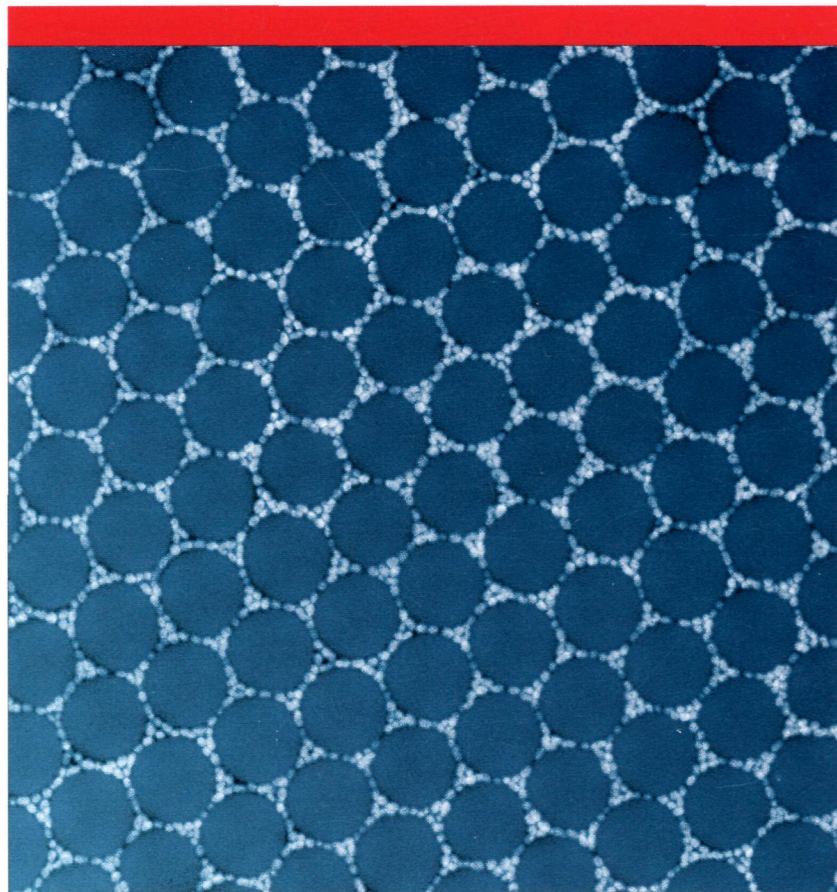


# NANOTECHNOLOGY

VOLUME 25 NUMBER 40 10 OCTOBER 2014



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

#### Featured article

Large-scale high-quality 2D silica crystals: dip-drawing formation and decoration with gold nanorods and nanospheres for SERS analysis

*V A Khanadeev, B N Khlebtsov, S A Klimova, M Yu Tsvetkov, V N Bagratashvili, G B Sukhorukov and N G Khlebtsov*

# NANOTECHNOLOGY

Volume 25

Number 40

10 October 2014

## PAPERS

### Biology and medicine

- 405101 **Stem cell-mediated delivery of SPIO-loaded gold nanoparticles for the theranosis of liver injury and hepatocellular carcinoma**  
Jun Zhao, Jody Vykoukal, Mohamed Abdelsalam, Alejandro Recio-Boiles, Qian Huang, Yang Qiao, Burapol Singhana, Michael Wallace, Rony Avritscher and Marites P Melancon
- 405102 **Chemosensitizing effects of carbon-based nanomaterials in cancer cells: enhanced apoptosis and inhibition of proliferation as underlying mechanisms**  
Kati Erdmann, Jessica Ringel, Silke Hampel, Christiane Rieger, Doreen Huebner, Manfred P Wirth and Susanne Fuessel

### Electronics and photonics

- 405201 **Charge offset stability in Si single electron devices with Al gates**  
Neil M Zimmerman, Chih-Hwan Yang, Nai Shyan Lai, Wee Han Lim and Andrew S Dzurak
- 405202 **3D integration of planar crossbar memristive devices with CMOS substrate**  
Peng Lin, Shuang Pi and Qiangfei Xia

### Materials: synthesis or self-assembly

- 405601 **Self-assembly of a thin highly reduced graphene oxide film and its high electrocatalytic activity**  
Yan-Feng Bai, Yong-Fang Zhang, An-Wei Zhou, Hai-Wai Li, Yu Zhang, John H T Luong and Hui-Fang Cui
- 405602 **Large-scale high-quality 2D silica crystals: dip-drawing formation and decoration with gold nanorods and nanospheres for SERS analysis**  
Vitaly A Khanadeev, Boris N Khlebtsov, Svetlana A Klimova, Mikhail Yu Tsvetkov, Victor N Bagratashvili, Gleb B Sukhorukov and Nikolai G Khlebtsov

### Materials: properties, characterization or tools

- 405701 **Crystallization of HfO<sub>2</sub> in InAs/HfO<sub>2</sub> core-shell nanowires**  
T Rieger, T Jörres, J Vogel, A Biermanns, U Pietsch, D Grützmacher and M I Lepsa
- 405702 **Towards large area and continuous MoS<sub>2</sub> atomic layers via vapor-phase growth: thermal vapor sulfurization**  
Hongfei Liu, K K Ansah Antwi, Jifeng Ying, Soojin Chua and Dongzhi Chi
- 405703 **Quantitative impedance characterization of sub-10 nm scale capacitors and tunnel junctions with an interferometric scanning microwave microscope**  
Fei Wang, Nicolas Clément, Damien Ducatteau, David Troadec, Hassan Tanbakuchi, Bernard Legrand, Gilles Dambrine and Didier Théron
- 405704 **Thermal management of thermoacoustic sound projectors using a free-standing carbon nanotube aerogel sheet as a heat source**  
Ali E Aliev, Nathanael K Mayo, Ray H Baughman, Dragan Avirovik, Shashank Priya, Michael R Zarnetske and John B Blottman
- 405705 **Structural and optical characterization of self-assembled Ge nanocrystal layers grown by plasma-enhanced chemical vapor deposition**  
Saba Saeed, Frank Buters, Katerina Dohnalova, Lech Wosinski and Tom Gregorkiewicz

## Erratum

- 409601 **Erratum: selective and efficient electrochemical biosensing of ultrathin molybdenum disulfide sheets (2014 *Nanotechnology* 25 335702)**  
Thrangattu N Narayanan, Chiranjeevi S R Vusa and Subbiah Alwarappan