

ПИ
N 21

ISSN 0957-4484

NANOTECHNOLOGY

VOLUME 24 NUMBER 31 9 AUGUST 2013



iopscience.org/nano

Featured article

Rapid thermal processing of self-assembling
block copolymer thin films

*F Ferrarese Lupi, TJ Giammaria, M Ceresoli, G Seguini,
K Sparmacci, D Antonioli, V Gianotti, M Laus and M Perego*

IOP Publishing

Nanotechnology

Volume 24

Number 31, 9 August 2013

Papers

Biology and medicine

315101 Gd-doped BNNTs as T_2 -weighted MRI contrast agents Gianni Ciofani, Adriano Boni, Lucia Calucci, Claudia Forte, Alessandro Gozzi, Barbara Mazzolai and Virgilio Mattoli

Electronics and photonics

315201 Mechanically controllable bi-stable states in a highly conductive single pyrazine molecular junction Satoshi Kaneko, Carlo Motta, Gian Paolo Brivio and Manabu Kiguchi

315202 Switching CdSe quantum dot luminescence with a-Si:H M Di Vece, S N F van Duren, D J van den Heuvel, D Mitoraj, Y Kuang, H C Gerritsen and R E I Schropp

315203 Seedless synthesis of layered ZnO nanowall networks on Al substrate for white light electroluminescence Huihui Huang, Haoning Wang, Borui Li, Xiaoming Mo, Hao Long, Yuan Li, Han Zhang, David L Carroll and Guojia Fang

315204 Thermo-optical response of photonic crystal cavities operating in the visible spectral range Janik Wolters, Niko Nikolay, Max Schoengen, Andreas W Schell, Jürgen Probst, Bernd Löchel and Oliver Benson

315205 Electrical characteristics of silicon nanowire transistors fabricated by scanning probe and electron beam lithographies Yu Kyoung Ryu, Marco Chiesa and Ricardo Garcia

315206 Novel organic LED structures based on a highly conductive polymeric photonic crystal electrode Lucia Petti, Massimo Rippa, Rossella Capasso, Giuseppe Nenna, Anna De Girolamo Del Mauro, Maria Grazia Maglione and Carla Minarini

Patterning and nanofabrication

315301 Formation of gallium arsenide nanostructures in Pyrex glass Matiar M R Howlader, Fangfang Zhang and M Jamal Deen

Energy at the nanoscale

315401 Vanadium oxide–carbon nanotube composite electrodes for energy storage by supercritical fluid deposition: experiment design and device performance Quyet H Do, Thomas R Fielitz, Changchun Zeng, O Arda Vanli, Chuck Zhang and Jim P Zheng

Sensing and actuating

315501 Kinetic parameter estimation and fluctuation analysis of CO at SnO₂ single nanowires
Gerhard Tulzer, Stefan Baumgartner, Elise Brunet, Giorgio C Mutinati, Stephan Steinhauer, Anton Köck, Paolo E Barbano and Clemens Heitzinger

315502 High performance stretchable UV sensor arrays of SnO₂ nanowires Daeil Kim, Gunchul Shin, Jangyeol Yoon, Dongseok Jang, Seung-Jung Lee, Goangseup Zi and Jeong Sook Ha

Materials: synthesis or self-assembly

315601 Rapid thermal processing of self-assembling block copolymer thin films F Ferrarese Lupi, T J Giammaria, M Ceresoli, G Seguini, K Sparmacci, D Antonioli, V Gianotti, M Laus and M Perego

315602 Optically transparent, mechanically durable, nanostructured superhydrophobic surfaces enabled by spinodally phase-separated glass thin films Tolga Aytug, John T Simpson, Andrew R Lupini, Rosa M Trejo, Gerald E Jellison, Ilia N Ivanov, Stephen J Pennycook, Daniel A Hillesheim, Kyle O Winter, David K Christen, Scott R Hunter and J Allen Haynes

Materials: properties, characterization or tools

315701 Phosphorylated silica nanotubes: preparation and characterization Yuqing Zhang, Yan Xu, Yiren Lu, Lili Zhao and Lixin Song

315702 Creation of high density ensembles of nitrogen-vacancy centers in nitrogen-rich type Ib nanodiamonds Long-Jyun Su, Chia-Yi Fang, Yu-Tang Chang, Kuan-Ming Chen, Yueh-Chung Yu, Jui-Hung Hsu and Huan-Cheng Chang