

LETTERS

Novel light sputter ion pump with neodymium iron boron magnets and the low outgassing body

Taekyun Ha, C. D. Park and Sukmin Chung

J. Vac. Sci. Technol. A **30**, 020601 (2012); <http://dx.doi.org/10.1116/1.3677387>

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SiCl₄/Cl₂ plasmas: A new chemistry to etch high-k materials selectively to Si-based materials

Paul Bodart, Gilles Cunge, Olivier Joubert and Thorsten Lill

J. Vac. Sci. Technol. A **30**, 020602 (2012); <http://dx.doi.org/10.1116/1.3679551>

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Porous antimony-doped tin oxide cathodes formed by supercritical CO₂ treatment at low temperature for silver electro-deposition

W. C. Tien, A. K. Chu, H. Y. Wen, M. Y. Chang and W. Y. Huang

J. Vac. Sci. Technol. A **30**, 020603 (2012); <http://dx.doi.org/10.1116/1.3682990>

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Microstructure analysis of plasma enhanced atomic layer deposition-grown mixed-phase RuTa_N barrier for seedless copper electrodeposition

Tonmoy Chakraborty and Eric T. Eisenbraun

J. Vac. Sci. Technol. A **30**, 020604 (2012); <http://dx.doi.org/10.1116/1.3684597>

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REVIEW ARTICLE

Commercialization of dye sensitized solar cells: Present status and future research needs to improve efficiency, stability, and manufacturing

Jason B. Baxter

J. Vac. Sci. Technol. A **30**, 020801 (2012); <http://dx.doi.org/10.1116/1.3676433>

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PHOTOVOLTAICS AND ENERGY

Characterization and comparison of silicon nitride films deposited using two novel processes

Vivek Sharma, Adam Bailey, Bill Dauksher, Clarence Tracy, Stuart Bowden and Barry O'Brien

J. Vac. Sci. Technol. A **30**, 021201 (2012); <http://dx.doi.org/10.1116/1.3687423>

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Growth morphology and electrical/optical properties of Al-doped ZnO thin films grown

by atomic layer deposition

Tara Dhakal, Daniel Vanhart, Rachel Christian, Abhishek Nandur, Anju

Sharma and Charles R. Westgate

J. Vac. Sci. Technol. A **30**, 021202 (2012); <http://dx.doi.org/10.1116/1.3687939>[+ VIEW DESCRIPTION](#)

PLASMA SCIENCE AND TECHNOLOGY**Populations of metastable and resonant argon atoms in radio frequency magnetron plasmas used for deposition of indium-zinc-oxide films**

L. Maaloul, S. Morel and L. Stafford

J. Vac. Sci. Technol. A **30**, 021301 (2012); <http://dx.doi.org/10.1116/1.3674162>[+ VIEW DESCRIPTION](#)***In situ* fabrication of blue ceramic coatings on wrought Al Alloy 2024 by plasma electrolytic oxidation**

Zhijiang Wang, Xueyuan Nie, Henry Hu and Riyad O. Hussein

J. Vac. Sci. Technol. A **30**, 021302 (2012); <http://dx.doi.org/10.1116/1.3675610>[+ VIEW DESCRIPTION](#)**On the scaling of rf and dc self-bias voltages with pressure in electronegative capacitively coupled plasmas**

Ankur Agarwal, Leonid Dorf, Shahid Rauf and Ken Collins

J. Vac. Sci. Technol. A **30**, 021303 (2012); <http://dx.doi.org/10.1116/1.3676182>[+ VIEW DESCRIPTION](#)**Abatement of CF₄ and CHF₃ byproducts using low-pressure plasmas generated by annular-shaped electrodes**

Min Hur, Jae O. K. Lee, Young Hoon Song and Hoon A. Yoo

J. Vac. Sci. Technol. A **30**, 021304 (2012); <http://dx.doi.org/10.1116/1.3679407>[+ VIEW DESCRIPTION](#)**Temperature dependence of the infrared absorption cross-sections of neutral species commonly found in fluorocarbon plasmas**

Caleb T. Nelson, Lawrence J. Overzet and Matthew J. Goeckner

J. Vac. Sci. Technol. A **30**, 021305 (2012); <http://dx.doi.org/10.1116/1.3679408>[+ VIEW DESCRIPTION](#)**Surprising importance of photo-assisted etching of silicon in chlorine-containing plasmas**

