

# APPLIED PHYSICS LETTERS

CODEN: APPLAB  
ISSN: 0003-6951  
URL: <http://www.aip.org/journals/apl/apl.html>

## Editor

Nghi Q. Lam  
Argonne National Laboratory  
Argonne, IL

## Consulting Editor

Gilbert J. Perlow

## Associate Editors

Charles W. Allen	Walter Pötz
Samuel D. Bader	David Long Price
Alan R. Krauss	Lynn E. Rehn
David S. Kupperman	Jules Routbort
F. Paul Mooring	Linda Young

## Editorial Board

*Term ending 31 December 1998*

Dieter M. Gruen (Argonne Nat'l Lab., Argonne, IL)  
Patricia M. Mooney (IBM Corp., Yorktown Heights, NY)  
James S. Williams (Australian Nat'l Univ., Canberra, Australia)

*Term ending 31 December 1999*

David B. Geohegan (Oak Ridge Nat'l Lab., Oak Ridge, TN)  
Andreas Mandelis (Univ. of Toronto, Toronto, Canada)  
Teh Y. Tan (Duke Univ., Durham, NC)  
Akira Tonomura (Hitachi, Ltd., Saitama, Japan)

*Term ending 31 December 2000*

Robert Hull (Univ. of Virginia, Charlottesville, VA)  
Georges Martin (Commissariat à l'Energie Atomique, Saclay, France)  
Jerry R. Meyer (Naval Research Lab., Washington, DC)

## Information for Authors

**Submissions:** Submit manuscripts (3 copies) to Editor, *Applied Physics Letters*, Argonne National Laboratory, Bldg. 203, Room R-127, 9700 South Cass Avenue, P.O. Box 8296, Argonne, IL 60439-8296; E-mail: [apl@anl.gov](mailto:apl@anl.gov). Submission implies that the manuscript has not been published previously, and is not currently submitted for publication elsewhere. For detailed information for contributors, visit the above URL.

**Publication Charge:** To support the cost of wide dissemination of research results through publication of journal pages and production of a database of articles, the author's institution is requested to pay a *page charge* of \$105 per page (with a one-page minimum) and an *article charge* of \$20 per article. For Errata the minimum page charge is \$10, with no article charge.

**Reprints:** Authors may order reprints with or without covers only in multiples of 50 (with a minimum of 100 in each category) from AIP, Circulation & Fulfillment/Reprints, 500 Sunnyside Blvd., Woodbury, NY 11797-2999; Fax: 516-349-9704; Telephone: 800-344-6909 (U.S. and Canada), or 516-576-2234.

**Physics Auxiliary Publication Service (PAPS/E-PAPS):** For a nominal fee, authors may deposit material that is supplemental to their published papers. Materials may be on paper or electronic media; examples of appropriate items include data tables, graphs, images, and computer codes. Retrieval instructions are noted in the related published paper. Direct requests to the journal Editor; for additional information, see <http://www.aip.org/pubservs/paps.html>

**Comments:** Authors may direct comments on the journal or on the editorial process to Martin Burke, Director of Editorial Operations, AIP, 500 Sunnyside Blvd., Woodbury, NY 11797-2999. Telephone: 516-576-2406; Fax: 516-576-2223; E-mail: [mburke@aip.org](mailto:mburke@aip.org).

*Applied Physics Letters* features concise, up-to-date reports on significant new findings in applied physics. Emphasizing rapid dissemination of key data and new physical insights, the Journal offers prompt publication of new experimental and theoretical papers bearing on applications of physics phenomena to all branches of science, engineering, and modern technology.

**Editorial Office Staff:** Diane M. Kurtz, *Editorial Supervisor*; Kathleen O'Hare, *Editorial Assistant*; Lori A. Randolph, Leslie A. Weltmeyer, Arlene J. Niemann, Lucila Morales, Bonnie S. Peters, Suzanne C. Marik, *Editorial Support*

**AIP Production:** Deborah McHone, *Editorial Supervisor*; Margaret Reilly, *Journal Coordinator*; Greg Domke, *Chief Production Editor*

## Prices

### 1998 Subscriptions

(includes print + online)

	U.S.A. & Poss.	Can., Mex., Central & S. Amer. & Caribbean	Foreign Surface Mail	Air Freight	Optional Air Freight
Members*	\$175 <sup>†</sup>	\$240	\$240	—	\$315
Nonmembers	\$1545 <sup>†</sup>	\$1610	\$1610	\$1685	—

\*AIP Member and Affiliated Societies.

