

Journal of Semiconductors

Volume 30 Number 1 January 2009

SEMICONDUCTOR PHYSICS

- 012001** **Solution of the time-dependent Schrödinger equation with absorbing boundary conditions** (6 pages)
Chen Zhidong, Zhang Jinyu, and Yu Zhiping

SEMICONDUCTOR MATERIALS

- 013001** **Improved optical performance of GaN grown on patterned sapphire substrate** (4 pages)
Yao Guangrui, Fan Guanghan, Li Shutu, Zhang Yong, and Zhou Tianmin

SEMICONDUCTOR DEVICES

- 014001** **A novel GAAC FinFET transistor: device analysis, 3D TCAD simulation, and fabrication** (5 pages)
Xiao Deyuan, Wang Xi, Yuan Haijiang, Yu Yuehui, Xie Zhifeng, and Chi Minhwa
- 014002** **Ultra high-speed InP/InGaAs DHBTs with f_t of 203 GHz** (3 pages)
Su Yongbo, Jin Zhi, Cheng Wei, Liu Xinyu, Xu Anhuai, and Qi Ming
- 014003** **Characterization of the triple-gate flash memory endurance degradation mechanism** (4 pages)
Cao Zigui, Sun Ling, and Lee Elton
- 014004** **Effect of total ionizing dose radiation on the 0.25 μm RF PDSOI nMOSFETs with thin gate oxide** (7 pages)
Liu Mengxin, Han Zhengsheng, Bi Jinshun, Fan Xuemei, Liu Gang, and Du Huan
- 014005** **Monolithic white LED based on $\text{Al}_x\text{Ga}_{1-x}\text{N}/\text{In}_y\text{Ga}_{1-y}\text{N}$ DBR resonant-cavity** (4 pages)
Chen Yu, Huang Lirong, and Zhu Shanshan
- 014006** **Design and fabrication of an embedded wire-grid nanograting** (5 pages)
Zhou Libing and Zhu Wei

SEMICONDUCTOR CIRCUITS

- 015001** **Design and analysis of a UWB low-noise amplifier in the 0.18 μm CMOS process** (5 pages)
Yang Yi, Gao Zhuo, Yang Liqiong, Huang Lingyi, and Hu Weiwu
- 015002** **A 0.18 μm CMOS fluorescent detector system for bio-sensing application** (6 pages)
Liu Nan, Chen Guoping, and Hong Zhiliang
- 015003** **Design and measurement of a 53 GHz balanced Colpitts oscillator** (4 pages)
Zhao Yan, Wang Zhigong, Li Wei, and Zhang Li
- 015004** **A 10–20 Gb/s PAM2-4 transceiver in 65 nm CMOS** (5 pages)
Gao Zhuo, Yang Yi, Zhong Shiqiang, Yang Xu, Huang Lingyi, and Hu Weiwu
- 015005** **A 3.1–4.8 GHz CMOS receiver for MB-OFDM UWB** (6 pages)
Yang Guang, Yao Wang, Yin Jiangwei, Zheng Renliang, Li Wei, Li Ning, and Ren Junyan
- 015006** **A fully integrated BPSK amplitude and spectrum tunable transmitter for IR-UWB system** (5 pages)
Xia Lingli, Huang Yumei, and Hong Zhiliang
- 015007** **A low-power monolithic CMOS transceiver for 802.11b wireless LANs** (7 pages)
Li Weinan, Xia Lingli, Zheng Yongzheng, Huang Yumei, and Hong Zhiliang
- 015008** **5.2 GHz variable-gain amplifier and power amplifier driver for WLAN IEEE 802.11a transmitter front-end** (5 pages)
Zhang Xuelian, Yan Jun, Shi Yin, and Dai Fa Foster
- 015009** **A novel low-voltage operational amplifier for low-power pipelined ADCs** (4 pages)
Fan Mingjun, Ren Junyan, Guo Yao, Li Ning, Ye Fan, and Li Lian

(Continued on inside back cover)

015010 Design of a 16 gray scales 320×240 pixels OLED-on-silicon driving circuit (4 pages)

Huang Ran, Wang Xiaohui, Wang Wenbo, Du Huan, and Han Zhengsheng

015011 Modeling and analysis of power extraction circuits for passive UHF RFID applications (10 pages)

Fan Bo, Dai Yujie, Zhang Xiaoxing, and Lü Yingjie

SEMICONDUCTOR TECHNOLOGY

016001 Microtrenching effect of SiC ICP etching in SF₆/O₂ plasma (3 pages)

Ding Ruixue, Yang Yintang, and Han Ru