Hyungjoo Shin, Weiye Zhu, Vincent M. Donnelly and Demetre J. Economou

J. Vac. Sci. Technol. A **30**, 021306 (2012); <http://dx.doi.org/10.1116/1.3681285>[+ VIEW DESCRIPTION](#)

SURFACES

Blueshift in sulfur treated GaAsP/AlGaAs near surface quantum well

Suparna Pal, S. D. Singh, S. Porwal, S. W. D'Souza, S. R. Barman and S. M. Oak

J. Vac. Sci. Technol. A **30**, 021401 (2012); <http://dx.doi.org/10.1116/1.3679394>

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THIN FILMS

Tribological behavior of Ti-Al-Si-C-N hard coatings deposited by hybrid arc-enhanced magnetron sputtering

Guizhi Wu, Shengli Ma, Kewei Xu and Paul K Chu

J. Vac. Sci. Technol. A **30**, 021501 (2012); <http://dx.doi.org/10.1116/1.3676186>

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High rate roll to roll atomic layer deposition, and its application to moisture barriers on polymer films

Eric Dickey and William A. Barrow

J. Vac. Sci. Technol. A **30**, 021502 (2012); <http://dx.doi.org/10.1116/1.3678486>

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Twin structures of epitaxial SnO₂ films grown on a-cut sapphire by metalorganic chemical vapor deposition

Zhen Zhu, Jin Ma, Caina Luan, Wei Mi and Yu Lv

J. Vac. Sci. Technol. A **30**, 021503 (2012); <http://dx.doi.org/10.1116/1.3683042>

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Delta-doping of boron atoms by photoexcited chemical vapor deposition

Housei Akazawa

J. Vac. Sci. Technol. A **30**, 021504 (2012); <http://dx.doi.org/10.1116/1.3684883>

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Plasma-enhanced and thermal atomic layer deposition of Al₂O₃ using dimethylaluminum isopropoxide, [Al(CH₃)₂(μ-OⁱPr)]₂, as an alternative aluminum precursor

Stephen E. Potts, Gijs Dingemans, Christophe Lachaud and W. M. M. Kessels

J. Vac. Sci. Technol. A **30**, 021505 (2012); <http://dx.doi.org/10.1116/1.3683057>

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Optical properties of AlN thin films grown by plasma enhanced atomic layer deposition

Mustafa Alevli, Cagla Ozgit, Inci Donmez and Necmi Biyikli

J. Vac. Sci. Technol. A **30**, 021506 (2012); <http://dx.doi.org/10.1116/1.3687937>

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THIN FILMS

Metal oxide morphology in argon-assisted glancing angle deposition

J. B. Sorge, M. T. Taschuk, N. G. Wakefield, J. C. Sit and M. J. Brett

J. Vac. Sci. Technol. A **30**, 021507 (2012); <http://dx.doi.org/10.1116/1.3687204>

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Characterization of epitaxial ZnTe layers grown on GaAs substrates by transmission electron microscopy and photoluminescence

Fabi Zhang, Yoshifumi Ikoma, Jinping Zhang, Ke Xu, Katsuhiko Saito and Qixin Guo

J. Vac. Sci. Technol. A **30**, 021508 (2012); <http://dx.doi.org/10.1116/1.3688498>

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Electrical properties and stability of an epitaxial alumina film formed on Cu-9 at. % Al(111)

Michiko Yoshitake, Takahiro Nagata and Weijie Song

J. Vac. Sci. Technol. A **30**, 021509 (2012); <http://dx.doi.org/10.1116/1.3688493>

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VACUUM SCIENCE AND TECHNOLOGY

Fabrication and physical properties of thin Ti_xO_y membranes from single crystal TiO_2

Maryam Abazari, Jai S. Sim, B. Viswanath and Shriram Ramanathan

J. Vac. Sci. Technol. A **30**, 021601 (2012); <http://dx.doi.org/10.1116/1.3676197>

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Transient flow of rarefied gas through an orifice

Felix Sharipov

J. Vac. Sci. Technol. A **30**, 021602 (2012); <http://dx.doi.org/10.1116/1.3682370>

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Pressure-driven flow of rarefied gas through a slit at a various pressure ratios

Oleg Sazhin

J. Vac. Sci. Technol. A **30**, 021603 (2012); <http://dx.doi.org/10.1116/1.3682457>

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