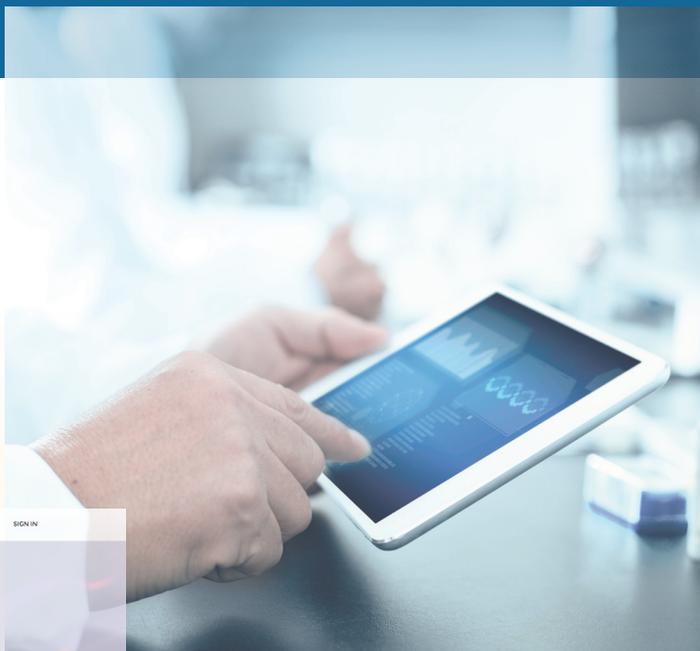


Scitation.org

User Guide



The screenshot shows the Scitation website homepage. At the top, there is a navigation bar with a 'MENU' icon on the left and a 'SIGN IN' link on the right. The main heading is 'Scitation' in a large, bold font. Below the heading, a tagline reads: 'Scitation is home to the most influential news, comment, analysis and research in the Physical Sciences.' A search bar is positioned below the tagline, containing the placeholder text 'Enter words / phrases / DOI / ISBN / authors / keywords / etc.' and a search icon. The main content area features a 'TRENDING ARTICLES' section with four article cards. Each card includes a date, a title, and a 'Physics Today' link. The dates and titles are: 'APR 01 2017 The secret of the Soviet hydrogen bomb', 'MAY 01 2017 The laws of life', 'JUN 01 2017 Hidden worlds of fundamental particles', and 'JUL 01 2017 Clippers, yachts, and the false promise of the web...'. At the bottom of the page, there is a footer section with the 'AIP Publishing' logo and the text 'About AIP Publishing'. The footer text states: 'AIP Publishing is a wholly owned not-for-profit subsidiary of the American Institute of Physics (AIP). AIP Publishing's mission is to support the charitable, scientific and educational purposes of AIP through scholarly publishing activities in the fields of the'.



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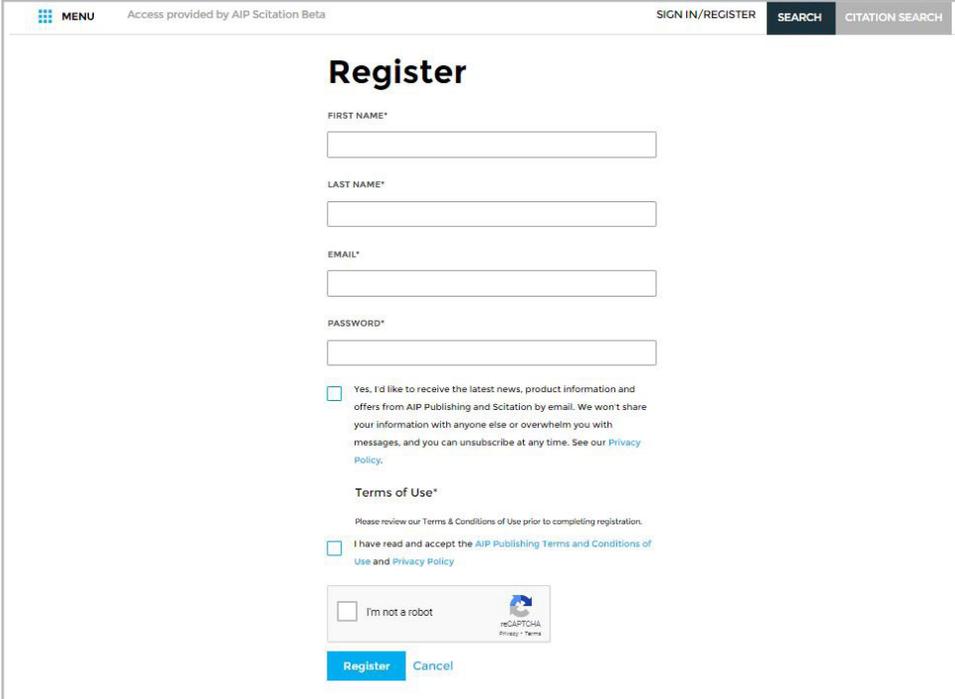
The Scitation.org Platform

