

Product Guide 2020 DISCOVER WHAT'S POSSIBLE

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Welcome to the 2020 AIP Publishing Product Guide



The continued success and vitality of any organization relies on its ability to understand the needs of its customers and to serve these needs exceptionally – day in and day out. At AIP Publishing, it is no different.

We've been listening to our customers – authors and researchers, editors and referees, librarians and faculty – and are adapting our products and business models in ways to better serve our community.

We launched **Applied Physics Reviews** five years ago in response to feedback from our academic editors. With strong community support, APR rapidly established itself as a flagship journal publishing topical review articles; the journal's high impact factor of 12.75 cemented its reputation in the field. Today, researchers around the world have impressed on us a clear need to publish their original research in high impact titles. In January 2019 we took the step to open APR for the publication of high-quality original research articles. The response to this move has been impressive. We have seen a strong flow of original research submissions to the journal, and the first research articles were published in July 2019.

Through many surveys and focus groups with faculty, librarians and students, we uncovered a partially met information need. Not only do researchers want to have access to the very latest and very best content in their field, they also have a need to get up-to-speed in related areas not directly associated with their specific subject matter expertise. Content that helps researchers' build bridges and transfer knowledge is increasingly important in the cross-disciplinary world of science. To meet this need, AIP Publishing is delighted to announce the launch of AIP Publishing Books, a digital-first collection that will provide comprehensive overviews of current topics, research methods and experimental protocols. **The first titles will be published in 2020**.

In addition to new products, we are also embracing new business models. In response to feedback from our institutional customers, particularly those in Europe, we established a Read and Publish pilot project in 2019. In 2020 we plan to roll out transformative agreements to customers that enable access to content while making published articles from that institution available open access. Serving our customers in this dual fashion supports a sustainable and managed transition to a more open access world.

Thank you for your continued support of AIP Publishing and our mission. We can only do these things because of your continued involvement and commitment.

John Haynes, Ph.D. CEO, AIP Publishing

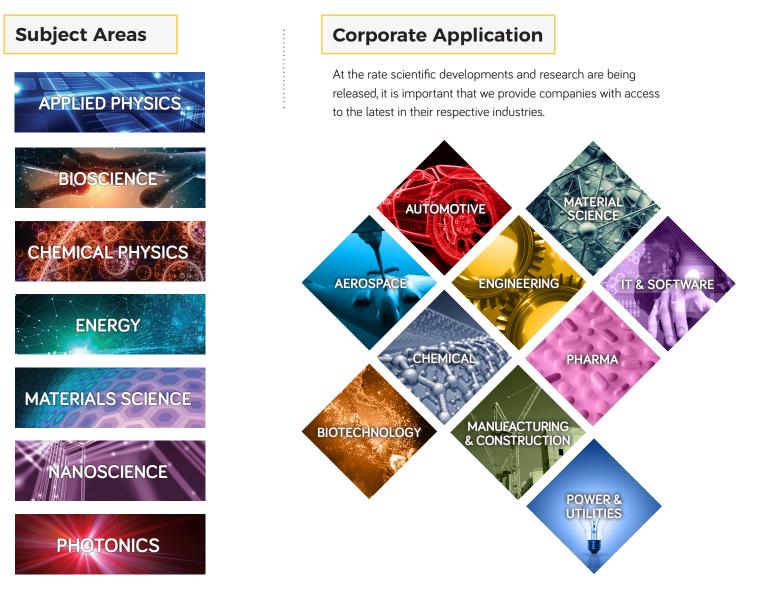
Covering the Physical Science Spectrum

The AIP Publishing portfolio includes 33 publications across a broad spectrum of research areas. With research, reviews, and news covering a wide range of subject areas that impact a diverse set of industries, AIP Publishing offers more than just physics.

Our flagship journals, *Applied Physics Letters, Journal of Applied Physics*, and *The Journal of Chemical Physics* set the standard for quality across all our publications. The research published in these titles paves the way for new fields of study, gives rise to new techniques, and provides inspiration to contemporary researchers. Other prestigious titles within the portfolio cover plasmas, fluids, mathematical physics, instrumentation, and education.

The AIP Publishing portfolio offers scientists, engineers and students a foundation of interdisciplinary and emerging research, both basic and applied, that shape the future of research and development.

The AIP Publishing portfolio covers **many subject areas** across **several industries**, providing readers with access to research across the physical science spectrum.



