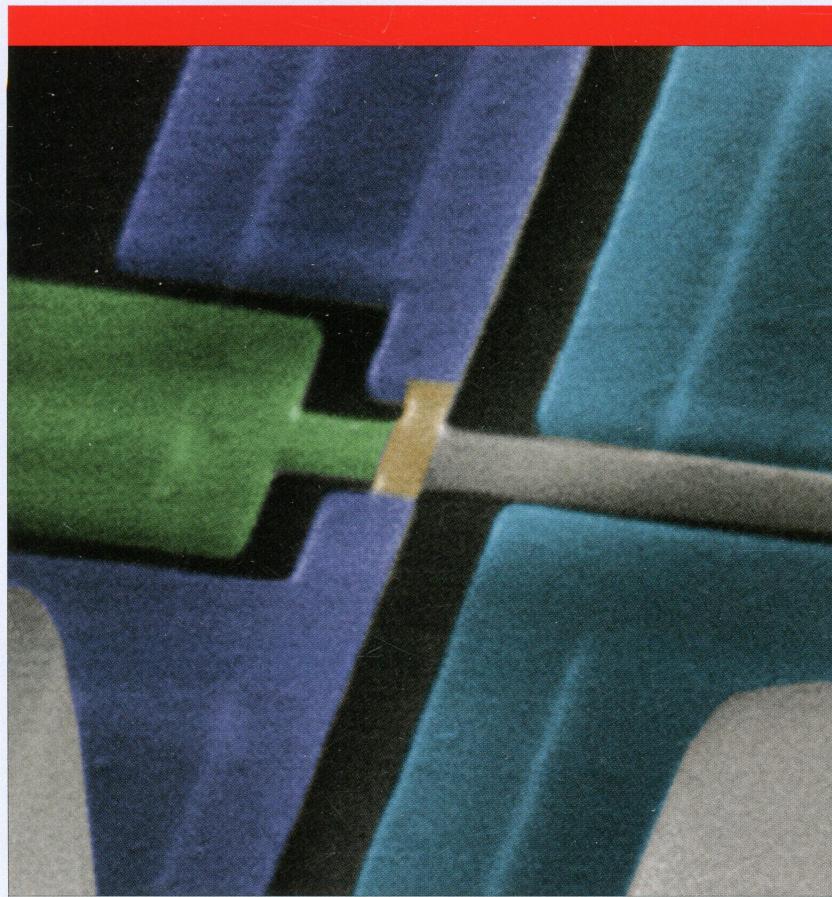


FM
N21

ISSN 0957-4484

NANOTECHNOLOGY

VOLUME 25 NUMBER 43 31 OCTOBER 2014



iopscience.org/nano

Featured article

VHF NEMS-CMOS piezoresistive resonators for advanced sensing applications

*J Arcamone, C Dupré, G Arndt, E Colinet, S Hentz,
E Ollier and L Duraffourg*

IOP Publishing

NANOTECHNOLOGY

Volume 25

Number 43

31 October 2014

PAPERS

Electronics and photonics

- 435201 **Electric control of spin in monolayer WSe₂ field effect transistors**
Kui Gong, Lei Zhang, Dongping Liu, Lei Liu, Yu Zhu, Yonghong Zhao and Hong Guo
- 435202 **Efficient white light emitting diodes based on Cu-doped ZnInS/ZnS core/shell quantum dots**
Xi Yuan, Jie Hua, Ruosheng Zeng, Dehua Zhu, Wenyu Ji, Pengtao Jing, Xiangdong Meng, Jialong Zhao and Haibo Li
- 435203 **Light-Emitting-Diodes based on ordered InGaN nanocolumns emitting in the blue, green and yellow spectral range**
A Bengoechea-Encabo, S Albert, D Lopez-Romero, P Lefebvre, F Barbagini, A Torres-Pardo, J M Gonzalez-Calbet, M A Sanchez-Garcia and E Calleja
- 435204 **Flexible conductive-bridging random-access-memory cell vertically stacked with top Ag electrode, PEO, PVK, and bottom Pt electrode**
Hyun-Min Seung, Kyoung-Cheol Kwon, Gon-Sub Lee and Jea-Gun Park

Patterning and nanofabrication

- 435301 **Shape elongation of Zn nanoparticles in silica irradiated with swift heavy ions of different species and energies: scaling law and some insights on the elongation mechanism**
H Amekura, S Mohapatra, U B Singh, S A Khan, P K Kulriya, N Ishikawa, N Okubo and D K Avasthi

