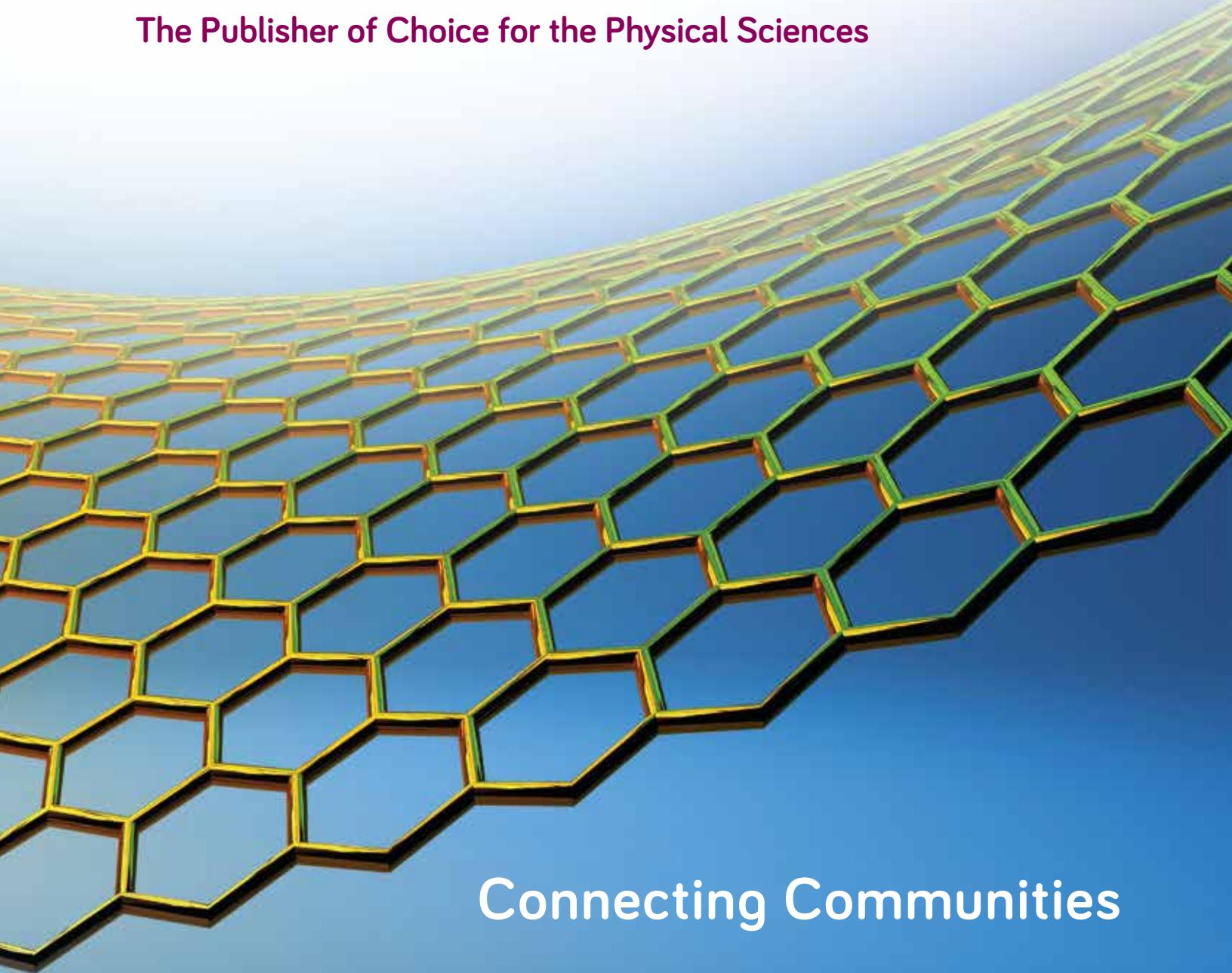


# 2016 AIP Publishing Product Guide

The Publisher of Choice for the Physical Sciences



Connecting Communities



[publishing.aip.org](http://publishing.aip.org)

# Connecting Communities

## 4 Spotlight on Applied Physics Reviews

The dedicated home for cutting-edge reviews in applied physics

## 5 Spotlight on APL Photonics - NEW Spring 2016

The dedicated home for photonics research—  
A new open access journal

## 6 AIP Publishing: More than Physics

Publications across the physical sciences that provide exceptional value for researchers and librarians

## 8 The Scitation Platform

The online home for full text of the journals, magazines, and conference proceedings published by AIP Publishing and AIP Member Societies

### Library Resource Center

Find helpful information and materials for the library community, all in one location

## 9 Open Access

Sustainable access models that include Gold and Green options as well as AIP Author Select®, a hybrid author-pays model

## 10 Offerings to Save Your Library Money and Expand Your Collection

Lock in savings with combination packages and multi-year pricing or extend your holdings via archival content packages

## 11 AIP Publishing Flagship Journals

*Applied Physics Letters*, *Journal of Applied Physics*, and *The Journal of Chemical Physics*, high-impact journals at the forefront of the physical sciences

## 12 More AIP Publishing Journals

One of the world's leading publishing portfolios in the physical sciences

## 16 AIP Member Society Journals

Supporting our publishing partners to help distribute their content to a global audience

## 18 AIP Conference Proceedings

About 75 new conference proceedings volumes published each year

### Magazines

AIP's industry-leading magazines, *Physics Today* and *Computing in Science & Engineering*

## 19 AIP Publishing Supports AIP Programs

Valuable services and expertise in education, student programs, career resources, history, and heritage on a global basis

On the cover: Graphene molecular structure in a honeycomb lattice

# Dear Valued Customer,

## Welcome to the 2016 AIP Publishing Product Guide

### The Publisher of Choice for the Physical Sciences

At AIP Publishing we place researchers' needs at the center of everything we do and in 2015 we initiated a program of investment and continuing development of our flagship publications, *Applied Physics Letters*, *Journal of Applied Physics*, and *The Journal of Chemical Physics*. Our goals are to effectively address the changing research landscape and offer authors the premier destinations to publish their research. Already producing tangible results as we move into 2016, these initiatives include:



- **Strengthened article acceptance criteria** to guarantee that all articles published represent significant advancements to improve scientific understanding, develop innovative methods, help generate new avenues of research, or lead to real world applications.
- **Enhancements in editorial board structure and the peer-review process** have led to increased topical expertise, even fairer and more consistent evaluation of manuscripts, broader geographic representation, and more rapid service to our authors.

### Portfolio Updates

In 2014 we launched *Applied Physics Reviews (APR)*. Our authors and readers have enthusiastically embraced this journal. This is evident from the number of leading experts publishing in the first two volumes and an impressive growth in downloads. APR review articles are already downloaded on average seven times more often than articles across our entire AIP Publishing journal portfolio.\* **The 2016 volume of APR is available by subscription.**

AIP Publishing has long been the trusted home for Photonics. The rich history of LEDs has been chronicled in AIP Publishing journals from the discovery of red LEDs by Nick Holonyak in 1962 ("Coherent (Visible) Light Emission from Ga(As<sub>1-x</sub>P<sub>x</sub>) Junctions," Nick Holonyak Jr. and S. F. Bevacqua, *Appl. Phys. Lett.* 1, 82 (1962)], to research by Akasaki, Amano, and Nakamura on blue LEDs that led to them winning the Nobel Prize in Physics in 2014. We are delighted to continue this tradition with the launch of *APL Photonics* in spring 2016. Through fair, fast, and rigorous peer review, the journal will uphold the same reputation for quality as its parent journal, *Applied Physics Letters*. In keeping with our commitment to sustainable access models, the journal will join our growing list of Gold Open Access titles: *AIP Advances*, *APL Materials*, and *Structural Dynamics*.

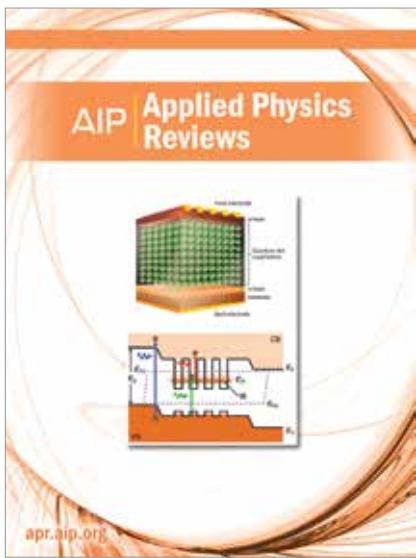
**On behalf of AIP Publishing I would like to thank you for the important role you play in facilitating the flow of knowledge—and inspiration—to the global community of physical scientists.**

Warm regards,

A handwritten signature in black ink, appearing to read "John Haynes".

