LETTERS

Direct growth of a 40 nm InAs thin film on a GaAs/Ge heterostructure by metalorganic chemical vapor deposition
Hung-Wei Yu, Tsun-Ming Wang, Hong-Quan Nguyen, Yuen-Yee Wong, Yung-Yi Tu and Edward Yi Chang
J. Vac. Sci. Technol. B **32**, 050601 (2014); http://dx.doi.org/10.1116/1.4892519
+ VIEW DESCRIPTION

Spatial location of the E_C-0.6 eV electron trap in AlGaN/GaN heterojunctions
In-Hwan Lee, Alexander Y. Polyakov, Nikolai B. Smirnov, Cheol-Koo Hahn and S. J. Pearton
J. Vac. Sci. Technol. B **32**, 050602 (2014); http://dx.doi.org/10.1116/1.4895840
+ VIEW DESCRIPTION

ELECTRONIC & OPTOELECTRONIC MATERIALS, DEVICES & PROCESSING

Atomic layer deposited passivation layers for superlattice photodetectors
Omer Salihoglu
J. Vac. Sci. Technol. B **32**, 051201 (2014); http://dx.doi.org/10.1116/1.4891164
+ VIEW DESCRIPTION

Tunable electrical properties of TaN_x thin films grown by ionized physical vapor deposition
Miri Choi, Catherine Dubourdieu, Andrew J. Kellock, Kam Leung Lee, Richard A. Haight, Adam Pyzyna, Martin M. Frank, Alexander A. Demkov and Vijay Narayanan
J. Vac. Sci. Technol. B **32**, 051202 (2014); http://dx.doi.org/10.1116/1.4891108
+ VIEW DESCRIPTION

Effect of proton irradiation on thermal resistance and breakdown voltage of InAlN/GaN high electron mobility transistors
Travis Anderson, Andrew Koehler, Ya-Hsi Hwang, Yueh-Ling Hsieh, Shun Li, Fan Ren, Jerry Wayne Johnson and Stephen J. Pearton
J. Vac. Sci. Technol. B **32**, 051203 (2014); http://dx.doi.org/10.1116/1.4891629
+ VIEW DESCRIPTION

High breakdown voltage in AlN/GaN metal–insulator–semiconductor high-electron-mobility transistors
Ya-Hsi Hwang, Shihyun Ahn, Chen Dong, Fan Ren, Brent P. Gila, David Hays, Stephen J. Pearton, Chien-Fong Lo and Jerry W. Johnson
J. Vac. Sci. Technol. B **32**, 051204 (2014); http://dx.doi.org/10.1116/1.4891966
+ VIEW DESCRIPTION

Effect of BCl_3 in chlorine-based plasma on etching 4H-SiC for photoconductive semiconductor switch applications

Huseyin Ekinci, Vladimir V. Kuryatkov, Daniel L. Mauch, James C. Dickens and Sergey A. Nikishin
J. Vac. Sci. Technol. B **32**, 051205 (2014); http://dx.doi.org/10.1116/1.4892172

+ VIEW DESCRIPTION

Growth of strained InGaSb quantum wells for p-FET on Si: Defects, interfaces, and electrical properties
Shailesh Madisetti, Vadim Tokranov, Andrew Greene, Michael Yakimov, Makoto Hirayama,Serge Oktyabrsky, Steven Bentley and Ajey P. Jacob
J. Vac. Sci. Technol. B **32**, 051206 (2014); http://dx.doi.org/10.1116/1.4892797

+ VIEW DESCRIPTION

Unintentionally doped semi-insulating GaN with a low dislocation density grown by metalorganic chemical vapor deposition
Xiaoguang He, Degang Zhao, Desheng Jiang, Jianjun Zhu, Ping Chen, Zongshun Liu,Lingcong Le, Jing Yang, Xiaojing Li, Shuming Zhang and Hui Yang
J. Vac. Sci. Technol. B **32**, 051207 (2014); http://dx.doi.org/10.1116/1.4892786

+ VIEW DESCRIPTION

Effect of barrier thickness on structural, optical, and spectral behaviors of vertically strain coupled InAs/GaAs quantum dot infrared photodetectors
Hemant Ghadi, Akshay Agarwal, Sourav Adhikary, Binita Tongbram, Arjun Mandal,Subhananda Chakrabarti, Naresh Babu Pendyala, Sachin Prajapati and Ashwani Kumar
J. Vac. Sci. Technol. B **32**, 051208 (2014); http://dx.doi.org/10.1116/1.4894461

