

LETTERS

Amorphous Si/SiO₂ distributed Bragg reflectors with transfer printed single-crystalline Si nanomembranes

Minkyu Cho, Jung-Hun Seo, Deyin Zhao, Jaeseong Lee, Kanglin Xiong, Xin Yin, Yonghao Liu, Shih-Chia Liu, Munho Kim, Tong J. Kim, Xudong Wang, Weidong Zhou and Zhenqiang Ma
J. Vac. Sci. Technol. B **34**, 040601 (2016);
<http://dx.doi.org/10.1116/1.4945998>

+ VIEW DESCRIPTION

V-band monolithic microwave integrated circuit with continuous wave output power of >23.5 dBm using conventional AlGaN/GaN-on-Si structure

Dong-Hwan Kim, Su-Keun Eom, Myoung-Jin Kang, Jun-Seok Jeong, Kwang-Seok Seo and Ho-Young Cha
J. Vac. Sci. Technol. B **34**, 040602 (2016);
<http://dx.doi.org/10.1116/1.4947005>

+ VIEW DESCRIPTION

Study of copper diffusion in RF magnetron sputtered boron carbon nitride thin films

Adithya Prakash and Kalpathy B. Sundaram
J. Vac. Sci. Technol. B **34**, 040603 (2016);
<http://dx.doi.org/10.1116/1.4948399>

+ VIEW DESCRIPTION

Resonant cavity germanium photodetector via stacked single-crystalline nanomembranes

Minkyu Cho, Jung-Hun Seo, Munho Kim, Jaeseong Lee, Dong Liu, Weidong Zhou, Zongfu Yu and Zhenqiang Ma
J. Vac. Sci. Technol. B **34**, 040604 (2016);
<http://dx.doi.org/10.1116/1.4948531>

+ VIEW DESCRIPTION

Toward synthesis of oxide films on graphene with sputtering based processes

Patrik Ahlberg, Tomas Nyberg, Shi-Li Zhang, Zhi-Bin Zhang and Ulf Jansson
J. Vac. Sci. Technol. B **34**, 040605 (2016);
<http://dx.doi.org/10.1116/1.4949565>

+ VIEW DESCRIPTION

High-temperature Ta diffusion in the grain boundary of thin Cu films

Shabnam Mardani, Hans Norström, Ulf Smith and Shi-Li Zhang
J. Vac. Sci. Technol. B **34**, 040606 (2016);
<http://dx.doi.org/10.1116/1.4950744>

+ VIEW DESCRIPTION

Magnesium-gold binary alloy for organic light-emitting diodes with high corrosion resistance

Hiroya Arai, Hajime Nakanotani, Kei Morimoto and Chihaya Adachi
J. Vac. Sci. Technol. B **34**, 040607 (2016);
<http://dx.doi.org/10.1116/1.4952408>

+ VIEW DESCRIPTION

Tilted ion implantation as a cost-efficient sublithographic patterning technique

Sang Wan Kim, Peng Zheng, Kimihiko Kato, Leonard Rubin and Tsu-Jae King Liu
J. Vac. Sci. Technol. B **34**, 040608 (2016);
<http://dx.doi.org/10.1116/1.4953085>

+ VIEW DESCRIPTION

Compact mirror-tunable laser interference system for wafer-scale patterning of grating structures with flexible periodicity

Yung-Jr Hung, Ping-Chien Chang, Yu-Nung Lin and Jia-Jin Lin
J. Vac. Sci. Technol. B **34**, 040609 (2016);
<http://dx.doi.org/10.1116/1.4955172>

+ VIEW DESCRIPTION

ELECTRONIC & OPTOELECTRONIC MATERIALS, DEVICES & PROCESSING

Nondestructive cleaning of the LaAlO₃/SrTiO₃ surface with ultraviolet light and ozone

Eric Andersson, Pier Paolo Aurino, Dag Winkler and Alexei Kalabukhov
J. Vac. Sci. Technol. B **34**, 041201 (2016);
<http://dx.doi.org/10.1116/1.4944660>

+ VIEW DESCRIPTION

Investigation of the interface between LPCVD-SiN_x gate dielectric and III-nitride for AlGaIn/GaN MIS-HEMTs

