

## LETTERS

### **Asymmetric diffusion as a key mechanism in Ni/Al energetic multilayer processing: A first principles study**

M. Petranonti, A. Hemeryck, J. M. Ducré, A. Estève, C. Rossi, M. Djafari Rouhani, D. Estève and G. Landa

J. Vac. Sci. Technol. A **28**, L15 (2010); <http://dx.doi.org/10.1116/1.3491182>

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### **Application of contactless electroreflectance to study the epi readiness of m-plane GaN substrates obtained by ammonothermal method**

R. Kudrawiec, R. Kucharski, M. Rudziński, M. Zająć, J. Misiewicz, W. Strupiński, R. Doradziński and R. Dwiliński

J. Vac. Sci. Technol. A **28**, L18 (2010); <http://dx.doi.org/10.1116/1.3504359>

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## EDITORIAL

### **EDITORIAL**

Gerry Lucovsky

J. Vac. Sci. Technol. A **28**, P1 (2010); <http://dx.doi.org/10.1116/1.3511690>

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## REVIEW ARTICLE

### **Adsorbate-enhanced transport of metals on metal surfaces: Oxygen and sulfur on coinage metals**

Patricia A. Thiel, Mingmin Shen, Da-Jiang Liu and James W. Evans

J. Vac. Sci. Technol. A **28**, 1285 (2010); <http://dx.doi.org/10.1116/1.3490017>

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## ARTICLES

### **Influence of deposition parameters on the microstructure and properties of nitrogen-doped diamondlike carbon films**

L. Sun, H. K. Li, G. Q. Lin and C. Dong

J. Vac. Sci. Technol. A **28**, 1299 (2010); <http://dx.doi.org/10.1116/1.3482010>

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### **Intrinsic p-type ZnO films fabricated by atmospheric pressure metal organic chemical vapor deposition**

Yen-Chin Huang, Zhen-Yu Li, Li-Wei Weng, Wu-Yih Uen, Shan-Ming Lan, Sen-Mao

Liao, Tai-Yuan Lin, Yu-Hsiang Huang, Jian-Wen Chen and Tsun-Neng Yang

J. Vac. Sci. Technol. A **28**, 1307 (2010); <http://dx.doi.org/10.1116/1.3484138>

[+ VIEW DESCRIPTION](#)**Numerical simulation of turbomolecular pump over a wide range of gas rarefaction**

Felix Sharipov

J. Vac. Sci. Technol. A **28**, 1312 (2010); <http://dx.doi.org/10.1116/1.3484139>[+ VIEW DESCRIPTION](#)**Reflectance and substrate currents of dielectric layers under vacuum ultraviolet irradiation**

H. Sinha, D. B. Straight, J. L. Lauer, N. C. Fuller, S. U. Engelmann, Y. Zhang, G. A. Antonelli, M. Severson, Y. Nishi and J. L. Shohet

J. Vac. Sci. Technol. A **28**, 1316 (2010); <http://dx.doi.org/10.1116/1.3488594>[+ VIEW DESCRIPTION](#)**Comparative study on passivation of GaAs<sub>0.80</sub>P<sub>0.14</sub>Al<sub>0.6</sub>Ga<sub>0.4</sub>As 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 **28**, 1319 (2010); <http://dx.doi.org/10.1116/1.3490021>[+ VIEW DESCRIPTION](#)**Control of bombardment energy and energetic species toward a superdense titanium nitride film**

Zhigang Xie, Adolph Miller Allen, Mei Chang, Phillip Wang and Tza-jing Gung

J. Vac. Sci. Technol. A **28**, 1326 (2010); <http://dx.doi.org/10.1116/1.3490018>[+ VIEW DESCRIPTION](#)**Surface texture and wetting stability of polydimethylsiloxane coated with aluminum oxide at low temperature by atomic layer deposition**

Joseph C. Spagnola, Bo Gong and Gregory N. Parsons

J. Vac. Sci. Technol. A **28**, 1330 (2010); <http://dx.doi.org/10.1116/1.3488604>[+ VIEW DESCRIPTION](#)**Structural and electrical properties of Cu<sub>2</sub>O thin films deposited on ZnO by metal organic chemical vapor deposition**

SeongHo Jeong and Eray S. Aydin

J. Vac. Sci. Technol. A **28**, 1338 (2010); <http://dx.doi.org/10.1116/1.3491036>[+ VIEW DESCRIPTION](#)**Influence of the oxidation conditions on the structural characteristics and optical properties of zinc oxide thin films**

A. P. Rambu, D. Sirbu and G. I. Rusu

J. Vac. Sci. Technol. A **28**, 1344 (2010); <http://dx.doi.org/10.1116/1.3484243>[+ VIEW DESCRIPTION](#)**Microstructure and property modifications of an AISI H13 (4Cr5MoSiV) steel induced by**