+ VIEW DESCRIPTION

Composition and interface analysis of InGaN/GaN multiquantum-wells on GaN substrates using atom probe tomography
Fang Liu, Li Huang, Robert F. Davis, Lisa M. Porter, Daniel K. Schreiber, Satyanarayana V. N. T. Kuchibatla, Vaithiyalingam Shutthanandan, Suntharampillai Thevuthasan, Edward A. Preble, Tania Paskova and Keith R. Evans
J. Vac. Sci. Technol. B **32**, 051209 (2014); http://dx.doi.org/10.1116/1.4893976

+ VIEW DESCRIPTION

Optical conductivity of $Ni_{1-x}Pt_xSi$ monosilicides ($0 < x < 0.3$) from spectroscopic ellipsometry
Lina S. Abdallah, Stefan Zollner, Christian Lavoie, Ahmet S. Ozcan and Mark Raymond
J. Vac. Sci. Technol. B **32**, 051210 (2014); http://dx.doi.org/10.1116/1.4895111

+ VIEW DESCRIPTION

Thin electron beam defined hydrogen silsesquioxane spacers for vertical nanowire transistors
Elvedin Memišević, Erik Lind and Lars-Erik Wernersson
J. Vac. Sci. Technol. B **32**, 051211 (2014); http://dx.doi.org/10.1116/1.4895112

+ VIEW DESCRIPTION

Structural defects responsible for excessive leakage current in Schottky diodes prepared on undoped n-GaN films grown by hydride vapor phase epitaxy
Alexander Y. Polyakov, Eugene B. Yakimov, Nikolai B. Smirnov, Anatoliy V. Govorkov,Alexander S. Usikov, Heikki Helava, Yuri N. Makarov and In-Hwan Lee
J. Vac. Sci. Technol. B **32**, 051212 (2014); http://dx.doi.org/10.1116/1.4895658

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Simple colloidal lithography method to fabricate large-area moth-eye antireflective structures on Si, Ge, and GaAs for IR applications
Federico Lora Gonzalez, Lesley Chan, Alex Berry, Daniel E. Morse and Michael J. Gordon
J. Vac. Sci. Technol. B **32**, 051213 (2014); http://dx.doi.org/10.1116/1.4895966

+ VIEW DESCRIPTION

LITHOGRAPHY

Tunable daughter molds from a single Si master grating mold
Shreya Kundu, Su Hui Lim, Ramakrishnan Ganesan, Hazrat Hussain, Mohammad S. M. Saifullah, Hyunsoo Yang, Ghim Wei Ho and Charanjit S. Bhatia
J. Vac. Sci. Technol. B **32**, 051601 (2014); http://dx.doi.org/10.1116/1.4892063

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NANOMETER SCIENCE ' TECHNOLOGY

Optical system for a multiple-beam scanning electron microscope
Momoyo Enyama, Makoto Sakakibara, Sayaka Tanimoto and Hiroya Ohta
J. Vac. Sci. Technol. B **32**, 051801 (2014); http://dx.doi.org/10.1116/1.4891961

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NANOMETER SCIENCE & TECHNOLOGY

Development of gasbag-assisted ultraviolet-based imprinting process for replication of microstructures onto cylindrical surface
Cheng-Hui Lin, Rong-Hong Hong, Tsui-Hua Li and Sen-Yeu Yang
J. Vac. Sci. Technol. B **32**, 051802 (2014); http://dx.doi.org/10.1116/1.4891920

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Dynamic control of local field emission current from carbon nanowalls
Ying Wang, Yumeng Yang and Yihong Wu
J. Vac. Sci. Technol. B **32**, 051803 (2014); http://dx.doi.org/10.1116/1.4893540

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Light extraction enhancement in GaN-based vertical light-emitting diodes with hemispherical bumps
Yujin Wang, Chuanrui Zhu, Yan Shen, Haifang Yang, Zhe Liu, Changzhi Gu, Baoli

Liu and Xiangang Xu

J. Vac. Sci. Technol. B **32**, 051804 (2014); http://dx.doi.org/10.1116/1.4893437

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NANOMETER SCIENCE & TECHNOLOGY

Density-tunable non–close-packed monolayer of silica nanospheres prepared by single-step freeze-drying
Cong Feng and Hoi Wai Choi
J. Vac. Sci. Technol. B **32**, 051805 (2014); http://dx.doi.org/10.1116/1.4895037

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Development of plasma etching processes to pattern sub-15 nm features with PS-*b*-PMMA block copolymer masks: Application to advanced CMOS technology
Michaël Delalande, Gilles Cunge, Thierry Chevolleau, Philippe Bézard, Sophie Archambault, Olivier Joubert, Xavier Chevalier and Raluca Tiron
J. Vac. Sci. Technol. B **32**, 051806 (2014); http://dx.doi.org/10.1116/1.4895334