The Scitation.org platform brings all users and administrators optimized service and a streamlined, modern reading experience.

Features:

- Simplified page layout for easy article readability
- Optimized display across mobile devices and browsers
- Fast navigation and search functionality
- Figure viewer to explore visual content
- Links to all supplemental materials, including free access
- Numerous collaboration tools to simplify sharing with colleagues and across social networks
- Library admin access site for efficient account management

To ensure a personalized experience on Scitation.org, take a moment to create a profile by visiting: <https://www.scitation.org/action/registration>



The screenshot shows the registration page on Scitation.org. At the top, there is a navigation bar with a 'MENU' icon, the text 'Access provided by AIP Scitation Beta', and links for 'SIGN IN/REGISTER', 'SEARCH', and 'CITATION SEARCH'. The main heading is 'Register'. Below this, there are four input fields: 'FIRST NAME*', 'LAST NAME*', 'EMAIL*', and 'PASSWORD*'. A checkbox is followed by the text: 'Yes, I'd like to receive the latest news, product information and offers from AIP Publishing and Scitation by email. We won't share your information with anyone else or overwhelm you with messages, and you can unsubscribe at any time. See our [Privacy Policy](#).' Below this is the 'Terms of Use*' section, which includes the text: 'Please review our Terms & Conditions of Use prior to completing registration.' and a checkbox followed by: 'I have read and accept the [AIP Publishing Terms and Conditions of Use](#) and [Privacy Policy](#).' At the bottom, there is a checkbox for 'I'm not a robot' and a CAPTCHA image. The page concludes with two buttons: 'Register' and 'Cancel'.

Scitation.org Homepage

To learn more about AIP Publishing and our portfolio, log in to your account profile to run basic and advanced searches, view trending articles, access individual publications, and view the latest physics employment opportunities.

Personalized for institutional customers when accessing content via IP range

Indicates you're logged in to your account

Search the Scitation.org platform by keyword, phrase, DOI, ISBN, author name, etc.

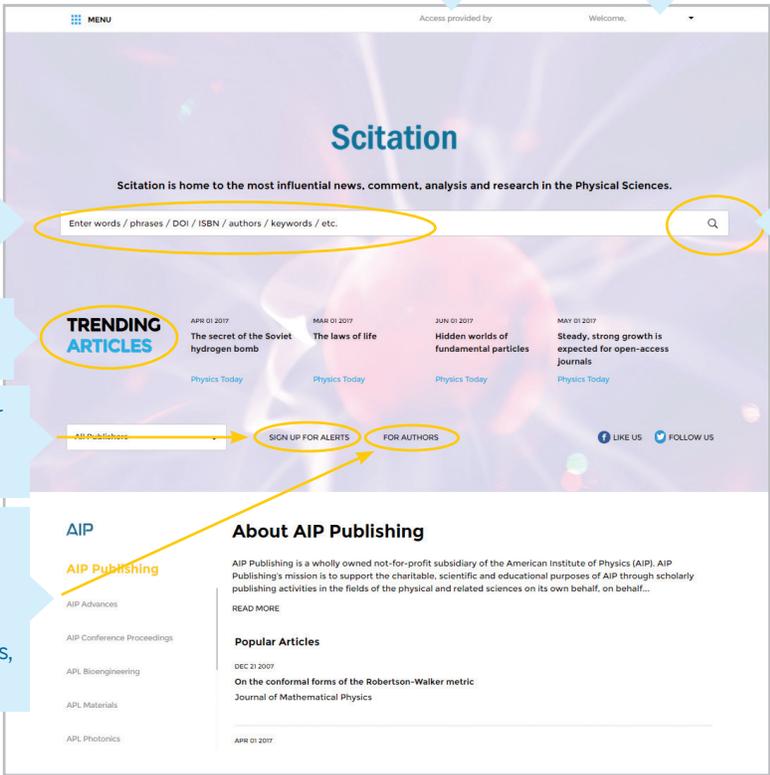
Read the latest articles from across the platform

