LETTERS

Demonstration of an AlGaN-based solar-blind high-voltage photoconductive switch
Yunfeng Chen, Hai Lu, Dunjun Chen, Fangfang Ren, Dong Zhou, Rong Zhang andYoudou Zheng
J. Vac. Sci. Technol. B **33**, 040601 (2015); http://dx.doi.org/10.1116/1.4921589

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High-temperature and reliability performance of 4H-SiC Schottky-barrier photodiodes for UV detection
Yisong Xu, Dong Zhou, Hai Lu, Dunjun Chen, Fangfang Ren, Rong Zhang and Youdou Zheng
J. Vac. Sci. Technol. B **33**, 040602 (2015); http://dx.doi.org/10.1116/1.4923083

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Investigation of mobility enhancement of junctionless nanowire transistor at low temperatures
Hao Wang, Weihua Han, Liuhong Ma, Xiaoming Li and Fuhua Yang
J. Vac. Sci. Technol. B **33**, 040603 (2015); http://dx.doi.org/10.1116/1.4926629

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Core–shell FeNi–$Ni_xFe_{3-x}O_4$ nanowires
Wiaam Al Salmi, Parshu Gyawali, Bishnu Dahal, Ian L. Pegg and John Philip
J. Vac. Sci. Technol. B **33**, 040604 (2015); http://dx.doi.org/10.1116/1.4926959

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Tomographic measurement of buried interface roughness
Misa Hayashida, Shinichi Ogawa and Marek Malac
J. Vac. Sci. Technol. B **33**, 040605 (2015); http://dx.doi.org/10.1116/1.4926975

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ELECTRONIC & OPTOELECTRONIC MATERIALS, DEVICES & PROCESSING

Pulsed laser assisted synthesis of Ho^{3+}/Yb^{3+} codoped $CaMoO_4$ nanocolloid and its upconversion luminescence
Kyoungwon Cho, Jaeha Choi, Sungwook Mhin, Kang Min Kim, Jung-Il Lee and Jeong Ho Ryu
J. Vac. Sci. Technol. B **33**, 041201 (2015); http://dx.doi.org/10.1116/1.4922024

+ VIEW DESCRIPTION

Argon–germane in situ plasma clean for reduced temperature Ge on Si epitaxy by high density plasma chemical vapor deposition
Erica A. Douglas, Josephine J. Sheng, Jason C. Verley and Malcolm S. Carroll
J. Vac. Sci. Technol. B **33**, 041202 (2015); http://dx.doi.org/10.1116/1.4921590

+ VIEW DESCRIPTION

Enhancement mode p-channel SnO thin-film transistors with dual-gate structures
Yong-Jin Choi, Young-Joon Han, Chan-Yong Jeong, Sang-Hun Song, Geun Woo Baek,Sung Hun Jin and Hyuck-In Kwon
J. Vac. Sci. Technol. B **33**, 041203 (2015); http://dx.doi.org/10.1116/1.4923236

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Electrochromic properties of iridium oxide thin films prepared by reactive sputtering in O_2 or H_2O atmosphere
Satoshi Ito, Yoshio Abe, Midori Kawamura and Kyung Ho Kim
J. Vac. Sci. Technol. B **33**, 041204 (2015); http://dx.doi.org/10.1116/1.4923227

+ VIEW DESCRIPTION

Electronic properties and charge storage effect of amorphous SiN passivated nanocrystalline silicon
Dameng Tan, Pei Zhang, Jie Xu, Yunqing Cao, Peng Lu, Wei Li, Jun Xu and Kunji Chen
J. Vac. Sci. Technol. B **33**, 041205 (2015); http://dx.doi.org/10.1116/1.4923228

+ VIEW DESCRIPTION

Structural, optical, and transport properties of AlGaN/GaN and AlGaN/InGaN heterostructure on sapphire grown by plasma assisted molecular beam epitaxy
Sanjay Kr. Jana, Saptarsi Ghosh, Syed Mukulika Dinara, Mihir Mahata, Soumen Das andDhrubes Biswas
J. Vac. Sci. Technol. B **33**, 041206 (2015); http://dx.doi.org/10.1116/1.4926968

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ENERGY CONVERSION AND STORAGE DEVICES

Enhanced open-circuit voltage of InAs/GaAs quantum dot solar cells by hydrogen plasma treatment
HoSung Kim, MinSu Park, SangHyeon Kim, SangHyuck Kim, JinDong Song, WonJun Choi,JungHo Park and YooJong Lee
J. Vac. Sci. Technol. B **33**, 041401 (2015); http://dx.doi.org/10.1116/1.4926630

