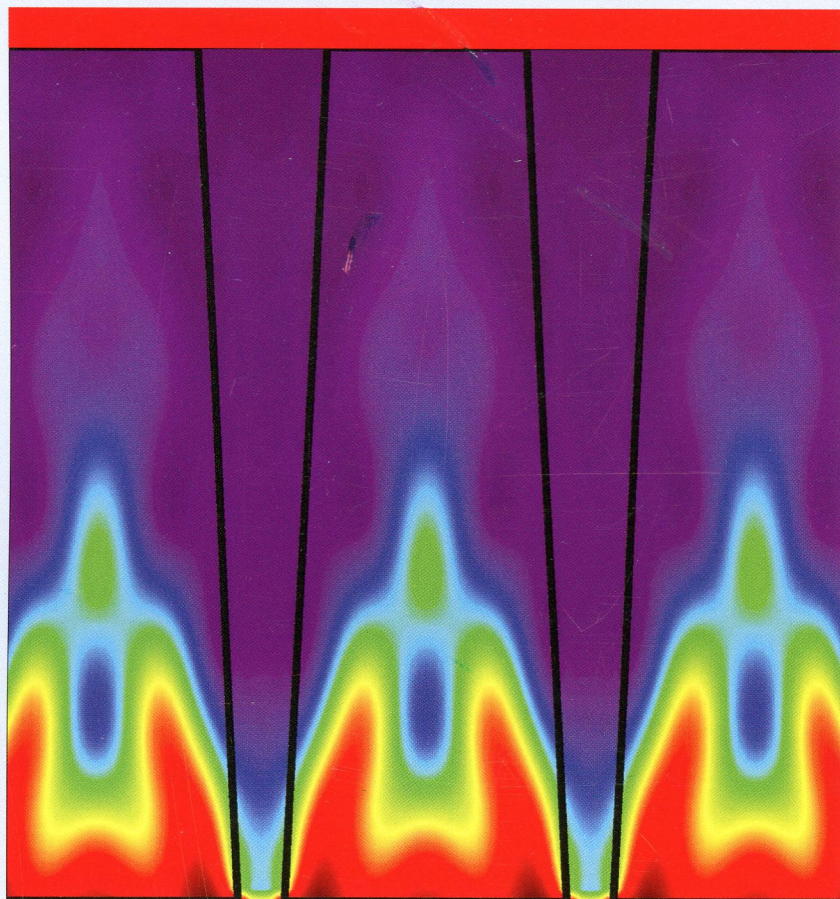


ПН  
N 21

# NANOTECHNOLOGY

VOLUME 24 NUMBER 40 11 OCTOBER 2013



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

**Featured article**

Large-scale fabrication and luminescence properties of GaN nanostructures by a soft UV-curing nanoimprint lithography

Z Zhuang, X Guo, G Zhang, B Liu, R Zhang, T Zhi, T Tao, H Ge, F Ren, Z Xie and Y Zheng

# Nanotechnology

## Volume 24

Number 40, 11 October 2013

---

## Papers

---

### *Biology and medicine*

**405101 Tumor-penetrating peptide functionalization enhances the anti-glioblastoma effect of doxorubicin liposomes**

Yiyi Yang, Zhiqiang Yan, Daixu Wei, Jian Zhong, Lu Liu, Lin Zhang, Fei Wang, Xiaoli Wei, Cao Xie, Weiyue Lu and Dannong He

**405102 Liver-specific microRNAs as biomarkers of nanomaterial-induced liver damage**

Takashi Nagano, Kazuma Higashisaka, Akiyoshi Kunieda, Yuki Iwahara, Kota Tanaka, Kazuya Nagano, Yasuhiro Abe, Haruhiko Kamada, Shin-ichi Tsunoda, Hiromi Nabeshi, Tomoaki Yoshikawa, Yasuo Yoshioka and Yasuo Tsutsumi

---

### *Electronics and photonics*

**405201 Identification of a strong contamination source for graphene in vacuum systems**

Christophe Caillier, Dong-Keun Ki, Yuliya Lisunova, Iaroslav Gaponenko, Patrycja Paruch and Alberto F Morpurgo