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**excludes AIP & LIA Conference Proceedings

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Offering the research community access to highly-cited, peer-reviewed publications including all subscription publications from AIP Publishing, Physics Today, AIP Conference Proceedings and our publishing partner journals. Spanning the physical sciences, this collection offers access to:

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Recently digitized, the LIA Conference Proceedings has been added to AIP Complete and made available alongside Journal of Laser Applications. lia.scitation.org/journal/jla

In addition, the package now includes AVS Quantum Science that is a new interdisciplinary journal focused on all areas of quantum science. avs.scitation.org/journal/aqs

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- AVS Quantum Science (newly available in 2020)
- Biointerphases
- JVSTA: Vacuum, Surfaces, and Films
- JVSTB: Nanotechnology and Microelectronics
- Surface Science Spectra

Fluids & Plasma Research Package

Online access to three highly regarded publications for fluids and plasmas researchers dating back to 1929. Access to content is available as Frontfile only (1999-present) or Backfile + Frontfile (1929-present). Includes access to:

- Physics of Fluids
- Physics of Plasmas
- Journal of Rheology
- * as available



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In 2019, the AIP Digital Archives was expanded to include archival access to 20 publications from AIP Publishing and its publishing partners (from Volume 1, Issue 1 through 1998) dating back to 1929.

Covering nearly 70 years of scientific advancements and discoveries, the **AIP Digital Archives** is an indispensable resource that offers perpetual access to 403K+ articles on groundbreaking research in the physical sciences. This collection continues to drive research and discovery, and is packed with material relevant to physicists, chemists, materials scientists, engineers, and biologists.

Research from Nobel Prize winners and other notable scientists



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- AIP Conference Proceedings
- American Journal of Physics
- Applied Physics Letters
- Chaos
- Journal of Applied Physics
- Journal of Laser Applications (includes LIA Conference Proceedings)
- Journal of Mathematical Physics

- Journal of Physical and Chemical Reference Data
- Journal of Rheology
- Journal of the Acoustical Society of America
- Journal of Vacuum Science & Technology A
- Journal of Vacuum Science & Technology B

- Low Temperature Physics
- Physics of Fluids
- Physics of Plasmas
- Physics Today
- Review of Scientific Instruments
- Surface Science Spectra
- The Journal of Chemical Physics
- The Physics Teacher

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LEARN MORE ABOUT THE DIGITAL ARCHIVES TODAY librarians.aip.org/digitalarchives

NEW Physical Science Book Collection



AIP Publishing's digital book program provides essential information to help students, researchers, and professionals maintain proficiency in their areas of expertise or to learn key concepts as they move into new areas of work. The portfolio includes three types of books:



Principles present a comprehensive overview of a topic, providing introductory material for new entrants and covering recent developments for experts.



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Areas of Focus

- Materials Science
- Biophysics & Engineering
- Optics & Photonics
- Applied Physics & Engineering
- Condensed Matter
- Mathematical & Theoretical Physics
- Chemical Physics
- Nanotechnology

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Library Resource Center

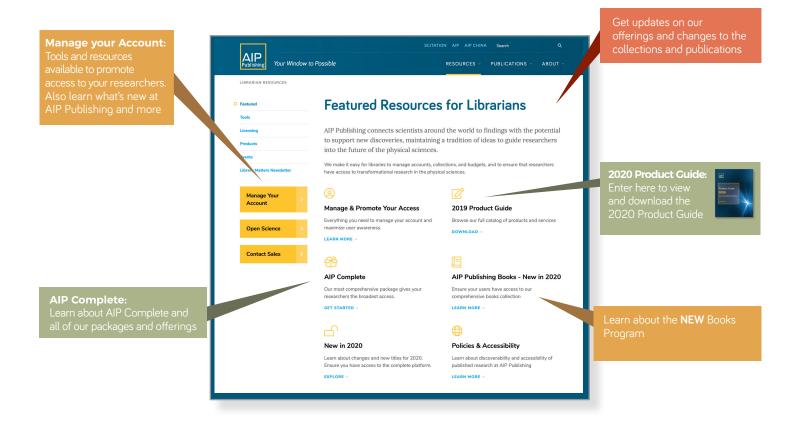
Managing Institutional Access

AIP Publishing's Library Resource Center offers an intuitive layout that allows easier access to all the tools and resources needed to manage your account.

