## LETTERS

**Current–voltage–time characteristics of the reactive Ar/$O_2$ high power impulse magnetron sputtering discharge**
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J. Vac. Sci. Technol. A **30**, 050601 (2012); http://dx.doi.org/10.1116/1.4732735

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**Phase formation and film morphology of ultrathin $Co_{1-x}Ni_xSi_2$ films**
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**Thermal transpirational flow in the transitional flow regime**
Kunal Pharas, Stephanie Miles and Shamus McNamara
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**Organic photovoltaic devices with low resistance multilayer graphene transparent electrodes**
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**GaN-based light-emitting diodes by laser lift-off with micro- and nano-sized reflectors**
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**Resonant surface enhancement of Raman scattering of Ag nanoparticles on silicon substrates fabricated by dc sputtering**
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## INTERFACES

**LOGISTIC FUNCTION PROFILE FIT: A least-squares program for fitting interface profiles to an extended logistic function[a)]**
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## PHOTOVOLTAICS AND ENERGY

**Phase identification and control of thin films deposited by co-evaporation of elemental Cu, Zn, Sn, and Se**
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**Influence of copper to indium atomic ratio on the properties of Cu–In–Te based thin-film solar cells prepared by low-temperature co-evaporation**
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## PLASMA SCIENCE AND TECHNOLOGY

**Angular dependences of $SiO_2$ etch rates in $C_4F_6/O_2/Ar$ and $C_4F_6/CH_2F_2/O_2/Ar$ plasmas**
Sung-Woon Cho, Chang-Koo Kim, Jin-Kwan Lee, Sang Heup Moon and Heeyeop Chae
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**Influence of mask material and process parameters on etch angle in a chlorine-based GaN dry etch**
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**Origin of electrical signals for plasma etching end point detection: Comparison of end point signals and electron density**
Mark A. Sobolewski and David L. Lahr
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**Effect of the cathode on the 3D plume distribution of a Hall thruster**
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**Control of electromagnetic edge effects in electrically-small rectangular plasma reactors**
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**Interactions of chlorine plasmas with silicon chloride-coated reactor walls during and after silicon etching**
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**Cl atom recombination on silicon oxy-chloride layers deposited on chamber walls in chlorine–oxygen plasmas**
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**Gain and loss mechanisms for neutral species in low pressure fluorocarbon plasmas by infrared spectroscopy**
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**Secondary electron yield on cryogenic surfaces as a function of physisorbed gases**
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**Superhydrophilic $TiO_2$ surfaces generated by reactive oxygen treatment**
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## THIN FILMS

**Biaxial texture development in aluminum nitride layers during off-axis sputter deposition**
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**Low-temperature oriented growth of vanadium dioxide films on CoCrTa metal template on Si and vertical metal–insulator transition**
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**Optimization of amorphous $TiO_x$-based thin film transistors fabricated by dc magnetron sputtering**
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**Investigation on spatially separated atomic layer deposition by gas flow simulation and depositing $Al_2O_3$ films**
Sungin Suh, Sanghyun Park, Hajin Lim, Yu-Jin Choi, Cheol Seong Hwang, Hyeong Joon Kim and Seok-Jun Won
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**Surface characterization of Zr/Ti/Nb tri-layered films deposited by magnetron sputtering on Si(111) and stainless steel substrates**
Denise A. Tallarico, Angelo L. Gobbi, Pedro I. Paulin Filho, Anouk Galtayries and Pedro A. P. Nascente
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**Study of the fatigue wear behaviors of a tungsten carbide diamond-like carbon coating on 316L stainless steel**
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**$La_2O_3$ gate insulators prepared by atomic layer deposition: Optimal growth conditions and MgO/$La_2O_3$ stacks for improved metal-oxide-semiconductor characteristics**
Takuya Suzuki, Miyuki Kouda, Parhat Ahmet, Hiroshi Iwai, Kuniyuki Kakushima and Tetsuji Yasuda
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**Mutually beneficial doping of tellurium and nitrogen in ZnO films grown by metal-organic chemical vapor deposition**
Kun Tang, Shulin Gu, Jiandong Ye, Shunming Zhu, Shimin Huang, Ran Gu, Rong Zhang, Yi Shi and Youdou Zheng
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**Luminescent properties and structural characteristics of sputter-deposited $ZnGa_2O_4$:Mn phosphor thin films**
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**Tetragonal or monoclinic $ZrO_2$ thin films from Zr-based glassy templates**
Nikolaos T. Panagiotopoulos, Janez Kovač, Uros Cvelbar, Panagiotis Patsalas, Miran Mozetič and Georgios A. Evangelakis
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**Effect of $O_2$ gas partial pressure on mechanical properties of $Al_2O_3$ films deposited by inductively coupled plasma-assisted radio frequency magnetron sputtering**
Hirokazu Fujiyama, Tsunetaka Sumomogi and Masayoshi Nakamura
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**Optical and structural properties of low thickness lead zirconate titanate films on sapphire substrates prepared via sol-gel method**
Denis Garoli, Marco Natali, Valentino Rigato and Filippo Romanato
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## VACUUM SCIENCE AND TECHNOLOGY

**Hydrogen measurements using new temperature-programmed desorption mass spectrometry system with double cryopanel-attached quadrupole mass spectrometers**
Yasuhiro Higashi, Norihiro Fujimoto, Hiroyuki Saito and Takashi Sawada
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