John Haynes, Ph.D.  
CEO, AIP Publishing

\*Based on 2015 content



Now Indexed by Thomson Reuters

## Spotlight on AIP | Applied Physics Reviews

The dedicated home for cutting-edge reviews in applied physics

Previously a key component of *Journal of Applied Physics*, **Applied Physics Reviews** began independent publication in January 2014. Guided by noted authorities in the field, Editors-in-Chief John M. Poate and Bill R. Appleton, the journal has already established itself as the dedicated home for cutting-edge reviews in applied physics.

### FACTS:

- 29 reviews published in 2014, more than twice the number compared to the *Journal of Applied Physics* in 2013
- *Applied Physics Reviews* review articles are already downloaded on average seven times more often than articles across the entire AIP Publishing portfolio (based on 2015 content)

The journal features reviews of important and current topics of experimental or theoretical research in applied physics and applications of physics to other branches of science and engineering. These articles vary in scope and length—from comprehensive reviews covering established areas in depth to concise reviews covering new and emerging areas of science.

### Researcher benefits include:

- **Greater emphasis** on authoritative reviews by leading researchers worldwide
- **Guaranteed quality** guided by a dedicated and expanded Editorial Team
- **Enhanced speed** of manuscript processing—and rigorous and accurate peer review

### Editors-in-Chief:

**Bill R. Appleton**

University of Florida, Gainesville, FL, USA

**John M. Poate**

Colorado School of Mines, Golden, CO, USA

### Coverage:

Photonics, lasers, optics, and optoelectronics; device physics, characterization, and manufacturing; materials synthesis, processing, and properties; nanoscale science and technology; advanced energy materials and concepts; applied biophysics and biomaterials

### By subscription only beginning in 2016

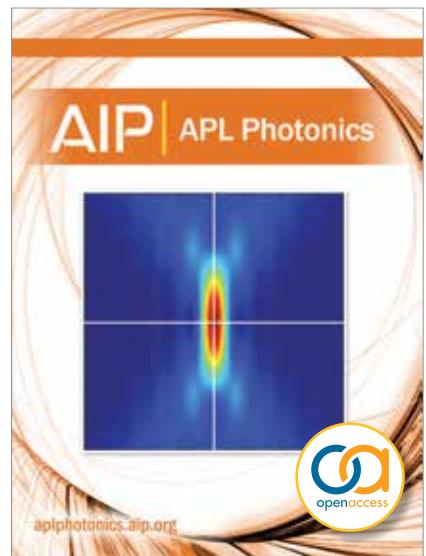
2016: Volume 3, 4 issues (online only)

E-ISSN: 1931-9401

[apr.aip.org](http://apr.aip.org)

"For years, *Applied Physics Reviews* (APR) were published as the lead articles in the *Journal of Applied Physics*. Based on the success of this arrangement and responding to the growing need for authoritative reviews in applied science, APR transitioned to a stand-alone journal published online at the beginning of 2014."

The science community has shown great enthusiasm for this change with APR publishing 29 reviews (in 2014) that have been highly cited and viewed. This new format has an expanded editorial format that addresses the needs of new and established researchers for authoritative reviews by leading authors that put well-established areas in perspective—and new and emerging areas in context now and in the future."  
— Bill R. Appleton, Editor-in-Chief, and John M. Poate, Editor-in-Chief



# Spotlight on AIP|APL Photonics

NEW  
SPRING  
2016

The dedicated home for photonics research—A new open access journal

**APL Photonics**, a new open access, online-only journal, publishes high quality original research covering all areas within the field. Its vision is to be an authoritative, peer-reviewed, rapid publication directly serving the entire photonics community.

Through fair, fast, and rigorous peer review, the journal upholds the same reputation for quality as its parent journal, *Applied Physics Letters*.

## Editor-in-Chief:

**Benjamin Eggleton**

Director, CUDOS, School of Physics, University of Sydney, Sydney, Australia

## Coverage:

Light sources; imaging, detectors, and sensors; optoelectronic devices and components; novel materials and engineered structures; physics of light propagation and interaction; quantum optics and cryptography; ultrafast photonics; biophotonics; nonlinear optics; plasmonics; nanophotonics; from faint to single photonics; imaging through complex media; ultra-low-power nano-optoelectronics; and exotic photonics

## First issue scheduled for publication Spring 2016

2016: Volume 1, 12 issues (online only)

E-ISSN: 2378-0967

[aplphotronics.aip.org](http://aplphotronics.aip.org)

"The future of applied photonics research is here. It is a particularly exciting time for the field of photonics since 2015 marked the International Year of Light, which paid tribute to the global significance of light-based technologies. Additionally, the 2014 Nobel Prize in Physics—awarded to Isamu Akasaki, Hiroshi Amano, and Shuji Nakamura for their development of blue LEDs—further illustrated the societal impact of photonics research. In line with AIP Publishing's commitment to meeting the evolving needs of researchers, we have launched **APL Photonics**. Its open access publishing model allows for greater visibility and compliance with growing funder mandates."

— Jason Wilde, Chief Publishing Officer, AIP Publishing



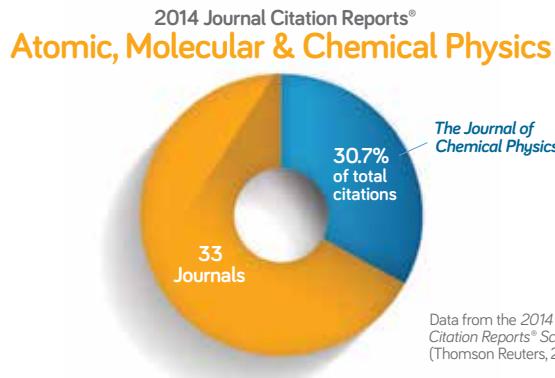
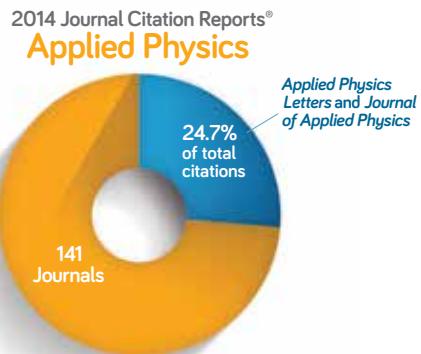
## AIP Publishing: More than Physics

Are your scientists working on research related to solar cells, thin films, or graphene? Magnetic films, nanoparticles, or LEDs? AIP Publishing journals **deliver the information they need**, spanning these and other interdisciplinary fields.

**Applied Physics Letters** and **Journal of Applied Physics** are community-acknowledged leaders in publishing groundbreaking research in the hot top areas of Materials Science,

Nanoscience/Nanotechnology, and Energy/Renewable Energy. In 2014 these two journals published over 900 articles relating to Energy and more than 1,800 articles relating to Nanoscience. And with nearly 7,000 articles relating to Materials Science published in 2014, **Applied Physics Letters** and **Journal of Applied Physics** represent one of the strongest Materials Science portfolios available.

## Exceptional Value for Researchers...



Data from the 2014 Journal Citation Reports® Science Edition (Thomson Reuters, 2015)

