

COMPAGNIE ALGERIENNE
DE DOCUMENTATION
ET DE CONSEIL

Bases de données. Livres. Revues. Traités. Normes

IOPscience Extra

1

IOP Science Extra

Guide d'utilisation

E-mail: Info@cadoc.dz

Site: www.cadoc.dz



Adresse: Rue la flannelle, cité Ain ullah Dely brahim, Adresse Postale: B.P. 143 Alger Gare Algérie 16 000
Tél: (021) 91 03 52 , (070) 87 66 38, (021) 91 78 16 Fax: (021) 91 03 51 Adresse E-mail: cadoc@cadoc.dz



Quick searchTitle/Abstract All Dates Quick search

- All Fields
- Title/Abstract
- Author
- Affiliation
- Fulltext
- PACS/MSC Code

on your iPhone



IOPscience express is an iPhone application that allows you to access the latest IOP-owned journal content from your iPhone or iPod Touch.

[Find out more](#) about IOPscience express.

Welcome to IOPscience

IOPscience is a new platform for IOP-hosted journal content that incorporates some of the most innovative technologies to enhance your user experience.

- Find out more
- Download a user guide
- Take an online tour

Don't forget to create an account to customize IOPscience and to set up email alerts.

- Latest articles
- Most read
- Most cited
- Latest news

View by subject

All SubjectsAll DatesSearch

Find content

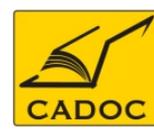
Select a JournalVol/Year:Issue/Month:Page/Article #:Search

Recherche Rapide

Cette rubrique apparaît sur la page d'accueil et toutes les autres pages. Vous pouvez rechercher dans tous les champs ou par auteur, affiliation, , full text et aussi par période de publication.

Trouver du Contenu

Trouver un article spécifique rapidement et facilement. Vous pouvez affiner par titre de journal, volume et numéro



Quick search

Welcome to IOPscience

IOPscience is a new platform for IOP-hosted journal content. It incorporates some of the most innovative technologies to enhance your user experience.

- [Find out more](#)
- [Download a user guide](#)
- [Take an online tour](#)

Don't forget to create an account to customize IOPscience and to set up email alerts.

IOPscience on your mobile



- All Subjects
- Accelerators, beams and electromagnetics
- Astrophysics and astroparticles
- Atomic and molecular physics
- Biological physics
- Chemical physics and physical chemistry
- Computational physics
- Condensed matter: electrical, magnetic and optical
- Condensed matter: structural, mechanical and materials
- Education and communication
- Electronics and devices
- Environmental and Earth science
- Fluid dynamics
- Gravitation and cosmology
- IOPscience mobile app
- Instrumentation and measurement
- Mathematical physics
- Medical physics
- Nanoscale science and low-D systems
- Nuclear physics
- Optics, quantum optics and lasers
- Particle physics and field theory
- Plasma physics
- Quantum gases, liquids and solids
- Quantum information and quantum computing
- Semiconductors
- Soft matter, liquids and polymers
- Statistical physics and nonlinear systems
- Superconductivity
- Surfaces, interfaces and thin films

Quick search

Abstract All Dates

Authors Referees Librarians

View by subject

All Subjects

All Dates

Search

Find content

Select a Journal

Vol/Year:

Issue/Month:

Page/Article #:

Search

- Latest articles Most read Most cited Latest news

Lister les articles par sujet

Latest articles

Most read

Most cited

Latest news

+ [The 12th International Workshop on Desorption Induced by Electronic Transitions \(DIET XII\) \(Pine Mountain, Georgia, USA, 19–23 April 2009\)](#)

Thomas M Orlando and Ulrike Diebold 2010 *J. Phys.: Condens. Matter* **22** 080301  Tag this article

+ [The nanostructure effect on the adhesion and growth rates of epithelial cells with well-defined nanoporous alumina substrates](#)