Sign up for Alerts – register for journal alerts to be delivered right to your inbox

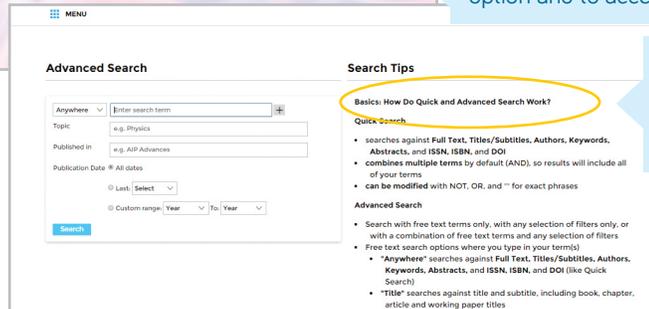
For Authors – access Featured Resources for Researchers for information on manuscript submission, publishing, available services, and more.

To perform an advanced search, click the magnifying glass. and the “advanced search” box will appear (see page 4).

Note: the “search tips” that appear in the right column are very useful when you're seeking to obtain tailored search results



Advanced Search Tool



Search Results

When search results appear, you can:

- Filter by article type, publication date, topic, author name, or publication
- Sort by relevance or publication date

RESULTS: 1 - 20 of 316833

ARTICLE TYPE

Research Article	292795
Letter	7283
Abstract	4673
Other	2617
Announcement	1249

PUBLICATION DATE

1930 2020

TOPICS

Chemical elements	50227
Optics and optical physics	80185
Thin film deposition	99792
Thin films	98327
General physics	55170

AUTHOR

Pearnton, S J	721
Morkoc, H	403
Holonyak, N Jr	389
Ren, F	357
Mandelis, Andreas	307

ARTICLES (316833) PHYSICS TODAY DAILY EDITION (207)

Refine Search

Full · Apr 4, 2011 · 9 Citations
Universal stress-defect correlation interfaces
M. Houssa, M. Scarozza, C. Pourtois, V. V. Afanas'ev and A. Appl. Phys. Lett. 98, 141901 (2011); https://doi.org/10.1063/1.35

Full · Feb 22, 1995 · 37 Citations
Microgun-pumped semiconducto
E. Molva, R. Accomo, G. Labrunie, J. Cibert, C. Bodin, Le Si Appl. Phys. Lett. 62, 796 (1993); https://doi.org/10.1063/1.1085

Open · Jun 1, 2015 · 7 Citations
Highly tunable Terahertz filter wit formed in semiconductor-insulat
Kangwen Li, Xunpeng Ma, Zuyin Zhang, Lina Wang, Haifer AIP Advances 3, 062130 (2013); https://doi.org/10.1063/1.4812

Full · Dec 1, 2002 · 2 Citations
Characterization of SiLK I™ Semic
David D. Hawn Surface Science Spectra 9, 1 (2002); https://doi.org/10.1116/1/1

Full · Nov 1, 2002 · 1 Citations
Investigation of active Si pitting a n-type metal-oxide-semiconduct semiconductor transistors

Navigating a Journal's Homepage

Take a moment to explore a journal's homepage below.

From the navigation bar you can access:

- **“Home”** - navigate to the homepage by clicking here
- **“Browse”** - view Table of Contents
- **“Info”** - Overview, Editorial Board, News
- **“For Authors”** - Author resources on preparing a manuscript and submitting an article
- **“Collections”** - Editor Picks, Featured Articles, Perspectives, Scilights, and Special Topics submitting an article

Submit your article

The screenshot shows the AIP Journal of Applied Physics homepage. At the top right, there is a 'SUBMIT YOUR ARTICLE' button. Below the navigation bar, there are links for 'HOME', 'BROWSE', 'INFO', 'FOR AUTHORS', and 'COLLECTIONS'. A 'SIGN UP FOR ALERTS' button is also present. The main content area features a large featured article titled 'Atomistic simulation for the interaction between dislocation and solute atoms, clusters, and associated physical insights'. Below this, there are several smaller article teasers. At the bottom, there is an 'Editor's picks' section with two articles: 'Interface engineering for graphene nanowalls/silicon Schottky solar cells prepared by polymer-free transfer method' and 'Thermal interfaces in dynamic compression experiments'. To the right, there is a 'Most Read' section with an article titled 'Theoretical investigation of nonlinear resonances in a carbon nanotube cantilever with a tip-mass under electrostatic excitation'. A 'Submit' button is visible in the top right corner of the article teasers.

