

Letters

FullSeptember 2018

ZnO flexible high voltage thin film transistors for power management in wearable electronics

Wen-Chiang Hong, Yonghui Zhang, Szu-Ying Wang, Yuxuan Li, Navila Alim, Xiaolong Du, Zengxia Mei, and Yicheng Lu

Journal of Vacuum Science & Technology B **36**, 050601 (2018); <https://doi.org/10.1116/1.5043550>

SHOW ABSTRACT

Electronic & Optoelectronic Materials, Devices & Processing

FullSeptember 2018

Negative field ionization for tetracyanoethylene on novel thin polymer cathode coating layers

Andreas Fischer, Karl L. Lorenz, and Marwan S. Mousa

Journal of Vacuum Science & Technology B **36**, 051201 (2018); <https://doi.org/10.1116/1.5010271>

SHOW ABSTRACT

FullSeptember 2018

Silicon nanocone formation via low-energy helium ion sputtering

Theodore J. Novakowski, Jitendra K. Tripathi, and Ahmed Hassanein

Journal of Vacuum Science & Technology B **36**, 051202 (2018); <https://doi.org/10.1116/1.5040765>

SHOW ABSTRACT

FullSeptember 2018

Concurrent events of memory and threshold switching in Ag/SiN_x/Si devices

Sungjun Kim, Min-Hwi Kim, Tae-Hyeon Kim, Ying-Chen Chen, Yao-Feng Chang, Muhammad Ismail, Yoon Kim, Kyung-Chang Ryoo, and Byung-Gook Park

Journal of Vacuum Science & Technology B **36**, 051203 (2018); <https://doi.org/10.1116/1.5034058>

SHOW ABSTRACT

FullSeptember 2018

Integration of microwave-annealed oxidation on germanium metal-oxide-semiconductor devices

Chung-Chun Hsu, Wei-Chun Chi, Yi-He Tsai, Ming-Li Tsai, Shin-Yuan Wang, Chen-Han Chou, Jun Lin Zhang, Guang-Li Luo, and Chao-Hsin Chien

Journal of Vacuum Science & Technology B **36**, 051204 (2018); <https://doi.org/10.1116/1.5051519>

SHOW ABSTRACT

FullSeptember 2018

Modulating photoelectric performance of graphene/gallium arsenide nanowire photodetectors by applying gate voltage

Yanbin Luo, Xin Yan, Wei Wei, Mingqian Zhang, Jinnan Zhang, Bang Li, Jiahui Zheng, Qichao Lu, Qimin Lin, Wen Liu, Xia Zhang, and Xiaomin Ren

Journal of Vacuum Science & Technology B **36**, 051205 (2018); <https://doi.org/10.1116/1.5050319>

SHOW ABSTRACT

Lithography

FullSeptember 2018

Ultraviolet transmittance of SU-8 photoresist and its importance in multi-wavelength photolithography

Vijay V. Parsi Sreenivas, Andreas Winkler, Stefan Harazim, and Oliver G. Schmidt

Journal of Vacuum Science & Technology B **36**, 051601 (2018); <https://doi.org/10.1116/1.5033996>

SHOW ABSTRACT

FullSeptember 2018

Predicting stability of nanofin arrays against collapse by phase field modeling

Yanming Wang, Peter Woytowicz, David Mui, and Wei Cai

Journal of Vacuum Science & Technology B **36**, 051602 (2018); <https://doi.org/10.1116/1.5045791>

SHOW ABSTRACT

Nanometer Science & Technology

FullSeptember 2018

Wafer-scale fabrication of CMOS-compatible, high aspect ratio encapsulated nanochannels

Melissa Alyson Smith, Isaac Weaver, and Mordechai Rothschild

Journal of Vacuum Science & Technology B **36**, 051801 (2018); <https://doi.org/10.1116/1.5034463>

SHOW ABSTRACT

FullSeptember 2018

Physical vapor deposition of Ag nanoparticles through shadowing and re-emission effects

Caiqin Han, Dexian Ye, Yiping Zhao, and Junxue Fu

Journal of Vacuum Science & Technology B **36**, 051802 (2018); <https://doi.org/10.1116/1.5026581>

SHOW ABSTRACT

FullSeptember 2018

***In situ* liquid cell crystallization and imaging of thiamethoxam by helium ion microscopy**

Alex Belianinov, Alison Pawlicki, Matt Burch, Songkil Kim, Anton Ievlev, Jeff Fowler, and Olga Ovchinnikova

Journal of Vacuum Science & Technology B **36**, 051803 (2018); <https://doi.org/10.1116/1.5040849>

SHOW ABSTRACT

FullSeptember 2018

Thermionic cooling efficiency of functionalized carbon nanotube thin films

Feng Jin, and Dustin Carter

Journal of Vacuum Science & Technology B **36**, 051804 (2018); <https://doi.org/10.1116/1.5041762>

SHOW ABSTRACT

FullSeptember 2018

Extraction of the current distribution out of saturated integral measurement data of p-type silicon field emitter arrays

Janis Breuer, Michael Bachmann, Felix Düsberg, Andreas Pahlke, Simon Edler, Christoph Langer, Christian Prommesberger, Robert Lawrowski, Rupert Schreiner, Pavel Serbun, and Dirk Lützenkirchen-Hecht

