

Institute of Physics (IoP)

(<http://www.iop.org/EJ>)*

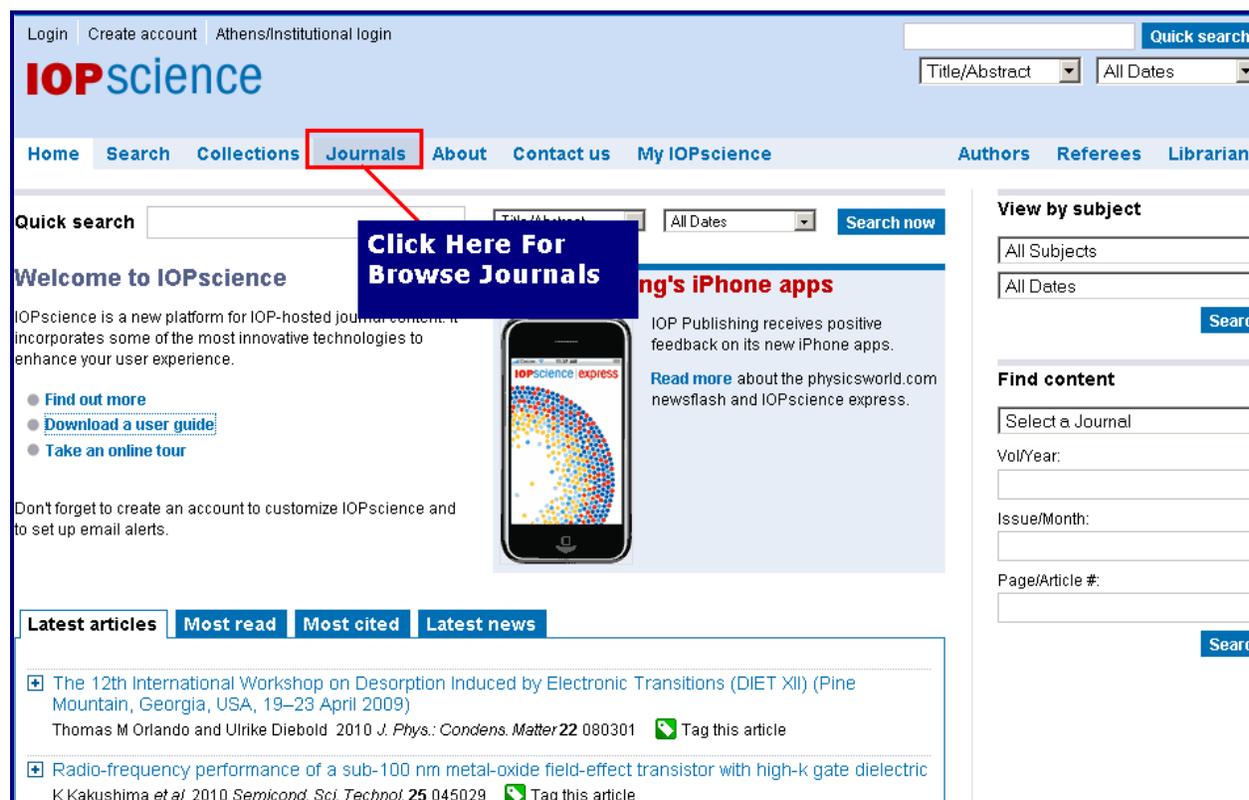
Institute of Physics, popularly known as IoP, is a well-known dedicated resource of high quality information in physical sciences. The Institute has a world-wide membership and is a major international player in scientific publishing and electronic dissemination of physics, setting professional standards for physicists and awarding professional qualifications, promoting physics through scientific conferences, education and science policy advice. The IoP electronic database comprises of journals on various topics like bio-inspiration, biometrics, biomedical materials, astronomy, astrophysics, chemical physics and theoretical physics. Member of UGC-INFONET Digital Library Consortium can access IoP archive consisting of 49 journals (including 7 in open access) from Vol.1 issue.1 onwards.

Accessible to: 134 Univ.

