

ISSN 0022-3727

IOP

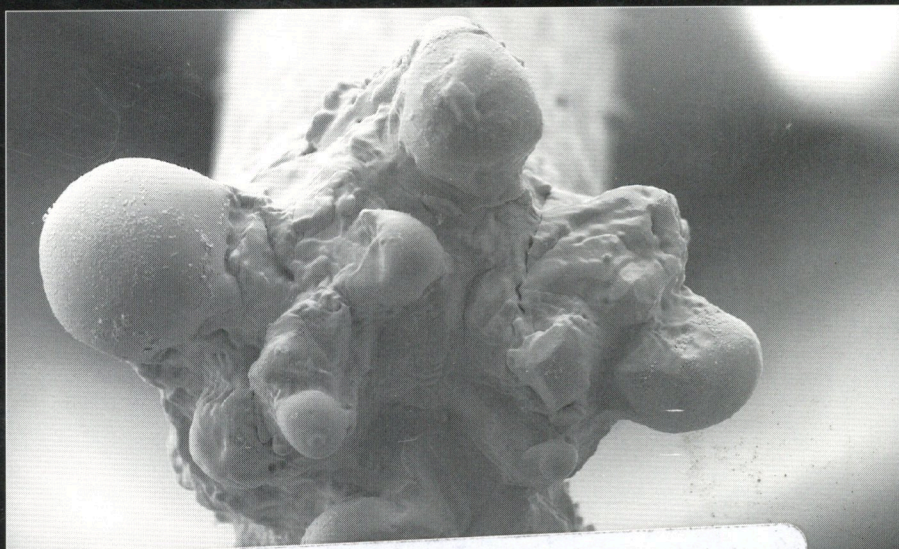
# Journal of Physics D Applied Physics

Volume 35 Number 14 21 July 2002

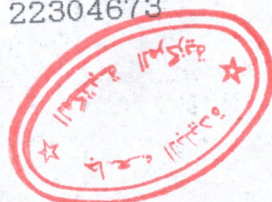
**Special issue on discharge lamps**

*Guest editors: J E Lawler and D O Wharmby*

Online: [www.iop.org/journals/jphysd](http://www.iop.org/journals/jphysd)



Ref: BT PF 160102/09 Df: 31146538  
JOURNAL OF PHYSICS ("D" : APPLIED PHYSIC  
21.07.02 Vol. 35 No. 14  
0022-3727 22304673 29.07.02  
EDITIONS CHIHAB  
ZI. LOT B5  
B.P.744 REGHAIA  
GG ALGER  
ALGERIE



Institute of Physics PUBLISHING



# Journal of Physics D: Applied Physics

Volume 35

Number 14

21 July 2002

## SPECIAL ISSUE ON DISCHARGE LAMPS

### Preface

- 1613 **Koedam  $\beta$  factors revisited**  
J E Lawler, D A Doughty and G G Lister
- 1621 **Determination of HID electrode falls in a model lamp I: Pyrometric measurements**  
L Dabringhausen, D Nandelstädt, J Luhmann and J Mentel
- 1631 **Determination of HID electrode falls in a model lamp II: Langmuir- probe measurements**  
J Luhmann, S Lichtenberg, O Langenscheidt, M S Benilov and J Mentel
- 1639 **Determination of HID electrode falls in a model lamp III: Results and comparison with theory**  
D Nandelstädt, M Redwitz, L Dabringhausen, J Luhmann, S Lichtenberg and J Mentel
- 1648 **Observation of different modes of cathodic arc attachment to HID electrodes in a model lamp**  
S Lichtenberg, D Nandelstädt, L Dabringhausen, M Redwitz, J Luhmann and J Mentel
- 1657 **Observation of an extremely constricted cathodic arc attachment to electrodes of high intensity discharge lamps**  
T Hartmann, K Günther, S Lichtenberg, D Nandelstädt, L Dabringhausen, M Redwitz and J Mentel
- 1668 **Investigation of the connection between plasma temperature and electrode temperature in metal-halide lamps**  
D C Fromm, G H Lieder and K H Gleixner
- 1681 **Numerical simulation of dc high-pressure discharge lamps including electrodes**  
P Flesch and M Neiger
- 1695 **High-frequency cold ignition of fluorescent lamps**  
M Haverlag, A Kraus, J Sormani, J Heuvelmans, A Geven, L Kaldenhoven and G Heijne
- 1702 **On the plasma constriction close to the electrodes of high-pressure mercury and sodium lamps**  
M Kettlitz and R Großjohann
- 1707 **Determination of the cathode fall voltage in fluorescent lamps by measurement of the operating voltage**  
A Hilscher
- 1716 **Emitter depletion studies on electrodes of 50 Hz mercury/noble gas discharge lamps during ignition**  
W J van den Hoek, T L G Thijssen, A J H van der Heijden, B Buijsse and M Haverlag
- 1727 **Analysis of the cathodic region of atmospheric pressure discharges**  
H Schmitz and K-U Riemann
- 1736 **Heating of refractory cathodes by high-pressure arc plasmas: I**  
M S Benilov and M D Cunha
- 1751 **Sodium monolayers on thermionic cathodes**  
J Almanstötter, B Eberhard, K Günther and T Hartmann
- 1757 **Arc attachment and fall voltage on the cathode of an ac high- pressure mercury discharge**  
H Pursch, H Schoepp, M Kettlitz and H Hess

## REGULAR PAPERS

### APPLIED MAGNETISM, MAGNETIC MATERIALS AND SUPERCONDUCTIVITY

- 1761 **Low frequency noise in  $\text{Co}/\text{Al}_2\text{O}_3(\delta(\text{Fe}))/\text{Ni}_{80}\text{Fe}_{20}$  magnetic tunnel junctions**  
R Guerrero, F G Aliev, R Villar, R Ortega-Hertogs and J S Moodera
- 1765 **Influence of grain boundaries on orientation of spontaneous magnetization inside domains in the Fe-3%Si ferromagnetic sheets**  
L Sheiko, A Sadovoy, Yu Troschenkov and O Kulyk

*(Continued on inside back cover)*