

Journal of Physics D

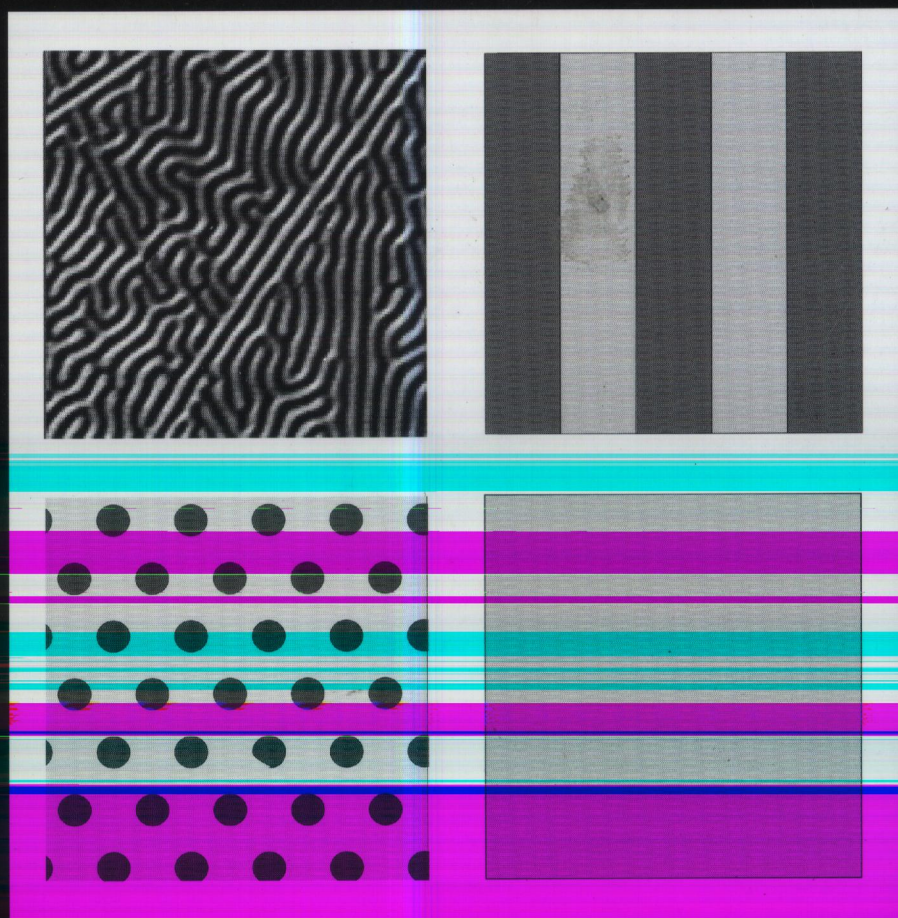
Applied Physics

Volume 36 Number 18 21 September 2003

Special issue on the interface between photonics and magnetism

Guest editor: R J Hicken

Online: www.iop.org/journals/jphysd



PHOTONICS AND SEMICONDUCTOR DEVICE PHYSICS

- 2244 **Tuning of emission colours in strontium aluminate long persisting phosphor**
D Haranath, V Shanker, H Chander and P Sharma

EXPERIMENTAL, COMPUTATIONAL AND THEORETICAL PARTICLE BEAM AND PLASMA SCIENCE

- 2249 **Ionization equilibrium and partition functions of high-temperature weakly non-ideal Flibe gas**
M R Zaghoul
- 2255 **MHD stability analysis of a slow capillary discharge**
C Wang, R Keppens and J P Goedbloed
- 2262 **Interaction of a vacuum arc plasma beam with an obstacle positioned normal to the plasma flow**
O Zarchin, V N Zhitomirsky, S Goldsmith and R L Boxman
- 2269 **The influence of de-Maxwellization on a fluorescent lamp simulation**
A Hartgers, J van Dijk, H W P van der Heijden and J A M van der Mullen
- 2276 **A worm-like trace of cathode spots on Cu-Zr-Ti amorphous ribbons**
C Zhang, Z Yang, Y Wang and B Ding