From publishing.aip.org/librarians, Administrators can:

- View current pricing and licensing policies
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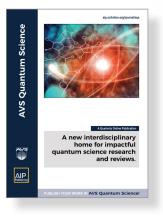
A complete Administrator User Guide can be downloaded from the Library Resource Center. librarians.aip.org/tools

Applied Physics Reviews - Now Publishing Original Research

APR has started to accept submissions on important and novel studies of high quality and general interest to the applied physics community. The first research articles were published in July 2019 and readers will now be able to obtain access to additional high quality, cutting-edge research, enhancing the value of your subscription.

Learn more about APR by visiting: aip.scitation.org/journal/are.





AVS Quantum Science– Available for Subscription in 2020

Building upon our partnership with The American Vacuum Society (AVS), we have come together to launch AVS Quantum Science. This new online-only interdisciplinary review journal covers a wide breadth of subject areas such as computing, photonics, chemistry, biology, and condensed matter physics. AVS Quantum Science connects these disciplines through the foundations of quantum mechanics, emphasizing everything from measurement and materials design through applications development.

AVS Quantum Science is launching in Fall 2019 and will be available for subscription in 2020. Find out more about this new journal by visiting **avs.scitation.org/journal/aqs.**

Journal of Laser Applications Now Includes LIA Conference Proceedings

AIP Publishing and Laser Institute of America have digitized the *LIA Conference Proceedings* from 1982 through to today and are now making them available to institutional subscribers. The collection of *LIA Conference Proceedings* includes over 5,900 articles, with around 100 new articles added every year, from ICALEO[®], PICALO, and ILSC[®].

As of 2020, *LIA Conference Proceedings* will be included in AIP Complete and will be added to the *Journal* of *Laser Applications* subscription. To learn more about institutional access to *LIA Conference Proceedings*, speak with your Sales Manager today! **lia.scitation.org/journal/jla.**



The Niels Bohr Library & Archives - The past will forever lead the future

The renowned collections of the Niels Bohr Library & Archives include 2,300 linear feet of archival holdings, 30,000 photographs, 1,500 oral histories, and an additional 30,000 book titles, including the Wenner Collection of rare books and publications.

The Wenner Collection contains the most important discoveries in the physical sciences in classical mechanics, electricity and magnetism, thermodynamics, condensed matter physics, astrophysics, cosmology, and particle physics. The collection includes works by Galileo Galilei, Isaac Newton, Max Planck, Marie Curie, and Maria Goeppert-Mayer, and is now available for public viewing.

To learn more about the Wenner Collection, visit aip.org/physics-heritage-and-promise.



Industry Initiatives and Partnerships

AIP Publishing participates in numerous industry initiatives and partnerships that support and safeguard the flow of scholarly content to the science community.













Connecting Research

and Researchers

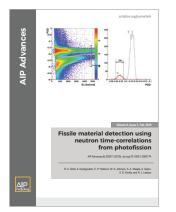
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C O P E







AIP Advances is an open access, multidisciplinary journal covering all areas of the physical sciences experimental, theoretical, and applied. The inclusive scope and publication standards of *AIP Advances* make it an essential outlet for scientists across the physical sciences.

Coverage:

All areas of applied, theoretical, and experimental physical science research

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Journal Impact Factor: 1.579* 2020: Volume 10, 12 issues (online only) E-ISSN: 2158-3226 aip.scitation.org/journal/adv





AIP Conference Proceedings

contain over 100,000 articles published in more than 2,000 proceedings since its inception in 1970. Each year approximately 100 new volumes (some 10,000 papers) are added to this substantial body of scientific literature. Published conference proceedings are valuable as topical status reports providing quick access to information before it appears in the traditional journal literature. From the early career researcher to the Nobel Prize winning scientist, AIP Conference Proceedings is an essential platform to facilitate communication and advances within the scientific research community.

Coverage:

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

ISSN: 0094-243X E-ISSN: 1551-7616 aip.scitation.org/journal/apc



APL Bioengineering is an open access journal publishing articles specific to the understanding and advancement of physics and engineering of biological systems. The journal serves the bioengineering and biomedical research communities by publishing original research articles, reviews, and perspectives.

