

目 次

基于 HBAR 的 X 波段低相噪频率合成方法 穆晓华,沈文渊(923)

压电陶瓷迟滞建模及控制仿真 王晓东,江国栋(926)

高灵敏度大带宽声光信道化接收机 吴 冉,张泽红,陈永峰,廖 婷(930)

FBAR 用氮化铝压电薄膜研究 陈运祥,董加和,司美莉,李洪平,赵雪梅,张永川,于新晓,刘善群(934)

涂覆聚合物膜的 Love 波传播特性 王立君,刘建生,何世堂(937)

用于微机械陀螺表头信号采集的 Σ - Δ ADC 设计与实现 龙耀华,张 嵘,周 斌,李 享(941)

光纤捷联惯导系统加速度计内杆臂标定方法 周广涛,许伟通,叶 攀(945)

基于 PI 迟滞模型的压电陶瓷复合控制算法研究 吴伊玲,刘廷霞,张振东,陈 健(950)

ZnO/蓝宝石结构声表面波滤波器试验研究
..... 董加和,陈运祥,冷俊林,张显洪,张永川,王 岚,王 洁(954)

大尺寸 LGT, LGN 晶体生长及性能研究 石自彬,李和新,龙 勇,付昌禄,胡少勤(957)

压电智能骨料传感器设计与性能研究 蒙彦宇,关海爽,郭增年,贾梁海(960)

声光频谱分析仪对瞬变信号参数的提取算法研究
..... 陈永峰,吴 冉,廖 婷,傅礼鹏,王晓平,令狐梅傲(966)

白噪声激励下双稳态压电发电系统的响应分析 孙 舒,曹树谦(969)

基于 PVDF 压电膜片的光声探测器制备及应用 何国明,何秀丽,高晓光,贾 建,李建平(973)

汽油超声喷嘴的设计研究 王伟强,束学道,汤廷孝(978)

Sb₂O₃ 对富钛型钛酸锶钡基陶瓷结构及性能的影响 张 晨,白 雪,杜艺兰,孙 磊(983)

用于体内碎石的超声振动系统设计 沙智华,张国洋,马付建,刘 宇,张生芳(987)

一个紧凑的梯形领结无芯 RFID 标签的设计 胥 磊,黄卡玛(991)

热场作用下预紧结构与压电传感器输出的研究 张 军,田 丰,钱 敏,齐亚州(995)

声学梳谱信号产生器件的探索 朱昌安,周 勇,穆晓华,郑泽渔,徐 阳,司美莉,田亚睿,李 晖(999)

多质量块宽频压电能量收集器 王 海,邱皖群,周 璇,付邦晨(1003)

一种基于 L 波段混频组件电磁屏蔽腔的设计 石 越,胡 杨,董 姝,吕 翼,唐盘良,黄 莹(1009)

一种道路用小型压电发电及储存装置的研究 辛 菲,陈文革,张叶伟,卓 磊(1012)

同步箝位压电马达的运动特性仿真 邹利平,石万凯,张 祺(1016)

基于光纤陀螺的残周期正弦拟合快速寻北法 刘 宇,王长文,王 乐,刘 松(1020)

单相短柱型直线超声电机的设计 王 越,李朝东(1025)

压电陶瓷电机驱动的三维微动定位平台及验证 林海波,杨国哲(1030)

多层 PT/PZT 薄膜的结构特性研究 郑俊华,谭秋林,唐力程(1034)

基于 UPF 的半球谐振陀螺平台自对准技术研究 陈 伟,刘洁瑜,田 颖,李 灿(1037)

激光分子束外延法制备 AlN/Si 异质结的电学性质 方应龙,贾彩虹,陈秀文,张伟风(1043)

| | |
|-------------------------------------|-------------------------------|
| 加筋复合材料板分布式光纤冲击判位····· | 宋 昊,曾 捷,王文娟,薛景锋,曹 亮,梁大开(1047) |
| 退火工艺对 YIG 多晶薄膜铁磁共振线宽的影响 ··· | 金曙晨,杨青慧,梅 兵,饶毅恒,田晓洁,张怀武(1053) |
| 基于折叠双模谐振器结构的微带带通滤波器 ····· | 张友俊,林 君(1057) |
| 压电器件阻抗测试系统的研制····· | 刘 云,隆志力,李 华,荣 杰(1061) |
| 基于六端口反射计的体声波传感器读出电路····· | 黄振华,高 杨,蔡 洵,赵俊武(1066) |
| 电磁波在等离子体中的吸收特性和反射特性研究 ····· | 贾 龙,马红光,孙璟潇(1071) |
| 变电站智能布点系统中摄像机安装方案 ····· | 姚 毅,李 莺,常政威,罗 毅,刘 勇(1074) |
| 基于 R2000 的 UHF RFID 读写器部分电路设计 ····· | 王海翠,秦廷辉,张茂成(1078) |
| 基于有限元模型的超声切割刀优化设计 ····· | 尤晓镇,隆志力,傅 惠,汤 晖,杨 芳(1083) |
| 具有 CSRR 缺陷地 RFID 天线小型化设计研究····· | 陈文翰,杨曙辉,冯 迪,陈迎潮(1088) |
| 一种新型的陷波天线 ····· | 林永范,梁建刚,赵海洲,王绍青,牛雪斌(1092) |
| | |
| 更正声明 ····· | (1095) |
| 2016 年《压电与声光》征订通知 ····· | (封四) |

