Letters

FullSeptember 2018

Particle behavior and its contribution to film growth in a remote silane plasma

Yeonwon Kim, Kazunori Koga, and Masaharu Shiratani

Journal of Vacuum Science & Technology A **36**, 050601 (2018); https://doi.org/10.1116/1.5037539

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Estimating the thermochemical properties of trimethylaluminum for thin-film processing applications

Raymond A. Adomaitis

Journal of Vacuum Science & Technology A **36**, 050602 (2018); https://doi.org/10.1116/1.5045342

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Review Articles

FullSeptember 2018

Review Article: Gas and vapor sorption measurements using electronic beam balances

David L. Minnick, Tugba Turnaoglu, Maria Alejandra Rocha, and Mark B. Shiflett

Journal of Vacuum Science & Technology A **36**, 050801 (2018); https://doi.org/10.1116/1.5044552

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Plasma Science and Technology

FullSeptember 2018

Nitrogen plasma-induced HfSiON film growth from Hf nanoscale islands on SiO_2/Si

Takeshi Kitajima, Ryosuke Kage, and Toshiki Nakano

Journal of Vacuum Science & Technology A **36**, 051301 (2018); https://doi.org/10.1116/1.5037652

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Tunable resistivity in ink-jet printed electrical structures on paper by plasma conversion of particle-free, stabilizer-free silver inks

Yongkun Sui, Souvik Ghosh, Christopher Miller, Daphne Pappas, R. Mohan Sankaran, and Christian A. Zorman

Journal of Vacuum Science & Technology A **36**, 051302 (2018); https://doi.org/10.1116/1.5042459

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Silicon nitride-capped silicon nanocrystals via a nonthermal dual-plasma synthesis approach

Rajib Mandal, Kyle O'Shea, and Rebecca Anthony

Journal of Vacuum Science & Technology A **36**, 051303 (2018); https://doi.org/10.1116/1.5039352

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Surfaces

FullSeptember 2018

In situ XPS study on atomic layer etching of Fe thin film using Cl_2 and acetylacetone

Xi Lin, Meixi Chen, Anderson Janotti, and Robert Opila

Journal of Vacuum Science & Technology A **36**, 051401 (2018); https://doi.org/10.1116/1.5039517

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Thin Films

FullSeptember 2018

Postdeposition annealing on VO_2 films for resistive random-access memory selection devices

Heewoo Lim, Haewon Cho, Hyunjung Kim, Namgue Lee, Seokyoon Shin, Chanwon Jung, Hyunjun Kim, Kyungpil Lim, and Hyeongtag Jeon

Journal of Vacuum Science & Technology A **36**, 051501 (2018); https://doi.org/10.1116/1.5021082

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Atomic layer deposition of CeO_2 using a heteroleptic cyclopentadienyl-amidinate precursor

Maryam Golalikhani, Trevor James, Peter Van Buskirk, Wontae Noh, Jooho Lee, Ziyun Wang, and Jeffrey F. Roeder

Journal of Vacuum Science & Technology A **36**, 051502 (2018); https://doi.org/10.1116/1.5026405

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Effect of varying plasma properties on III-nitride film growth by plasma enhanced atomic layer epitaxy

David R. Boris, Virginia R. Anderson, Neeraj Nepal, Scooter D. Johnson, Zachary R. Robinson, Alexander C. Kozen, Charles R. Eddy Jr., and Scott G. Walton

Journal of Vacuum Science & Technology A **36**, 051503 (2018); https://doi.org/10.1116/1.5034247

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Conformal MgO film grown at high rate at low temperature by forward-directed chemical vapor deposition

Tushar K. Talukdar, Sumeng Liu, Zhejun Zhang, Frank Harwath, Gregory S. Girolami, and John R. Abelson

Journal of Vacuum Science & Technology A **36**, 051504 (2018); https://doi.org/10.1116/1.5040855

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Obtaining low resistivity (~100 $\mu\Omega$ cm) TiN films by plasma enhanced atomic layer deposition using a metalorganic precursor

Igor Krylov, Ekaterina Zoubenko, Kamira Weinfeld, Yaron Kauffmann, Xianbin Xu, Dan Ritter, and Moshe Eizenberg

Journal of Vacuum Science & Technology A **36**, 051505 (2018); https://doi.org/10.1116/1.5035422

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Annealing of thin “Tincone” films, a tin-based hybrid material deposited by molecular layer deposition, in reducing, inert, and oxidizing atmospheres

Kevin Van de Kerckhove, Jolien Dendooven, and Christophe Detavernier

Journal of Vacuum Science & Technology A **36**, 051506 (2018); https://doi.org/10.1116/1.5038867

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Gas-cluster ion sputtering: Effect on organic layer morphology

Christopher M. Goodwin, Zachary E. Voras, and Thomas P. Beebe Jr.