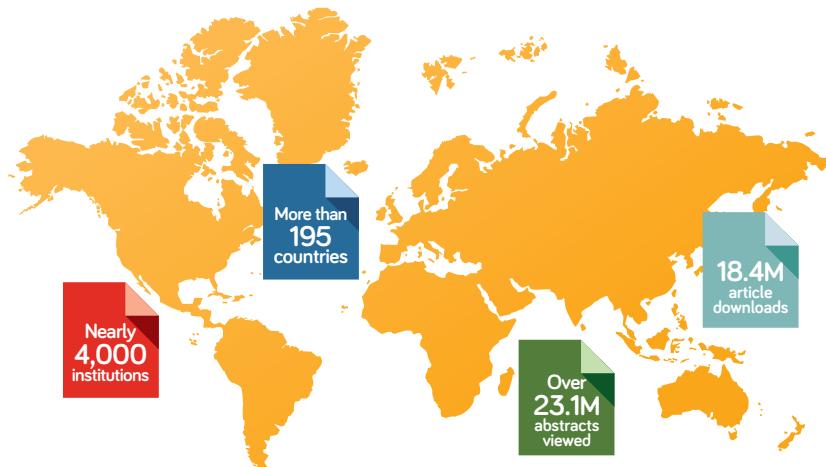
### Outstanding Quality

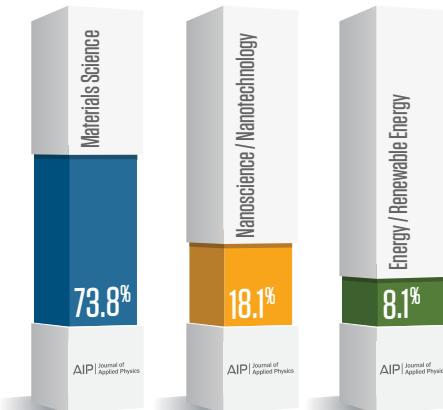
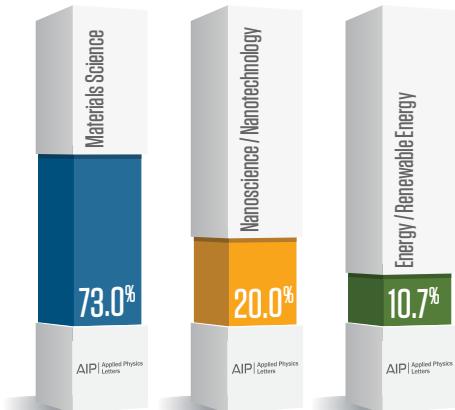
In 2014, with close to 383,000 total citations in the Applied Physics category, **Applied Physics Letters** and **Journal of Applied Physics** once again retained their positions as first and second most cited, respectively. They accounted for about one quarter of total citations in this category comprised of 143 journals.

For the same year, **The Journal of Chemical Physics** continued to lead the Atomic, Molecular & Chemical Physics category in total citations with nearly 195,000 citations. In fact, just under one third of all citations from the 34 journals in this category are attributed to this single AIP Publishing journal.

### Broad Reach and Dissemination

Researchers from nearly 4,000 institutions in more than 195 countries across the globe accessed articles from AIP Publishing journals over 23 million times in 2014. Whether your researchers are looking for the best physical sciences research from around the world—or they are looking to get their research in front of the world's leading scientists—AIP Publishing delivers.



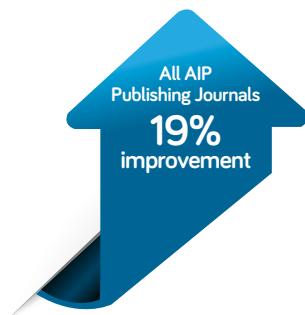


# and Librarians

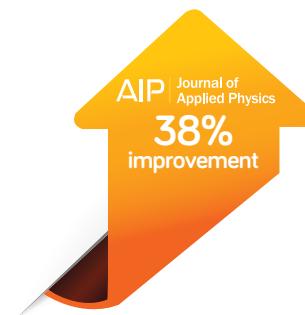
## Fast Publication Times

As the pace of international research accelerates, speed to publication is increasingly important to scientists in all disciplines. AIP Publishing has undertaken a series of strategic moves to reduce the time to publication for our peer-reviewed publications, with impressive results. In the span of two years, for example, the average number of days from submission-to-publication in the *Journal of Applied Physics* dropped from 141 in 2012 to 85 days in 2014, a 38% reduction.

All AIP Publishing Journals  
19% improvement in time to publication  
(2012-2014)



*Journal of Applied Physics*  
38% improvement in time to publication  
(2012-2014)



## Rigorous and Fair Peer Review

In 2014, 23,500 individuals served as peer reviewers for AIP Publishing, providing balanced, actionable feedback to advance the research and careers of AIP Publishing authors. In that same year, 91.5% of articles published benefited from significant reviewer input.





## The Scitation Platform

[scitation.aip.org](http://scitation.aip.org)

The online home for full text of the journals, magazines, and conference proceedings published by AIP Publishing and AIP Member Societies

### Facts & Figures

- 19 leading journals in the physical sciences, including *Journal of Applied Physics*, *Applied Physics Letters*, *Applied Physics Reviews*, *The Journal of Chemical Physics*, and four Gold Open Access journals. PLUS *Physics Today*
- 900,000+ articles & review articles
- Over 1,600 volumes in *AIP Conference Proceedings* dating back to 1970
- Nearly 300,000 articles in the AIP Digital Archives (1930-1998)—20% of all 2014 downloads came from the Archives
- Four journals co-published and nine journals published on behalf of Member Societies

“Whether your researchers are looking for the best physical sciences research from around the world—or they are looking to get their research in front of the world’s leading scientists—AIP Publishing delivers.”

## Library Resource Center

[librarians.aip.org](http://librarians.aip.org)

For managing and promoting the AIP Publishing collection, the **Library Resource Center** provides pricing and licensing information, user support and promotional materials for Scitation (including user guides and tutorials in multiple languages), and the *AIP Library Matters* newsletter.

It also features account and access management tools that enable you to download usage statistics and administer your online holdings and account settings.

**Visit frequently to check out new resources.**



## AIP Publishing—Supporting the Programs of the American Institute of Physics

**More than Journals...** Learn more about how AIP advances the physical sciences with valuable products and services at [publishing.aip.org/librarians/aip-publishing-more-than-journals](http://publishing.aip.org/librarians/aip-publishing-more-than-journals).

### AIP Publishing Customer Service:

+1 800-344-6902  
+1 516-576-2270

[help@scitation.org](mailto:help@scitation.org)  
[sales@aip.org](mailto:sales@aip.org)



## Open Access

### Sharing Scientific Advancement

AIP Publishing's mission is to facilitate the widest possible access to the best peer-reviewed scientific information, offering authors Gold, Green, and hybrid open access options. These access models ensure the integrity and permanence of the scholarly record. AIP Publishing continues to work in tandem with representatives from the library and academic communities to develop pragmatic, sustainable solutions for public access to federally funded research.

## Gold Open Access

Gold Open Access refers to publication of an article in a fully open access journal, where the entire content of the journal is freely available without barriers. Publication is funded by an article processing fee (APF) paid by the author or another sponsor. AIP Publishing currently publishes **four** Gold Open Access journals:

- *AIP Advances* ([aipadvances.aip.org](http://aipadvances.aip.org))
- *APL Materials* ([aplmaterials.aip.org](http://aplmaterials.aip.org))
- *APL Photonics* ([aplphotonics.aip.org](http://aplphotonics.aip.org))—**NEW IN SPRING 2016**
- *Structural Dynamics*, co-published by AIP Publishing & ACA ([sd.aip.org](http://sd.aip.org))

## Author Select®

This hybrid author-pays model offers authors the option to choose open access for their published article in any of our subscription journals, allowing them to provide free online access to their individual articles, in perpetuity, to any online user. With the Author Select option, authors are able to comply with mandates that require government-funded research to be made freely available to the public, while publishing in the journal that best meets their research needs.

**In both the Gold and Author Select® options, authors retain their copyright and publish their work under a CC-BY Creative Commons license. AIP Publishing will soon move to the latest version of the CC-BY license, version 4.0.**

## Green Open Access

AIP Publishing and the following partner publishers also support Green Open Access, whereby authors may self-archive a version of their articles in their institutional repository:

- Acoustical Society of America
- American Association of Physics Teachers
- American Association of Physicists in Medicine
- AVS: Science and Technology of Materials, Interfaces, and Processing
- Laser Institute of America
- The Society of Rheology

[Visibility](#) | [Discoverability](#) | [Dissemination](#) | [Compliance](#) | [Copyright Retention](#)



# Offerings to Save Your Library Money and Expand Your Collection

## ● Combination Packages

Institutions that purchase multiple titles can save money by subscribing to discounted combination packages from AIP Publishing and AVS.

### AIP Complete

[librarians.aip.org/complete](http://librarians.aip.org/complete)

AIP Complete offers discounted pricing on all **15 subscription-based journals** from AIP Publishing, PLUS *Physics Today* and *AIP Conference Proceedings*.

- *Applied Physics Letters*
- *Applied Physics Reviews* (online only)—**NOW INCLUDED**
- *Biomicrofluidics* (online only)
- *Chaos*
- *Chinese Journal of Chemical Physics*
- *Journal of Applied Physics*
- *The Journal of Chemical Physics*
- *Journal of Laser Applications* (online only)
- *Journal of Mathematical Physics*
- *Journal of Physical and Chemical Reference Data*
- *Journal of Renewable and Sustainable Energy* (online only)
- *Low Temperature Physics*
- *Physics of Fluids*
- *Physics of Plasmas*
- *Physics Today*
- *Review of Scientific Instruments*
- *AIP Conference Proceedings* (online only)

### AIP Select

[librarians.aip.org/select](http://librarians.aip.org/select)

AIP Select offers discounted pricing on the **most accessed subscription-based journals** from AIP Publishing, PLUS *Physics Today*.