INTERDISCIPLINARY PHYSICS AND RELATED AREAS OF SCIENCE AND TECHNOLOGY

- 2281 **The justified data-curve fitting approach: recognition of the new type of kinetic equations in fractional derivatives from analysis of raw dielectric data**
R R Nigmatullin, S I Osokin and G Smith
- 2295 **Manufacturing technology effect on current pulse handling performance of metallized polypropylene film capacitors**
M H El-Husseini, P Venet, A Al-Majid, M Fathallah, G Rojat and J A Ferreira
- 2304 **Theoretical optimization of a regenerated air refrigerator**
S Zhou, L Chen, F Sun and C Wu

ERRATUM

- 2312 **A modified transient method for an easy and fast determination of thermal conductivities of conductors and insulators**
M Anis-ur-Rehman and A Maqsood

Journal of Physics D: Applied Physics

Volume 36

Number 18

21 September 2003

RAPID COMMUNICATIONS

- L79 Laser-driven photo-transmutation of ^{129}I —a long-lived nuclear waste product**
K W D Ledingham, J Magill, P McKenna, J Yang, J Galy, R Schenkel, J Rebizant, T McCanny, S Shimizu, L Robson, R P Singhal, M S Wei, S P D Mangles, P Nilson, K Krushelnick, R J Clarke and P A Norreys
- L83 Surface-active dust in a plasma sheath**
A M Ignatov, P P J M Schram and S A Trigger
- L88 Enhancement of laser plasma EUV emission by shockwave-plasma interaction**
R de Bruijn, K Koshelev and F Bijkerk

SPECIAL ISSUE ON THE INTERFACE BETWEEN PHOTONICS AND MAGNETISM

Editorial

R J Hicken

TOPICAL REVIEW

- R277 Magnetic photonic crystals**
I L Lyubchanskii, N N Dadoenkova, M I Lyubchanskii, E A Shapovalov and Th Rasing

PAPERS

- 2175 Magneto-optical Kerr effect analysis of magnetic nanostructures**
D A Allwood, G Xiong, M D Cooke and R P Cowburn
- 2183 Optical ferromagnetic resonance studies of thin film magnetic structures**
R J Hicken, A Barman, V V Kruglyak and S Ladak
- 2193 Optical impedance matching with scanning near-field optical microscopy**
A Gademann, C Durkan and I V Shvets
- 2198 Optical control of spins in semiconductors**
R T Harley, O Z Karimov and M Henini
- 2204 Electron spin filtering in ferromagnet/semiconductor heterostructures**
J A C Bland, S J Steinmuller, A Hirohata, W S Cho, Y B Xu, C M Guertler, G Wastlbauer, A Ionescu, T Trypiniotis and S N Holmes
- 2211 Surface magneto-optic solitons**
A D Boardman, M Xie and K Xie
- 2218 A miniature broadband bismuth-substituted yttrium iron garnet magneto-optic modulator**
S E Irvine and A Y Elezzabi
- 2222 Prospects for the implementation of magneto-optic elements in optoelectronic integrated circuits: a personal perspective**
D C Hutchings

REGULAR PAPERS

APPLIED MAGNETISM, MAGNETIC MATERIALS AND SUPERCONDUCTIVITY

- 2230 Preparation of ramp-type Josephson junctions using an Nd_2CuO_4 barrier**
S M So and J Gao
- 2234 Magnetic properties of melt-spun and annealed $\text{Fe}_{62}\text{Co}_{9.5}\text{Gd}_{3.5}\text{Si}_{10}\text{B}_{15}$ alloy**
A Mitra, H-Y Kim, D V Louzguine, N Nishiyama, B Shen and A Inoue
- 2239 Magnetization configurations and hysteresis loops of small permalloy ellipses**
M Schneider, J Liszkowski, M Rahm, W Wegscheider, D Weiss, H Hoffmann and J Zweck

(Continued on inside back cover)