

LETTERS

Role of nucleation layer morphology in determining the statistical roughness of CVD-grown thin films

Shaista Babar, Tian T. Li and John R. Abelson

J. Vac. Sci. Technol. A **32**, 060601 (2014); <http://dx.doi.org/10.1116/1.4895106>

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Gettering of hydrogen and methane from a helium gas mixture

Rosa Elia Cárdenas, Kenneth D. Stewart and Donald F. Cowgill

J. Vac. Sci. Technol. A **32**, 060602 (2014); <http://dx.doi.org/10.1116/1.4898204>

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Roughness of the SiC/SiO₂ vicinal interface and atomic structure of the transition layers

Peizhi Liu, Guoliang Li, Gerd Duscher, Yogesh K. Sharma, Ayayi C. Ahyi, Tamara Isaacs-Smith, John R. Williams and Sarit Dhar

J. Vac. Sci. Technol. A **32**, 060603 (2014); <http://dx.doi.org/10.1116/1.4897377>

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PHOTOVOLTAICS AND ENERGY

Simple brush painted Ag nanowire network on graphene sheets for flexible organic solar cells

Ki-Won Seo, Ju-Hyun Lee, Nam Gwang Cho, Seong Jun Kang, Han-Ki Kim, Seok-In Na, Hyun-Woo Koo and Tae-Woong Kim

J. Vac. Sci. Technol. A **32**, 061201 (2014); <http://dx.doi.org/10.1116/1.4894375>

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Electrochemical characteristics of plasma-etched black silicon as anodes for Li-ion batteries

Gibaek Lee, Stefan L. Schweizer and Ralf B. Wehrspohn

J. Vac. Sci. Technol. A **32**, 061202 (2014); <http://dx.doi.org/10.1116/1.4897609>

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Substrate and temperature dependence of the formation of the Earth abundant solar absorber Cu₂ZnSnS₄ by ex situ sulfidation of cosputtered Cu-Zn-Sn films

Melissa Johnson, Michael Manno, Xin Zhang, Chris Leighton and Eray S. Aydil

J. Vac. Sci. Technol. A **32**, 061203 (2014); <http://dx.doi.org/10.1116/1.4901091>

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PLASMA SCIENCE AND TECHNOLOGY

Comprehensive computer model for magnetron sputtering. II. Charged particle

transport

Francisco J. Jimenez, Steven K. Dew and David J. Field

J. Vac. Sci. Technol. A **32**, 061301 (2014); <http://dx.doi.org/10.1116/1.4894270>

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Optimization of a plasma immersion ion implantation process for shallow junctions in silicon

Ashok Ray, Rajashree Nori, Piyush Bhatt, Saurabh Lodha, Richard Pinto, Valipe

Ramgopal Rao, François Jomard and Michael Neumann-Spallart

J. Vac. Sci. Technol. A **32**, 061302 (2014); <http://dx.doi.org/10.1116/1.4896756>

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Plasma dynamics in a discharge produced by a pulsed dual frequency inductively coupled plasma source

Anurag Mishra, Sehan Lee and Geun Y. Yeom

J. Vac. Sci. Technol. A **32**, 061303 (2014); <http://dx.doi.org/10.1116/1.4897914>

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Evolution of titanium residue on the walls of a plasma-etching reactor and its effect on the polysilicon etching rate

Kosa Hirota, Naoshi Itabashi and Junichi Tanaka

J. Vac. Sci. Technol. A **32**, 061304 (2014); <http://dx.doi.org/10.1116/1.4900967>

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SURFACES

Fabrication and characterization of silver- and copper-coated Nylon 6 forcespun nanofibers by thermal evaporation

Dorina M. Mihut, Karen Lozano and Heinrich Foltz

J. Vac. Sci. Technol. A **32**, 061401 (2014); <http://dx.doi.org/10.1116/1.4896752>

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Infrared spectroscopy study of adsorption and photodecomposition of formic acid on reduced and defective rutile TiO₂ (110) surfaces

Andreas Mattsson, Shuanglin Hu, Kersti Hermansson and Lars Österlund

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Generic trend of work functions in transition-metal carbides and nitrides

Michiko Yoshitake

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THIN FILMS

Potential for reactive pulsed-dc magnetron sputtering of nanocomposite**VO_x microbolometer thin films**

Yao O. Jin (金尧), Adem Ozcelik, Mark W. Horn and Thomas N. Jackson

J. Vac. Sci. Technol. A **32**, 061501 (2014); <http://dx.doi.org/10.1116/1.4894268>[+ VIEW DESCRIPTION](#)**Chemical vapor deposition of TiO₂ thin films from a new halogen-free precursor**

Wenjiao B. Wang, Angel Yanguas-Gil, Yu Yang, Do-Young Kim, Gregory S.