**pulsed electron beam treatment**

Kemin Zhang, Jianxin Zou, Thierry Grosdidier and Chuang Dong

J. Vac. Sci. Technol. A **28**, 1349 (2010); <http://dx.doi.org/10.1116/1.3490019>[+ VIEW DESCRIPTION](#)**Unique cryogenic pumping array for low sticking coefficient gas flows**

Cedrick Ngalande and Andrew D. Ketsdever

J. Vac. Sci. Technol. A **28**, 1356 (2010); <http://dx.doi.org/10.1116/1.3497029>[+ VIEW DESCRIPTION](#)**Influence of temperature on the hydrogenated amorphous carbon films prepared by plasma-enhanced chemical vapor deposition**

Jiung Wu, Yi-Lung Cheng and Ming-Kai Shiau

J. Vac. Sci. Technol. A **28**, 1363 (2010); <http://dx.doi.org/10.1116/1.3497025>[+ VIEW DESCRIPTION](#)**Influence of strain on the hexagonal motifs of the Ir(100) surface reconstructions: A first-principles study**

W. S. Su (蘇萬生), F. C. Chuang (莊豐權), K. M. Lin (林耿民) and T. C. Leung (梁贊全)

J. Vac. Sci. Technol. A **28**, 1366 (2010); <http://dx.doi.org/10.1116/1.3497027>[+ VIEW DESCRIPTION](#)**Isolation of exchange- and spin-orbit-driven effects via manipulation of the axis of quantization<sup>a)</sup>**

Takashi Komesu, G. D. Waddill, S.-W. Yu, M. T. Butterfield and J. G. Tobin

J. Vac. Sci. Technol. A **28**, 1371 (2010); <http://dx.doi.org/10.1116/1.3498716>[+ VIEW DESCRIPTION](#)**Effect of sample bias on backscattered ion spectroscopy in the helium ion microscope**

G. Behan, J. F. Feng, H. Z. Zhang, P. N. Nirmalraj and J. J. Boland

J. Vac. Sci. Technol. A **28**, 1377 (2010); <http://dx.doi.org/10.1116/1.3502667>[+ VIEW DESCRIPTION](#)**Aluminum recycling from reactor walls: A source of contamination in a-Si : H thin films**

C. Longeaud, P. P. Ray, A. Bhaduri, D. Daineka, E. V. Johnson and P. Roca i Cabarrocas

J. Vac. Sci. Technol. A **28**, 1381 (2010); <http://dx.doi.org/10.1116/1.3503620>[+ VIEW DESCRIPTION](#)

## ARTICLES

### **Structural and optical properties of yttrium oxide thin films for planar waveguiding applications**

Stuart J. Pearce, Greg J. Parker, Martin D. B. Charlton and James S. Wilkinson  
J. Vac. Sci. Technol. A **28**, 1388 (2010); <http://dx.doi.org/10.1116/1.3503621>

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### **Impact of the gas-surface scattering and gas molecule-molecule interaction on the mass flow rate of the rarefied gas through a short channel into a vacuum**

O. Sazhin  
J. Vac. Sci. Technol. A **28**, 1393 (2010); <http://dx.doi.org/10.1116/1.3504596>

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### **Study of the effect of plasma-striking atmosphere on Fe-oxidation in thermal dc arc-plasma processing**

I. Banerjee, Y. B. Khollam, S. K. Mahapatra, A. K. Das and S. V. Bhoraskar  
J. Vac. Sci. Technol. A **28**, 1399 (2010); <http://dx.doi.org/10.1116/1.3504597>

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### **Comparison of Ti-Zr-V nonevaporable getter films deposited using alloy or twisted wire sputter-targets**

R. Valizadeh, O. B. Malyshev, J. S. Colligon, A. Hannah and V. M. Vishnyakov  
J. Vac. Sci. Technol. A **28**, 1404 (2010); <http://dx.doi.org/10.1116/1.3504600>

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## SHOP NOTES

### **Novel method for cleaning a vacuum chamber from hydrocarbon contamination**

H. D. Wanzenboeck, P. Roediger, G. Hochleitner, E. Bertagnolli and W. Buehler  
J. Vac. Sci. Technol. A **28**, 1413 (2010); <http://dx.doi.org/10.1116/1.3484242>

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### **Microstructured optical fiber UHV integration for cold-atom experiments**

J.-F. Clément, T. Vitse and P. Sriftgiser  
J. Vac. Sci. Technol. A **28**, 1421 (2010); <http://dx.doi.org/10.1116/1.3497028>

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