Journal of Vacuum Science & Technology B **36**, 051805 (2018); <https://doi.org/10.1116/1.5035189>

SHOW ABSTRACT

Microelectronic & Nanoelectronic Devices

FullSeptember 2018

Thin layer etching of low-k SiCO spacer using hydrogen ion implantation followed by hydrofluoric acid

Nicolas Posseme, Maxime Garcia-Barros, François Leverd, Daniel Benoit, Olivier Pollet, Guillaume Audoit, Cyril Guedj, Audrey Jannaud, and S. Barnola

Journal of Vacuum Science & Technology B **36**, 052201 (2018); <https://doi.org/10.1116/1.5038617>

SHOW ABSTRACT

FullSeptember 2018

Effect of proton irradiation energy on SiN_x/AlGaN/GaN metal-insulator semiconductor high electron mobility transistors

Chaker Fares, Fan Ren, Stephen J. Pearton, Gwangseok Yang, Jihyun Kim, Chien-Fong Lo, and J. Wayne Johnson

Journal of Vacuum Science & Technology B **36**, 052202 (2018); <https://doi.org/10.1116/1.5049596>

SHOW ABSTRACT

FullSeptember 2018

Response increase of antenna-coupled nanothermocouples by thermal insulation

Gergo P. Szakmany, Alexei O. Orlov, Gary H. Bernstein, and Wolfgang Porod

Journal of Vacuum Science & Technology B **36**, 052203 (2018); <https://doi.org/10.1116/1.5044534>

SHOW ABSTRACT

FullSeptember 2018

First-order reversal curve diagrams for characterizing ferroelectricity of Hf_{0.5}Zr_{0.5}O₂ films grown at different rates

Youngin Goh, and Sanghun Jeon

Journal of Vacuum Science & Technology B **36**, 052204 (2018); <https://doi.org/10.1116/1.5046762>

SHOW ABSTRACT

Plasmonics

FullSeptember 2018

Etching of glass, silicon, and silicon dioxide using negative ionic liquid ion sources

Tiantong Xu, Zhi Tao, and Paulo C. Lozano

Journal of Vacuum Science & Technology B **36**, 052601 (2018); <https://doi.org/10.1116/1.5034131>

SHOW ABSTRACT

Measurement and Characterization

FullSeptember 2018

Effects of slow highly charged ion irradiation on metal oxide semiconductor capacitors

Daniel B. Cutshall, Dhruva D. Kulkarni, James E. Harriss, Daniel A. Field, Chad E. Sosolik, and William R. Harrell

Journal of Vacuum Science & Technology B **36**, 052901 (2018); <https://doi.org/10.1116/1.5028149>

SHOW ABSTRACT

FullSeptember 2018

Pattern quality and defect evaluation based on cross correlation and power spectral density methods

Libin Zhang, Le Ma, Rui Chen, Jianfang He, Xiaojing Su, Lisong Dong, Yajuan Su, and Yayi Wei

Journal of Vacuum Science & Technology B **36**, 052902 (2018); <https://doi.org/10.1116/1.5040391>

SHOW ABSTRACT

FullSeptember 2018

Characterization and electrochemical behavior of spherical boron-doped diamond film electrode

Fan Li, and Li Gou

Journal of Vacuum Science & Technology B **36**, 052903 (2018); <https://doi.org/10.1116/1.5041321>

SHOW ABSTRACT

FullSeptember 2018

Electrical and optical characterization of CdTe solar cells with CdS and CdSe buffers—A comparative study

Md Dalim Mia, Craig H. Swartz, Sanjoy Paul, Sandeep Sohal, Corey R. Grice, Yanfa Yan, Mark Holtz, and Jian V. Li

Journal of Vacuum Science & Technology B **36**, 052904 (2018); <https://doi.org/10.1116/1.5044219>

SHOW ABSTRACT

FullSeptember 2018

Investigation of cadmium telluride grown by molecular-beam epitaxy using micro-Raman spectroscopy below and above the laser damage threshold

Sandeep Sohal, Madhavi Edirisooriya, Thomas Myers, and Mark Holtz

Journal of Vacuum Science & Technology B **36**, 052905 (2018); <https://doi.org/10.1116/1.5048526>

SHOW ABSTRACT

FullSeptember 2018

Effect of environment on charge transport properties of polyimide films damaged by high-energy electron radiation

Elena A. Plis, Daniel P. Engelhart, Russell Cooper, Dale C. Ferguson, and Ryan Hoffmann

Journal of Vacuum Science & Technology B **36**, 052906 (2018); <https://doi.org/10.1116/1.5044184>

SHOW ABSTRACT

FullSeptember 2018

Secondary ion mass spectrometry for superconducting radiofrequency cavity materials

Jay Tuggle, Uttar Pudasaini, Fred A. Stevie, Michael J. Kelley, Ari D. Palczewski, and Charlie E. Reece

SHOW ABSTRACT

FullSeptember 2018

**Temperature-controlled-orientation dependence of electrical properties
of $\text{Pb}_{0.95}\text{La}_{0.05}\text{Zr}_{0.46}\text{Ti}_{0.54}\text{O}_3$ thin films**

Vaishali Batra, and Sushma Kotru

Journal of Vacuum Science & Technology B **36**, 052908 (2018); <https://doi.org/10.1116/1.5041382>

SHOW ABSTRACT