#### For AIP Complete and AIP Select:

Open access journals also available:

*AIP Advances*, *APL Materials*,  
*APL Photonics*, and *Structural Dynamics*

Subscription options:

- Online only with extended backfiles (1930-present)
- Online and print with extended backfiles (1930-present)

## AVS Bundled Package

[avs.org/bundledpackage](http://avs.org/bundledpackage)

The AVS Bundled Package now includes:

- *Biointerphases*
- *JVST A: Vacuum, Surfaces and Films*
- *JVST B: Nanotechnology and Microelectronics*
- *Surface Science Spectra*

Available online (1999-present) and online+print, with the extended backfile option (1964-1998)

## ● Multi-Year Pricing

To provide customers with real price stability and predictability, AIP Publishing is continuing the three-year agreement program in 2016—your hedge against future price increases.

## ● Archival Content

Affordable lease and one-time purchase options are available for all Digital Archives.

### AIP Digital Archives:

[librarians.aip.org/digitalarchives](http://librarians.aip.org/digitalarchives)

AIP Digital Archives comprises 11 AIP Publishing journals dating back to Volume 1, Issue 1 (where available), PLUS the *AIP Conference Proceedings*, in an extraordinary archive of groundbreaking, seminal physics research from 1930-1998.

- *Applied Physics Letters* (1962-1998)
- *Chaos* (1991-1998)
- *Journal of Applied Physics* (1931-1998)
- *The Journal of Chemical Physics* (1933-1998)
- *Journal of Laser Applications* (1988-1998)\*
- *Journal of Mathematical Physics* (1960-1998)
- *Journal of Physical and Chemical Reference Data* (1972-1998)
- *Low Temperature Physics* (1997-1998)
- *Physics of Fluids* (1958-1998)
- *Physics of Plasmas* (1958-1998)
- *Review of Scientific Instruments* (1930-1998)
- *AIP Conference Proceedings* (1970-1998)

\*JLA is published in partnership with AIP Publishing

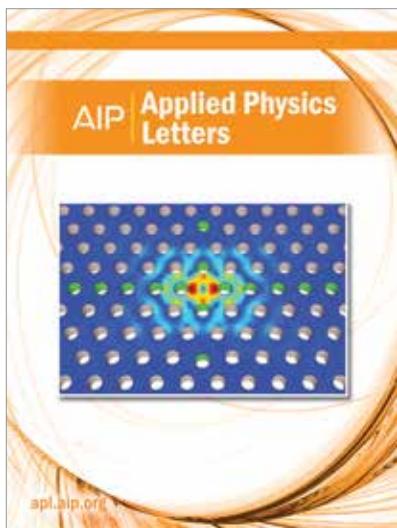
This multidisciplinary resource of more than 300,000 articles in physics, chemistry, materials science, engineering, and biology accounted for **more than 20%** of Scitation downloads in 2014.

## Physics Today Digital Archive

Unlimited access to *Physics Today* content from the first issue in 1948 through 1998

## AVS Archives

Unlimited access to all content in AVS journals from 1964 through 1998



### The most cited journal in Applied Physics\*

Emphasizing rapid dissemination of key data and new physical insights, *Applied Physics Letters* offers prompt publication of new experimental and theoretical papers related to applications of physics phenomena in all branches of science, engineering, and modern technology.

#### Editor-in-Chief:

**Reuben T. Collins**

Colorado School of Mines, Golden, CO, USA

#### Coverage:

Photonics and optoelectronics; surfaces and interfaces; structural, mechanical, optical, and thermodynamic properties of advanced materials; semiconductors; magnetics and spintronics; superconductivity and superconducting electronics; dielectrics, ferroelectrics, and multiferroics; nanoscale science and technology; organic electronics and photonics; device physics; biophysics and bio-inspired systems; energy conversion and storage; interdisciplinary and general physics

#### Impact Factor: 3.302\*

2016: Volumes 108 & 109, 52 issues

ISSN: 0003-6951

E-ISSN: 1077-3118

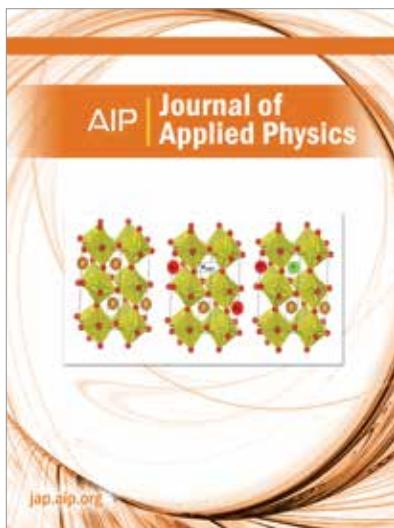
[apl.aip.org](http://apl.aip.org)



"Authors want to publish in a prestigious journal that is the best fit for their research. APL's publication standards provide the foundation for meeting these needs. In the current publishing landscape,

with competition for significant submissions high and new journals appearing almost daily, continuously refining our standards while making both authors and reviewers aware of acceptance guidelines is essential."

—Reuben T. Collins, *Editor-in-Chief*



### The world's most comprehensive collection of applied physics research

*Journal of Applied Physics* is an influential international journal publishing significant new experimental and theoretical results of applied physics research. The journal also publishes special collections focusing on research of particular current or emerging interest.

#### Editor-in-Chief:

**André Anders**

Lawrence Berkeley National Laboratory, Berkeley, CA, USA

#### Coverage:

Applied biophysics; dielectrics, ferroelectrics & multiferroics; electrical discharges, plasmas, and plasma-surface interactions; electrical and thermal transport; energy conversion and storage; magnetism, spintronics, and superconductivity; organic-inorganic systems, including organic electronics; photonics, plasmonics, lasers, and optical phenomena; physics of devices and sensors; physics of matter under extreme conditions; physics of nanoscale, mesoscale, and low-dimensional systems; physics of semiconductors; thin films, interfaces and surfaces; emerging, interdisciplinary, and other fields of applied physics

#### Impact Factor: 2.183\*

2016: Volumes 119 & 120, 48 issues

ISSN: 0021-8979

E-ISSN: 1089-7550

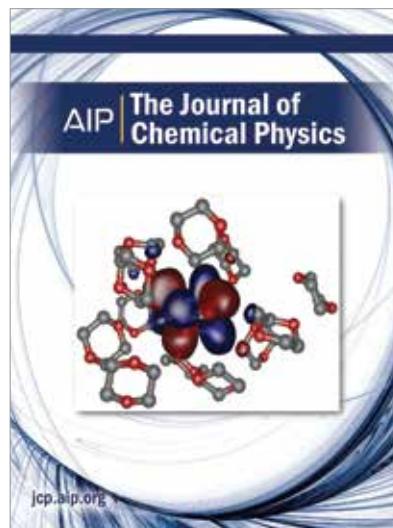
[jap.aip.org](http://jap.aip.org)



"The purpose of a peer-reviewed journal is increasingly shifting to be a selective, critical gate keeper of archival scientific information. Consequently, to maintain and enhance

this function, it is very important to clearly define *Journal of Applied Physics* and to make sure the Journal consistently delivers the high impact, noteworthy content that its community wants."

—André Anders, *Editor-in-Chief*



### The most-cited journal in Atomic, Molecular, and Chemical Physics\*

*The Journal of Chemical Physics* publishes concise and definitive reports of significant research in methods and applications of chemical physics. The Journal also publishes brief Communications of significant new findings, Perspectives on the latest advances in the field, and Special Topic issues.

#### Editor-in-Chief:

**Marsha I. Lester**

University of Pennsylvania, Philadelphia, PA, USA

#### Coverage:

Innovative research in experimental and theoretical areas of chemical physics including spectroscopy, dynamics, kinetics, statistical mechanics, quantum mechanics, polymers, soft matter, materials, surfaces/interfaces, and biological systems

#### Impact Factor: 2.952\*

2016: Volumes 144 & 145, 48 issues

ISSN: 0021-9606

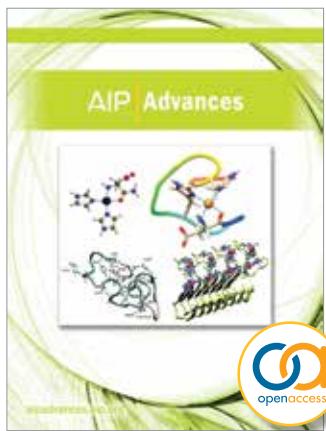
E-ISSN: 1089-7690

[jcp.aip.org](http://jcp.aip.org)



"In response to both community input and the rapidly changing landscape of scientific publishing, *The Journal of Chemical Physics* has raised its standards for acceptance. This enables the journal to focus on leading work of vital interest to the community. Together, we endeavor to make *The Journal of Chemical Physics* the community's first choice for publication of important results of broad interest and lasting impact in the field."