Coverage: 1998 onwards

Browse

To browse the IOP electronic journals, click on **Journals** option from navigation bar as shown below:



The screenshot displays the IOPscience website interface. At the top, there are links for 'Login', 'Create account', and 'Athens/Institutional login'. The main navigation bar includes 'Home', 'Search', 'Collections', 'Journals' (highlighted with a red box), 'About', 'Contact us', 'My IOPscience', 'Authors', 'Referees', and 'Librarians'. A search bar is located at the top right with a 'Quick search' button. Below the navigation bar, there is a 'Quick search' section with a search box and a 'Search now' button. A blue callout box with white text says 'Click Here For Browse Journals' and points to the 'Journals' link. The main content area features a 'Welcome to IOPscience' message, a list of links ('Find out more', 'Download a user guide', 'Take an online tour'), and a section for 'Latest articles' with two article listings. On the right side, there is a 'View by subject' section with dropdown menus for 'All Subjects' and 'All Dates', and a 'Find content' section with a 'Select a Journal' dropdown and input fields for 'Vol/Year', 'Issue/Month', and 'Page/Article #'. A 'Search' button is located at the bottom right of the 'Find content' section.

Clicking at "journals", a user will be given three options, namely, i) current journal list; ii) view by subject; and iii) archives. A screenshot of current journals arranged alphabetically is given below:

To view content of a journal, click on the journal name e.g. **Journal of Physics A: Mathematical and Theoretical**. On clicking at the journal name, a user will get screen as shown below. Home page of journal provides option to view most read, most cited or latest articles. A user can access either current journals or back journals, select appropriate option as shown below:

Select appropriate option to view abstract or full-text PDF / HTML articles as shown below. Select "This journal only" option from Quick search and enter term in text entry box to search within this journal.

The screenshot shows the IOPscience website interface for the Journal of Physics A: Mathematical and Theoretical. At the top, there are navigation links for 'Home', 'Search', 'Collections', 'Journals', 'About', 'Contact us', and 'My IOPscience'. A search bar is located at the top right with a 'Quick search' button. Below the search bar, there are dropdown menus for 'Title/Abstract' and 'All Dates', and radio buttons for 'All journals' and 'This journal only'. The main content area displays a 'Table of contents' section with two articles. The first article is 'Delay induces quasi-periodic vibrational resonance' by J H Yang and X B Liu, with a DOI of 10.1088/1751-8113/43/12/122001. It has options for 'Abstract', 'References', 'Full text PDF (639 KB)', and 'View as HTML'. A blue callout box points to the 'Full text PDF' option with the text 'Access Full-Text in PDF Format'. The second article is 'Rogue waves, rational solutions, the patterns of their zeros and integral relations' by Adrian Ankiewicz, Peter A Clarkson and Nail Akhmediev, with a DOI of 10.1088/1751-8113/43/12/122002. It has options for 'Abstract', 'References', 'Full text PDF (240 KB)', and 'View as HTML'. A blue callout box points to the 'View as HTML' option with the text 'Access Full-Text in HTML Format'. A red line connects the 'View as HTML' option of the second article to a blue callout box with the text 'View Abstract of Article'. On the right side, there is a 'Journal links' section with various links like 'Journal home', 'Scope', 'Editorial board', etc., and a 'View by subject' section with dropdown menus for 'All Subjects' and 'All Dates', and radio buttons for 'All journals' and 'This journal only'. A 'Search' button is at the bottom right of the right sidebar.

Search

IOP facilitates four types of search, namely i) Content finder; and ii) Quick Search iii) PACS/MSC Search and iv) Advance Search

1. Find Content

The Find Content is a flexible tool, which can be used to find articles or groups of articles in a number of quick and easy ways. Content finder can be found at the right hand side of every page.

Find content

Select a Journal ▼

Vol/Year: _____

Issue/Month: _____

Page/Article #: _____

Search

2. Quick Search

Quick Search is located at homepage or from the top right of every page. The default is set to search all fields, but user can narrow it down by title/ abstract, author, affiliation and/or full text, as well as date range. User can also restrict their search by selecting period from drop down menu.

