

半导体学报

(BANDAOTI XUEBAO)

第29卷 第9期 2008年9月

目 次

技术进展

Challenges of Process Technology in 32nm Technology Node Wu Hanming, Wang Guohua, Huang Ru, and Wang Yangyuan

研究快报

- A High Performance AlGaN/GaN HEMT with a New Method for T-Gate Layout Design Chen Zhigang, Zhang Yang, Luo Weijun, Zhang Renping, Yang Fuhua, Wang Xiaoliang, and Li Jinmin
Monolithic Integration of a Widely Tunable Laser with SOA Using Quantum-Well Intermixing Liu Hongbo, Zhao Lingjuan, Kan Qiang, Pan Jiaojing, Wang Lu, Zhu Hongliang, Zhou Fan, and Wang Wei
Ohmic Contacts to n-Type $\text{Al}_{0.6}\text{Ga}_{0.4}\text{N}$ for Solar-Blind Detectors Zhu Yanling, Du Jiangfeng, Luo Muchang, Zhao Hong, Zhao Wenbo, Huang Licyun, Ji Hong, Yu Qi, and Yang Mohua
Fabrication of Sub-20nm Metal Nanogaps from Nanoconnections by the Extended Proximity Effect Sun Yan, Chen Xin, and Dai Ning

研究论文

- Band Edge Model of (101)-Biaxial Strained Si Song Jianjun, Zhang Heming, Dai Xianying, Hu Huiyong, and Xuan Rongxi
Characterization of Phosphorus Diffused ZnO Bulk Single Crystals Zhang Rui, Zhang Fan, Zhao Youwen, Dong Zhiyuan, and Yang Jun
200nm Gate Length Metamorphic $\text{In}_{0.52}\text{Al}_{0.48}\text{As}/\text{In}_{0.6}\text{Ga}_{0.4}\text{As}$ HEMTs on GaAs Substrates with 110GHz f_T Li Ming, Zhang Haiying, Xu Jingbo, and Fu Xiaojun
An Enhancement-Mode AlGaN/GaN HEMT with Recessed-Gate Wang Chong, Zhang Jinfeng, Quan Si, Hao Yue, Zhang Jincheng, and Ma Xiaohua
A Planar InGaAs/InP Geiger Mode Avalanche Photodiode with Cascade Edge Breakdown Suppression Wu Meng, Lin Feng, Yang Fuhua, and Cao Yanming
Using 3D TCAD Simulation to Study Charge Collection of a p-n Junction in a $0.18\mu\text{m}$ Bulk Process Liang Bin, Chen Shuming, and Liu Biwei
Nested Miller Active-Capacitor Frequency Compensation for Low-Power Three-Stage Amplifiers Ma Haifeng, Zhou Feng, Niu Qi, and Lü Changhui
An Electrostatic MEMS Actuator with Large Displacement Under Low Driving Voltage Ming Anjie, Li Tie, Zhou Ping, and Wang Yuelin
A Low Noise, High Linearity CMOS Receiver for 802.11b WLAN Applications Huang Yumei, Wang Jingguang, Wang Jinju, and Hong Zhiliang
Calculation, Simulation, and Testing for the Natural Frequency of a Micro Accelerometer Xiong Jijun, Fan Bo, Guo Hugang, and Gao Jianfei
A Compact Direct Digital Frequency Synthesizer for the Rubidium Atomic Frequency Standard Cao Xiaodong, Ni Weining, Yuan Ling, Hao Zhikun, and Shi Yin
Single Event Transients of Operational Amplifier and Optocoupler Feng Guoqiang, Ma Yingqi, Han Jianwei, Zhang Zhenlong, and Huang Jianguo
A 1.8V CMOS Direct Conversion Receiver for a 900MHz RFID Reader Chip Tan Xi, Liu Yuan, Lu Lei, Yuan Lu, Yang Zhenyu, Zhou Jiaye, Han Kefeng, and Min Hao
An Improved High Fan-in Domino Circuit for High Performance Microprocessors Feng Chaochao, Chen Xun, Yi Xiaofei, and Zhang Minxuan
A New Cochlear Prosthetic System with an Implanted DSP Mai Songping, Zhang Chun, Chao Jun, and Wang Zhihua
A Fully Integrated Low Power Transmitter in an 802.11b Transceiver System Xia Lingli, Li Weinan, Zheng Yongzheng, Huang Yumei, and Hong Zhiliang
A Double High-Voltage p-LDMOS and Its Compatible Process for PDP Scan-Driver ICs Li Xiaoming, Zhuang Yiqi, Zhang Li, and Xin Weiping
Optimization of Global Signal Networks for Island-Style FPGAs Ni Minghao, Chan S L, and Liu Zhonghai
高温退火处理提高半绝缘 VGF-GaAs 单晶的电学性能 占荣, 赵有文, 于会永, 高永亮, 惠峰
VGF 法生长的低位错掺 Si-GaAs 单晶的缺陷和性质 于会永, 赵有文, 占荣, 高永亮, 刘晓君
非掺杂 LEC 砷化镓晶体中砷沉淀和位错关联性质 朱蓉辉, 曾一平, 陈俊鹏, 惠峰, 郑红军, 冯志红
X 波段 GaN HEMT 内匹配器件 王勇, 李静强, 张志国, 冯震, 宋建博, 冯志红
多重气固反应制备一维 SiC 纳米线 李甲林, 唐元洪, 李小祥, 李建秀
 $\phi 200\text{mm}$ 太阳能电池用直拉硅单晶生长中导流系统的研究 任丙彦, 褚世君, 吴鑫
薄膜厚度对 $\text{La}_{0.85}\text{Sr}_{0.15}\text{MnO}_3/\text{TiO}_2$ 异质 pn 结的整流特性的影响 李彤, 裴志军, 孙守梅, 马兴兵, 冯立营, 张铭
一种改进了碰撞电离的超高速 InP 基 SHBT SDD 模型 葛霖, 金智, 刘新宇, 程伟, 王显泰, 严德华
 17×17 信道光谱响应平坦化的聚合物阵列波导光栅的研制 李彤, 裴志军, 孙守梅, 马兴兵, 冯立营, 张铭
一种基于 CMOS 工艺的新型结构 ESD 保护电路 娄佳娜, 吴晓波, 张冰, 梁海斌, 陈政坤, 马春生
一种高效率绿色模式开关电源控制器的研究 娄佳娜, 吴晓波, 张冰, 梁海斌, 陈政坤, 马春生
超深亚微米工艺下的电路级耦合 SET 脉冲注入 刘必慰, 明斌, 陈梁, 刘晓君, 徐高卫, 吴燕红
GaAs 基 E/D PHEMT 技术单片集成微波开关及其逻辑控制电路 黎梁, 张书明, 张海斌, 刘怡乐
SET 传播过程中的脉冲展宽效应 梁, 张书明, 张海斌, 刘晓君, 吴燕红, 吴周健
一种新型运放相位反转保护电路 徐高卫, 吴燕红, 吴周健, 刘晓君, 吴晓君, 吴晓君
基于埋置式基板的 3D-MCM 封装结构的研制 杨银堂, 朱樟明, 刘罗棠, 常春雷
考虑温度分布效应的 RLC 互连延时分析 杨银堂, 朱樟明, 刘罗棠, 常春雷
一种基于目标延迟约束缓冲器插入的互连优化模型 朱樟明, 刘罗棠, 常春雷, 杨银堂