chip and biophotonic medical devices. The volume also explores new devices and processes, innovations and engineering applications; especially those related to NEMS/MEMS technologies and devices. A very useful guide to this highly specialized topic. Review from Book News Inc.: Papers from a summer 2011 symposium shed light on new devices, process innovations, and engineering applicati