Coverage:

All areas of bioengineering including: biomechanics; biomedical instrumentation and imaging; biomicrodevices; biomimetic materials; biophotonics; biophysics; biosensors; cell and tissue engineering; drug delivery and gene therapy; engineered living systems; genome engineering; neuroengineering; soft robotics; stem cell engineering; systems biology and computational biology

Editor-in-Chief: Justin Cooper-White University of Queensland

Brisbane, Australia

Indexed in Web of Science and Pubmed; 2020: Volume 4, 4 issues (online only) E-ISSN: 2473-2877 aip.scitation.org/journal/apb





APL Materials is an open access journal that features original research on significant topical issues within the field of materials science. The journal also publishes perspectives, research updates, and special topic collections on emerging areas in materials science.

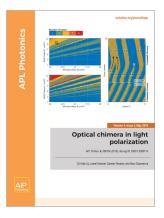
Coverage:

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

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

Journal Impact Factor: 4.296* 2020: Volume 8, 12 issues (online only) E-ISSN: 2166-532X aip.scitation.org/journal/apm





APL Photonics is the dedicated home for open access multidisciplinary research from and for the photonics community. The journal publishes fundamental and applied results that significantly advance the knowledge in photonics across physics, chemistry, biology, and materials science. It welcomes high-quality original contributions to the science of light and the technology that generates, controls, and detects photons.

Coverage:

Light sources; nonlinear optics; optoelectronics; nanophotonics; plasmonics; biophotonics and biomedical optics; ultrafast photonics; optical communications; quantum photonics; optical imaging; photovoltaics; guided wave optics; sensors; terahertz

Editor-in-Chief: Benjamin Eggleton Sydney Nano, School of Physics

University of Sydney, Australia

Journal Impact Factor: 4.383* 2020: Volume 5, 12 issues (online only) E-ISSN: 2378-0967 aip.scitation.org/journal/app



First Impact Factor!



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.

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

Editor: Richard Price

Massachusetts Institute of Technology, Cambridge, MA, USA

Journal Impact Factor: 1.194* 2020: Volume 88, 12 issues per year ISSN: 0002-9505 E-ISSN: 1943-2909 aapt.scitation.org/journal/ajp

Published on behalf of:





Applied Physics Letters

emphasizes rapid dissemination of key data and new physical insights, offering prompt publication of new experimental and theoretical papers related to applications of physics phenomena in all branches of science, engineering, and modern technology.

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, biomaterials, liquids, and soft matter; energy conversion and storage; interdisciplinary and general physics

Editor-in-Chief: Lesley F. Cohen Blackett Laboratory Imperial College, London, UK

Journal Impact Factor: 3.521* 2020: Volumes 116 & 117, 52 issues ISSN: 0003-6951 E-ISSN: 1077-3118 aip.scitation.org/journal/apl

One of the most cited journals in Applied Physics*



Applied Physics Reviews features significant research and reviews covering all areas of applied physics. The journal's focus is on experimental and theoretical research alongside the application of physics to other branches of science and engineering. Review articles published in the journal provide in-depth coverage of new and emerging areas of interest to researchers interested in the physical sciences.

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

Executive Editor: Luigi Longobardi AIP Publishing

Editor-in-Chief: Chennupati Jagadish The Australian National University Canberra, Australia

Journal Impact Factor: 12.750* 2020: Volume 7, 4 issues (online only) E-ISSN: 1931-9401 aip.scitation.org/journal/are

Now Publishing Original Research



AVS Quantum Science, co-

published by AIP Publishing and AVS, is a truly interdisciplinary journal bridging some of the most important research areas, including: Condensed Matter, Atomic, Molecular and Optical Physics, to Biology, Chemistry, and Materials Science, to Computer Science and Engineering, all through the foundations of Quantum Science.

Coverage:

Quantum engineering, quantum materials, quantum photonics, quantum biology, quantum chemistry, quantum communication, quantum sensing and metrology, quantum measurement technology, atoms and molecules in quantum devices, superfluid and superconductors in quantum devices, quantum computers and software, materials and methods for quantum devices, macroscopic and hybrid quantum systems

Editor-in-Chief: Philippe Bouyer

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2020: Volume 2, 4 issues ISSN: 2639-0213 avs.scitation.org/journal/aqs

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Biointerphases is an

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Coverage:

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Editor-in-Chief: Sally L. McArthur Swinburne University of Technology

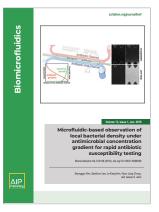
Journal Impact Factor: 2.009*

2020: Volume 15, 6 issues ISSN: 1934-8630 E-ISSN: 1559-4106 **avs.scitation.org/journal/bip**

Published on behalf of:

Melbourne, Australia





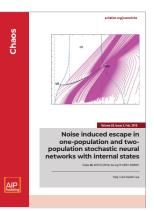
Biomicrofluidics publishes research highlighting fundamental physiochemical mechanisms associated with microfluidic and nanofluidic phenomena as well as novel microfluidic and nanofluidic techniques for diagnostic, medical, biological, pharmaceutical, environmental, and chemical applications.