Energy at the nanoscale

- 435401 **Nickel nanoparticles effect on the electrochemical energy storage properties of carbon nanocomposite films**
Luca Giacomo Bettini, Giorgio Divitini, Caterina Ducati, Paolo Milani and Paolo Piseri
- 435402 **Breaking the limits of structural and mechanical imaging of the heterogeneous structure of coal macerals**
L Collins, A Tselev, S Jesse, M B Okatan, R Proksch, J P Mathews, G D Mitchell, B J Rodriguez, S V Kalinin and I N Ivanov
- 435403 **One-step synthesis of free-standing α -Ni(OH)₂ nanosheets on reduced graphene oxide for high-performance supercapacitors**
Bitao Dong, Han Zhou, Jin Liang, Lusi Zhang, Guoxin Gao and Shuijiang Ding
- 435404 **Atomic layer deposition of ruthenium on plasma-treated vertically aligned carbon nanotubes for high-performance ultracapacitors**
Jun Woo Kim, Byungwoo Kim, Suk Won Park, Woong Kim and Joon Hyung Shim
- 435405 **Graphene-based supercapacitor with carbon nanotube film as highly efficient current collector**
Marco Notarianni, Jinzhang Liu, Francesca Mirri, Matteo Pasquali and Nunzio Motta
- 435406 **One-step synthesis of TiO₂ nanorod arrays on Ti foil for supercapacitor application**
Zhi Zheng, Jiajun Chen, Ryuji Yoshida, Xiang Gao, Kayla Tarr, Yumi H Ikuhara and Weilie Zhou

Sensing and actuating

- 435501 **VHF NEMS-CMOS piezoresistive resonators for advanced sensing applications**
Julien Arcamone, Cécilia Dupré, Grégory Arndt, Eric Colinet, Sébastien Hentz, Eric Ollier and Laurent Duraffourg

Materials: synthesis or self-assembly

- 435601 **Study of thermal stability of (3-aminopropyl)trimethoxy silane-grafted titanate nanotubes for application as nanofillers in polymers**
Milivoj Plodinec, Andreja Gajović, Damir Iveković, Nenad Tomašić, Boris Zimmermann, Jelena Macan, Tatjana Haramina, D S Su and Marc Willinger

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

- 435602** **Facile synthesis of Cu-Pd bimetallic multipods for application in cyclohexane oxidation**
Zhuo-Qun Zhang, Jianliu Huang, Lan Zhang, Mei Sun, You-Cheng Wang, Yue Lin and Jie Zeng
- 435603** **Biofunctional hybrid materials: bimolecular organosilane monolayers on FeCr alloys**
Leena Vuori, Jenni Leppiniemi, Markku Hannula, Kimmo Lahtonen, Mika Hirsimäki, Ergo Nõmmiste, Leila Costelle, Vesa P Hytönen and Mika Valden
- 435604** **Formation of hydroxyl-functionalized stilbenoid molecular sieves at the liquid/solid interface on top of a 1-decanol monolayer**
Amandine Bellec, Claire Arrigoni, Ludovic Douillard, Céline Fiorini-Debuisschert, Fabrice Mathevet, David Kreher, André-Jean Attias and Fabrice Charra
- 435605** **Modification of Stranski-Krastanov growth on the surface of nanowires**
Xinlei Li and Guowei Yang
- 435606** **Improvement of the emission properties from InGaN/GaN dot-in-a-wire nanostructures after treatment in the flowing afterglow of a microwave N₂ plasma**
J Afonso Ferreira, H P T Nguyen, Z Mi, R Leonelli and L Stafford
- 435607** **Synthesis, optical properties and alignment of poly(9,9-dioctylfluorene) nanofibers**
Daniela Iacopino and Gareth Redmond
- 435608** **One pot, rapid and efficient synthesis of water dispersible gold nanoparticles using alpha-amino acids**
Nishima Wangoo, Sarabjit Kaur, Manish Bajaj, D V S Jain and Rohit K Sharma

Materials: properties, characterization or tools

- 435701** **Modeling of magnetoelastic nanostructures with a fully coupled mechanical-micromagnetic model**
Cheng-Yen Liang, Scott M Keller, Abdon E Sepulveda, Alexandre Bur, Wei-Yang Sun, Kyle Wetzel and Gregory P Carman
- 435702** **Anomalous surface states modify the size-dependent mechanical properties and fracture of silica nanowires**
Chun Tang and Lilian P Dávila
- 435703** **Fluorescence spectroscopy of graphene quantum dots: temperature effect at different excitation wavelengths**
Changzheng Li and Yanan Yue
- 435704** **Preparation of nanowire specimens for laser-assisted atom probe tomography**
H Blumtritt, D Isheim, S Senz, D N Seidman and O Moutanabbir

Corrigendum

- 439501** **Corrigendum: Exceptionally strong and robust millimeterscale graphene–alumina composite (2014 *Nanotechnology* 25 355701)**
Maria Berdova, Alexander Pyymaki Perros, Wonjae Kim, Juha Riikonen, Tuomo Ylitalo, Jouni Heino, Changfeng Li, Ivan Kassamakov, Edward Hæggström, Harri Lipsanen and Sami Franssila