



ISSN 1004-2474  
CODEN YASHE7

· 中文核心期刊 (GCJC) · 中国科学引文数据库 (CSCD) 收录 · Elsevier Scopus数据库收录

# 压电与声光

PIEZOELECTRICS & ACOUSTOOPTICS

3

2019年 第41卷

- 微声电子技术与应用
- 微声电子材料技术与应用
- 微声传感器系统与应用
- 微声电子前沿技术
- 惯性技术与应用
- 微波声学技术与应用

ISSN 1004-2474



71004 247197

万方数据

CEIC 中国电子科技集团公司第二十六研究所

## 目次

一种高功率密度声光器件 .....	王晓新,杨涛,曹家强,张泽红,吴中超,刘玲(323)
声表面波射频识别与温度传感一体化系统 .....	赵文玉,陈智军,朱卫俊,程胜军,陈涛,贾浩(326)
LiNbO <sub>3</sub> 单晶薄膜体声波谐振器的研制 .....	彭霄,田本朗,毛世平,杜波,蒋欣,徐阳,马晋毅,蒋平英(330)
基于磁致伸缩多层膜的磁声表面波传感器 .....	刘力,刘国,刘婉,鲁亚巍,白飞明(335)
钽酸锂黑片的制备与性能研究 .....	龙勇,于明晓,李和新,石自彬,王璐,丁雨瞳,徐扬,吴兆刚(340)
基于半功率带宽法的行波超声电机谐波响应分析 .....	刘军,朱华,牛子杰,赵淳生(344)
基于能陷理论的石英力敏谐振器集群的设计 .....	陈福彬,田文杰,高锦春(349)
三次泛音单片式、高频及高阻带晶体滤波器 .....	阳皓,彭胜春,陈仲涛,陈冬梅,管弦,张念,张静雯(353)
球面状 1-3 型压电复合陶瓷材料研究 .....	管弦,鲜晓军,李洪平,刘振华,刘良芳,汪红兵,王登攀(357)
四音叉定子驱动的压电旋转电机动力学特性 .....	贺红林,余九,龙玉繁,付磊,刘浩康(360)
基于枝节加载环形谐振器的双频带滤波器 .....	吴兴宏,石玉,尉旭波(365)
磁致伸缩棒驱动的双向电静液作动器 .....	王振宇,朱玉川,罗樟,李宇阳(369)
横向电场激励的 LiNbO <sub>3</sub> 压电谐振器的仿真分析 .....	鄢良,马廷锋,王明飞,王骥,杜建科(373)
薄膜体声波谐振器的研究与仿真 .....	陈鹏光,王瑞,马琨,陈剑鸣(378)
血管内超声换能器的研究现状与进展 .....	侯尚,费春龙,杨新宇,孙昕郝,周歧发(383)
基于 PVDF 压电传感器的采摘机械手研究 .....	唐火红,栾铸(387)
8/4-4 分载式并联六维力传感器建模与分析 .....	宋伟山,李成刚,王春明,宋勇,吴泽枫(392)
压电驱动微动平台结构的设计优化和仿真分析 .....	李东明,柴长忠,沈文强,王彦琪,崔云先(396)
陶瓷体积分数对压电换能器性能影响 .....	李星,王丽坤,仲超,张彦军(400)
基于 PVDF 压电薄膜的仿生触觉检测系统研究 .....	辛毅,徐洋,朱剑锋,刘涛,李永超,刘丽双(405)
先进微陀螺器件及微惯性测量单元最新研究进展 .....	何杰,朴继军,朱玲瑞,袁小平,胡少勤(410)
基于蒙特卡罗方法的 LED 芯片定位系统误差分析 .....	龚时华,周迪一,王子悦,李德龙(416)
基于压电换能器的声发射源定位成像研究 .....	王少锋,王道瑞,王建国(421)
压电结构测控系统中的电压衰减接口设计 .....	王立纲,吴义鹏(425)
光纤陀螺温度漂移的多尺度建模研究 .....	刘文涛,刘洁瑜,沈强(431)
捷联航空重力测量中的卡尔曼滤波 .....	蔡体菁,颜颖,王新宇(436)
基于 24 位置的 MEMS 惯性传感器快速标定方法 .....	孙佳,邹靖,胡桐(440)
压电式压力传感器温度补偿算法的研究 .....	谭士杰,刘凯,代波(445)
基于声场 HBT 干涉的空间定位方法研究 .....	聂磊,邹静,刘梦然,冯胜(448)
一种低温共烧多层压电陶瓷变压器 .....	徐安吉,袁家军(452)
一种用于微惯性组合的新型微封装技术 .....	陆玉姣,马轶男,朱彤,甘海波,王建文(455)
移动 Ad Hoc 云中任务卸载的联合优化策略 .....	胡杨,韩嘉伟,张志红,李军,刘畅,曾祥豹,李小飞,王音心(459)