2015 年第 6 期广告索引

彩色广告

| | |
|-----------------|----|
| 上海大川原干燥设备有限公司 | 封二 |
| 中国电科集团重庆声光电公司 | |
| 第二十六研究所声表面波产业中心 | 封三 |

黑白广告

| | |
|------------------|-----|
| 淄博宇海电子陶瓷有限公司 | 插 1 |
| 中国电科集团重庆声光电公司 | |
| 第二十六研究所材料与装备产业中心 | 插 2 |

| | | | | | |
|-------|------------|----------|-------|------------|----------|
| 压电与声光 | 第三十七卷第六期卷终 | 二〇一五年十二月 | 压电与声光 | 第三十七卷第六期卷终 | 二〇一五年十二月 |
|-------|------------|----------|-------|------------|----------|

CONTENTS

| | |
|--|--|
| HBAR-Based Frequency Synthesis at the X Band with Low Phase Noise | |
| ..... | MU Xiaohua, SHEN Wenyuan(923) |
| Hysteresis Modeling and Control Simulation of Piezoelectric Ceramic | |
| ..... | WANG Xiaodong, JIANG Guodong(926) |
| Study on Acousto-optic Channelized Receiver with High Sensitivity and Wide Bandwidth | |
| ..... | WU Ran,ZHANG Zehong,CHEN Yongfeng,LIAO Ting(930) |
| Study on Aluminum Nitride Films Used for FBAR Devices | |
| ..... | CHEN Yunxiang, DONG Jiahe, SI Meiju,LI Hongping, ZHAO Xuemei, ZHANG Yongchuan, YU Xinxiao, LIU Shanqun(934) |
| Propagation Properties of Love Waves in Polymer-Coated Devices | |
| ..... | WANG Lijun, LIU Jiansheng, HE Shitang (937) |
| The Design and realization of Σ-Δ ADC Used for MEMS Gyro Meter Signals Acquisition | |
| ..... | LONG Yaohua, ZHANG Rong, ZHOU Bin, LI Xiang(941) |
| Lever-Arm Calibration Method of Fiber Strapdown Inertial Navigation System Accelerometer | |
| ..... | ZHOU Guangtao, XU Weitong, YE Pan(945) |
| Research on Compound Control Arithmetic of Piezoelectric Ceramic Based on PI Model | |
| ..... | WU Yiling,LIU Tingxia,ZHANG Zhendong,CHEN Jian(950) |
| An Experimental Study on SAW Filter with ZnO/Sapphire Structure | |
| ..... | DONG Jiahe,CHEN Yunxiang,LENG Junlin,ZHANG Xianhong, ZHANG Yongchuan,WANG Lan,WANG Jie(954) |
| Growth and Characterization of LGT and LGN Crystals with Large Size | |
| ..... | SHI Zibin, LI Hexin, LONG Yong, FU Changlu, HU Shaoqin(957) |
| Research on Performance and Design of Piezoelectric Smart Aggregate Sensors | |
| ..... | MENG Yanyu, GUAN Haishuang, GUO Zengnian, JIA Lianghai(960) |
| Algorithm Research on the Extraction of Transient Signal Parameter by Acousto-optical Spectrum Analyzer | |
| ..... | CHEN Yongfeng, WU Ran, LIAO Ting, FU Lipeng, WANG Xiaoping, LING-HU Mei'ao(966) |
| The Response Analysis of Bistable Piezoelectric Power Generation System under White Noise Excitation | |
| ..... | SUN Shu, CAO Shuqian(969) |
| Fabrication and Application of Nonresonant Photoacoustic Detector Based on PVDF Diaphragm | |
| ..... | HE Guoming, HE Xiuli,GAO Xiaoguang, JIA Jian, LI Jianping(973) |
| Design and Research of Gasoline Ultrasonic Nozzle | |
| ..... | WANG Weiqiang, SHU Xuedao, TANG Tingxiao(978) |
| Effects of Sb₂O₃ on the Structure and Dielectric Properties of Ti-rich Barium Strontium Titanate Ceramics | |
| ..... | ZHANG Chen,BAI Xue,DU Yilan,SUN Lei(983) |
| Ultrasound Vibration System Designed for in Vivo Breaking Stones | |
| ..... | SHA Zhihua, ZHANG Guoyang, MA Fujian, LIU Yu, ZHANG Shengfang(987) |
| Design of Compact Trapezoidal Bow-tie Chipless RFID Tag | |
| ..... | XU Lei, HUANG Kama(991) |
| Study on Pre-tightening Structure and the Output of Piezoelectric Sensor under Thermal Field | |
| ..... | ZHANG Jun, TIAN Feng, QIAN Min, QI Yazhou(995) |
| Exploration of the Acoustical Comb-spectrum Signal Generator | |
| ..... | ZHU Changan,ZHOU Yong,MU Xiaohua,ZHENG Zheyu,XU Yang, SI Meiju, TIAN Yarui, LI Hui(999) |
| A Multiple Mass Broadband Piezoelectric Energy Harvesting Device | |
| ..... | WANG Hai, QIU Wanqun, ZHOU Xuan, FU Bangchen(1003) |
| Design of An Electromagnetic Compatibility Shielding Cavity Using in L Band Mixer Circuit Module | |
| ..... | SHI Yue, HU Yang, DONG Su, LV Yi, TANG Panliang, HUANG Ying(1009) |

