IoP

Journal of Physics D Applied Physics Physics

Volume 38 Number 22 21 November 2005

Topical review: The behaviour of nanostructured magnetic materials produced by depositing gas-phase nanoparticles C Binns, K N Trohidou, J Bansmann, S H Baker, J A Blackman, J-P Bucher, D Kechrakos, A Kleibert, S Louch, K-H Meiwes-Broer, G M Pastor, A Perez and Y Xie



Journal of Physics D: Applied Physics

Volume 38

Number 22

21 November 2005

TOPICAL REVIEW	TO	PIC	AL	REV	/IEW
----------------	----	-----	----	-----	------

R357 The behaviour of nanostructured magnetic materials produced by depositing gas-phase nanoparticles C Binns, K N Trohidou, J Bansmann, S H Baker, J A Blackman, J-P Bucher, D Kechrakos, A Kleibert, S Louch, K-H Meiwes-Broer, G M Pastor, A Perez and Y Xie

PAPERS

APPLIED MAGNETISM AND MAGNETIC MATERIALS

- 4003 B-site ordering and magnetic behaviours in Ni-doped double perovskite Sr_2FeMoO_6 L Chen, C Yuan, J Xue and J Wang
- **4009** Rapid magnetic hardening by rapid thermal annealing in NdFeB-based nanocomposites K-T Chu, Z Q Jin, V M Chakka and J P Liu
- 4015 Perpendicularly magnetized, grooved GdTbFeCo microstructures for atom optics J Y Wang, S Whitlock, F Scharnberg, D S Gough, A I Sidorov, R J McLean and P Hannaford

PHOTONICS AND SEMICONDUCTOR DEVICE PHYSICS

- 4021 Optical transmission and photoluminescence studies of ZnO-MgO nanocomposite thin films S Das, S Chakrabarti and S Chaudhuri
- 4027 Modelling and calibration of bending strains for iterative laser forming R McBride, F Bardin, M Gross, D P Hand, J D C Jones and A J Moore
- 4037 The structural heterogeneity and optical properties in chalcogenide glass films M Shurgalin, V N Fuflyigin and E G Anderson
- 4048 Photosensitive hetero-pairing of p-GaAs/n-Si by pulsed-laser deposition B Ullrich and A Erlacher

EXPERIMENTAL, COMPUTATIONAL AND THEORETICAL PARTICLE BEAM AND PLASMA SCIENCE

- 4053 Discrete ordinates method in the analysis of the radiative transfer in high intensity discharge lamps M Bouaoun, H Elloumi, K Charrada, M Ben El Hadj Rhouma and M Stambouli
- 4066 Time-resolved imaging and spatially-resolved spectroscopy of electrical discharge machining plasma A Descoeudres, Ch Hollenstein, G Wälder and R Perez
- 4074 Plasmachemical oxidation processes in a hybrid gas-liquid electrical discharge reactor P Lukes and B R Locke
- 4082 Anode layer in a high-current arc in atmospheric pressure nitrogen V A Nemchinsky

APPLIED SURFACES AND INTERFACES

- 4090 Effects of activation time and temperature on electrical conductivity of novel cermet oxide cathodes for CRT applications

 D S Barratt, A A Hashim and A K Ray
- 4096 Asperity interaction in adhesive contact of metallic rough surfaces P Sahoo and A Banerjee
- 4104 Microstructure and properties of Cu-doped ZnO films prepared by dc reactive magnetron sputtering X B Wang, D M Li, F Zeng and F Pan

STRUCTURE AND PROPERTIES OF MATTER

4109 Silicon for primary metrology: the effect of hydrogen on its perfection P Becker, H Bettin, U Kuetgens, B Hallmann-Seiffert and H Riemann

(Continued on inside back cover)