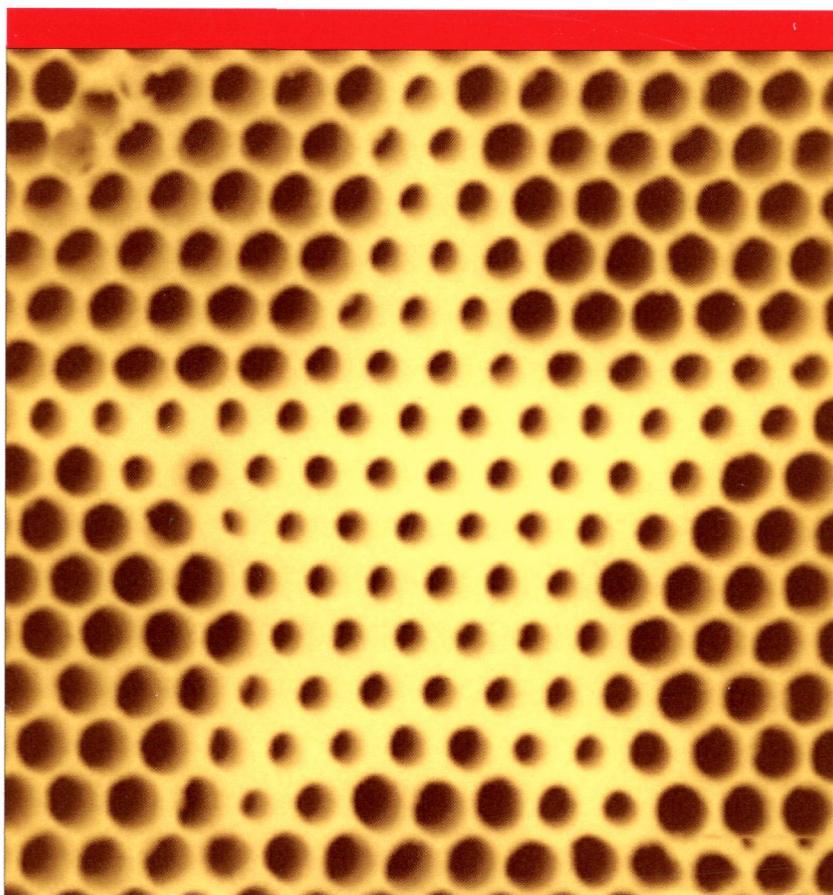


PM  
N21

ISSN 0957-4484

# NANOTECHNOLOGY

VOLUME 25 NUMBER 33 22 AUGUST 2014



[iopscience.org/nano](http://iopscience.org/nano)

## Featured article

Custom-designed arrays of anodic alumina nanochannels  
with individually tunable pore sizes

*Kun-Tong Tsai, Chih-Yi Liu, Huai-Hsien Wang, Ting-Yu Liu,  
Ming-Yu Lai, Jr-Hau He and Yuh-Lin Wang*

**IOP Publishing**

# NANOTECHNOLOGY

Volume 25

Number 33

22 August 2014

## PAPERS

### Biology and medicine

- 335101 **pH-responsive polymer-drug conjugates as multifunctional micelles for cancer-drug delivery**  
Yang Kang, Wei Ha, Ying-Qian Liu, Yuan Ma, Min-Min Fan, Li-Sheng Ding, Sheng Zhang and Bang-Jing Li
- 335102 **Antigen–antibody biorecognition events as discriminated by noise analysis of force spectroscopy curves**  
Anna Rita Bizzarri and Salvatore Cannistraro

### Electronics and photonics

- 335201 **Four-fold Raman enhancement of 2D band in twisted bilayer graphene: evidence for a doubly degenerate Dirac band and quantum interference**  
Yanan Wang, Zhihua Su, Wei Wu, Shu Nie, Xinghua Lu, Haiyan Wang, Kevin McCarty, Shin-shem Pei, Francisco Robles-Hernandez, Viktor G Hadjiev and Jiming Bao
- 335202 **Majority logic gate for 3D magnetic computing**  
Irina Eichwald, Stephan Breitkreutz, Grazvydas Ziemys, György Csaba, Wolfgang Porod and Markus Becherer

### Patterning and nanofabrication

- 335301 **Custom-designed arrays of anodic alumina nanochannels with individually tunable pore sizes**  
Kun-Tong Tsai, Chih-Yi Liu, Huai-Hsien Wang, Ting-Yu Liu, Ming-Yu Lai, Jr-Hau He and Yuh-Lin Wang
- 335302 **Focused ion beam lithography for fabrication of suspended nanostructures on highly corrugated surfaces**  
M Erdmanis, P Sievilä, A Shah, N Chekurov, V Ovchinnikov and I Tittonen
- 335303 **Selective growth and ordering of SiGe nanowires for band gap engineering**  
A Benkouider, A Ronda, A Gouyé, C Herrier, L Favre, D J Lockwood, N L Rowell, A Delobbe, P Sudraud and I Berbezier

### Materials: properties, characterization or tools

- 335701 **Synthesis and photocurrent of amorphous boron nanowires**  
Liehui Ge, Sidong Lei, Amelia H C Hart, Guanhui Gao, Huma Jafry, Robert Vajtai and Pulickel M Ajayan
- 335702 **Selective and efficient electrochemical biosensing of ultrathin molybdenum disulfide sheets**  
Tharangattu N Narayanan, Chiranjeevi S R Vusa and Subbiah Alwarappan
- 335703 **Three-dimensional hydration layer mapping on the (10.4) surface of calcite using amplitude modulation atomic force microscopy**  
Christoph Marutschke, Deron Walters, Jason Cleveland, Ilka Hermes, Ralf Bechstein and Angelika Kühnle
- 335704 **Asymmetric grazing incidence small angle x-ray scattering and anisotropic domain wall motion in obliquely grown nanocrystalline Co films**  
C Quirós, L Peverini, J Díaz, A Alija, C Blanco, M Vélez, O Robach, E Ziegler and J M Alameda
- 335705 **Spring constant calibration techniques for next-generation fast-scanning atomic force microscope cantilevers**  
Ashley D Slattery, Adam J Blanch, Vladimir Ejov, Jamie S Quinton and Christopher T Gibson
- 335706 **A biodistribution study of PEGylated PCL-based nanoparticles in C57BL/6 mice bearing B16/F10 melanoma**  
M Lupi, C Colombo, R Frapolli, R Ferrari, L Sitia, L Dragoni, E Bello, S A Licandro, F Falcetta, P Ubezio, P Bigini, M Salmona, M D'Incalci, M Morbidelli and D Moscatelli
- 335707 **Contact properties to CVD-graphene on GaAs substrates for optoelectronic applications**  
A V Babichev, V E Gasumyants, A Yu Egorov, S Vitusevich and M Tchernycheva
- 335708 **Multimodal microscopy using ‘half and half’ contact mode and ultrasonic force microscopy**  
M S Skilbeck, A J Marsden, G Cao, I A Kinloch, R J Young, R S Edwards and N R Wilson
- 335709 **Confinement and controlling the effective compressive stiffness of carbyne**  
Ashley J Kocsis, Neta Aditya Reddy Yedama and Steven W Cranford

Федеральное государственное  
бюджетное учреждение науки  
Центральная научная библиотека  
Уральского отделения  
Российской академии наук (ЦНБ УрО РАН)

**335710 Nonlinear optical absorption in a graphene infrared photodetector**  
Prarthana Gowda, Dipti R Mohapatra and Abha Misra