| | |
|---|---|
| Research on the Piezoelectric Power Generation and Energy Storage Device for Urban Roads | XIN Fei, CHEN Wenge, ZHANG Yewei, ZHUO Lei(1012) |
| Simulation Study on Dynamic Characteristic of Synchronized Piezoelectric Motor | ZOU Liping, SHI Wankai, ZHANG Qi(1016) |
| Method of Partial Period Sine Wave Fit in Fast North-seeking Based on Fiber Optic Gyroscope | LIU Yu, WANG Changwen, WANG Le, LIU Song(1020) |
| Design for Single Phase Driven Short-length Rod-shaped Linear Ultrasonic Motor | WANG Yue, LI Chaodong(1025) |
| Research on a Precision Positioning Stage Based on Piezoelectric Actuators and it's Validation | LIN Haibo, YANG Guozhe(1030) |
| Study on Structure Properties of PZT/PT Multilayered Thin Films | ZHENG Junhua, TAN Qiulin, TANG Licheng(1034) |
| Research of Self-alignment Technique for the HRG Initial Platform Based on Unscented Particle Filter | CHEN Wei, LIU Jieyu, TIAN Ying, LI Can(1037) |
| Electrical Properties of AlN/Si Heterostructure Prepared by Laser-MBE | FANG Yinglong, JIA Caihong, CHEN Xiuwen, ZHANG Weifeng(1043) |
| Study of Impact Monitoring on Stiffened Composite Panel by Using Distributed Optical Fiber Grating Sensing Network | SONG Hao, ZENG Jie, WANG Wenjuan, XUE Jingfeng, CAO Liang, LIANG Dakai(1047) |
| The Effect of Annealing Process on FMR Line-width of YIG Films Prepared by RF Magnetron Sputtering | JIN Shuchen, YANG Qinghui, MEI Bing, RAO Yiheng, TIAN Xiaojie, ZHANG Huaiwu(1053) |
| Microstrip Bandpass Filter Based on Folded Dual-mode Resonator Structure | ZHANG Youjun, LIN Jun(1057) |
| Development of Impedance Measurement System of Piezoelectric Devices | LIU Yun, LONG Zhili, LI Hua, RONG Jie(1061) |
| Study on Six-port Reflectometer-based Read-out Circuit of BAW Sensor | HUANG Zhenhua, GAO Yang, CAI Xun, ZHAO Junwu(1066) |
| Study on Absorption and Reflection Characteristics of Electromagnetic Wave in Plasma Sheath | JIA Long, MA Hongguang, SUN Jingxiao(1071) |
| The Cameras Installation of Substation Intelligent Stationing System | YAO Yi, LI Ying, CHANG Zhengwei, LUO Yi, LIU Yong(1074) |
| Design of the Part Circuit of UHF RFID Reader Based on R2000 | WANG Haicui, QIN Tinghui, ZHANG Maocheng(1078) |
| Optimization Design of Ultrasonic Knife Cutting System Based on Finite Element Model | YOU Xiaozhen, LONG Zhili, FU Hui, TANG Hui, YANG Fang(1083) |
| Study on the Miniaturization Design of RFID Antenna Combined with CSRR Defected Ground Structure | CHEN Wenhan, YANG Shuhui, FENG Di, CHEN Yingchao(1088) |
| A Novel UWB Antenna with Dual-band Notched Characteristics | LIN Yongfan, LIANG Jiangang, ZHAO Haizhou, WANG Shaoqing, NIU Xuebin(1092) |

Competent Department: China Electronics Technology Group Corporation
Sponsored by: The 26th Institute of China Electronics Technology Group Corporation, Chongqing 400060, China
Chief Editor: HU Shaoqin
Executive Chief Editor: WU Xia
Managing Editor: XU Xin
Edited and Published by: Editorial Office of Journal of
 PIEZOELECTRICS & ACOUSTOOPTICS

Address: No. 14 Garden Road, Nanping, Nanan District Chongqing City, Chongqing 400060
Tel: (023) 62919570 62919643
Fax: (023) 62805284
E-mail: ydsgsipat@163.com
http: //www. peatec. com
Distributed by: Editorial Office of Journal of
 PIEZOELECTRICS & ACOUSTOOPTICS