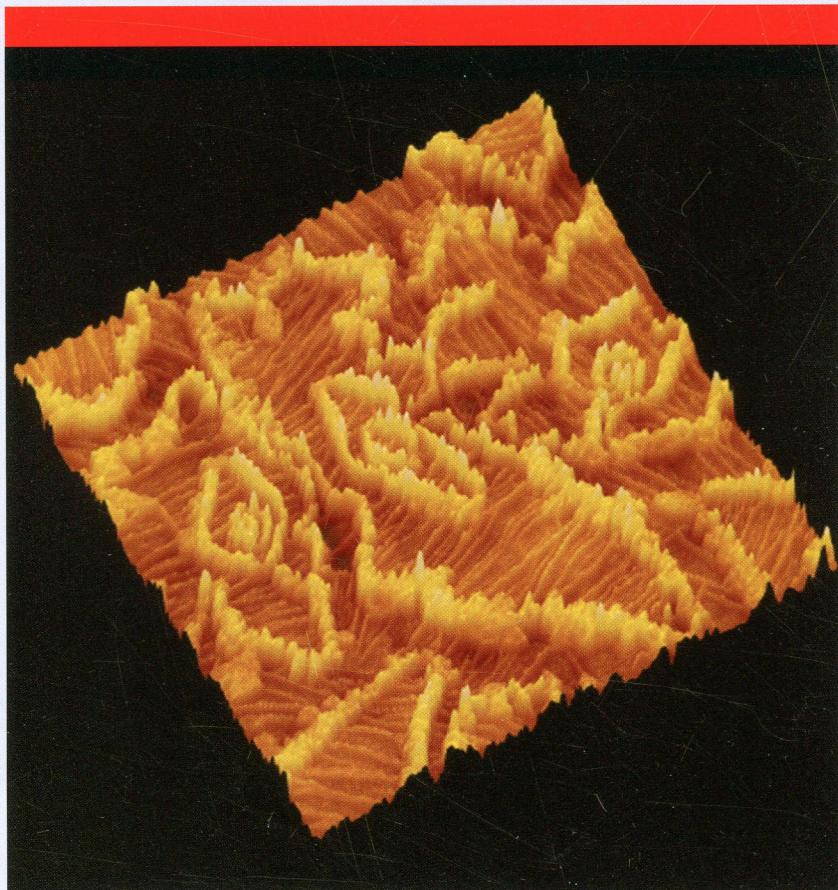


TM  
W21

ISSN 0957-4484

# NANOTECHNOLOGY

VOLUME 24 NUMBER 48 6 DECEMBER 2013



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

**Special issue**

Organic photovoltaics

Guest editors: F C Krebs and H Chen

**IOP Publishing**

# Nanotechnology

## Volume 24

Number 48, 6 December 2013

### Editorial

480201 Organic photovoltaics Anna Demming, Frederik C Krebs and Hongzheng Chen

### Papers

484001 Influence of charge carrier mobility and morphology on solar cell parameters in devices of mono- and bis-fullerene adducts Mathis-Andreas Muth, William Mitchell, Steven Tierney, Thomas A Lada, Xiang Xue, Henning Richter, Miguel Carrasco-Orozco and Mukundan Thelakkat

484002 Influence of selenophene on the properties of semi-random polymers and their blends with PC<sub>61</sub>BM Andrey E Rudenko, Sangtaik Noh and Barry C Thompson

484003 The effect of methanol treatment on the performance of polymer solar cells Kai Zhang, Zhicheng Hu, Chunhui Duan, Lei Ying, Fei Huang and Yong Cao

484004 Fine tuning of the PCDTBT-OR:PC<sub>71</sub>BM blend nanoscale phase separation via selective solvent annealing toward high-performance polymer photovoltaics Bin Meng, Gang Fang, Yingying Fu, Zhiyuan Xie and Lixiang Wang

484005 Influence of morphology and polymer:nanoparticle ratio on device performance of hybrid solar cells—an approach in experiment and simulation Mario Arar, Manfred Gruber, Michael Edler, Wernfried Haas, Ferdinand Hofer, Neha Bansal, Luke X Reynolds, Saif A Haque, Karin Zojer, Gregor Trimmel and Thomas Rath

484006 Efficient organic photovoltaic cells with vertically ordered bulk heterojunctions Bo Yu, Haibo Wang and Donghang Yan

484007 Chloroboron (III) subnaphthalocyanine as an electron donor in bulk heterojunction photovoltaic cells Guo Chen, Hisahiro Sasabe, Takeshi Sano, Xiao-Feng Wang, Ziruo Hong, Junji Kido and Yang Yang

484008 A DMF-assisted solution process boosts the efficiency in P3HT:PCBM solar cells up to 5.31% Pei Cheng, Yongfang Li and Xiaowei Zhan

484009 Morphologic improvement of the PBDTTT-C and PC<sub>71</sub>BM blend film with mixed solvent for high-performance inverted polymer solar cells Hsin-Yi Chen, Shang-Hong Lin, Jen-Yu Sun, Chi-Hsing Hsu, Shiang Lan and Ching-Fuh Lin

484010 Low temperature, solution-processed alumina for organic solar cells Jun Peng, Qijun Sun, Zhichun Zhai, Jianyu Yuan, Xiaodong Huang, Zhiming Jin, Kunyang Li, Suidong Wang, Haiqiao Wang and Wanli Ma

484011 Tuning indium tin oxide work function with solution-processed alkali carbonate interfacial layers for high-efficiency inverted organic photovoltaic cells Fei Chen, Qi Chen, Lin Mao, Yixin Wang, Xun Huang, Wei Lu, Bing Wang and Liwei Chen

484012 Enhanced performance of polymer solar cell with ZnO nanoparticle electron transporting layer passivated by *in situ* cross-linked three-dimensional polymer network Zhongwei Wu, Tao Song, Zhouhui Xia, Huaixin Wei and Baoquan Sun

484013 Work function engineering of ZnO electrodes by using p-type and n-type doped carbon nanotubes Antonio Urbina, Ji Sun Park, Ju Min Lee, Sang Ouk Kim and Ji-Seon Kim

484014 Roll-to-roll embedded conductive structures integrated into organic photovoltaic devices H J van de Wiel, Y Galagan, T J van Lammeren, J F J de Riet, J Gilot, M G M Nagelkerke, R H C A T Lelieveld, S Shanmugam, A Pagudala, D Hui and W A Groen