The screenshot shows the IOPscience website's search interface. At the top, there are links for 'Login', 'Create account', and 'Athens/Institutional login'. The main search area features a 'Quick Search' button and a search input field containing 'Quantum Mechanics'. Below the input field, there are dropdown menus for 'Title/Abstract' and '10 Years'. A 'Search now' button is located to the right of the input field. The navigation menu includes 'Home', 'Search', 'Collections', 'Journals', 'About', 'Contact us', 'My IOPscience', 'Authors', 'Referees', and 'Librarian'.

3. PACS/MSC Search

PACS is a hierarchical subject classification scheme for physics and astronomy, which provides an essential tool for classification and efficient retrieval of literature in physics and astronomy. While MSC codes are used to categories items covered by the two reviewing databases, Mathematical Reviews (MR) and Zentralblatt MATH (Zbl).

If user knows the PACS or MSC code, He/She can enter it into the search box. It will display subject term relevant with codes. Select relevant codes and click on **View Selected** to view search results of relevant code. User can also enter search term to find the relevant codes.

The screenshot illustrates the PACS/MSC search process. On the left, the 'PACS/MSC search' box contains the input '68.37lp' and a 'Search' button. An arrow points from the search box to the 'PACS Results' section on the right. The 'PACS Results' section shows a list of codes with their corresponding counts: '68.37.Lp' (1943), '68.37.Hk' (371), '2010' (81), '2009' (240), 'Surfaces, interfaces and thin films' (1943), 'Nanoscale science and low-D systems' (1148), 'Nanotechnology' (700), 'Journal of Physics D: Applied Physics' (281), 'M J Kappers' (11), and 'U Bangert' (10). The '68.37.Lp' code is selected. Below the list, there is a 'View selected' button. An arrow points from the 'View selected' button to the 'Your search' section on the right. The 'Your search' section shows the search criteria: '(Field: PACS/MS Codes: 68.37lp) AND (PACS: 68.37.Lp OR 68.37.Hk)'. Below this, there is a 'Filter results by:' section with various filters. A 'Full text search within results:' input field is also present. The 'Export Results' section shows 'Ordered by: Publication Date'. A sample search result is displayed: 'Non-leachable highly luminescent ordered mesoporous SiO₂ spherical particles' by L A Rocha, J M A Caiut, Y Messaddeq, S J L Ribeiro, M A U Martins, J do C Freiria, J Dexpert-Ghys and M Verels, published in 'Nanotechnology' 21, 155603, doi: 10.1088/0957-4484/21/15/155603.

4. Advanced Search

User can pre-filter their search by selecting title/abstract, author, affiliation, full text and PACS/MSC codes. Additionally search can be restricted by date range, subject and journal.

Searching Just One Field From Title/Abstract

Enter keyword(s) in the first text entry box. Select search field from drop-down menu and Click on **Search** button. For example: To search a string **Nanotechnology** in the title of article from the period 2006 to 2009, enter **Nanotechnology** in the first text entry box, select **Title/ Abstract** from drop-down box and then enter 2006 in **From text entry** box and 2009 in **to text entry** box as shown below:

The screenshot shows the IOPscience search page. At the top, there is a navigation bar with links: Home, Search, Collections, Journals, About, Contact us, My IOPscience. Below this is a search bar with the text "Enter Search Terms". The search criteria are: "Nanotechnology" in the search box, "Title/Abstract" in the search field dropdown, "All Dates" in the date range dropdown, and "From 2006 to 2009" in the date range input fields. A "Search now" button is visible. Below the search bar, there are two columns of filters: "Subjects" and "Journals". The "Subjects" column lists various physics topics with checkboxes. The "Journals" column lists various journals with checkboxes. A red box highlights the search criteria and date range filters. A blue box with white text "Select Criteria Related to Search" points to the search criteria. Another blue box with white text "Limit The Search By Date Range" points to the date range filters.

Use logic operators AND, OR and NOT to define the relationship between search terms. User can also structure their search by using parentheses e.g. (stress OR strain) AND function. Example given below will search all articles on **"Microscopy" And "Electron"** in Title or abstract.