—Marsha I. Lester, *Editor-in-Chief*



**AIP Advances** is a fully open access, multidisciplinary journal covering all areas of the physical sciences—experimental, theoretical, and applied. *AIP Advances*' inclusive scope and publication standards make it an essential outlet for scientists across the physical sciences. All articles are published under the Creative Commons License (CC-BY) and are immediately freely available to read, download, and share.

**Executive Editors:**

**Vincent H. Crespi**  
The Pennsylvania State University,  
University Park, PA, USA

**Bernard S. Gerstman**  
Florida International University,  
Miami, FL, USA

**A.T. Charlie Johnson, Jr.**  
University of Pennsylvania,  
Philadelphia, PA, USA

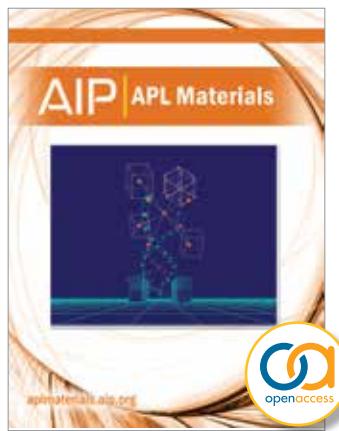
**Ben Slater**  
University College London,  
London, UK

**Masaaki Tanaka**  
The University of Tokyo,  
Tokyo, Japan

**Enge G. Wang**  
Peking University, Beijing,  
P.R. China

**Coverage:**  
All areas of physical sciences  
in applied, theoretical, and  
experimental research

**Impact Factor: 1.524\***  
2016: Volume 6, 12 issues  
(online only)  
E-ISSN: 2158-3226  
[aipadvances.aip.org](http://aipadvances.aip.org)

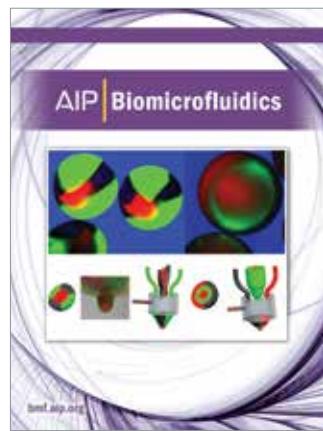


**APL Materials** is an open access journal featuring concise, rapid reports on significant topical issues in functional materials science. Launched in 2013, the journal has already become a major international materials science forum for researchers working in areas of physics, chemistry, and biology.

**Editor-in-Chief:**  
**Judith L. MacManus-Driscoll**  
University of Cambridge,  
Cambridge, UK

**Coverage:**  
All areas of materials science including: nanomaterials and nanostructures; electronic, magnetic and optical materials; organic materials; polymers; biomaterials; energy and environment materials; carbon and amorphous materials; general functional materials

**Partial Impact Factor: 2.789\***  
2016: Volume 4, 12 issues  
(online only)  
ISSN: 2166-532X  
E-ISSN: 2166-532X  
[aplmaterials.aip.org](http://aplmaterials.aip.org)



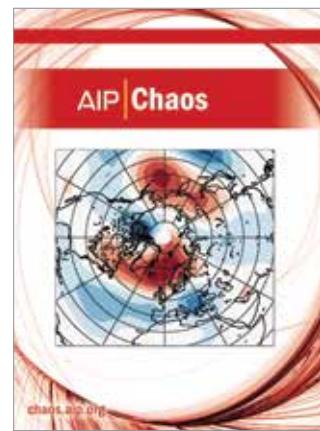
**Biomicrofluidics** publishes research highlighting fundamental physiochemical mechanisms associated with microfluidic and nanofluidic phenomena as well as novel microfluidic and nanofluidic techniques for diagnostic, medical, biological, pharmaceutical, environmental, and chemical applications.

**Editors-in-Chief:**  
**Hsueh-Chia Chang**  
University of Notre Dame,  
Notre Dame, IN, USA

**Leslie Y. Yeo**  
RMIT University,  
Melbourne, Australia

**Coverage:**  
Microfluidic and nanofluidic actuation; biophysical transport and characterization; biomaterials synthesis and tissue engineering; biosensors; cell culture, manipulation, and analysis; drug delivery and discovery platforms; fuel and solar cells; genomic and proteomic analysis; microfluidic and nanofluidic actuation; molecular and bioparticle sorting, manipulation, and concentration; pathogen detection and point-of-care diagnostics; wetting, nanorheology, droplet platforms

**Impact Factor: 3.357\***  
2016: Volume 10, 6 issues  
(online only)  
ISSN: 1932-1058  
E-ISSN: 1932-1058  
[bmf.aip.org](http://bmf.aip.org)



**Chaos: An Interdisciplinary Journal of Nonlinear Science** is devoted to increasing the understanding of nonlinear phenomena and describing the manifestations in a manner comprehensible to researchers from a broad spectrum of disciplines.

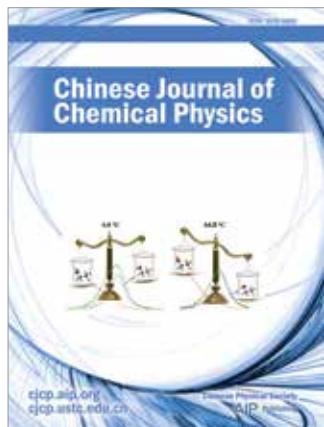
**Editor-in-Chief:**  
**Jürgen Kurths** (starting 2016)  
Potsdam Institute for  
Climate Impact Research,  
Potsdam, Germany

Humboldt University,  
Berlin, Germany

**David K. Campbell** (retiring 2015)  
Boston University,  
Boston, MA, USA

**Coverage:**  
Nonlinear phenomena;  
network structure and dynamics;  
experimental nonlinear  
dynamics; neural networks;  
cardiac dynamics; solitons;  
synchronization; pattern  
formation; turbulence

**Impact Factor: 1.954\***  
2016: Volume 26, 4 print issues  
(12 monthly online issues)  
ISSN: 1054-1500  
E-ISSN: 1089-7682  
[chaos.aip.org](http://chaos.aip.org)



Co-published with the  
Chinese Physical Society

**Chinese Journal of Chemical Physics** is devoted to reporting new and original experimental and theoretical research in interdisciplinary areas at the interface of chemistry and physics. It aims to provide comprehensive understanding of physical and chemical properties of different systems at atomic and molecular levels.

**Editor-in-Chief:**

**Xue-ming Yang**

Dalian Institute of Chemical Physics, Dalian, China

**Coverage:**

Chemical physics as it applies to chemistry, physics, material and biological sciences, and their interdisciplinary areas

**Impact Factor: 0.498\***

2016: Volume 29,  
6 issues

ISSN: 1674-0068

E-ISSN: 2327-2244

[cjcp.aip.org](http://cjcp.aip.org)

[cjcp.ustc.edu.cn](http://cjcp.ustc.edu.cn)



Co-published with the  
Laser Institute of America

**Journal of Laser Applications** covers a broad range of research from fundamental and applied research & development to industrial applications. The journal presents the latest breakthroughs in laser applications related to photonic production, sensing and measurement, as well as laser safety.

**Editor-in-Chief:**

**Reinhart Poprawe**

Fraunhofer Institute for Laser Technology and RWTH, Aachen University, Aachen, Germany

**Coverage:**

High precision materials processing with ultrafast lasers; laser additive manufacturing; laser systems and markets; spectroscopy / diagnostics / measurements; high power materials processing with high brightness lasers; emerging applications of new wavelengths and temporal pulse shaping; surface modification

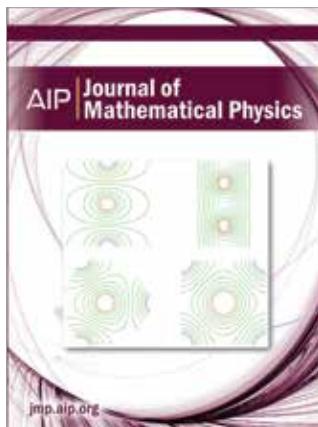
**Impact Factor: 1.798\***

2016: Volume 28  
4 issues (online only)

ISSN: 1042-346X

E-ISSN: 1938-1387

[jla.aip.org](http://jla.aip.org)



**Journal of Mathematical Physics** features content in all areas of mathematical physics. Articles focus on areas of research that illustrate the application of mathematics to problems in physics, the development of mathematical methods suitable for such applications, and the formulation of physical theories.

