Journal of Semiconductors

Volume 33 Number 3 March 2012

	volume 33 Number 3 Iviaich 2012
	INVITED PAPERS
031001	Review of terahertz semiconductor sources (4 pages) Feng Wei
	SEMICONDUCTOR PHYSICS
032001	Optical properties of a HfO ₂ /Si stack with a trace amount of nitrogen incorporation (3 pages) Li Ye, Jiang Tingting, Sun Qingqing, Wang Pengfei, Ding Shijin, and Zhang Wei
	SEMICONDUCTOR MATERIALS
033001	Investigation of an a-Si/c-Si interface on a c-Si(P) substrate by simulation (7 pages) Wang Jianqiang, Gao Hua, Zhang Jian, Meng Fanying, and Ye Qinghao
	SEMICONDUCTOR DEVICES
034001	Quantum mechanical compact modeling of symmetric double-gate MOSFETs using variational approach (5 pages) P. Vimala and N. B. Balamurugan
034002	A simulation of doping and trap effects on the spectral response of AlGaN ultraviolet detectors (4 pages) Sidi Ould Saad Hamady
034003	AlGaN/GaN HEMTs with 0.2 μm V-gate recesses for X-band application (4 pages) Wang Chong, He Yunlong, Zheng Xuefeng, Hao Yue, Ma Xiaohua, and Zhang Jincheng
034004	A novel high speed lateral IGBT with a self-driven second gate (4 pages) Hu Hao and Chen Xingbi
034005	A physical surface-potential-based drain current model for polysilicon thin-film transistors (6 pages) Li Xiyue, Deng Wanling, and Huang Junkai
034006	Holding-voltage drift of a silicon-controlled rectifier with different film thicknesses in silicon-on-insulator technology (4 pages) Jiang Yibo, Zeng Chuanbin, Du Huan, Luo Jiajun, and Han Zhengsheng
034007	Total dose ionizing irradiation effects on a static random access memory field programmable gate array
	(6 pages)
034008	Gao Bo, Yu Xuefeng, Ren Diyuan, Li Yudong, Sun Jing, Cui Jiangwei, Wang Yiyuan, and Li Ming Fabrication of a 100% fill-factor silicon microlens array (4 pages)
054000	Yan Jianhua, Ou Wen, and Ou Yi
	SEMICONDUCTOR INTEGRATED CIRCUITS
035001	Low power digitally controlled oscillator designs with a novel 3-transistor XNOR gate (8 pages) Manoj Kumar, Sandeep K. Arya, and Sujata Pandey

A single-to-differential low-noise amplifier with low differential output imbalance (5 pages)

Duan Lian, Huang Wei, Ma Chengyan, He Xiaofeng, Jin Yuhua, and Ye Tianchun

035002

035003	Design of a low noise distributed amplifier with adjustable gain control in 0.15 μ m GaAs PHEMT (4 pages)
	Zhang Ying, Wang Zhigong, Xu Jian, and Luo Yin
035004	A fully integrated frequency synthesizer for a dual-mode GPS and Compass receiver (7 pages) Chu Xiaojie, Lin Min, Shi Yin, and Dai F F
035005	A 1.2-V CMOS front-end for LTE direct conversion SAW-less receiver (5 pages) Wang Riyan, Huang Jiwei, Li Zhengping, Zhang Weifeng, and Zeng Longyue
035006	The realization of an SVGA OLED-on-silicon microdisplay driving circuit (6 pages) Zhao Bohua, Huang Ran, Ma Fei, Xie Guohua, Zhang Zhensong, Du Huan, Luo Jiajun, and Zhao Yi
035007	A feedforward compensation design in critical conduction mode boost power factor correction for low-power low total harmonic distortion (7 pages) Li Yani, Yang Yintang, Zhu Zhangming, and Qiang Wei
035008	Rigorous theoretical derivation of lumped models to transmission line systems (7 pages) Zhao Jixiang
035009	A low-power multi port register file design using a low-swing strategy (8 pages) Yan Hao, Liu Yan, Hua Siliang, Wang Donghui, and Hou Chaohuan
035010	Robust and low power register file in 65 nm technology (5 pages) Zhang Xingxing, Li Yi, Xiong Baoyu, Han Jun, Zhang Yuejun, Dong Fangyuan, Zhang Zhang, Yu Zhiyi Han Jun, Cheng Xu, and Zeng Xiaoyang
	SEMICONDUCTOR TECHNOLOGY
036001	Metal gate etch-back planarization technology (4 pages) Meng Lingkuan, Yin Huaxiang, Chen Dapeng, and Ye Tianchun
036002	Nickel ohmic contacts of high-concentration P-implanted 4H-SiC (4 pages) Liu Chunjuan, Liu Su, Feng Jingjing, and Wu Rong
036003	Properties of a Ni-FUSI gate formed by the EBV method and one-step RTA (3 pages) Zhang Youwei, Xu Dawei, Wan Li, Wang Zhongjian, Xia Chao, Cheng Xinhong, and Yu Yuehui