

FullJuly 2017

## **Flexible InP based quantum dot light-emitting diodes using Ag nanowire-colorless polyimide composite electrode**

Jong-Woong Kim, and Jiwan Kim

Journal of Vacuum Science & Technology B, Nanotechnology and Microelectronics: Materials, Processing, Measurement, and Phenomena **35**, 04E101 (2017); <http://doi.org/10.1116/1.4984804>

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## **High-resolution imaging of Li-ion migration at the interface of $\text{Li}_x\text{Ti}_5\text{O}_{12}$ and solid electrolyte in an all-solid-Li-ion battery**

Ryuma Osaka, Yuki Matsushita, Kenta Kita, and Keiji Takata

Journal of Vacuum Science & Technology B, Nanotechnology and Microelectronics: Materials, Processing, Measurement, and Phenomena **35**, 04E102 (2017); <http://doi.org/10.1116/1.4987151>

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## **Effect of $\text{Al}_2\text{O}_3$ passivation layer on the stability of aluminum-indium-zinc oxide thin film transistors**

Ji-In Park, Yooseong Lim, Minhyung Jang, Namgyung Hwang, and Moonsuk Yi

Journal of Vacuum Science & Technology B, Nanotechnology and Microelectronics: Materials, Processing, Measurement, and Phenomena **35**, 04E103 (2017); <http://doi.org/10.1116/1.4994803>

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## **Papers from the 44th Conference on the Physics and Chemistry of Surfaces and Interfaces**

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## **Current-driven interface magnetic transition in complex oxide heterostructure**

F. Fang, H. Zhai, X. Ma, Y. W. Yin, Qi Li more...

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Yi Pan, Kiyoshi Kanisawa, and Stefan Fölsch

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## **Theoretical investigations on the stability and electronic structures of two-dimensional group-IV ternary alloy monolayers**

Toru Akiyama, Go Yoshimura, Kohji Nakamura, and Tomonori Ito

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## **Defect density reduction in core layer of ZnTe electro-optical waveguide by low lattice mismatched interfaces**

Wei-Che Sun, Taizo Nakusu, Keisuke Odaka, Masakazu Kobayashi, and Toshiaki Asahi

Journal of Vacuum Science & Technology B, Nanotechnology and Microelectronics: Materials, Processing, Measurement, and Phenomena **35**, 04F104 (2017); <http://doi.org/10.1116/1.4984962>

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## **Interfacial reactions at Fe/topological insulator spin contacts**

Sarmita Majumder, Karalee Jarvis, Sanjay K. Banerjee, and Karen L. Kavanagh

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## **Nucleation of Cu<sub>2</sub>Te layer by a closed space sublimation method toward the growth of Te based chalcopyrite**

Yohei Sakurakawa, Aya Uruno, and Masakazu Kobayashi

Journal of Vacuum Science & Technology B, Nanotechnology and Microelectronics: Materials, Processing, Measurement, and Phenomena **35**, 04F106 (2017); <http://doi.org/10.1116/1.4994545>

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Seong Soo Choi, Sae-Joong Oh, Chul Hee Han, Doo Jae Park, Soo Bong Choi more...

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Benmeng Wei, Yongheng Zhao, Xudi Wang, Yu Wang, Wei Wei more...

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Zhaoxiang Qi, and Gary M. Koenig Jr.

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## Articles

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### **Impact of ultrathin Al<sub>2</sub>O<sub>3</sub> interlayers on resistive switching in TiO<sub>x</sub> thin films deposited by atomic layer deposition**

Weixia Liu, Leiwen Gao, Kewei Xu, and Fei Ma

Journal of Vacuum Science & Technology B, Nanotechnology and Microelectronics: Materials, Processing, Measurement, and Phenomena **35**, 041001 (2017); <http://doi.org/10.1116/1.4985053>

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### **Conduction and valence band offsets of LaAl<sub>2</sub>O<sub>3</sub> with (-201) β-Ga<sub>2</sub>O<sub>3</sub>**

Patrick H. Carey IV, Fan Ren, David C. Hays, Brent P. Gila, Stephen J. Pearton more...

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**Barium strontium oxide functionalized carbon nanotubes thin film thermionic emitter with superior thermionic emission capability**

Feng Jin, and Allyn Beaver

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**Investigation of low-fluence hydrogen implantation-induced cracking in B doped  $\text{Si}_{0.70}\text{Ge}_{0.30}$**

Da Chen, Qinglei Guo, Nan Zhang, Bei Wang, Anli Xu more...