S H Chung *et al* 2010 *Nanotechnology* **21** 125104  Tag this article

+ [Surface photovoltage and photoluminescence spectroscopy of self-assembled InAs/InP quantum wires](#)

V Donchev *et al* 2010 *J. Phys.: Conf. Ser.* **210** 012041  Tag this article

+ [Binding energy of exciton in a nanowire superlattice in magnetic and electric fields](#)

J E Galván-Moya *et al* 2010 *J. Phys.: Conf. Ser.* **210** 012039  Tag this article

+ [An exciton trapped by an arbitrary shaped nanoring in a magnetic field](#)

J H Marín *et al* 2010 *J. Phys.: Conf. Ser.* **210** 012045  Tag this article

Your last 10 viewed

Your last 10 searches

1. [The influence of surface functionalization on the enhanced internalization of magnetic nanoparticles in cancer cells](#)

Angeles Villanueva *et al* 2009 *Nanotechnology* **20** 115103

Cette rubrique liste :
-Les articles les plus cités pendant les deux dernières années.

-Les articles les plus lus lues pendant les 30 derniers jours.

Rappelle les 10 derniers articles vus et les 10 dernières recherches effectuées.

Latest articles | Most read | Most cited | Latest news

[Super-thin probe finds fluorescing plaques](#)

Catheter-based NIR fluorescence imaging can help detect vulnerable plaque in coronary-sized arteries. [Story in full](#)

[Martian grains keep on bouncing](#)

'Hysteresis' keeps sand moving on Mars [Story in full](#)

[Small component, big opportunity](#)

Two-element VGA lens points the way to higher-resolution wafer-level cameras for ultraslim mobile phones [Story in full](#)

[Junctionless transistor makes its debut](#)

First proposed in 1925, device could revolutionize electronics [Story in full](#)

Donne les dernières nouvelles de l'actualité du monde de la recherche en physique publiés sur les sites des communautés de la recherche d'IOP

Welcome iopsciencetrial | Edit account | Logout | Athens/Institutional login

IOPscience

Quick Search

All Fields All Dates

Home **Search** Collections Journals About Contact us My IOPscience Authors Referees

Search

Quick help ?

Search, then filter by author, subject, journal, date range and PACS.
The counter automatically updates to show the number of matches to your search.

Search term All Fields All Dates Search now

From: yyyy To: yyyy

123456 IOPscience results

Find Content

Select a Journal

Vol/Year:

Issue/Month:

Page/Article #:

Go

PACS/MSC Search

Enter a PACS/MSC code description (e.g. spin*), or you can search for a PACS or MSC code itself (e.g. 12.10).

Search now

Subjects

Check All

- Accelerators, beams and electromagnetism
- Astrophysics and astroparticles
- Atomic and molecular physics
- Biological physics
- Chemical physics and physical chemistry
- Computational physics
- Condensed matter: electrical, magnetic and optical
- Condensed matter: structural, mechanical & thermal
- Education and communication
- Electronics and devices
- Environmental and Earth science
- Fluid dynamics
- Gravitation and cosmology
- Instrumentation and measurement
- Mathematical physics
- Medical physics
- Nanoscale science and low-D systems
- Nuclear physics
- Optics, quantum optics and lasers
- Particle physics and field theory
- Plasma physics
- Quantum gases, liquids and solids
- Quantum information and quantum mechanics
- Semiconductors
- Soft matter, liquids and polymers
- Statistical physics and nonlinear systems
- Superconductivity
- Surfaces, interfaces and thin films