<sup>†</sup>Rate also applies to Microfiche, to all destinations.

**Back Issues:** 1998 single copies: \$40. Prior to 1998 single copies: \$27 for members; \$40 for nonmembers.

## Additional Availability

**Online Access:** *Applied Physics Letters* is available online to print subscribers at no additional charge; for details, please see <http://www.aip.org/ojs/>. Abstracts of journal articles are available from AIP's SPIN Database, via AIP's Online Journal Publishing Service (OJPS) (<http://ojps.aip.org>).

**Microform:** *Applied Physics Letters* is available on microfilm issued at the same frequency as the printed journal, and annually on microfiche. A microform catalog is available from AIP, Circulation & Fulfillment/Single Copy Sales, 500 Sunnyside Blvd., Woodbury, NY 11797-2999; Fax: 516-349-9704; Telephone: 800-344-6908 (U.S. and Canada) or 516-576-2277.

**Document Delivery:** Copies of journal articles can be ordered for online delivery from the new Articles in Physics online document delivery service (<http://ojps.aip.org/jhtml/artinphys/>).

## Customer Service

**Subscription Orders, Renewals, and Address Changes** should be addressed to AIP Circulation & Fulfillment Division, 500 Sunnyside Blvd., Woodbury, NY 11797-2999. Allow at least six weeks advance notice. For address changes, please send both old and new addresses and, if possible, include the mailing label from a recent issue.

**Claims, Single Copy Replacements, and Back Volumes:** Missing issue requests will be honored only if received within six months of publication date (nine months for Australia and Asia). Single copies of a journal may be ordered and back volumes are available in print or microform. Contact AIP Customer Services at 800-344-6902 (U.S. and Canada) or 516-576-2270; Fax: 516-349-9704; E-mail: [subs@aip.org](mailto:subs@aip.org).

**Reprint Billing:** Contact AIP Publication Charge and Reprints/CFD, 500 Sunnyside Blvd., Woodbury, NY 11797-2999; Telephone: 516-576-2230 (800-344-6909); E-mail: [pcr@aip.org](mailto:pcr@aip.org).

**Advertising:** Rates will be supplied on request. Orders, advertising copy, and offset negatives should be sent to: Nancy Kuhle, Advertising Department, AIP, 500 Sunnyside Blvd., Woodbury, NY 11797-2999; Telephone: 516-576-2449; Fax: 516-576-2481.

## Rights and Permissions

**Copying:** Single copies of individual articles may be made for private use or research. Authorization is given (as indicated by the Item Fee Code for this publication) to copy articles beyond the use permitted by Sections 107 and 108 of the U.S. Copyright Law, provided the copying fee of \$15 per copy per article is paid to the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, USA. Persons desiring to photocopy materials for classroom use should contact the CCC Academic Permissions Service. The Item Fee Code for this publication is 0003-6951/98 \$15.00.

Authorization does not extend to systematic or multiple reproduction, to copying for promotional purposes, to electronic storage or distribution, or to republication in any form. In all such cases, specific written permission from AIP must be obtained.

**Other Use:** Permission is granted to quote from the journal with the customary acknowledgment of the source. To reprint a figure, table, or other excerpt requires the consent of one of the authors and notification to AIP.

**Requests for Permission:** Address requests to AIP Office of Rights and Permissions, 500 Sunnyside Blvd., Woodbury, NY 11797-2999; Fax: 516-576-2499; Telephone: 516-576-2268; E-mail: [rights@aip.org](mailto:rights@aip.org).

*Applied Physics Letters* (ISSN: 0003-6951) is published weekly by the American Institute of Physics. 1998 subscription rates are: US\$1545. POSTMASTER: Send address changes to *Applied Physics Letters*, AIP, 500 Sunnyside Blvd., Woodbury, NY 11797-2999. Periodicals postage rates are paid at Woodbury, NY, and at additional mailing offices.

Copyright © 1998 American Institute of Physics. All rights reserved.