**Editor-in-Chief:**

**Bruno L. Z. Nachtergael**

University of California, Davis, CA, USA

**Coverage:**

Partial differential equations; many-body and condensed matter physics; quantum information and computation; general relativity and gravitation; classical mechanics and classical fields; statistical physics; representation theory and algebraic methods; quantum mechanics; relativistic quantum mechanics; quantum field theory; quantum gravity and string theory; dynamical systems; fluids; and methods of mathematical physics

**Impact Factor: 1.243\***

2016: Volume 57,  
12 issues

ISSN: 0022-2488

E-ISSN: 1089-7658

[jmp.aip.org](http://jmp.aip.org)



Published for the National Institute of Standards and Technology (NIST)

**Journal of Physical and Chemical Reference Data**

provides critically evaluated physical and chemical property data, fully documented as to the original sources and the criteria used for evaluation, preferably with uncertainty analysis.

**Co-Editors-in-Chief:**

**Donald R. Burgess, Jr.**

National Institute of Standards and Technology, Gaithersburg, MD, USA

**Allan H. Harvey**

National Institute of Standards and Technology, Boulder, CO, USA

**Coverage:**

Reference data; critical reviews of measurement techniques; critically evaluated physical data; critically evaluated chemical data

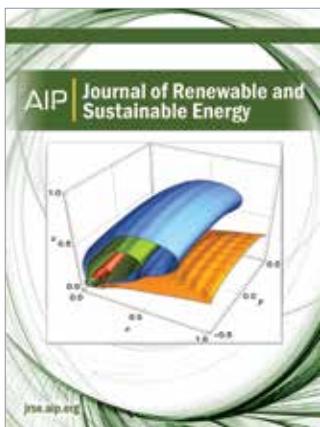
**Impact Factor: 2.811\***

2016: Volume 45, 4 issues

ISSN: 0047-2689

E-ISSN: 1529-7845

[jpcrd.aip.org](http://jpcrd.aip.org)



**Journal of Renewable and Sustainable Energy** is an online-only journal dedicated to publishing significant advances covering all aspects of renewable and sustainable energy relevant to the physical science and engineering communities. As a web-based journal with rapid publication time, *Journal of Renewable and Sustainable Energy* is responsive to the many new developments expected in these fields. The interdisciplinary approach of the publication ensures that the editors draw from authors from around the world across a diverse range of active and expanding fields.

**Co-Editors-in Chief:**

**P. Craig Taylor**  
Colorado School of Mines,  
Golden, Colorado, USA

**John A. Turner**

National Renewable  
Energy Laboratory,  
Golden, Colorado, USA

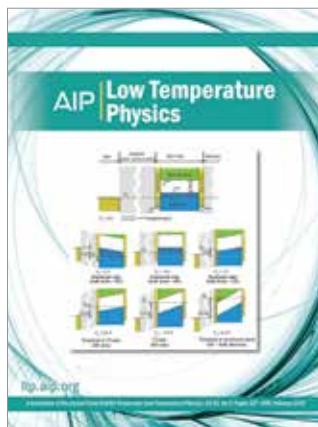
**Coverage:**

Renewable energy economics and policy; resource assessment; solar energy; wind energy; bioenergy; distributed energy generation; power distribution & systems modeling; energy efficient buildings; energy conversion; energy storage; fuel cells; marine and hydroelectric energy; transportation; geothermal energy

**Impact Factor: 0.904\***

2016: Volume 8,  
6 issues (online only)  
E-ISSN: 1941-7012

[jrse.aip.org](http://jrse.aip.org)



**Low Temperature Physics** communicates the results of important experimental and theoretical studies at low temperatures.

**Editor:**

**Victor V. Eremenko**  
Institute for Low Temperature  
Physics and Engineering,  
Kharkov, Ukraine

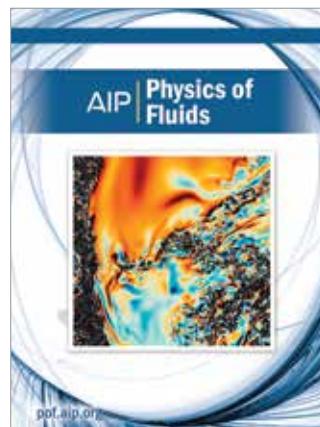
**Coverage:**

Superconductivity; quantum liquids and crystals; electronic properties of metals; disordered systems; magnetism; lattice dynamics; cryocrystals; critical phenomena

**Impact Factor: 0.786\***

2016: Volume 42,  
12 issues  
ISSN: 1063-777X  
E-ISSN: 1090-6517

[ltp.aip.org](http://ltp.aip.org)



**Physics of Fluids** is devoted to the publication of original theoretical, computational, and experimental contributions to the dynamics of gases, liquids, and complex or multiphase fluids.

**Editors-in-Chief:**

**John Kim**  
University of California,  
Los Angeles, CA, USA

**L. Gary Leal**

University of California,  
Santa Barbara, CA, USA

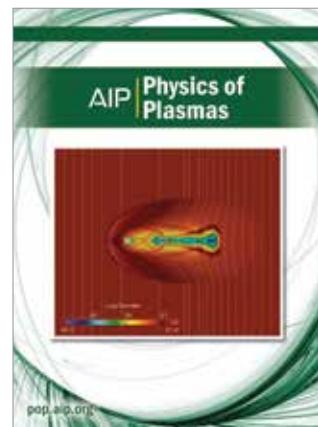
**Coverage:**

Turbulent and laminar flows; interfacial flows; instability and transition; biofluid mechanics; particulate, multiphase, and granular flows; micro- and nanofluid mechanics; geophysical and compressible flows; viscous and non-Newtonian flows

**Impact Factor: 2.031\***

2016: Volume 28,  
12 issues  
ISSN: 1070-6631  
E-ISSN: 1089-7666

[pof.aip.org](http://pof.aip.org)



**Physics of Plasmas** is devoted to the publication of original experimental and theoretical work in plasma physics, from basic plasma phenomena to astrophysical and dusty plasmas.

**Editor-in-Chief:**

**Ronald C. Davidson** (retiring 2015)  
Princeton Plasma Physics  
Laboratory, Princeton, NJ, USA

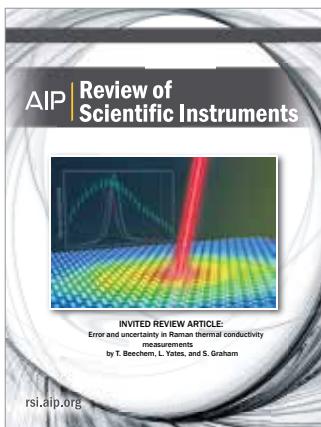
**Coverage:**

Basic plasma phenomena; plasma waves and instabilities; confined plasmas; nonlinear phenomena, turbulence, and transport; ionospheric and astrophysical plasmas; dusty plasmas; low-temperature plasmas; high energy density plasmas

**Impact Factor: 2.142\***

2016: Volume 23, 12 issues  
ISSN: 1070-664X  
E-ISSN: 1089-7674

[pop.aip.org](http://pop.aip.org)



**Review of Scientific Instruments** publishes novel advancements in scientific instrumentation, apparatuses, techniques of experimental measurement, and related mathematical analysis. Its content includes publication of regular and in-depth review articles on instruments covering all areas of science including physics, chemistry, and biology. RSI regularly publishes several conference proceedings including the High-Temperature Plasma Diagnostics topical conference and the International Conference on Ion Sources.