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**Chemical mechanical polishing of  $\text{Ge}_2\text{Sb}_2\text{Te}_5$  in alkaline slurry**

Hai-bo Wang, Shi-bin Lu, Jin Yang, Xian-wei Jiang, Zhi-tang Song more...

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**Effect of various Fe-doped AlGaIn buffer layer of AlGaIn/GaN HEMTs on Si substrate**

Hsien-Chin Chiu, Shang-Cyun Chen, Jiun-Wei Chiu, Bo-Hong Li, Rong Xuan more...

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## **High-performance electro-optical characteristics of organic light-emitting diode using dipyrazino[2,3-f:2',3'-h] quinoxaline-2,3**

Hong-Gyu Park, and Sang-Geon Park

Journal of Vacuum Science & Technology B, Nanotechnology and Microelectronics: Materials, Processing, Measurement, and Phenomena **35**, 041206 (2017); <http://doi.org/10.1116/1.4993593>

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## **Photocatalytic performance of TiVO<sub>x</sub>/TiO<sub>2</sub> thin films prepared by bipolar pulsed magnetron sputter deposition**

Ko-Wei Weng, and Sheng Han

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## **Substrate preparation effects on defect density in molecular beam epitaxial growth of CdTe on CdTe (100) and (211)B**

George L. Burton, David R. Diercks, Craig L. Perkins, Teresa M. Barnes, Olanrewaju S. Ogedengbe more...

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Zhenhai Wang, Fan Yang, Danhong Han, Gang Li, Jingjing Xu more...

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Daniel J. Carbaugh, Sneha G. Pandya, Jason T. Wright, Savas Kaya, and Faiz Rahman

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### **Nanoimprint lithography tone reversal process using poly(methyl methacrylate) and hydrogen silsesquioxane**

Long Chang, and Dmitri Litvinov

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## **Electron field emission from SiC nanopillars produced by using nanosphere lithography**

Damla Yeşilpınar, and Cem Çelebi

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## **Carbon monolith scaffolding for high volumetric capacity silicon Li-ion battery anodes**

Lawrence K. Barrett, Juichin Fan, Kevin Laughlin, Sterling Baird, John N. Harb more...

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## **Effect of polytypism on the long and short range crystal structure of InAs nanostructures: An EXAFS and Raman spectroscopy study**

Suparna Pal, Parasmani Rajput, Shreyashkar Dev Singh, Vasant G. Sathe, and Shambhu Nath Jha

Journal of Vacuum Science & Technology B, Nanotechnology and Microelectronics: Materials, Processing, Measurement, and Phenomena **35**, 041803 (2017); <http://doi.org/10.1116/1.4994551>

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## **Evolution of photoelectron spectra at thermal reduction of graphene oxide**

Viktor P. Afanas'ev, Grigorii S. Bocharov, Alexander V. Elets'kii, Olga Yu. Ridzel, Pavel S. Kaplya more...

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## **Monte Carlo simulations of secondary electron emission due to ion beam milling**

Kyle Mahady, Shida Tan, Yuval Greenzweig, Richard Livengood, Amir Raveh more...

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## **MEMS & NEMS**

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### **Miniaturized magnet-less RF electron trap. I. Modeling and analysis**

Aram H. Markosyan, Scott R. Green, Shiyang Deng, Yogesh B. Gianchandani, and Mark J. Kushner

Journal of Vacuum Science & Technology B, Nanotechnology and Microelectronics: Materials, Processing, Measurement, and Phenomena **35**, 042001 (2017); <http://doi.org/10.1116/1.4984751>

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### **Miniaturized magnet-less RF electron trap. II. Experimental verification**

Shiyang Deng, Scott R. Green, Aram H. Markosyan, Mark J. Kushner, and Yogesh B. Gianchandani

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### **High-etch rate processes for performing deep, highly anisotropic etches in silicon carbide using inductively coupled plasma etching**

Mehmet Ozgur, and Michael Huff

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## Microelectronic & Nanoelectronic Devices

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### **Detection of ammonia at low concentrations (0.1–2 ppm) with ZnO nanorod-functionalized AlGaIn/GaN high electron mobility transistors**

Sunwoo Jung, Kwang Hyeon Baik, Fan Ren, Stephen J. Pearton, and Soohwan Jang

Journal of Vacuum Science & Technology B, Nanotechnology and Microelectronics: Materials, Processing, Measurement, and Phenomena **35**, 042201 (2017); <http://doi.org/10.1116/1.4989370>

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