Coverage:

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Editor-in-Chief: Leslie Y. Yeo RMIT University Melbourne, Australia

Journal Impact Factor: 2.531* 2020: Volume 14, 6 issues (online only) ISSN: 1932-1058 E-ISSN: 1932-1058 aip.scitation.org/journal/bmf



Chaos 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.

Coverage:

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

Editor-in-Chief: Jürgen Kurths

Potsdam Institute for Climate Impact Research and Humboldt-Universität zu Berlin, Germany

Journal Impact Factor: 2.643*

2020: Volume 30, 4 print issues (12 monthly online issues) ISSN: 1054-1500 E-ISSN: 1089-7682 **aip.scitation.org/journal/cha**



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.

Coverage:

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

Editor-in-Chief: Xue-ming Yang Dalian Institute of Chemical Physics Dalian, China

Journal Impact Factor: 0.791* 2020: Volume 33, 6 issues ISSN: 1674-0068 E-ISSN: 2327-2244 cps.scitation.org/journal/cjp cjcp.ustc.edu.cn

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

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Editor-in-Chief: André Anders

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Journal Impact Factor: 2.328* 2020: Volumes 127 & 128, 48 issues ISSN: 0021-8979 E-ISSN: 1089-7550 aip.scitation.org/journal/jap

One of the most cited journals in Applied Physics



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aeroacoustics, underwater sound and

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and physical acoustics; architectural

and structural acoustics and vibration;

speech, music and noise; psychology

measurements; bioacoustics, animal

vibration; acoustic signal processing;

computational acoustics; acoustics

Editor-in-Chief: James F. Lynch

acoustics, sound transducers and

bioacoustics and bioresponse to

and physiology of hearing; engineering

Linear and nonlinear acoustics;

Coverage:

education

and open dissemination of important

theoretical and experimental research

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The Journal of Chemical Physics

is an international journal that publishes cutting edge research in all areas of modern physical chemistry and chemical physics. The Journal also publishes brief Communications of significant new findings, Perspectives on the latest advances in the field, and Special Topics.

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

Editor-in-Chief:

Tianquan (Tim) Lian Emory University Atlanta, GA, USA

Journal Impact Factor: 2.997* 2020: Volumes 152 & 153, 48 issues ISSN: 0021-9606 E-ISSN: 1089-7690 aip.scitation.org/journal/jcp

Journal Impact Factor: 1.819* 2020: Volumes 147 & 148, 12 issues ISSN: 0001-4966 asa.scitation.org/journal/jas

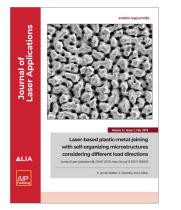
Woods Hole Oceanographic Institution

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Woods Hole, MA, USA



The most cited journal in Atomic, Molecular, Chemical Physics and Physical Chemistry*



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. The recently digitized

LIA Conference Proceedings includes over 5,900 articles from the ICALEO[®], PICALO, and ILSC[®] conferences that are run by The Laser Institute (LIA).



Coverage:

High-precision and high-power materials processing; laser additive manufacturing; laser systems and markets; spectroscopy / imaging / diagnostics / measurements; emerging applications of laser technologies; surface modification; lasers in nanomanufacturing/ nanophotonics and thin film technology; medical applications and safety

Editor-in-Chief: Yongfeng Lu

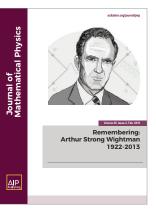
College of Engineering University of Nebraska - Lincoln Lincoln, NE, USA

Journal Impact Factor: **1.443*** 2020: Volume 32, 4 issues (online only) ISSN: 1042-346X E-ISSN: 1938-1387

lia.scitation.org/journal/jla

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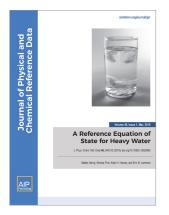
Journal of Mathematical Physics features content in all areas of mathematical physics. Articles focus on areas of research that illustrate the application of mathematics to problems in physics, the development of mathematical methods suitable for such applications, and the formulation of physical theories.

