

ISSN 0022-3727

IOP

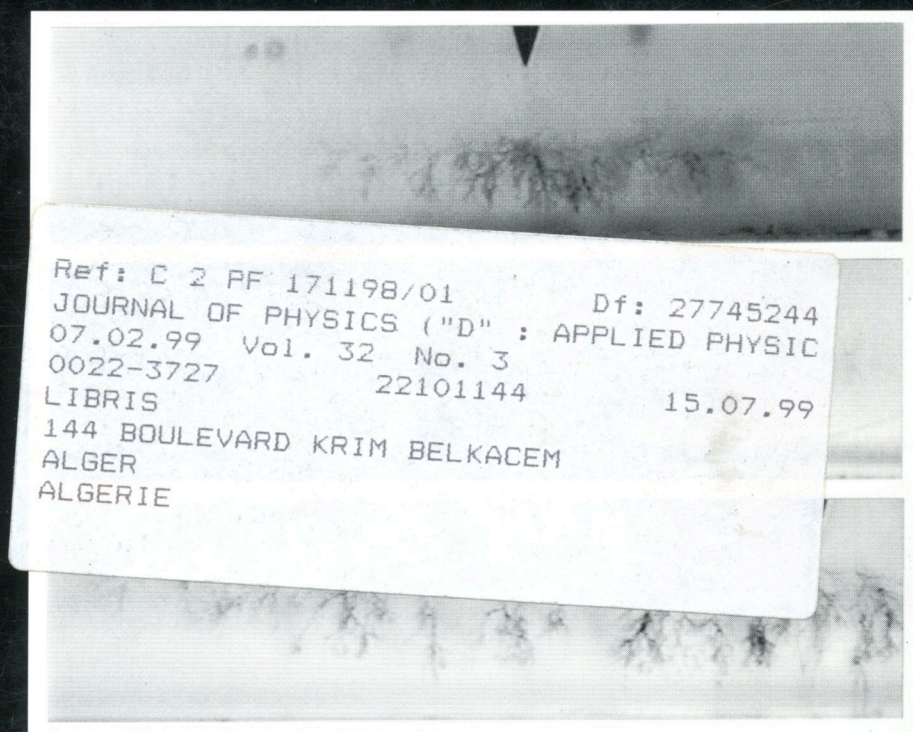
Journal of Physics D

Applied Physics

Volume 32 Number 3 7 February 1999

Online: <http://www.iop.org>

A Journal Recognized by
The European Physical Society



Institute of **Physics** PUBLISHING

Journal of Physics D: Applied Physics

Volume 32

Number 3

7 February 1999

PAPERS

APPLIED INTERFACES AND SURFACES

- 183 **Laser-induced crystallization in amorphous films of Sb_2C_3 ($C = S, Se, Te$), potential optical storage media**
P Arun, A G Vedeshwar and N C Mehra
- 191 **Valence band offsets at strained Ge/Sb/Si(100) and Ge/H/Si(100) interfaces**
J Almeida, L Sirigu, G Margaritondo, P Da Padova, C Quaresima and P Perfetti
- 195 **The effect of thermal annealing on reactive radio-frequency magnetron-sputtered carbon nitride films**
G L Chen, Y Li, J Lin, C H A Huan and Y P Guo
- 200 **Charge transport and electron-hole-pair creation energy in stabilized a-Se x-ray photoconductors**
C Haugen, S O Kasap and J Rowlands
- 208 **Polycrystalline silicon thin films prepared by plasma enhanced chemical vapour deposition at 200 °C using fluorinated source gas**
S Hazra, S C Saha and S Ray
- 213 **The role of ZnO:Al films in the performance of amorphous-silicon based tandem solar cells**
S Bose and A K Barua

FUNDAMENTAL AREAS OF PHENOMENOLOGY (INCLUDING APPLICATIONS)

- 219 **Electrostatic discharges and multifractal analysis of their Lichtenberg figures**
T Ficker
- 227 **Method for birefringence measurements as a function of wavelength in the visible range, applied to the reinvestigation of crystal quartz**
F Bréhat, B Wyncke and A M Benoit

PHYSICS OF GASES, PLASMAS AND ELECTRIC DISCHARGES

- 234 **Kinetic theory of the charging process in dusty plasmas**
S A Trigger and P P J M Schram
- 240 **Monte Carlo simulation of electron beam plasma in a silane-argon mixture**
A V Vasenkov
- 246 **Time resolved $O_2(b^1\Sigma_g^+)$ rotational temperature measurements in a low-pressure oxygen pulsed discharge. Simple and quick method for temperature determination**
P Macko and P Veis
- 251 **GaAs photocathode cleaning by atomic hydrogen from a plasma source**
K A Elamrawi and H E Elsayed-Ali
- 257 **Analysis of ionization non-equilibrium in the near-cathode region of atmospheric-pressure arcs**
M S Benilov
- 263 **Non-equilibrium modelling of transferred arcs**
J Haidar
- 273 **Light intensity emitted from the lightning channel: comparison of different return stroke models**
J Cvetić, F Heidler and A Schwab
- 283 **The thermophoretic velocity of a small particle suspended in a plasma**
Xi Chen

Continued on inside back cover