Sign up for journal alerts

View the featured article from the latest issue

View the Editor's latest article picks

Access “most read” articles

Article Search by Citation from Journal Homepage

From the top of the journal homepage, you can search by citation. For the most accurate results, fill in the journal name, volume and page number.

The screenshot shows the citation search interface. At the top, there is a 'MENU' button and the text 'Access provided by AIP Scitation Beta'. On the right, there are links for 'SIGN IN/REGISTER', 'SEARCH', and 'CITATION SEARCH'. Below this, there is a 'CITATION SEARCH' section with an 'ADVANCED SEARCH' link. The search form includes a text input field containing 'Journal of Applied Physics', a 'Volume' input field, a 'Page' input field, and a search button with a magnifying glass icon. Below the search form, there is a note: 'This option allows users to search by Publication, Volume and Page'.

Browse: Viewing the Table of Contents

After clicking on “Browse” you are brought to the current issue’s Table of Content (TOC) as well as links to previous issues. Here you are able to view, download, “add to favorites,” “share” or “export citation” the article of your choice.

You are able to “filter by Section” on each Table of Content. This filter populates the sections and sub-sections within each TOC.

(Note: After filtering, if you move to another issue, the section filtering will be reset.)

The screenshot shows the AIP Journal of Applied Physics website. The main content area displays the 'Table of Contents' for Volume 128, Issue 4, dated 28 July 2020. A 'Filter By Section' dropdown menu is highlighted with a yellow circle. Below the TOC, two article entries are visible under the 'PERSPECTIVES' section. The first article is 'Anisotropy in antiferromagnets' by K. O'Grady, J. Sinclair, K. Elphick, R. Carpenter, G. Vallejo-Fernandez, M. I. J. Probert and A. Hirohata. The 'SHOW ABSTRACT' button for this article is also highlighted with a yellow circle. The second article is 'Trends in luminescence thermometry' by Miroslav D. Dramićanin.

Accessing an Article

Institutional customers access content via registered IP ranges. If you try to view content from an unauthorized IP address, you will be asked to select your method of access as shown here.

If you do not have access through your institution, you have the option to log in as an individual subscriber, purchase standard PPV for \$30, or view the article via Open Athens or Shibboleth.

Alternatively, you can always “recommend an article” to your librarian by clicking on “Share” -> “Recommended to Librarians”

The screenshot shows a 'SELECT YOUR ACCESS' dialog box. It is divided into three sections: 'INDIVIDUAL ACCESS', 'INSTITUTIONAL ACCESS', and 'PURCHASE'. Under 'INDIVIDUAL ACCESS', there is a text box for 'Username:' and a text box for 'Password:', followed by a 'Remember me' checkbox and a 'LOG IN' button. A link for 'Forgot password?' is also present. Under 'INSTITUTIONAL ACCESS', there are two links: 'Log in via Open Athens' and 'Log in via Shibboleth'. Under 'PURCHASE', there is a radio button selected for 'Standard PPV for \$30.00' and an 'ADD TO CART' button.

Viewing an Article

Users accessing articles through their institution (IP authenticated) have the ability to do so without creating a profile. However to benefit from all tools available we encourage users to create a profile. From an article, users can:

- Save searches
- Sign up for RSS feeds
- Download an article as a PDF
- Sign up for journal alerts
- View author affiliations
- View and download article citations
- Add to your “favorites”
- “Share” the article with peers
- View article metrics
- Access related articles

Most articles are accessible as HTML or PDF. If only one format is available, the navigation bar will be updated to reflect the version offered. If available, supplemental information will be noted in the navigation bar in line with “cited by”.