The screenshot shows the IOPscience search page. At the top, there is a navigation bar with links: Home, Search, Collections, Journals, About, Contact us, My IOPscience. Below this is a search bar with the text "Use Boolean Operator". The search criteria are: "\"microscopy\" and \"electron\"" in the search box, "Title/Abstract" in the search field dropdown, "All Dates" in the date range dropdown, and "From yyyy to yyyy" in the date range input fields. A "Search now" button is visible. Below the search bar, there are two columns of filters: "Subjects" and "Journals". The "Subjects" column lists various physics topics with checkboxes. The "Journals" column lists various journals with checkboxes. A red box highlights the search criteria and date range filters. A blue box with white text "Use Boolean Operator" points to the search criteria. Another blue box with white text "Select Subjects/Journals to Limit Your Search" points to the subject and journal filters.

Search Results

The screenshot given below gives the search result of the previous query, which will return three sets of results, to expand research scope even further:

1. Search results under Search tab contain regular peer-reviewed content from IOP science.
2. e-prints provide search result from eprintweb.org, which is a free e-print service based on Cornell University's arXiv.org.
3. News and analysis provides result from IOP's community websites

Filter Search

User can drill down further by expanding each filter category such as PACS code, date, subject, journal and author. Enter a further full-text search term within initial set of results to refine search.

Search Results

Your search (4318) Full text (16495) e-prints (0) News and Analysis (0)

(Field: Title/Abstract: "microscopy" and "electron") AND (Date: 10 Years)

Filter results by:

PACS	<input type="checkbox"/> 68.37.Lp (1211)	<input type="checkbox"/> 68.37.Hk (1000)	<input type="checkbox"/> 81.16. (574)
Dates	<input type="checkbox"/> 2010 (194)	<input type="checkbox"/> 2009 (793)	<input type="checkbox"/> 2008 (802)
Subjects	<input type="checkbox"/> Surfaces, interfaces and thin films (3082)	<input type="checkbox"/> Nanoscale science and low-D systems (2177)	
Journals	<input type="checkbox"/> Nanotechnology (1348)	<input type="checkbox"/> Journal of Physics D: Applied Physics (586)	
Authors	<input type="checkbox"/> Deren Yang (14)	<input type="checkbox"/> J Piqueras (13)	

Full text search within results: Filter Now

Export Results Ordered by: Publication Date

enter a further full-text search term within your initial set of results to Refine Your Search

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Manage Search Results

1. **Save your search results:** You can save your search to re-run at a later date, and set up an RSS feed or e-mail alert to notify you of new results that meet your search criteria.
2. **Export selected results:** User has an option to export/email all or selected results in a variety of formats to their mail box.
3. **Tag this article:** User can Tag any article for future reference.

A user can access the full text articles in PDF or HTML format and also access the abstract of the articles or references.

Search Results

Your search (4318) Full text (16495) e-prints (0) News and Analysis (0)

(Field: Title/Abstract: "microscopy" and "electron") AND (Date: 10 Years) RSS this search 16495 IOPscience Result(s)

Save this search Add to my alerts

Filter results by:

<input checked="" type="checkbox"/> PACS	<input type="checkbox"/> 68.37.Hk (1601)	<input type="checkbox"/> 68.37.Lp (1599)	<input type="checkbox"/> 68.55. (1478)
<input checked="" type="checkbox"/> Dates	<input type="checkbox"/> 2010 (751)	<input type="checkbox"/> 2009 (3091)	<input type="checkbox"/> 2008 (2906)
<input checked="" type="checkbox"/> Subjects	<input type="checkbox"/> Surfaces, interfaces and thin films (8900)	<input type="checkbox"/> Nanoscale science and low-D systems (7238)	<input type="checkbox"/> Condensed matter: electrical, magnetic and optical (6609)
<input checked="" type="checkbox"/> Journals	<input type="checkbox"/> Nanotechnology (4360)	<input type="checkbox"/> Journal of Physics: Condensed Matter (2321)	<input type="checkbox"/> Journal of Physics D: Applied Physics (2090)
<input checked="" type="checkbox"/> Authors			