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Large area infrared frequency selective surface with dimensions reproducible by optical lithography
Jeffrey A. D' Archangel, David J. Shelton, Robert Hudgins, Menelaos K. Poutous and Glenn D. Boreman
J. Vac. Sci. Technol. B **32**, 051807 (2014); http://dx.doi.org/10.1116/1.4895663

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Characterization of Ni thin films following thermal oxidation in air
Luis De Los Santos Valladares, Adrian Ionescu, Stuart Holmes, Crispin H. W. Barnes,Angel Bustamante Domínguez, Oswaldo Avalos Quispe, Juan C. González, Silvia Milana,Matteo Barbone, Andrea C. Ferrari, Henry Ramos and Yutaka Majima
J. Vac. Sci. Technol. B **32**, 051808 (2014); http://dx.doi.org/10.1116/1.4895846

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MEMS & NEMS

Feature scale modeling of pulsed plasma-enhanced chemical vapor deposition
Sanket S. Kelkar and Colin A. Wolden
J. Vac. Sci. Technol. B **32**, 052001 (2014); http://dx.doi.org/10.1116/1.4891924

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Fabrication and characterization of aluminum-molybdenum nanocomposite membranes
Remko van den Hurk, Nathan Nelson-Fitzpatrick and Stephane Evoy
J. Vac. Sci. Technol. B **32**, 052002 (2014); http://dx.doi.org/10.1116/1.4893671

+ VIEW DESCRIPTION

MICROELECTRONIC & NANOELECTRONIC DEVICES

Characteristics of gate leakage current and breakdown voltage of AlGaN/GaN high electron mobility transistors after postprocess annealing
Lu Liu, Yuyin Xi, Shihyun Ahn, Fan Ren, Brent P. Gila, Stephen J. Pearton and Ivan I. Kravchenko
J. Vac. Sci. Technol. B **32**, 052201 (2014); http://dx.doi.org/10.1116/1.4891168

+ VIEW DESCRIPTION

MICROELECTRONIC ' NANOELECTRONIC DEVICES

Field enhancement for fiber emitters in linear and rectangular arrays
Wilkin Tang, Don Shiffler, Ken Golby, Matthew LaCour and Tim Knowles
J. Vac. Sci. Technol. B **32**, 052202 (2014); http://dx.doi.org/10.1116/1.4891928

+ VIEW DESCRIPTION

ORGANIC ELECTRONICS AND OPTOELECTRONICS

Temperature gradient approach to grow large, preferentially oriented 6,13-bis(triisopropylsilylethynyl) pentacene crystals for organic thin film transistors
Kyeiwaa Asare-Yeboah, Rachel M. Frazier, Greg Szulczewski and Dawen Li
J. Vac. Sci. Technol. B **32**, 052401 (2014); http://dx.doi.org/10.1116/1.4893438

+ VIEW DESCRIPTION

PLASMONICS

Doped semiconductors with band-edge plasma frequencies
Stephanie Law, Runyu Liu and Daniel Wasserman
J. Vac. Sci. Technol. B **32**, 052601 (2014); http://dx.doi.org/10.1116/1.4891170

+ VIEW DESCRIPTION

SPINTRONICS AND MAGNETIC DEVICES

Influence of oxygen precursors and annealing on Fe_3O_4 films grown on GaN templates by metal organic chemical vapor deposition
Shimin Huang, Shulin Gu, Kun Tang, Jiandong Ye, Zhonghua Xu, Shunming Zhu andYoudou Zheng
J. Vac. Sci. Technol. B **32**, 052801 (2014); http://dx.doi.org/10.1116/1.4894179

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ERRATA

Erratum: "Semipolar $(20\bar{2}1)$ GaN laser diodes operating at 388 nm grown by plasma-assisted molecular beam epitaxy" [J. Vac. Sci. Technol., B 32, 02C115 (2014)]
Marta Sawicka, Grzegorz Muziol, Henryk Turski, Anna Feduniewicz-Żmuda, Marcin Kryśko,Szymon Grzanka, Ewa Grzanka, Julita Smalc-Koziorowska, Martin Albrecht, Robert

Kucharski, Piotr Perlin and Czeslaw Skierbiszewski

J. Vac. Sci. Technol. B **32**, 053401 (2014); http://dx.doi.org/10.1116/1.4892216

+ VIEW DESCRIPTION

Errata: "Role of molybdenum oxide for organic electronics: Surface analytical studies" [J. Vac. Sci. Technol., B 32, 040801 (2014)]

Chenggong Wang, Irfan Irfan, Xiaoliang Liu and Yongli Gao

J. Vac. Sci. Technol. B **32**, 053402 (2014); http://dx.doi.org/10.1116/1.4895033

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