

# Journal of Physics Condensed Matter

Volume 25 Number 18 8 May 2013

## Topical Review

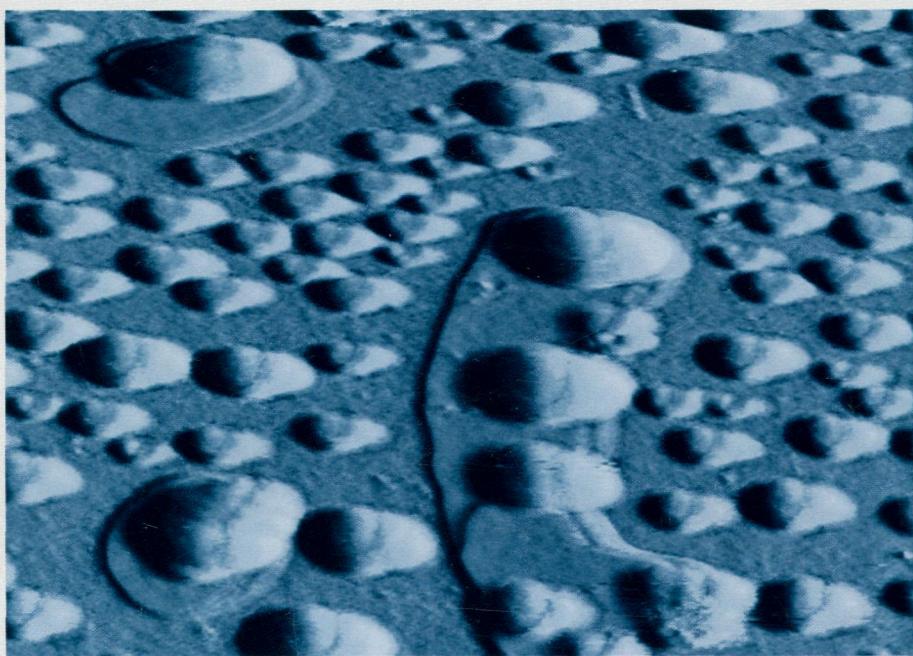
**First order magneto-structural phase transition and associated multi-functional properties in magnetic solids**

*Sindhunil Barman Roy*

## Special section

**Surface nanobubbles and micropancakes**

*Guest Editor: James R T Seddon*



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### TOPICAL REVIEW

- 183201** First order magneto-structural phase transition and associated multi-functional properties in magnetic solids  
Sindhunil Barman Roy

### SPECIAL SECTION ON SURFACE NANOBUBBLES AND MICROPANCAKES

#### PREFACE

- 180301** Surface nanobubbles and micropancakes  
James R T Seddon

#### SPECIAL SECTION PAPERS

- 184001** Nanobubble assisted nanopatterning utilized for *ex situ* identification of surface nanobubbles  
H Tarábková and P Janda
- 184002** Transient nanobubbles in short-time electrolysis  
Vitaly B Svetovoy, Remco G P Sanders and Miko C Elwenspoek
- 184003** Nanobubbles and their role in slip and drag  
Abdelhamid Maali and Bharat Bhushan
- 184004** Modeling of bubble nucleation of an air–water mixture near hydrophobic walls  
Di Zhou, Ziaul Haque Ansari and Jianguo Mi
- 184005** The effect of PeakForce tapping mode AFM imaging on the apparent shape of surface nanobubbles  
Wiktoria Walczyk, Peter M Schön and Holger Schönherr
- 184006** Coarse-grained modelling of surface nanobubbles  
Patrick Grosfils
- 184007** Understanding the stability of surface nanobubbles  
Shuo Wang, Minghuan Liu and Yaming Dong
- 184008** Hydrogen nanobubble at normal hydrogen electrode  
S Nakabayashi, R Shinozaki, Y Senda and H Y Yoshikawa
- 184009** Particle tracking around surface nanobubbles  
Erik Dietrich, Harold J W Zandvliet, Detlef Lohse and James R T Seddon
- 184010** Imaging surface nanobubbles at graphite–water interfaces with different atomic force microscopy modes  
Chih-Wen Yang, Yi-Hsien Lu and Ing-Shouh Hwang

#### PAPERS

##### NANOSTRUCTURES AND NANOELECTRONICS

- 185301** Interplay of charge and heat transport in a nano-junction in the out-of-equilibrium cotunneling regime  
N M Chtchelkatchev, A Glatz and I S Beloborodov

##### MAGNETISM AND MAGNETIC MATERIALS

- 186001** Magnetism of the chromium thio-spinels  $\text{Fe}_{1-x}\text{Cu}_x\text{Cr}_2\text{S}_4$  studied using muon spin rotation and relaxation  
G M Kalvius, A Krimmel, R Wäppeling, O Hartmann, F J Litterst, F E Wagner, V Tsurkan and A Loidl
- 186002** Covalent magnetism and magnetic impurities  
C Gruber, P O Bedolla and P Mohn

(Continued on inside back cover)

*(Continued from outside back cover)*

**186003 Slow spin relaxation induced by magnetic field in [NdCo(bpdo)(H<sub>2</sub>O)<sub>4</sub>(CN)<sub>6</sub>]·3H<sub>2</sub>O**

P Vrábel, M Orendáč, A Orendáčová, E Čižmár, R Tarasenko, S Zvyagin, J Wosnitza, J Prokleška, V Sechovský, V Pavlík and S Gao

**186004 Structural disorder, magnetism, and electrical and thermoelectric properties of pyrochlore Nd<sub>2</sub>Ru<sub>2</sub>O<sub>7</sub>**

Michael W Gaulois, Phillip T Barton, Christina S Birkel, Lauren M Misch, Efrain E Rodriguez, Galen D Stucky and Ram Seshadri