

ISSN 0022-3727

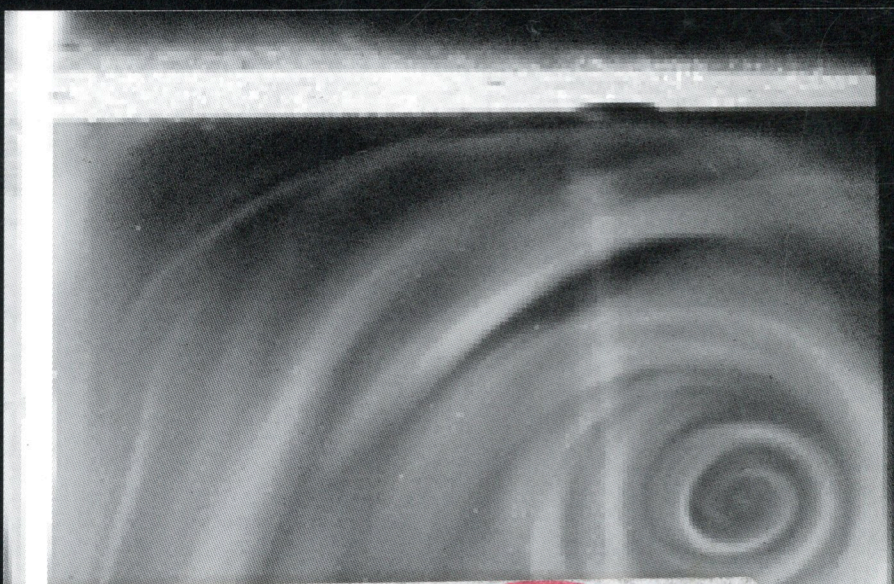
IOP

# Journal of Physics D

# Applied Physics

Volume 34 Number 10 21 May 2001

Online: [www.iop.org/Journals/jd](http://www.iop.org/Journals/jd)



Ref: PF 120201/05  
JOURNAL OF PHYSICS (D : APPLIED PHYSICS)  
21.05.01 Vol: 34 No. 10  
0022-3727 22101144  
LIBRIS - C2  
144 BOULEVARD KRIM BELKACEM  
ALGER  
ALGERIE

مكتبة  
المركبة  
29982251  
02.07.01

Institute of **Physics** PUBLISHING

# Journal of Physics D: Applied Physics

Volume 34

Number 10

21 May 2001

## PAPERS

### APPLIED INTERFACES AND SURFACES

- 1437 **Melting and solidification processes in a moving graphite-covered titanium surface subjected to multi-pulse laser irradiation**  
B Courant, J-J Hantzpergue, S Benayoun and J-P L'Huillier
- 1447 **Dielectric properties of  $\text{Ag}_{1-x}\text{A}_x\text{NbO}_3$  (A: K, Na and Li) and  $\text{AgNb}_{1-x}\text{Ta}_x\text{O}_3$  solid solutions in the vicinity of diffuse phase transitions**  
A Kania
- 1456  **$e_{31,f}$  determination for PZT films using a conventional ' $d_{33}$ ' meter**  
J E A Southin, S A Wilson, D Schmitt and R W Whatmore
- 1461 **Deviation of the AlGaAs lattice constant from Vegard's law**  
D Zhou and B F Usher

### APPLIED MAGNETISM AND MAGNETIC MATERIALS

- 1466 **The dependence of the effective anisotropy constant on particle concentration within ferrofluids, measured by magnetic resonance**  
C N Marin, I Malaescu and A Ercuta

### EXPERIMENTAL, COMPUTATIONAL AND THEORETICAL PARTICLE BEAM AND PLASMA SCIENCE

- 1470 **Relationship between fifth-order aberration coefficients in rotationally symmetric electron optical system**  
T Hosokawa
- 1474 **Propagation characteristics of electromagnetic waves along a dense plasma filament**  
H Nowakowska, Z Zakrzewski and M Moisan
- 1479 **Inductively coupled radio frequency methane plasma simulation**  
K Bera, B Farouk and P Vitello
- 1491 **Langmuir probe measurements of weakly collisional electropositive RF discharge plasmas**  
P Bryant, A Dyson and J E Allen
- 1499 **Collisional radiative models with multiple transport-sensitive levels—application to high electron density mercury discharges**  
J van Dijk, B Hartgers, J Jonkers and J van der Mullen
- 1510 **Hydrodynamical simulation of the electric wind in a cylindrical vessel with positive point-to-plane device**  
J Batina, F Noël, S Lachaud, R Peyrous and J F Loiseau

### OPTICAL, ELECTRONIC, ELECTRICAL AND SUPERCONDUCTING PROPERTIES AND APPLICATIONS

- 1525 **A comparison of negative and positive streamers in mineral oil at large gaps**  
G Massala and O Lesaint
- 1533 **Spectral comparison of  $\text{MgSO}_4$  doped with Dy, Mn, P, and Cu**  
Chun-Xiang Zhang, P L Leung, Qiang Tang, Da-Ling Luo and M J Stokes

### STRUCTURE AND PROPERTIES OF MATTER

- 1540 **Orthorhombic microdefects in Si crystals**  
J Borowski, R Nietubyc, J Auleytner and R Plugaru

### INTERDISCIPLINARY PHYSICS AND RELATED AREAS OF SCIENCE AND TECHNOLOGY

- 1543 **Flexural vibrations induced in thin metal wires carrying high currents**  
A Lukyanov and S Molokov
- 1553 **The dielectrophoretic and travelling wave forces generated by interdigitated electrode arrays: analytical solution using Fourier series**  
H Morgan, A García Izquierdo, D Bakewell, N G Green and A Ramos