Zhaoyang Liu, Sen Huang, Qilong Bao, Xinhua Wang, Ke Wei, Haojie Jiang, Hushan Cui, Junfeng Li, Chao Zhao, Xinyu Liu, Jinhan Zhang, Qi Zhou, Wanjun Chen, Bo Zhang and Lifang Jia
J. Vac. Sci. Technol. B **34**, 041202 (2016);
<http://dx.doi.org/10.1116/1.4944662>

+ VIEW DESCRIPTION

Initiation strategies for simultaneous control of antiphase domains and stacking faults in GaAs solar cells on Ge

Joseph Faucher, Taizo Masuda and Minjoo Larry Lee
J. Vac. Sci. Technol. B **34**, 041203 (2016);
<http://dx.doi.org/10.1116/1.4945659>

+ VIEW DESCRIPTION

Temperature dependence of the dielectric function and interband transitions of pseudomorphic GeSn alloys

Vijay Richard D'Costa, Daniel Schmidt, Wei Wang and Yee-Chia Yeo
J. Vac. Sci. Technol. B **34**, 041204 (2016);
<http://dx.doi.org/10.1116/1.4946759>

[+ VIEW DESCRIPTION](#)

Effect of porosity and pore size on dielectric constant of organosilicate based low-k films: An analytical approach

Alexander P. Palov, Ekaterina N. Voronina, Tatyana V. Rakhimova, Dmitri V. Lopaev, Sergey M. Zyryanov, Yuri A. Mankelevich, Mikhail B. Krishtab and Mikhail R. Baklanov
J. Vac. Sci. Technol. B **34**, 041205 (2016);
<http://dx.doi.org/10.1116/1.4946838>

[+ VIEW DESCRIPTION](#)

In situ monitoring of hydrogen desorption from silicon nanoparticles dispersed in a nonthermal plasma

Thomas Lopez and Lorenzo Mangolini
J. Vac. Sci. Technol. B **34**, 041206 (2016);
<http://dx.doi.org/10.1116/1.4946839>

[+ VIEW DESCRIPTION](#)

Elevated temperature performance of Si-implanted solar-blind β -Ga₂O₃ photodetectors

Shihyun Ahn, Fan Ren, Sooyeoun Oh, Younghun Jung, Jihyun Kim, Michael A. Mastro, Jennifer K. Hite, Charles R. Eddy Jr. and S. J. Pearton
J. Vac. Sci. Technol. B **34**, 041207 (2016);
<http://dx.doi.org/10.1116/1.4948361>

[+ VIEW DESCRIPTION](#)

Direct observation of x-ray radiation-induced damage to SiO₂/Si interface using multiwavelength room temperature photoluminescence

Jae Hyun Kim, Je Young Park, Chang Hwan Lee, Yeo Jin Yoon, Jin San Yoo, Toshikazu Ishigaki, Kitaek Kang and Woo Sik Yoo

J. Vac. Sci. Technol. B **34**, 041208 (2016);

<http://dx.doi.org/10.1116/1.4949518>

+ VIEW DESCRIPTION

X-ray diffraction analysis for step and linearly graded In_xGa_{1-x}As/GaAs (001) heterostructures using various hkl reflections

Fahad A. Althowibi, Paul B. Rago and John E. Ayers

J. Vac. Sci. Technol. B **34**, 041209 (2016);

<http://dx.doi.org/10.1116/1.4949517>

+ VIEW DESCRIPTION

Temperature-dependent electrical instability of p-type SnO thin-film transistors

Jeong-Hwan Lee, Yong-Jin Choi, Chan-Yong Jeong, Chang-Woo Lee and Hyuck-In Kwon

J. Vac. Sci. Technol. B **34**, 041210 (2016);

<http://dx.doi.org/10.1116/1.4949558>

+ VIEW DESCRIPTION

Comparative study of the differential resistance of GaAs- and GaN-based laser diodes

Xiang Li, Zongshun Liu, Degang Zhao, Desheng Jiang, Ping Chen, Jianjun Zhu, Jing Yang, Lingcong Le, Wei Liu, Xiaoguang He, Xiaojing Li, Feng Liang, Liqun Zhang, Jianping Liu, Hui Yang, Yuantao Zhang and Guotong Du

J. Vac. Sci. Technol. B **34**, 041211 (2016);

<http://dx.doi.org/10.1116/1.4950746>

+ VIEW DESCRIPTION