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LITHOGRAPHY

Correlation of lithographic performance of the electron beam resists SML and ZEP with their chemical structure
Anushka Gangnaik, Yordan M. Georgiev and Justin D. Holmes
J. Vac. Sci. Technol. B **33**, 041601 (2015); http://dx.doi.org/10.1116/1.4926387

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Application of cubic spline models in electron-beam lithography
Nader Jedidi, Jean-Hervé Tortai, Thiago Figueiro and Patrick Schiavone
J. Vac. Sci. Technol. B **33**, 041602 (2015); http://dx.doi.org/10.1116/1.4926631

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NANOMETER SCIENCE & TECHNOLOGY

Operational characteristics of a graphene-based electron field emitter
Gregory S. Bocharov, Alexander V. Eletskii, Dmitry G. Kvashnin and Leonid A. Chernozatonskii
J. Vac. Sci. Technol. B **33**, 041801 (2015); http://dx.doi.org/10.1116/1.4921546

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Crystal structure development of vanadium oxide thin films deposited by a magnetron sputtering technique
Alec Asadov, Surayya Mukhtar and Wei Gao
J. Vac. Sci. Technol. B **33**, 041802 (2015); http://dx.doi.org/10.1116/1.4922628

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Apparent beam size definition of focused ion beams based on scanning electron microscopy images of nanodots
Nikola Vladov, Joel Segal and Svetan Ratchev
J. Vac. Sci. Technol. B **33**, 041803 (2015); http://dx.doi.org/10.1116/1.4926388

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MEMS & NEMS

Electron-beam-evaporated thin films of hafnium dioxide for fabricating electronic devices
Zhigang Xiao and Kim Kisslinger
J. Vac. Sci. Technol. B **33**, 042001 (2015); http://dx.doi.org/10.1116/1.4922627

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Investigation of strain sensors based on thin graphite wires
Takanari Saito, Hiroshi Shimoda and Jun-ichi Shirakashi
J. Vac. Sci. Technol. B **33**, 042002 (2015); http://dx.doi.org/10.1116/1.4926626

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MICROELECTRONIC & NANOELECTRONIC DEVICES

Improvement of drain breakdown voltage with a back-side gate on AlGaN/GaN high electron mobility transistors
Ya-Hsi Hwang, Chen Dong, Yue-Ling Hsieh, Weidi Zhu, Shihyun Ahn, Fan Ren, Stephen J. Pearton and Ivan I. Kravchenko
J. Vac. Sci. Technol. B **33**, 042201 (2015); http://dx.doi.org/10.1116/1.4922022

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Study and optimization of PECVD films containing fluorine and carbon as ultra low dielectric constant interlayer dielectrics in ULSI devices

Nandini Sundaram, Gil Sik Lee, Matthew Goeckner and Lawrence J. Overzet

J. Vac. Sci. Technol. B **33**, 042202 (2015); http://dx.doi.org/10.1116/1.4922258

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SHOP NOTES

Tree-based control software for multilevel sequencing in thin film deposition applications

Brandon D. Piercy and Mark D. Losego

J. Vac. Sci. Technol. B **33**, 043201 (2015); http://dx.doi.org/10.1116/1.4926676

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42ND CONFERENCE ON THE PHYSICS AND CHEMISTRY OF SEMICONDUCTOR INTERFACES (42ND PCSI 2015)

Conductance fluctuations in graphene subjected to short-range disorder

Bobo Liu, Richard Akis and David K Ferry

J. Vac. Sci. Technol. B **33**, 04E101 (2015); http://dx.doi.org/10.1116/1.4917496

+ VIEW DESCRIPTION

Electronic properties of atomic-layer-deposited high-k dielectrics on GaSb(001) with hydrogen plasma pretreatment

Laura B. Ruppalt, Erin R. Cleveland, James G. Champlain, Brian R. Bennett, J. Brad Boos and Sharka M. Prokes

J. Vac. Sci. Technol. B **33**, 04E102 (2015); http://dx.doi.org/10.1116/1.4917548

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Near-nanoscale-resolved energy band structure of $LaNiO_3/La_{2/3}Sr_{1/3}MnO_3/SrTiO_3$ heterostructures and their interfaces

Thaddeus J. Asel, Hantian Gao, Tyler J. Heinl, Drew Adkins, Patrick M. Woodward, Jason Hoffman, Anand Bhattacharya and Leonard J. Brillson

J. Vac. Sci. Technol. B **33**, 04E103 (2015); http://dx.doi.org/10.1116/1.4922270

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Crystallographic orientation dependence of SEM contrast revealed by SiC polytypes

Koji Ashida, Tomonori Kajino, Yasunori Kutsuma, Noboru Ohtani and Tadaaki Kaneko

J. Vac. Sci. Technol. B **33**, 04E104 (2015); http://dx.doi.org/10.1116/1.4927136

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