

FORTHCOMING PAPERS

Investigation of Gain and Hyperfine Splitting in the Niobium X-Ray Laser

J. C. Moreno, J. Nilsen, J. A. Koch, B. J. MacGowan, J. H. Scofield,
L. B. Da Silva (USA)

X-Ray Lasers as Sources for Resonance-Fluorescence Experiments

J. A. Koch, R. W. Lee, J. Nilsen, J. C. Moreno, B. J. MacGowan,
L. B. Da Silva (USA)

Hydrogen-Like Recombination X-Ray Lasers Using ps Pulse Drivers

J. Zhang, M. H. Key (UK)

Applied Physics A 57, No. 6 (1993)

Surface Physics 1993

Editorial 475

A. L. Vázquez de Parga, J. de la Figuera, J. E. Prieto, C. Ocal, R. Miranda
Surface Structure of β -FeSi₂(101) Epitaxially Grown on Si(111) 477

X. Jiang, C.-P. Klages, M. Rösler, R. Zachai, M. Hartweg, H.-J. Füsser
Deposition and Characterization of Diamond Epitaxial Thin Films
on Silicon Substrates 483

U. Köhler, L. Andersohn, B. Dahlheimer
Time-Resolved Observation of CVD-Growth of Silicon
on Si(111) with STM 491

A. Grossmann, W. Erley, H. Ibach
Entropy-Controlled Site Occupation of CO Adsorbed on Ni(100) 499

H. H. Rotermund, J. Lauterbach, G. Haas
The Formation of Subsurface Oxygen on Pt(100) 507

R. Berndt, R. Gaisch, W. D. Schneider, J. K. Gimzewski, B. Reihl,
R. R. Schlittler, M. Tschudy
Photon Emission from Adsorbed C₆₀ Molecules with Sub-Nanometer
Lateral Resolution 513

Solids and Materials

K. Pixius, J. Schilz
Low-Temperature Electronic Transport Behaviour of
Powder-Metallurgical SiGe Alloys 517

J. Vanhellemont, A. Romano-Rodríguez
On the Influence of Interfaces and Localised Stress Fields
on Irradiation-Induced Point-Defect Distributions in Silicon 521

K. B. Ding, X. M. Zhang
Field-Enhanced Carrier-Generation Effect of Deep-Level Centers
in Semiconductors 529

I. Yang, Z. G. Khim
Effects of Heating on the Raman Spectra of YBa₂Cu₃O_{7- δ} 533

M. V. Sviridov, A. R. Gabidullin
Sensitivity of Josephson Junctions to High-Pass Filtered Noise of
Black-Body Radiation 539

Surfaces and Multilayers

A. K. Baker, P. E. Dyer
Refractive-Index Modification of PolyMethylMethAcrylate (PMMA)
Thin Films by KrF-Laser-Irradiation 543

F. Schreiber, M. Hoffmann, O. von Geisau, J. Pelzl
Investigation of the Photothermally Modulated Ferromagnetic
Resonance Signal from Magnetostatic Modes in Yttrium
Iron Garnet Films 545

B. Lührmann, H. Dötsch, S. Sure
High-Frequency Excitations of Stripe-Domain Lattices in Magnetic
Garnet Films 553

V. I. Emel'yanov, I. M. Panin
Heat "Superemission" and Nucleation-Front Propagation under
Laser-Induced Crystallization of Thin Amorphous Films 561

V. F. Chishko, A. I. Dirochka, I. L. Kasatkin, V. V. Osipov,
E. I. Slyn'ko, V. V. Tretinik
Photoelectric Properties of Pb_{1-x-y}Sn_xGe_yTe: In Epitaxial Films 567

H. T. Shi, Y. D. Zheng, Y. B. Wang, R. K. Yuan
Temperature-Dependent Photoluminescence and Raman Spectra from Porous
GeSi/Si Heterostructures 573

Rapid Communication

P. B. Kargl, R. Kullmer, D. Bäuerle
Bistable Growth in Laser Chemical Vapor Deposition 577

Call for Papers

Time-Resolved Vibrational Spectroscopy

In the last several years impressive progress in vibrational spectroscopy has been made. Especially infrared and Raman methods provide a time resolution as high as some tens of femtoseconds, shorter than one vibrational period. New techniques enhancing sensitivity and accuracy have been developed, some of which are widely applicable.

Many new results are obtained with these methods elucidating the relaxation dynamics of vibrational and rovibrational states in different environments. Dissociation and photophysical processes, excited states as well as reaction channels are investigated. Notable progress in the theoretical interpretation of the experimental results has been made, too.

In order to obtain an overview of the present state-of-the-art in this field, a feature issue of **Applied Physics B** will be dedicated to research work on time-resolved vibrational spectroscopy. It will comprise both invited and contributed papers solicited in the areas mentioned above.

Deadline for submission

February 15, 1994.

Contributors are asked to pay attention to the formal requirements for publication in Applied Physics, as they are outlined in each issue. All papers submitted will be refereed.

Contributions to this feature issue should be submitted directly to the guest editor:

A. Lau
Max-Born Institut für Nichtlineare Optik
und Kurzeitspektroskopie
Rudower Chaussee 6
D-12474 Berlin, Germany
(FAX: +49-30/6392-1429)

Papers received and/or accepted too late will be published in subsequent (regular) issues.