IoP

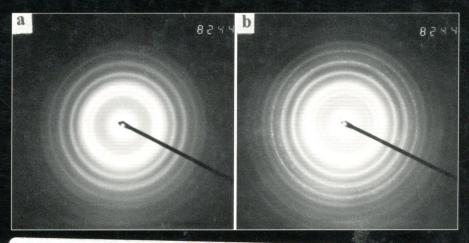
## Journal of Physics D Applied Physics Physics

Volume 32 Number 2 21 January 1999

Online: http://www.iop.org

A Journal Recognized by The European Physical Society





Ref: C 2 PF 171198/01 Df: 27745244
JOURNAL OF PHYSICS ("D": APPLIED PHYSIC
21.01.99 Vol. 32 No. 2
0022-3727 22101144 15.07.99
LIBRIS
144 BOULEVARD KRIM BELKACEM
ALGER
ALGERIE



Institute of Physics Publishing

## **Journal of Physics D: Applied Physics**

Volume 32	Number 2	21 January 1999

D	AP	DC
ν,	12	85

	Δ	P	PI	1	FI	7	IN	TE	R	F	1	F	2 4	N		S	11	R	F	4	1	=	2
1	м		М		$\Box$	,	HΝ		ח	$\Gamma r$	٦.	<b>,</b> $\Box$	) <i> </i>	NΝ	u	0	U	п	$\Gamma'$	٦,	-1		

- Formation of metastable crystalline phases by solid state reaction in Ni–Nb multilayered films G W Yang, C Lin, J B Liu and B X Liu
- 84 Electro-optical characterizations of the large second-order optical nonlinearity of C<sub>60</sub> Langmuir–Blodgett films
  Gongming Wang, Jun Wen, Qi Houng, Shixing Qian and Xingze Lu
- 87 Efficient emissive site in organic EL device utilizing 8-hydroxyquinoline aluminium and diamine derivative Y Ohmori, T Sawatani, Y Kurosaka and K Yoshino

APPLIED MAGNETISM AND MAGNETIC MATERIALS

20 Large low-field magnetoresistance observed in heterostructure La<sub>0.7</sub>Ca<sub>0.3</sub>MnO<sub>3</sub>/Gd<sub>0.7</sub>Ca<sub>0.3</sub>MnO<sub>3</sub> multilayers

G J Lian, Z H Wang, J Gao, J F Kang, M Y Li and G C Xiong

FUNDAMENTAL AREAS OF PHENOMENOLOGY (INCLUDING APPLICATIONS)

- The optimal operating temperature of the collector of an irreversible solar-driven refrigerator Guoxing Lin and Zijun Yan
- 99 Effect of heat transfer law on the performance of a generalized irreversible Carnot engine Lingen Chen, Fengrui Sun and Chih Wu

PHYSICS OF GASES, PLASMAS AND ELECTRIC DISCHARGES

- 106 Self-consistent modelling of charged and neutral particle dynamics in short-gap helium and hydrogen discharges

  M Jugroot, P Bayle, M Yousfi and O Eichwald
- A study of the influence of the walls' nature on the behaviour of a low-voltage arc breaker by means of an inverse method

  J-P Toumazet, G Velleaud, C Brdys and S Servant
- 128 Steady-state model of a refractory hot anode vacuum arc I I Beilis, R L Boxman and S Goldsmith

CONDENSED MATTER: STRUCTURE, MECHANICAL AND THERMAL PROPERTIES

134 Ionized cluster beam deposition of antimony and bismuth films J Nagao, T Shiino, S Kikuchi, T Yoshimoto, E Hatta and K Mukasa

CONDENSED MATTER: ELECTRONIC STRUCTURE, ELECTRICAL AND OPTICAL PROPERTIES

- 139 Electron-wave quantum well energy band-pass filters C C Chang and C S Kou
- Discrimination between dipolar and space-charge relaxation by thermally stimulated current spectroscopy: application to several alkali-exchanged mordenites

  S Devautour, F Henn, J C Giuntini, J V Zanchetta and J Vanderschueren

Continued on inside back cover

Bibliographic codes CODEN: JPAPBE 32 (2) 79–182 (1999) ISSN: 0022-3727