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Comparison of mechanical properties and composition of magnetron sputter and plasma enhanced atomic layer deposition aluminum nitride films

Perttu Sippola, Alexander Pyymaki Perros, Oili M. E. Ylivaara, Helena Ronkainen, Jaakko Julin, Xuwen Liu, Timo Sajavaara, Jarkko Etula, Harri Lipsanen, and Riikka L. Puurunen

Journal of Vacuum Science & Technology A **36**, 051508 (2018); https://doi.org/10.1116/1.5038856

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Effect of ozone concentration on atomic layer deposited tin oxide

Hyunwoo Park, Joohyun Park, Seokyoon Shin, Giyul Ham, Hyeongsu Choi, Seungjin Lee, Namgue Lee, Sejin Kwon, Minwook Bang, Juhyun Lee, Bumsik Kim, and Hyeongtag Jeon

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Reactivity of heterogeneous surfaces: Modeling precursor–surface interaction using absorbing Markov chains

Angel Yanguas-Gil

Journal of Vacuum Science & Technology A **36**, 051510 (2018); https://doi.org/10.1116/1.5034178

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Atmospheric spatial atomic layer deposition of ZnOS buffer layers for flexible Cu(In,Ga)Se_2 solar cells

Andrea Illiberi, Corne Frijters, Marta Ruth, David Bremaud, Paul Poodt, Fred Roozeboom, and Pieter Jan Bolt

Journal of Vacuum Science & Technology A **36**, 051511 (2018); https://doi.org/10.1116/1.5040457

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Growth and mechanical properties of 111-oriented $V_{0.5}Mo_{0.5}N_x/Al_2O_3(0001)$ thin films

Hanna Kindlund, Jun Lu, Esteban Broitman, Ivan Petrov, J. E. Greene, Jens Birch, and Lars Hultman

Journal of Vacuum Science & Technology A **36**, 051512 (2018); https://doi.org/10.1116/1.5045048

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Superconformal coating and filling of deep trenches by chemical vapor deposition with forward-directed fluxes

Tushar K. Talukdar, Wenjiao B. Wang, Gregory S. Girolami, and John R. Abelson

Journal of Vacuum Science & Technology A **36**, 051513 (2018); https://doi.org/10.1116/1.5038100

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Vacuum Science and Technology

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Oxygen-free palladium/titanium coating, a novel nonevaporable getter coating with an activation temperature of 133 °C

Tetsuya Miyazawa, Masashi Kurihara, Shinya Ohno, Naoya Terashima, Yuto Natsui, Hiroo Kato, Yoshihiro Kato, Ayako Hashimoto, Takashi Kikuchi, and Kazuhiko Mase

Journal of Vacuum Science & Technology A **36**, 051601 (2018); https://doi.org/10.1116/1.5037023

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Special Issue on 2D Materials

Review Articles

FullSeptember 2018

Review Article: Hydrogenated graphene: A user's guide

Keith E. Whitener Jr.

Journal of Vacuum Science & Technology A **36**, 05G401 (2018); https://doi.org/10.1116/1.5034433

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Articles

FullSeptember 2018

Thermal recrystallization of short-range ordered WS_2 films

Markus H. Heyne, Jean-François de Marneffe, Iuliana Radu, Erik C. Neyts, and Stefan De Gendt

Journal of Vacuum Science & Technology A **36**, 05G501 (2018); https://doi.org/10.1116/1.5036654

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Nano-optical imaging of monolayer $MoSe_2$-WSe_2 lateral heterostructure with subwavelength domains

Wenjin Xue, Prasana K. Sahoo, Jiru Liu, Haonan Zong, Xiaoyi Lai, Sharad Ambardar, and Dmitri V. Voronine

Journal of Vacuum Science & Technology A **36**, 05G502 (2018); https://doi.org/10.1116/1.5035437

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Nitrogen acceptor in 2H-polytype synthetic MoS_2 assessed by multifrequency electron spin resonance

Ben Schoenaers, Andre Stesmans, and Valery V. Afanas'ev

Journal of Vacuum Science & Technology A **36**, 05G503 (2018); https://doi.org/10.1116/1.5034447

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Fabrication and characterization of transparent conducting reduced graphene oxide/Ag nanowires/ZnO:Ga composite thin films on flexible substrates

Ching-Tian Chou, and Fang-Hsing Wang

Journal of Vacuum Science & Technology A **36**, 05G504 (2018); https://doi.org/10.1116/1.5035155

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Effective patterning and cleaning of graphene by plasma etching and block copolymer lithography for nanoribbon fabrication

Javier Arias-Zapata, Djawhar Ferrah, Hasan-al Mehedi, Gilles Cunge, and Marc Zelsmann

Journal of Vacuum Science & Technology A **36**, 05G505 (2018); https://doi.org/10.1116/1.5035333

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Mask-free fabrication and chemical vapor deposition synthesis of ultrathin zinc oxide microribbons on Si/SiO_2 and 2D substrates

Dheyaa Alameri, Leonidas E. Ocola, and Irma Kuljanishvili

Journal of Vacuum Science & Technology A **36**, 05G506 (2018); https://doi.org/10.1116/1.5036533

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Growth of S-doped MoO_2 nanosheets with a controlled bandgap by chemical vapor deposition

Long Feng, Hui Yan, Rukang Zhang, and Jiwen Liu

Journal of Vacuum Science & Technology A **36**, 05G507 (2018); https://doi.org/10.1116/1.5027148

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FullSeptember 2018

Microwave imaging of etching-induced surface impedance modulation of graphene monolayer

Zhonghang Ji, Joshua Myers, Kathleen Brockdorf, Nick Engel, Shin Mou, Hong Huang, and Yan Zhuang

Journal of Vacuum Science & Technology A **36**, 05G508 (2018); https://doi.org/10.1116/1.5035417

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FullSeptember 2018

Controlling the morphology of ultrathin MoS_2/MoO_2 nanosheets grown by chemical vapor deposition

Zongliang Guo, Zhiming Xiao, Aixiang Wei, Yu Zhao, and Jun Liu

Journal of Vacuum Science & Technology A **36**, 05G509 (2018); https://doi.org/10.1116/1.5035346

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