#### Editor-in-Chief:

**Richard C. Pardo**

Argonne National Laboratory,  
Argonne, IL, USA

#### Coverage:

Optics, atoms and molecules, spectroscopy, photon detectors; particle sources, optics and acceleration, particle detectors; nuclear physics, fusion, and plasmas; microscopy and imaging; condensed matter and materials; chemistry; biology and medicine; gravity, geophysics, astronomy, and astrophysics; electronics, electromagnetic technology, microwaves; thermometry, thermal diffusivity, acoustics; sensors and actuators/MEMS/NEMS; general instruments

#### Impact Factor: 1.614\*

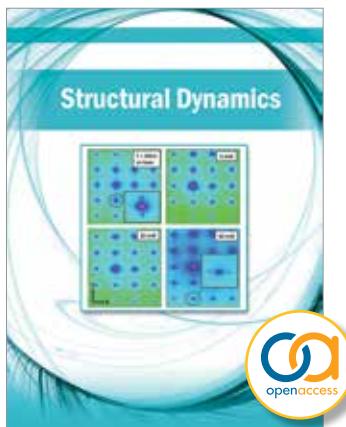
2016: Volume 87,

12 issues

ISSN: 0034-6748

E-ISSN: 1089-7623

[rsi.aip.org](http://rsi.aip.org)



#### Now Indexed by Thomson Reuters

Co-published with the American Crystallographic Association

**Structural Dynamics** is a peer-reviewed, open access journal highlighting research articles on structural determination and dynamics of chemical and biological systems and solid materials, enabled by the emerging new instruments (e.g. XFELs, high harmonic generation, electron sources, etc.) and new experimental and theoretical methodologies.

#### Editor-in-Chief:

**Majed Chergui**

Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland

#### Coverage:

Experimental methodologies; surfaces and interfaces; liquids and solutions; theory and modelling; materials; biological systems

2016: Volume 3,

6 issues (online only)

E-ISSN: 2329-7778

[sd.aip.org](http://sd.aip.org)

#### AIP Publishing Customer Service:

+1 800-344-6902

+1 516-576-2270

[help@scitation.org](mailto:help@scitation.org)

[sales@aip.org](mailto:sales@aip.org)



**The Journal of the Acoustical Society of America** is the leading source of theoretical and experimental research results in the broad interdisciplinary subject of sound. The journal serves physical scientists, life scientists, engineers, psychologists, physiologists, architects, musicians, and speech communication specialists. *JASA Express Letters*, a component of *JASA*, is devoted to providing rapid and open dissemination of important new research results and technical discussion in all fields of acoustics.

**Editor-in-Chief:**

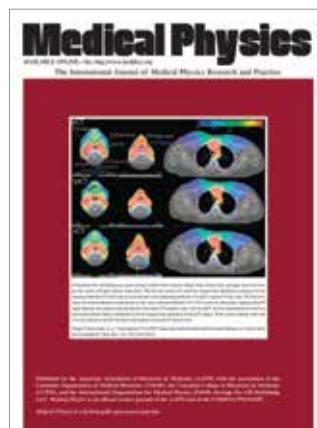
**James F. Lynch**  
Woods Hole Oceanographic Institution, Woods Hole, MA, USA

**Coverage:**

Linear and nonlinear acoustics; aeroacoustics; underwater sound and acoustical oceanography; ultrasonics and quantum acoustics; architectural and structural acoustics and vibration; speech, music and noise; psychology and physiology of hearing; engineering acoustics, sound transducers and measurements; bioacoustics, animal bioacoustics and biorhythm to vibration

**Impact Factor: 1.503\***

2016: Volumes 139 & 140,  
12 issues  
ISSN: 0001-4966  
[asadl.org](http://asadl.org)



**Medical Physics: The International Journal of Medical Physics Research and Practice** is the primary scientific journal of the American Association of Physicists in Medicine as well as an official science journal of the Canadian Organization of Medical Physics, the Canadian College of Physicists in Medicine, and the International Organization for Medical Physics (IOMP). The journal publishes theoretical and experimental research concerned with the application of physics and mathematics to the solution of problems in medicine and human biology.

**Editor-in-Chief:**

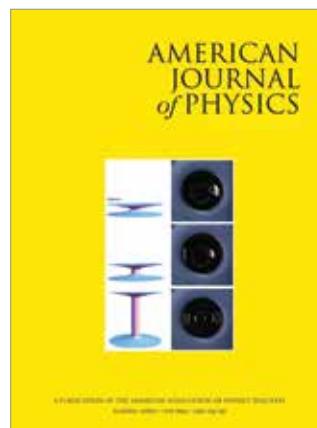
**Jeffrey F. Williamson**  
Virginia Commonwealth University, Richmond, VA, USA

**Coverage:**

Diagnostic radiology; therapeutic radiology; nuclear medicine; imaging technology; ultrasound; radiobiology and immunology; radiation protection; computer applications in medicine and biology; patient safety

**Impact Factor: 2.635\***

2016: Volume 43,  
12 issues  
ISSN: 0094-2405  
[online.medphys.org](http://online.medphys.org)



**American Journal of Physics** is the archival journal of the American Association of Physics Teachers. The journal is devoted to the instructional and cultural aspects of physical science. Geared toward teaching at the college level, content covers novel approaches to laboratory and classroom instruction, insightful articles on topics in classical and modern physics apparatus, notes, historical and cultural topics, and book reviews.

**Editor:**

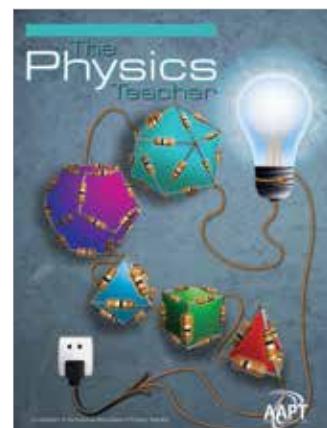
**David P. Jackson**  
Dickinson College,  
Carlisle, PA, USA

**Coverage:**

Physics topics taught at the undergraduate and graduate level; current research in physics and related areas; suggestions for instructional laboratory equipment; demonstrations and teaching methodologies; information on historical, philosophical, and cultural aspects of physics; annotated lists of resources; book reviews

**Impact Factor: 0.956\***

2016: Volume 84,  
12 issues per year  
ISSN: 0002-9505  
E-ISSN: 1943-2909  
[ajp.aapt.org](http://ajp.aapt.org)



**Now Indexed by Thomson Reuters**

**The Physics Teacher** is dedicated to the strengthening of the teaching of introductory physics at all levels. The journal includes tutorial papers, articles on pedagogy, current research, and news in physics, as well as history, philosophy, and biography. Notes cover classroom techniques and columns feature demonstration apparatus, and book and film reviews.

**Editor:**

**Gary D. White**  
AAPT and The George Washington University,  
Washington, DC, USA

**Coverage:**

Tutorial papers; articles on pedagogy; current research or news in physics; articles on history and philosophy of science; biographies; demonstrations; apparatus; book reviews

**2016: Volume 54,**

**9 issues**

**ISSN: 0031-921X**

**[tpt.aapt.org](http://tpt.aapt.org)**





**Biointerphases: A Journal of Biomaterials and Biological Interfaces** is an interdisciplinary, peer-reviewed journal featuring all aspects of quantitative soft matter interfaces: chemistry, physics, engineering, theory, and modeling.

**Editor:**

**Anna Belu**  
Medtronic,  
Minneapolis, MN, USA

**Coverage:**

Interface spectroscopy; *in vivo* and *in vitro* mechanisms; interface modeling; adhesion phenomena; protein-surface interactions; biomembranes on a chip; cell-surface interactions; biosensors / biodiagnostics; bio-surface modification; the nano-bio interface; biotribology / biorheology; molecular recognition; cell patterning for function; polyelectrolyte surfaces; ambient diagnostic methods

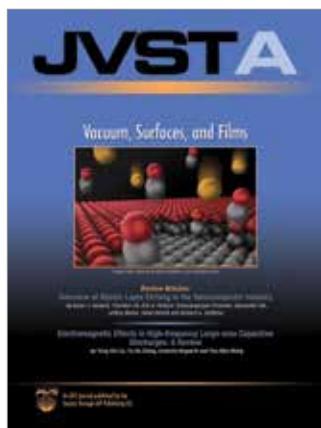
**Impact Factor: 3.374\***

2016: Volume 11, 4 issues

ISSN: 1934-8630

E-ISSN: 1559-4106

[avspublications.org/bip](http://avspublications.org/bip)



**JVSTA: Vacuum, Surfaces, and Films** is a primary information resource for engineers, physicists, chemists, materials scientists, and microelectronics specialists. The aim of JVSTA is to increase the understanding of interfaces and surfaces at a fundamental level and to advance state-of-the-art technological applications of surface science, thin film materials science, and vacuum science and technology.