**405202  $\pi$  and  $\pi + \sigma$  plasmon localization in single-walled carbon nanotube meta-materials**

C Kramberger, T Thurakitseree, S Maruyama and M Knupfer

**405203 Solution processable multi-channel ZnO nanowire field-effect transistors with organic gate dielectric**

C Opoku, K F Hoettges, M P Hughes, V Stolojan, S R P Silva and M Shkunov

**405204 High field breakdown characteristics of carbon nanotube thin film transistors**

Man Prakash Gupta, Ashkan Behnam, Feifei Lian, David Estrada, Eric Pop and Satish Kumar

---

### *Patterning and nanofabrication*

**405301 Rapid-thermal-annealing surface treatment for restoring the intrinsic properties of graphene field-effect transistors**

Chan Wook Jang, Ju Hwan Kim, Jong Min Kim, Dong Hee Shin, Sung Kim and Suk-Ho Choi

**405302 Vertically integrated (Ga, In)N nanostructures for future single photon emitters operating in the telecommunication wavelength range**

A Winden, M Mikulics, D Grützmacher and H Hardtdegen

**405303 Large-scale fabrication and luminescence properties of GaN nanostructures by a soft UV-curing nanoimprint lithography**

Zhe Zhuang, Xu Guo, Guogang Zhang, Bin Liu, Rong Zhang, Ting Zhi, Tao Tao, Haixiong Ge, Fangfang Ren, Zili Xie and Youdou Zheng

**405304 Design parameters for voltage-controllable directed assembly of single nanoparticles**

Benjamin F Porter, Leon Abelmann and Harish Bhaskaran

---

*Energy at the nanoscale*

**405401 Enhanced power output of an electrospun PVDF/MWCNTs-based nanogenerator by tuning its conductivity**

Hao Yu, Tao Huang, Mingxia Lu, Mengye Mao, Qinghong Zhang and Hongzhi Wang

**405402 Photo-conversion of CO<sub>2</sub> using titanium dioxide: enhancements by plasmonic and co-catalytic nanoparticles**

Bijith D Mankidy, Babu Joseph and Vinay K Gupta

---

*Materials: synthesis or self-assembly*

**405601 Self-catalyzed MBE grown GaAs/GaAs<sub>x</sub>Sb<sub>1-x</sub> core-shell nanowires in ZB and WZ crystal structures**

Sepideh Gorji Ghalamestani, A Mazid Munshi, Dasa L Dheeraj, Bjørn-Ove Fimland, Helge Weman and Kimberly A Dick

---

*Materials: properties, characterization or tools*

**405701 BN-coated Ca<sub>1-x</sub>Sr<sub>x</sub>S:Eu solid-solution nanowires with tunable red light emission**

Jing Lin, Yang Huang, Jiao Mi, Xinghua Zhang, Zunming Lu, Xuewen Xu, Ying Fan, Jin Zou and Chengchun Tang

**405702 Optical absorption and emission of  $\alpha$ -Sn nanocrystals from first principles**

Sebastian Küfner, Jürgen Furthmüller, Lars Matthes and Friedhelm Bechstedt

**405703 Kinetic characterization of on-chip DNA ligation on dendron-coated surfaces with nanoscaled lateral spacings**

Eung-Sam Kim, Namgyu Lee, Joon Won Park and Kwan Yong Choi

**405704 Local electron beam excitation and substrate effect on the plasmonic response of single gold nanostars**

Pabitra Das, Abhitosh Kedia, Pandian Senthil Kumar, Nicolas Large and Tapas Kumar Chini

**405705 Preserving the Q-factors of ZnO nanoresonators via polar surface reconstruction**

**405706 Hierarchical visible-light-response Ag/AgCl@TiO<sub>2</sub> plasmonic photocatalysts for organic dye degradation**

Wentao Liu, Deliang Chen, Seung Hwa Yoo and Sung Oh Cho

**405707 Raman spectroscopy of self-catalyzed GaAs<sub>1-x</sub>Sb<sub>x</sub> nanowires grown on silicon**

Esther Alarcón-Lladó, Sònia Conesa-Boj, Xavier Wallart, Philippe Caroff and Anna Fontcuberta i Morral