Article Icons

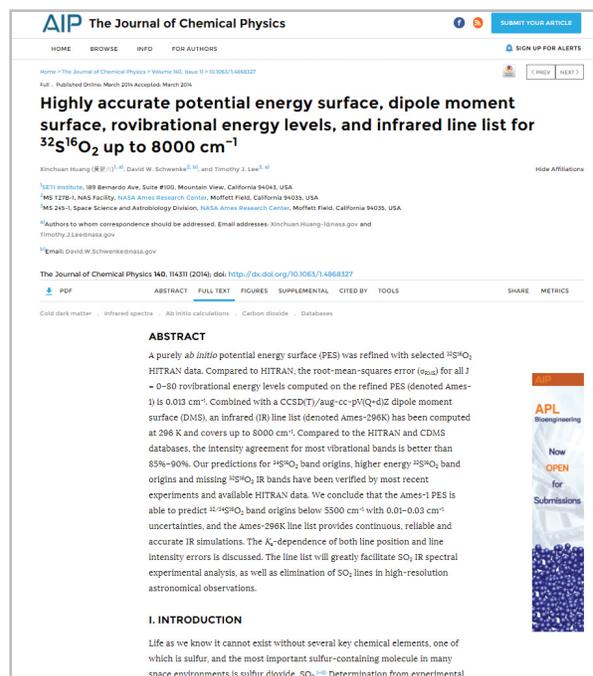
Take notice of the newly added blue circle icons next to certain article titles which indicate if it is a:

- Featured Article 
- Editor's Pick 
- Scilight 

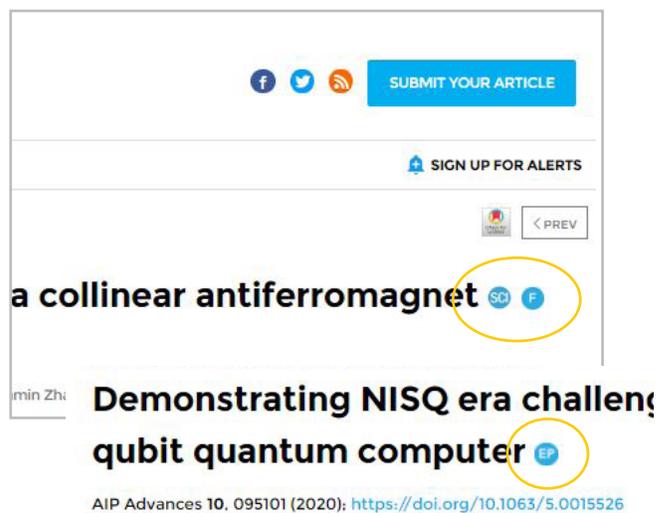
A Scilight, a science highlight, is a professional summary of significant developments in a particular field of research. The articles that are chosen for Scilight are recommended by the research-active editors of AIP Publishing's journals.

Article Figures

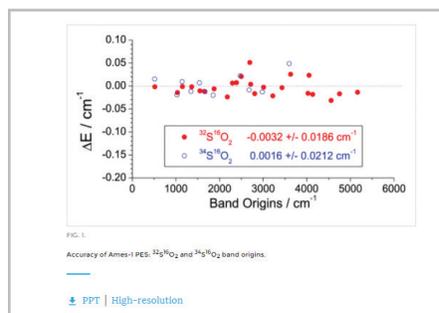
Designed to allow you to explore the graphs, charts and images included in each article. Figures are downloaded directly to a PowerPoint presentation and includes citation data.



