

Journal of Semiconductors

Volume 32 Number 1 January 2011

SEMICONDUCTOR PHYSICS

- 012001** **Characterisation of the optical properties of InGaN MQW structures using a combined SEM and CL spectral mapping system** (2 pages)
Mark N. Lockrey and Matthew R. Phillips
- 012002** **Effect of temperature and moisture on the luminescence properties of silicone filled with YAG phosphor** (3 pages)
Zhang Qin, Jiao Feng, Chen Zhaohui, Xu Ling, Wang Simin, and Liu Sheng
- 012003** **Effect of strontium nitride on the properties of $\text{Sr}_2\text{Si}_5\text{N}_8:\text{Eu}^{2+}$ red phosphor** (3 pages)
Teng Xiaoming, Liang Chao, and He Jinhua

SEMICONDUCTOR MATERIALS

- 013001** **Physical properties of hematite $\alpha\text{-Fe}_2\text{O}_3$ thin films: application to photoelectrochemical solar cells** (8 pages)
S. S. Shinde, R. A. Bansode, C. H. Bhosale, and K. Y. Rajpure
- 013002** **Photoelectric properties of ITO thin films deposited by DC magnetron sputtering** (4 pages)
Liu Wei and Cheng Shuying
- 013003** **Criteria for versatile GaN MOVPE tool: high growth rate GaN by atmospheric pressure growth** (3 pages)
Koh Matsumoto, Kazutada Ikenaga, Jun Yamamoto, Kazuki Naito, Yoshiki Yano, Akinori Ubukata, Hiroki Tokunaga, Tadanobu Arimura, Katsuaki Cho, Toshiya Tabuchi, Akira Yamaguchi, Yasuhiro Harada, Yuzaburo Ban, and Kousuke Uchiyama
- 013004** **Fluorescent SiC and its application to white light-emitting diodes** (3 pages)
Satoshi Kamiyama, Motoaki Iwaya, Tetsuya Takeuchi, Isamu Akasaki, Mikael Syväjärvi, and Rositza Yakimova

SEMICONDUCTOR DEVICES

- 014001** **Avalanche behavior of power MOSFETs under different temperature conditions** (6 pages)
Lu Jiang, Wang Lixin, Lu Shuojin, Wang Xuesheng, and Han Zhengsheng
- 014002** **A total dose radiation model for deep submicron PDSOI NMOS** (3 pages)
Bu Jianhui, Bi Jinshun, Liu Mengxin, and Han Zhengsheng
- 014003** **Complementary charge islands structure for a high voltage device of partial-SOI** (5 pages)
Wu Lijuan, Hu Shengdong, Zhang Bo, and Li Zhaoji
- 014004** **Degradation of light emitting diodes: a proposed methodology** (4 pages)
Sau Koh, Willem Van Driel, and G. Q. Zhang
- 014005** **Spacing optimization of high power LED arrays for solid state lighting** (5 pages)
Y. Sing Chan and S. W. Ricky Lee
- 014006** **Thermal analysis of LED lighting system with different fin heat sinks** (3 pages)
Hou Fengze, Yang Daoguo, and Zhang Guoqi
- 014007** **Reliability test and failure analysis of high power LED packages** (4 pages)
Chen Zhaohui, Zhang Qin, Wang Kai, Luo Xiaobing, and Liu Sheng

(Continued on inside back cover)

- 014008** **A review of passive thermal management of LED module** (4 pages)
Ye Huaiyu, Sau Koh, Henk van Zeijl, A. W. J. Gielen, and Zhang Guoqi
- 014009** **Thermal design for the high-power LED lamp** (4 pages)
Tian Xiaogai, Chen Wei, and Zhang Jiyong
- 014010** **ICP dry etching ITO to improve the performance of GaN-based LEDs** (4 pages)
Meng Lili, Chen Yixin, Ma Li, Liu Zike, and Shen Guangdi
- 014011** **Luminous efficacy and color rendering index of high power white LEDs packaged by using red phosphor** (3 pages)
Lu Pengzhi, Yang Hua, and Wang Guohong
- 014012** **Absorption of photons in the thin film AlGaInP light emitting diode** (3 pages)
Gao Wei, Guo Weiling, Zou Deshu, Jiang Wenjing, Liu Zike, and Shen Guangdi
- 014013** **Response time improvement of AlGaIn photoconductive detectors by adjusting crystal-nuclei coalescence process in metal organic vapor phase epitaxy** (4 pages)
Wang Lai, Hao Zhibiao, Han Yanjun, Luo Yi, Wang Lanxi, and Chen Xuekang

SEMICONDUCTOR INTEGRATED CIRCUITS

- 015001** **A 455 nW 220 fJ/conversion-step 12 bits 2 kS/s SAR ADC for portable biopotential acquisition systems** (6 pages)
Zhang Hui, Qin Yajie, Yang Siyu, and Hong Zhiliang
- 015002** **A 12-bit 40-MS/s SHA-less pipelined ADC using a front-end RC matching technique** (5 pages)
Fan Mingjun, Ren Junyan, Shu Guanghua, Guo Yao, Li Ning, Ye Fan, and Xu Jun
- 015003** **A low power 12-bit 30 MSPS CMOS pipeline ADC with on-chip voltage reference buffer** (7 pages)
Chen Qihui, Qin Yajie, Lu Bo, and Hong Zhiliang
- 015004** **A continuous-time/discrete-time mixed audio-band sigma delta ADC** (6 pages)
Liu Yan, Hua Siliang, Wang Donghui, and Hou Chaohuan
- 015005** **Surface-type humidity sensor based on cellulose-PEPC for telemetry systems** (5 pages)
Kh. S. Karimov, M. Saleem, T. A. Qasuria, and M. Farooq
- 015006** **A digital calibration technique for an ultra high-speed wide-bandwidth folding and interpolating analog-to-digital converter in 0.18- μ m CMOS technology** (8 pages)
Yu Jinshan, Zhang Ruitao, Zhang Zhengping, Wang Yonglu, Zhu Can, Zhang Lei, Yu Zhou, and Han Yong

SEMICONDUCTOR TECHNOLOGY

- 016001** **A multivariate process capability index model system** (7 pages)
Wang Shaoxi and Wang Danghui

SCIENCE FOUNDATION INFORMATION

- 017001** **During the transformation period for foundation, take the opportunity to restructure — analysis of the applied projects in 2010 semiconductor discipline of National Natural Science Foundation of China** (12 pages)
He Jie, Guo Ruiqian, and Pan Qing