Full text search within

You Can Export All or Selected Results into Your Preferred Format

Tag any Article with Your Own Description for Future Reference

Export Results Ordered by: Publication Date Page: Go 1 of 1650

Grain size effect on the magnetic cluster-glass properties of $\text{La}_{0.88}\text{Sr}_{0.12}\text{CoO}_3$
 M Patra, S Majumdar and S Giri
 2010 *J. Phys.: Condens. Matter* 22 116001 doi: [10.1088/0953-8984/22/11/116001](https://doi.org/10.1088/0953-8984/22/11/116001)
 View extract **View Full-Text in PDF Format** Tag this article Full text PDF (1.04 MB)

Oxygen permeation, mechanical and structural properties of multilayer diffusion barrier coatings on polypropylene Tag this article

Full Text Article

On clicking at the "Full Text PDF" in the first record given above, the screenshot of full text is given below:

IOP Publishing JOURNAL OF PHYSICS: CONDENSED MATTER
 J. Phys.: Condens. Matter 22 (2010) 116001 (8pp) doi:10.1088/0953-8984/22/11/116001

Grain size effect on the magnetic cluster-glass properties of $\text{La}_{0.88}\text{Sr}_{0.12}\text{CoO}_3$

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Abstract
 We report the grain size effect of hole-doped cobaltite, $\text{La}_{0.88}\text{Sr}_{0.12}\text{CoO}_3$, where average sizes are varied from ~ 35 to ~ 240 nm. The bulk compound is a cluster-glass (CG) compound composed of short range ferromagnetic (FM) clusters embedded in the spin-glass (SG) matrix at low temperature. The short range FM clusters are still retained in the nanocrystalline compound with average size ~ 35 nm which are associated with the SG component, displaying CG-like spin dynamics at low temperature. The exchange bias (EB) effect manifested by the shifts in the hysteresis loop is observed due to the field cooling where EB effect is weakened systematically with decreasing grain size. The decrease in the fraction of the FM component is found to be correlated with the weakening of the EB effect with decreasing grain size. Interestingly, the signature of the EB phenomenon due to the field-cooled effect is also

MY IOP Science

A user is required to create an account and obtain username and password to use the services of My IOP Science, mentioned below:

1. Email Alert

A user can subscribe to e-mail alerts to get periodic emails with links to new content automatically when new article are published. It also provides option to change the preference or delete the alert.

The screenshot shows the 'My Alerts' section of the IOPscience website. At the top, there are navigation tabs: 'Tagged Articles', 'My Searches', 'My Alerts', 'Downloads', and 'Order History'. Below this, a blue box contains the text: 'Set up email alerts to be notified of when new content is added to IOPscience. You can specify Table of Contents and search alerts, and choose how frequently you wish to receive updates.' Underneath, there are two alert categories: 'TOC Alerts' and 'Saved Search Alerts'. The 'TOC Alerts' section shows an alert for 'Journal of Physics A: Mathematical and Theoretical' with a frequency dropdown menu set to 'Weekly'. The 'Saved Search Alerts' section shows an alert for '(Field: Title/Abstract: "microscopy" and "electron")' with 5766 results. A red box highlights the 'Update' button at the bottom right of the alert settings.

2. Tagged articles: User can Tag articles of interest, view all the articles that have labeled with that tag or remove any articles.

3. My searches: A user can save the search in My searches for future use, so that he/she can return to it and rerun it or set up the alerts.

4. Downloads: View articles that have been downloaded in the last three months.

The screenshot shows the 'My IOPscience' section of the website. At the top, there are navigation tabs: 'Tagged Articles', 'My Searches', 'My Alerts', 'Downloads', and 'Order History'. Below this, there are several sections: 'My IOPscience article tags' with a tag cloud containing 'xiao yujiang'; 'Tagged Articles' with a list of articles and a 'View Articles That You Have Downloaded in the Last Three Months' button; 'Your last 10 viewed' and 'Your last 10 searches' sections. A red box highlights the 'Tagged Articles' tab, and another red box highlights the 'xiao yujiang' tag in the tag cloud. A blue box contains the text: 'Tag Articles of Interest to You, Represented as a Tag Cloud.' Another blue box contains the text: 'View Articles That You Have Downloaded in the Last Three Months'. A third blue box contains the text: 'Save Your Searches from Previous Results and Set up Alerts or Run Your Saved Searches Again to Find New Results'.