The screenshot shows the article page for "Highly accurate potential energy surface, dipole moment surface, rovibrational energy levels, and infrared line list for $^{32}\text{S}^{16}\text{O}_2$ up to 8000 cm^{-1} ". The authors listed are Xinchuan Huang, David W. Schwenke, and Timothy J. Lee. The abstract states: "A purely ab initio potential energy surface (PES) was refined with selected $^{32}\text{S}^{16}\text{O}_2$ HITRAN data. Compared to HITRAN, the root-mean-squares error (σ_{rms}) for all $J=0-80$ rovibrational energy levels computed on the refined PES (denoted Ames-1) is 0.013 cm^{-1} . Combined with a CCSD(T)/aug-cc-pVQZ+dipole moment surface (DMS), an infrared (IR) line list (denoted Ames-296K) has been computed at 296 K and covers up to 8000 cm^{-1} . Compared to the HITRAN and CDMS databases, the intensity agreement for most vibrational bands is better than 85%-90%. Our predictions for $^{32}\text{S}^{16}\text{O}_2$ band origins, higher energy $^{32}\text{S}^{16}\text{O}_2$ band origins and missing $^{32}\text{S}^{16}\text{O}_2$ IR bands have been verified by most recent experiments and available HITRAN data. We conclude that the Ames-1 PES is able to predict $^{32}\text{S}^{16}\text{O}_2$ band origins below 5500 cm^{-1} with $0.01-0.03\text{ cm}^{-1}$ uncertainties, and the Ames-296K line list provides continuous, reliable and accurate IR simulations. The K_a -dependence of both line position and line intensity errors is discussed. The line list will greatly facilitate SO_2 IR spectral experimental analysis, as well as elimination of SO_2 lines in high-resolution astronomical observations." The introduction begins: "Life as we know it cannot exist without several key chemical elements, one of which is sulfur, and the most important sulfur-containing molecule in many space environments is sulfur dioxide, SO_2 ." The navigation bar includes options for PDF, Abstract, Full Text, Figures, Supplemental, Cited By, Tools, Share, and Metrics.



The screenshot shows the article page for "Demonstrating NISQ era challenge: qubit quantum computer" by Min Zhi. The article title is highlighted with a yellow circle, and the "SC" and "F" icons next to it are also circled in yellow. The "EP" icon is circled in blue. The article is from AIP Advances 10, 095101 (2020). The URL is <https://doi.org/10.1063/5.0015526>. The navigation bar includes options for Submit Your Article, Sign Up for Alerts, and a Previous article link.



Article Citations & Tools

When available, article citations can be viewed (click “cited by”) and downloaded (click “tools” and then “download citation”).

When viewing the available “tools”, users can add the current article to their “favorites” and view details about “reprints and permissions.”

The screenshot shows the article page for "Highly accurate potential energy surface, dipole moment surface, rovibrational energy levels, and infrared line list for $^{32}\text{S}^{16}\text{O}_2$ up to 8000 cm^{-1} ". The "CITED BY" section lists three references. The "TOOLS" dropdown menu is open, showing options: "Download Citation", "Add To Favorites", and "Reprints And Permissions".

Article Metrics

As articles receive “views” and “citations” they will be calculated and updated daily under “article metrics”.

(Note: article metrics on Scitation.org are cumulative since 12/13/2016)

The screenshot shows the "Article Metrics" section with two circular gauges: "Views" at 43 and "Citations" at 15. The "Metrics" button in the top navigation bar is highlighted with a yellow circle.

Related Articles

When reaching the bottom of an HTML article, a list of “related articles” will appear at the top of the screen in the rolling navigation bar.

The screenshot shows a horizontal bar titled "RELATED ARTICLES" with four article thumbnails. The first thumbnail is titled "Potential energy surface of HD0 up to 25000cm⁻¹25000cm⁻¹mat 9 9k...".

Sharing an Article

Click on the share button to share an article via email, social media or to recommend an article to your librarian.

The screenshot shows the article page for "A novel approach for remote detection of bacteria using simple charge-coupled device cameras and telescope". The "SHARE" button is highlighted with a yellow circle, and its dropdown menu is open, showing options: "E-mail", "Facebook", "LinkedIn", "Twitter", "Reddit", "Mendeley", and "Recommend to Librarian".

Books Now Available

Books from AIP Publishing are available on Scitation, alongside our journals, and are fully integrated. Collections available for purchase include the First Collection (40 titles) and the AAPT Book Archive (34 titles).

Accessing the Books Homepage

Browse through titles by publication date, book type, or author

The screenshot shows the AIP Publishing Books homepage. At the top, there are navigation links: HOME, BROWSE (highlighted with a yellow circle), FOR AUTHORS, and FOR LIBRARIANS. On the right, there is a link for SIGN UP FOR ALERTS. Below the navigation is a carousel of five featured book covers:

- Manual of Laser Safety** (Editor Ken Barat)
- Synthetic Solar Irradiance** (Modeling Solar Data, Editor Jamie M. Bright)
- Soft-Matter Thin Film Solar Cells** (Physical Processes and Device Simulation, Editors Jingzheng Ren and Zhipeng Kan)
- Onshore Wind Farms** (Dynamic Stability and Applications in Hydrogen Production, Author Kenneth Okedu)
- Teaching About Geometric Optics: Teacher's Notes** (Authors Jane Bray Nelson and Jim Nelson)