**Editor:**

**Eray S. Aydil**  
University of Minnesota,  
Minneapolis, MN, USA

**Coverage:**

Vacuum science and technology including interfaces, surfaces, plasmas, thin films

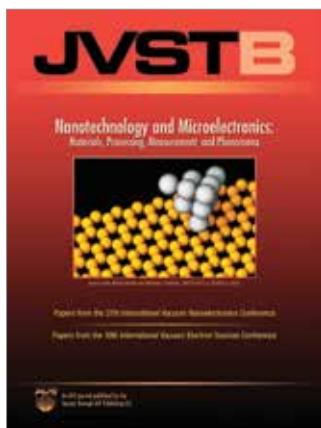
**Impact Factor: 2.322\***

2016: Volume 34, 6 issues

ISSN: 0734-2101

E-ISSN: 1520-8559

[avspublications.org/jvsta](http://avspublications.org/jvsta)



**JVST B: Nanotechnology and Microelectronics** is a primary information resource for engineers, physicists, chemists, materials scientists, and microelectronics specialists in all areas related to micro- and nanoelectronics, nanoscience and nanotechnology, and plasmas technology, with a focus on processing, measurement, and phenomena associated with micrometer and nanometer structures and devices.

**Editor:**

**Eray S. Aydil**  
University of Minnesota,  
Minneapolis, MN, USA

**Coverage:**

Vacuum science and technology including microelectronics and nanometer structures focusing on processing, measurement, phenomena

**Impact Factor: 1.464\***

2016: Volume 34, 6 issues

ISSN: 2166-2746

E-ISSN: 2166-2754

[avspublications.org/jvstb](http://avspublications.org/jvstb)



**Surface Science Spectra: An International Journal & Database Devoted to Archiving Spectra from Surfaces and Interfaces**, an AVS archival journal and electronic database, publishes XPS, AES, and SIMS spectra of a wide range of materials in both regular and focused-topic issues for use by individual investigators and as a reference for analytical laboratories.

**Editors:**

**James E. Castle**  
University of Surrey, Guildford, UK

**Richard T. Haasch**

University of Illinois at Urbana-Champaign, Urbana, IL, USA

**Coverage:**

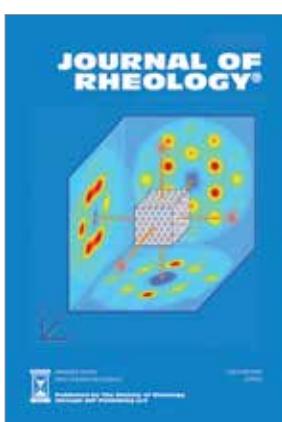
Reference, comparison, and technical spectra representing a range of spectra including XPS, AES, and SIMS on close to 800 different materials with downloadable data

2016: Volume 23, 1 issue

ISSN: 1055-5269

E-ISSN: 1520-8575

[avspublications.org/sss](http://avspublications.org/sss)



The **Journal of Rheology** is a vital resource for researchers working in fields as diverse as polymer physics and fluid mechanics. It presents experimental results, phenomenological models, and microscopic theories dealing with the rheological behavior of complex materials, including macromolecular, colloidal and particulate solids, and fluids. Application areas include foods, paints, plastics, lubricants, ceramics, coatings, glaciers, and biological fluids.

**Editor:**

**Ralph H. Colby**

The Pennsylvania State University, University Park, PA, USA

**Coverage:**

Colloidal gel yield stress; magnetorheological fluids; associating polymers; entangled polymers; polymer nanocomposites; reactive compatibilization; pastes, foams, and surfactants; interfacial rheometry; microrheology; computer simulations

**Impact Factor: 3.358\***

2016: Volume 60, 6 issues

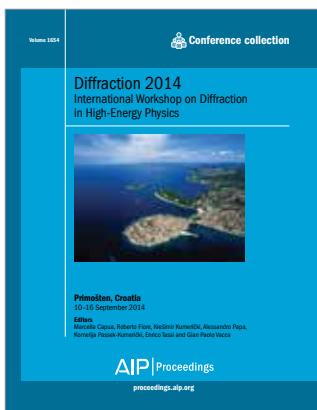
ISSN: 0148-6055

E-ISSN: 1520-8516

[journalofrheology.org](http://journalofrheology.org)



## AIP Conference Proceedings



**AIP Conference Proceedings** includes more than 100,000 papers published in 1,600 volumes. Each year, approximately 75 new volumes (some 8,000 papers) are added to this popular collection. With a scope as broad as physics itself, *AIP Conference Proceedings* provides researchers and students with access to a substantial and diverse collection of papers that record the work presented at selected international scientific meetings.

### Coverage:

All areas of physical sciences in applied, theoretical, and experimental research

Online only

ISSN: 0094-243X

E-ISSN: 1551-7616

[proceedings.aip.org](http://proceedings.aip.org)

## Magazines



### Co-published with IEEE Computer Society

The bimonthly magazine **Computing in Science & Engineering** features the latest computational science and engineering research in an accessible format along with departments covering programming tips and tools, education, and emerging technologies.

### Editor:

**George K. Thiruvathukal**

Loyola University Chicago, Chicago, IL, USA

### Coverage:

Algorithms, system software, and computer architecture to address diverse computational problems in the physical sciences, engineering, and life sciences

### Impact Factor: 0.990\*

2016: Volume 18, 6 issues

ISSN: 1521-9615

[cise.aip.org](http://cise.aip.org)



**Physics Today**, the most respected and widely read physics magazine in the world, cross pollinates all the physical sciences with its coverage of cutting-edge scientific advances and the human, social, and political sides of science.

### Published by the American Institute of Physics

College Park, MD, USA

### Coverage:

Entire range of physics and physics-related sciences

### Impact Factor: 4.859\*

2016: Volume 69, 12 issues

ISSN: 0031-9228

[physicstoday.org](http://physicstoday.org)

\*2014 Journal Citation Reports ©2015 Thomson Reuters



# Supports AIP Programs

Let your user community know about these valuable AIP programs and services

## Education



### Society of Physics Students

Transforming 5,000 physics undergraduates into contributing members of the professional science community.

[spsnational.org](http://spsnational.org)

### Internships and Summer Research Positions

[jobs.spsnational.org/jobs](http://jobs.spsnational.org/jobs)

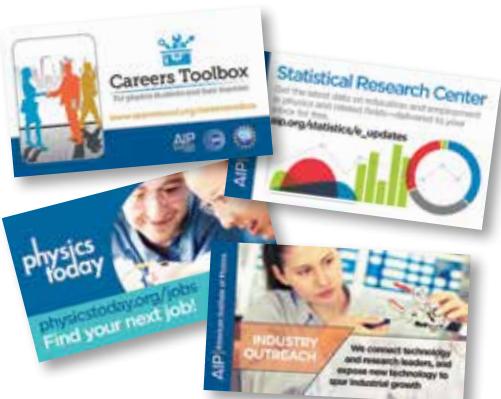
### GradSchoolShopper.com

A free service for undergrads offering up-to-date and detailed information about physical science graduate departments: research, stipends, faculty, and more.

### InsideScience.org

Science outreach—like a YouTube channel with 300 science videos.

## Career Resources



### Careers Toolbox

A comprehensive workbook for physics students entering the workforce.  
[www.spsnational.org/careerstoolbox](http://www.spsnational.org/careerstoolbox)

### [aip.org/statistics](http://aip.org/statistics)

Education and employment statistics and trends.

### [physicstoday.org/jobs](http://physicstoday.org/jobs)

More than 200 jobs and 7,000 resumes—30% of job seekers are outside of North America.

### Industrial Outreach

[aip.org/outreach](http://aip.org/outreach)

## History and Heritage



The **Neils Bohr Library's International Catalog of Sources** is the key database for the history of the physical sciences, with access to 10,000 collections at over 900 repositories worldwide.

[aip.org/history-programs/neils-bohr-library](http://aip.org/history-programs/neils-bohr-library)

The **Emilio Segrè Visual Archives** is the “human face of science” with more than 30,000 photos of scientists past and present.

[photos.aip.org](http://photos.aip.org)

More than 1,000 **oral history** transcripts and audio excerpts offer unique insights into the lives, works, and personalities of modern scientists.

[aip.org/history-programs/neils-bohr-library/oral-histories](http://aip.org/history-programs/neils-bohr-library/oral-histories)

# 2016 AIP Publishing Product Guide

The Publisher of Choice for the Physical Sciences

**AIP Publishing**  
1305 Walt Whitman Road  
Suite 300  
Melville, NY 11747-4300, USA

+1 800-344-6902  
+1 516-576-2270

[sales@aip.org](mailto:sales@aip.org)  
[help@scitation.org](mailto:help@scitation.org)