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

Editor-in-Chief: Jan Philip Solovej University of Copenhagen Denmark

Journal Impact Factor: 1.355* 2020: Volume 61, 12 issues ISSN: 0022-2488 E-ISSN: 1089-7658 aip.scitation.org/journal/jmp



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.

Coverage:

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

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

Journal Impact Factor: 4.684* 2020: Volume 49, 4 issues ISSN: 0047-2689

E-ISSN: 1529-7845 aip.scitation.org/journal/jpr

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Journal of the Physical Society of

Japan (JPSJ) is a flagship journal of The Physical Society of Japan and has been publishing important research results in all fields of physics from condensed matter physics to particle physics since 1946.

Coverage:

All of physics, including but not limited to: elementary particles and fields; nuclear physics; atomic and molecular physics; fluid dynamics; plasma physics; physics of condensed matter; metals, superconductors, semiconductors, magnetic materials, and dielectric materials; physics of nanoscale materials; optics and quantum electronics; physics of complex systems; mathematical physics; chemical physics; biophysics; geophysics; astrophysics

Editor-in-Chief: Kazuo Ueda The Physical Society of Japan

Journal Impact Factor: 1.570* 2020: Volume 88, 12 issues ISSN: 0031-9015 E-ISSN: 1347-4073 journals.jps.jp/journal/jpsj

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Journal of Renewable and Sustainable Energy is an

interdisciplinary journal that works to provide the community with a place to share the most up-to-date work on a variety of topics like wind energy, solar energy, and Biofuels. JRSE is now beginning to accept submissions to the following three topical areas: Renewable Energy Resourcing and Forecasting, Renewable Energy Integration, Energy Meteorology and Climatology. Collaborating with our colleagues in emerging areas of energy and sustainability to share the most relevant trends, we publish Special Topics Collections of invited and contributed papers, curated by our team who are experts in the field.

Coverage:

Renewable energy resource assessment, analysis, and forecasting; 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; renewable energy economics and policy

Editor-in Chief: Carlos F.M. Coimbra University of California San Diego, CA, USA

Journal Impact Factor: 1.511* 2020: Volume 12, 6 issues (online only) E-ISSN: 1941-7012 aip.scitation.org/journal/rse



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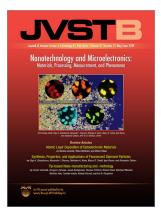
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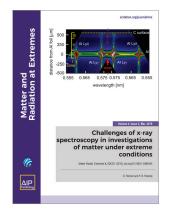
Superconductivity; quantum liquids and crystals; electronic properties of metals; disordered systems; magnetism; lattice dynamics; cryocrystals; critical phenomena

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B. Verkin Institute for Low Temperature Physics & Engineering, National Academy of Sciences of Ukraine Kharkov, Ukraine

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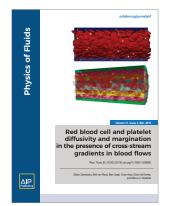
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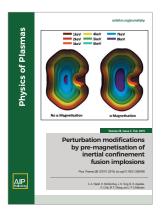
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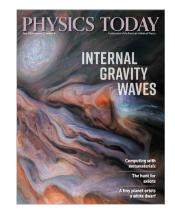
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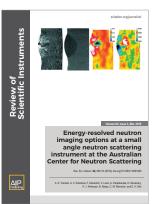
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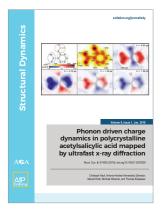
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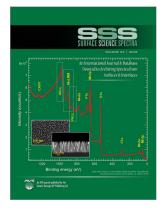
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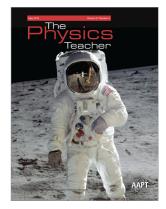
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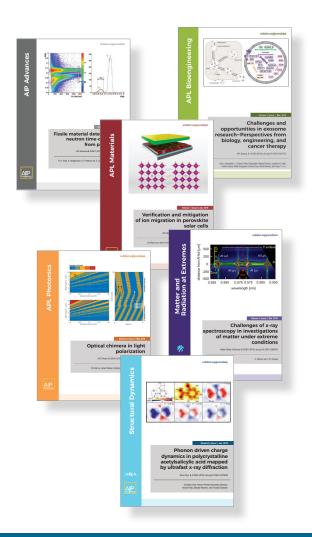
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