Girolami and John R. Abelson

J. Vac. Sci. Technol. A **32**, 061502 (2014); <http://dx.doi.org/10.1116/1.4894454>[+ VIEW DESCRIPTION](#)**Surface and grain boundary scattering in nanometric Cu thin films: A quantitative analysis including twin boundaries**

Katayun Barmak, Amith Darbal, Kameswaran J. Ganesh, Paulo J. Ferreira, Jeffrey M. Rickman, Tik Sun, Bo Yao, Andrew P. Warren and Kevin R. Coffey

J. Vac. Sci. Technol. A **32**, 061503 (2014); <http://dx.doi.org/10.1116/1.4894453>[+ VIEW DESCRIPTION](#)**Gas source molecular beam epitaxy of scandium nitride on silicon carbide and gallium nitride surfaces**

Sean W. King, Robert F. Davis and Robert J. Nemanich

J. Vac. Sci. Technol. A **32**, 061504 (2014); <http://dx.doi.org/10.1116/1.4894816>[+ VIEW DESCRIPTION](#)**Resistance switching behaviors of amorphous (ZrTiNi)O_x films for nonvolatile memory devices**

Hsiao-Ching Yang, Sea-Fue Wang and Jinn P. Chu

J. Vac. Sci. Technol. A **32**, 061505 (2014); <http://dx.doi.org/10.1116/1.4896329>[+ VIEW DESCRIPTION](#)**Annealing effect for SnS thin films prepared by high-vacuum evaporation**

Naidu Revathi, Sergei Bereznev, Mihkel Loooris, Jaan Raudoja, Julia Lehner, Jelena Gurevits, Rainer Traksmaa, Valdek Mikli, Enn Mellikov and Olga Volobujeva

J. Vac. Sci. Technol. A **32**, 061506 (2014); <http://dx.doi.org/10.1116/1.4896334>[+ VIEW DESCRIPTION](#)**Novel spin-electronic properties of BC₇ sheets induced by strain**

Lei Xu, ZhenHong Dai, PengFei Sui, YuMing Sun and WeiTian Wang

J. Vac. Sci. Technol. A **32**, 061507 (2014); <http://dx.doi.org/10.1116/1.4897154>[+ VIEW DESCRIPTION](#)

THIN FILMS

Thermal stability and mechanical properties of amorphous coatings in the Ti-B-Si-Al-N system grown by cathodic arc evaporation from TiB_2 , $Ti_{33}Al_{67}$, and $Ti_{85}Si_{15}$ cathodes

Hanna Fager, Jon M. Andersson, Jens Jensen, Jun Lu and Lars Hultman

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Synthesis and characterization of large-grain solid-phase crystallized polycrystalline silicon thin films

Avishek Kumar, Felix Law, Goutam K. Dalapati, Gomathy S. Subramanian, Per I. Widenborg, Hui R. Tan and Armin G. Aberle

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Application of cluster-plus-glue-atom model to barrierless Cu–Ni–Ti and Cu–Ni–Ta films

Xiaona Li, Jianxin Ding, Miao Wang, Jinn P. Chu and Chuang Dong

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Characterization of tungsten films and their hydrogen permeability

Vincenc Nemanič, Janez Kovač, Cristian Lungu, Corneliu Porosnicu and Bojan Zajec

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Influence of interfacial layer thickness on frequency dependent dielectric properties and electrical conductivity in Al/ $Bi_4Ti_3O_{12}$ /p-Si structures

Perihan Durmuş and Mert Yıldırım

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Distribution of ion current density on a rotating spherical cap substrate during ion-assisted deposition

Viktor Marushka, Oleg Zabeida and Ludvík Martinu

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Effect of UV curing time on physical and electrical properties and reliability of low dielectric constant materials

Kai-Chieh Kao, Wei-Yuan Chang, Yu-Min Chang, Jihperng Leu and Yi-Lung Cheng

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VACUUM SCIENCE AND TECHNOLOGY

Electron-stimulated desorption from polished and vacuum fired 316LN stainless steel coated with Ti-Zr-Hf-V

Oleg B. Malyshev, Reza Valizadeh, Benjamin T. Hogan and Adrian N. Hannah
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Measurement of thermal accommodation coefficients using a simplified system in a concentric sphere shells configuration

Hiroki Yamaguchi, Takamasa Imai, Tadashi Iwai, Akira Kondo, Yu Matsuda and Tomohide Niimi

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