**CONTENTS**

An Acousto-Optic Device With High Power Density .....	323
..... WANG Xiaoxin, YANG Tao, CAO Jiaqiang, ZHANG Zehong, WU Zhongchao, LIU Ling	
The Integrated System With SAW Radio-frequency Identification and Temperature Sensing .....	326
..... ZHAO Wenyu, CHEN Zhijun, ZHU Weijun, CHENG Shengjun, CHEN Tao, JIA Hao	
Development of LiNbO <sub>3</sub> Single Crystal Thin Film Bulk Acoustic Resonator .....	330
..... PENG Xiao, TIAN Benlang, MAO Shiping, DU Bo, JIANG Xin, XU Yang, MA Jinyi, JIANG Pingying	
Magnetic Surface Acoustic Wave Sensor Based on Magnetostrictive Multilayered Films .....	335
..... LIU Li, LIU Guo, LIU Wan, LU Yawei, BAI Feiming	
Preparation and Characterization of Black Lithium Tantalate Wafers .....	340
..... LONG Yong, YU Mingxiao, LI Hexin, SHI Zibing, WANG Lu, DING Yuchong, XU Yang, WU Zhaogang	
Analysis of the Harmonic Response of Traveling-wave Ultrasonic Motor Based on Half-power Bandwidth Method .....	344
..... LIU Jun, ZHU Hua, NIU Zijie, ZHAO Chunsheng	
Design of the Quartz Force-Sensitive Resonators Cluster Using Energy Trapping Theory .....	349
..... CHEN Fubin, TIAN Wenjie, GAO Jinchun	
3rd Overtone Monolithic Crystal Filter With High Frequency and High Stop Band .....	353
..... YANG Hao, PENG Shengchun, CHEN Zhongtao, CHEN Dongmei, GUAN Xuan, ZHANG Nian, ZHANG Jingwen	
Study on Spherical 1-3 Piezoelectric Composite Ceramic Material .....	357
..... GUAN Xian, XIAN Xiaojun, LI Hongping, LIU Zhenhua, LIU Liangfang, WANG Hongbing, WANG Dengpan	
Dynamics Characteristics of Piezoelectric Rotating Motor Driven by Four-forked Stator .....	360
..... HE Honglin, YU Jiu, LONG Yufan, FU Lei, LIU Haokang	
A Dual-band Filter Based on Stub-loaded Ring Resonator .....	365
..... WU Xinghong, SHI Yu, WEI Xubo	
A Bidirectional Motion Electro-hydrostatic Actuator Driven by Magnetostrictive Rod .....	369
..... WANG Zhenyu, ZHU Yuchuan, LUO Zhang, LI Yuyang	
Simulation Analysis of LiNbO <sub>3</sub> Piezoelectric Resonators Excited by Lateral Electric Fields .....	373
..... YAN Liang, MA Tingfeng, WANG Mingfei, WANG Ji, DU Jianke	
Study and Simulation of Film Bulk Acoustic Resonator .....	378
..... CHEN Pengguang, WANG Rui, MA Kun, CHEN Jianming	
Research Status and Progress of Intravascular Ultrasound Transducer .....	383
..... HOU Shang, FEI Chunlong, YANG Xinyu, SUN Xinhao, ZHOU Qifa	
Research on Picking Manipulator Based on PVDF Piezoelectric Sensor .....	387
..... TANG Huohong, LUAN Zhu	
Modeling and Analysis of 8/4-4 Split-load Parallel Six-Axis Force Sensor .....	392
..... SONG Weishan, LI Chenggang, WANG Chunming, SONG Yong, WU Zefeng	
Design Optimization and Simulation Analysis of Micro Piezoelectric Actuated Platform Structure .....	396
..... LI Dongming, CHAI Changzhong, SHEN Wenqiang, WANG Yanqi, CUI Yunxian	
Effect of Ceramic Volume Fraction on the Performance of Piezoelectric Transducers .....	400
..... LI Xing, WANG Likun, ZHONG Chao, ZHANG Yanjun	
Study on Bionic Tactile Detection System Based on PVDF Piezoelectric Thin Film .....	405
..... XIN Yi, XU Yang, ZHU Jianfeng, LIU Tao, LI Yongchao, LIU Lishuang	
Recent Research Progress of Advanced Micro-gyroscope Devices and MIMU .....	410
..... HE Jie, BU Jijun, ZHU Lingrui, YUAN Xiaoping, HU Shaoqin	
Error Analysis of LED Chip Positioning System Based on Monte Carlo Method .....	416
..... GONG Shihua, ZHOU Diyi, WANG Ziyue, LI Delong	
Research on Acoustic Emission Source Localization Imaging Based on Piezoelectric Transducer .....	421
..... WANG Shaofeng, WANG Daorui, WANG Jianguo	
Design of Voltage Attenuation Interface Applied to the Measurement and Control System of Piezoelectric Structure .....	425
..... WANG Ligang, WU Yipeng	
Research on Multi-scale Modeling of Temperature Drift in FOGs .....	431
..... LIU Wentao, LIU Jieyu, SHEN Qiang	
Kalman Filtering of Strapdown Airborne Gravity Measurement .....	436
..... CAI Tijing, YANG Ying, WANG Xinyu	
A Fast Calibration Method for MEMS Inertial Sensors Based on 24-Position .....	440
..... SUN Jia, ZOU Jing, HU Tong	
Study on Temperature Compensation Algorithm of Piezoelectric Pressure Sensor .....	445
..... TAN Shijie, LIU Kai, DAI Bo	
Research on Spatial Positioning Method Based on Sound Field HBT Interference .....	448
..... NIE Lei, ZOU Jing, LIU Mengran, FENG Sheng	
A Low Temperature Co-fired Multilayer Piezoelectric Ceramic Transformer .....	452
..... XU Quanji, YUAN Jiajun	
A Novel Miniaturized Packaging Technology for Miniature Inertia Integrated Navigation System .....	455
..... LU Yujiao, MA Yanan, ZHU Tong, GAN Haibo, WANG Jianwen	
Joint Optimization Strategy for Task Offloading in Mobile Ad Hoc Cloud .....	459
..... HU Yang, HAN Jiawei, ZHANG Zhihong, LI Jun, LIU Chang, ZENG Xiangbao, LI Xiaofei, WANG Yinxin	