

Journal of Semiconductors

Volume 33 Number 9 September 2012

SEMICONDUCTOR PHYSICS

- 092001 **Dielectric confinement on exciton binding energy and nonlinear optical properties in a strained $Zn_{1-x_{in}}Mg_{x_{in}}Se/Zn_{1-x_{out}}Mg_{x_{out}}Se$ quantum well (7 pages)**
J. Abraham Hudson Mark and A. John Peter
- 092002 **Chaotic dynamics dependence on doping density in weakly coupled GaAs/AlAs superlattices (5 pages)**
Yang Gui, Li Yuanhong, Zhang Fengying, and Li Yuqi
- 092003 **A tunneling piezoresistive model for polysilicon (5 pages)**
Chuai Rongyan, Wang Jian, Wu Meile, Liu Xiaowei, Jin Xiaoshi, and Yang Lijian

SEMICONDUCTOR MATERIALS

- 093001 **Effect of substrate temperature on the stability of transparent conducting cobalt doped ZnO thin films (4 pages)**
Said Benramache, Boubaker Benhaoua, and Foued Chabane
- 093002 **A nanostructured copper telluride thin film grown at room temperature by an electrodeposition method (6 pages)**
S. S. Dhasade, S. H. Han, and V. J. Fulari
- 093003 **Effect of ZnO films on CdTe solar cells (6 pages)**
Liu Tingliang, He Xulin, Zhang Jingquan, Feng Lianghuan, Wu Lili, Li Wei, Zeng Guanggen, and Li Bing
- 093004 **Atomic layer deposition of an Al_2O_3 dielectric on ultrathin graphite by using electron beam irradiation (4 pages)**
Jiang Ran, Meng Lingguo, Zhang Xijian, Hyung-Suk Jung, and Cheol Seong Hwang
- 093005 **Design of a three-layer hot-wall horizontal flow MOCVD reactor (5 pages)**
Gu Chengyan, Lee Chengming, and Liu Xianglin

SEMICONDUCTOR DEVICES

- 094001 **A fuzzy-logic-based approach to accurate modeling of a double gate MOSFET for nanoelectronic circuit design (7 pages)**
F. Djeffal, A. Ferdi, and M. Chahdi
- 094002 **Influence of thermal treatment temperatures on CdTe nanocrystal films and photoelectric properties of ITO/CdTe/Al (5 pages)**
Xu Wenqing, Qu Shengchun, Wang Kefan, Bi Yu, Liu Kong, and Wang Zhanguo
- 094003 **Turn-on and turn-off voltages of an avalanche p-n junction (5 pages)**
Zhang Guoqing, Han Dejun, Zhu Changjun, and Zhai Xuejun
- 094004 **Effect of varying layouts on the gate temperature for multi-finger AlGaN/GaN HEMTs (5 pages)**
Wang Jianhui, Wang Xinhua, Pang Lei, Chen Xiaojuan, Jin Zhi, and Liu Xinyu

(Continued on inside back cover)

- 094005 A strained Si-channel NMOSFET with low field mobility enhancement of about 140% using a SiGe virtual substrate (4 pages)**
Cui Wei, Tang Zhaoxuan, Tan Kaizhou, Zhang Jing, Zhong Yi, Hu Huiyong, Xu Shiliu, Li Ping, and Hu Gangyi
- 094006 A neutron radiation-hardened superluminescent diode (5 pages)**
Jiao Jian, Tan Manqing, Zhao Miao, and Chang Jinlong
- 094007 Fabrication of high-voltage light emitting diodes with a deep isolation groove structure (4 pages)**
Ding Yan, Guo Weiling, Zhu Yanxu, Liu Ying, Liu Jianpeng, and Yan Weiwei
- 094008 Improving poor fill factors for solar cells via light-induced plating (4 pages)**
Xing Zhao, Jia Rui, Ding Wuchang, Meng Yanlong, Jin Zhi, and Liu Xinyu
- 094009 Design and process test of a novel MOEMS accelerometer based on Raman–Nath diffraction (7 pages)**
Zhang Zuwei, Wen Zhiyu, Shang Zhengguo, Li Dongling, and Hu Jing

SEMICONDUCTOR INTEGRATED CIRCUITS

- 095001 A novel low ripple charge pump with a 2X/1.5X booster for PCM (6 pages)**
Fu Cong, Song Zhitang, Chen Houpeng, Cai Daolin, Wang Qian, Hong Xiao, Ding Sheng, and Li Xi
- 095002 High efficiency class-I audio power amplifier using a single adaptive supply (7 pages)**
Peng Zhenfei, Yang Shanshan, Feng Yong, Liu Yang, and Hong Zhiliang
- 095003 A multi-mode multi-band RF receiver front-end for a TD-SCDMA/LTE/LTE-advanced in 0.18- μ m CMOS process (6 pages)**
Guo Rui and Zhang Haiying
- 095004 A low power 14 bit 51.2 kS/s double-sampling extended counting ADC with a class-AB OTA (7 pages)**
Chen Honglei, Wu Dong, Shen Yanzhao, and Xu Jun
- 095005 A 10-bit 50-MS/s reference-free low power SAR ADC in 0.18- μ m SOI CMOS technology (9 pages)**
Qiao Ning, Zhang Guoquan, Yang Bo, Liu Zhongli, and Yu Fang
- 095006 A novel high performance ESD power clamp circuit with a small area (7 pages)**
Yang Zhaonian, Liu Hongxia, Li Li, and Zhuo Qingqing
- 095007 A low-power low-voltage slew-rate enhancement circuit for two-stage operational amplifiers (6 pages)**
Shu Chen, Xu Jun, Ye Fan, and Ren Junyan