Below the carousel is a row of five buttons representing book types: Methods, Perspectives, Principles, Professional, and Archive. Below these buttons is a section with text: "Search scientists, students and educators discover, investigate, learn... for new entrants and recent developments for experts." Below this text are three sub-collection descriptions:

- Methods** examine new techniques for data collection and analysis through tutorial content and protocols.
- Perspectives** provides new entrants and recent developments for experts.
- Professional** provides guidance on training and development for educators and professionals.

On the right side of the carousel, there is a callout box that says "View featured and recently published titles across this carousel". At the bottom right, there is a Scilight banner with the text "Sign up for free weekly email alerts!" and the AIP Publishing logo.

Select a specific book type to view titles within a specific sub-collection

View featured and recently published titles across this carousel

Book Title Page

The title page offers an easy to navigate overview of the book with a preview of the book description, short links to the book information, access options, and metrics.

The Books navigation menu remains static across your experience

The "Book Type" you are accessing, which links to a filtered search of titles within this category

Pad lock icon indicates access level

"myBook" – a discounted B&W print option exclusive to readers at institutions with active license

"Buy Print" – is open to any reader interested in purchasing a color print version

Select between a PDF or ePub version of a title

Title navigation menu offers additional information, tools, and resources for readers

HOME BROWSE FOR AUTHORS FOR LIBRARIANS SIGN UP FOR ALERTS

METHODS

Home > Manual of Laser Safety

Partially Free - December 2020

Manual of Laser Safety

Editor Ken Barat
Publisher: AIP Publishing
Pages: 176
Copyright year: 2020
View Affiliations

myBook BUY PRINT

PDF E-READER

CONTENT TOOLS BOOK INFO SHARE METRICS

Description

This book provides a clear and concise guide for scientists in research and development who work with lasers. It addresses several laser use techniques and laser safety approaches that are not found in other texts, including vertical beam use and approaches, safety with high high-power lasers, and reflectivity of different materials. Manual of Laser Safety provides a resource of items of direct value to the laser user and safety professional.

Covering all classes of lasers, this book is

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Enjoy fast, cost-effective publication of your meeting's key research. [GET A QUOTE](#)

AIP Conference Proceedings

Keywords

Lasers, Safety eyeglasses, Laboratory safety procedures, Laser physics, Legislation and regulations, Public and occupational health and safety

Related Content

Structural equation model to investigate the dimensions influencing safety culture improvement in construction sector: A case in Indonesia

Viewing a Book Chapter

Additional tools and features are available for each chapter. Read the first chapter of any title for free.

The screenshot shows the AIP Books website interface. At the top, there is a navigation bar with 'HOME', 'BROWSE', 'FOR AUTHORS', and 'FOR LIBRARIANS'. The main content area features a blue header for 'METHODS' and a breadcrumb trail: 'Home > Manual of Laser Safety > 10.1063/9780735422452_001'. Below this, it indicates the chapter is 'Free' and 'Published Online, December 2020'. The chapter title is 'Chapter 1 Building Blocks of Laser Safety' with a DOI link: 'https://doi.org/10.1063/9780735422452_001'. The author is listed as 'Author Ken Barat'. A 'BUY PRINT' button is visible. A navigation menu includes 'PDF', 'E-READER', 'DESCRIPTION', 'FULL TEXT', 'TOOLS', 'BOOK INFORMATION', 'SHARE', and 'METRICS'. The 'TOOLS' menu is expanded, showing options: 'Download Citation', 'Add To Favorites', and 'Reprints And Permissions'. The main text of the chapter is titled 'Laser Hazard Classification' and begins with 'The role of laser hazard classification cannot be understated:'. A sidebar on the right contains a vertical menu with icons for 'SECTIONS', 'KEYWORDS', 'FIGURES', 'TABLES', and 'RELATED CONTENT'. A 'BUY PRINT' button is also present.

Author name and ORCID ID

Each chapter is accommodated by a brief overview

Easily jump to different sections, view keywords, download figures and/or tables, and browse through suggested content

Download citations, add to your favorites, and permissions

View the ISBNs, citation information, copyright, and author/editor bio.



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