Journals

Check All

- Biofabrication
- Bioinspiration & Biomimetics
- Biomedical Materials
- Chinese Journal of Chemical Physics
- Chinese Physics B
- Chinese Physics C
- Chinese Physics Letters
- Classical and Quantum Gravity
- Communications in Theoretical Physics
- Computational Science & Discovery
- EPL (Europhysics Letters)
- Environmental Research Letters
- European Journal of Physics
- Fluid Dynamics Research
- IOP Conference Series: Earth and Environmental Science
- IOP Conference Series: Materials Science and Engineering
- Inverse Problems
- Izvestiya: Mathematics
- Journal of Breath Research
- Journal of Cosmology and Astroparticle Physics
- Journal of Geophysics and Engineering
- Journal of High Energy Physics
- Journal of Instrumentation
- Journal of Micromechanics and Microengineering
- Journal of Neural Engineering
- Journal of Optics A: Pure and Applied Optics
- Journal of Physics A: Mathematical and Theoretical
- Journal of Physics B: Atomic, Molecular and Optical Physics

Champs de recherche

Vous pouvez pré-filtrer votre recherche en sélectionnant :

- Titre/Abstract
- Auteur
- Affiliation
- Full text
- Codes PACS/MSC
- Date
- Sujet
- journal

Vous pouvez utiliser les codes PACS ou MSC, vous pouvez entrer un code PACS/MSC ou un mot pour trouver le code correspondant.

Search results

IOPscience (36453) e-prints (2768) News and analysis (443)

(Field: All Fields: quantum optics) AND (Date: All Dates)

RSS this search

36453

IOPscience results

Save this search

Add to my alerts

Filter results by:

- PACS 42.60.Jf (4256) 42.55.Lt (2693) 42.79.Bh (2621)
- Dates 2009 (4) 2008 (17) 2007 (9)
- Subjects Optics, quantum optics and lasers (145) Instrumentation and measurement (76) Education and communication (29)
- Journals Meas. Sci. Technol. (61) Sov. J. Quantum Electron. (29) Quantum Electron. (18)
- Authors M F Bukhenskii (8) D A Jackson (6) J D C Jones (6)

Fulltext search within results:

Filter now

Export selected results

Order by: Publication Date

Page: Go

1 of 3646

Zernike aberrations when pupil varies: selection rules, missing modes and graphical method to identify modes

Silvia A Comastri, Karina Bastida, Arturo Bianchetti, Liliana I Perez, Gervasio D Pérez and Gabriel Martin
2009 J. Opt. A: Pure Appl. Opt. 11 085302 doi: 10.1088/1464-4258/11/8/085302

[View extract](#)

PACS 42.15.Fr 42.66.Ct 02.10.De 42.79.Bh 42.15.Dp

Tag this article

Full Text PDF (1.74MB)

Modeling and optimization of tensile shear strength of Titanium/Aluminum dissimilar welded component

E M Anawa, A G Olabi and F A Elshukri
2009 J. Phys.: Conf. Ser. 181 012033 doi: 10.1088/1742-6596/181/1/012033

[View extract](#)

PACS 62.20.F- 81.40.Lm 62.20.Qp 81.40.Np 81.20.Vj

Tag this article

Full Text PDF (860KB)

Résultats de la recherche

Nombre de résultats

Filtrer Les résultats

Affiner la recherche en choisissant d'autres critères.

Vous pouvez aussi affiner les recherches en rajoutant des mots clés à chercher dans le full text

Traiter vos résultats Enregistrer vos résultats

Vous pouvez enregistrer vos résultats pour y revenir ultérieurement
Créer un flux RSS
Créer une alerte e-mail qui vous donnera les nouveaux résultats concernant votre recherche.

Authors : vous pouvez cliquer sur un nom d'auteur pour afficher les autres articles de cet auteur

Vous permet d'exporter tous ou certains articles sélectionnés dans un format donné.

The screenshot shows the IOPscience search results interface. At the top, there is a navigation bar with links: Home, Search, Collections, Journals, About, Contact us, My IOPscience, Authors, Referees, Librarians. Below this is the 'Search Results' section. A search bar contains 'quantum optics' and shows 38580 results. There are buttons for 'e-prints (2858)' and 'News and Analysis (382)'. A red circle highlights three options: 'RSS this search', 'Save this search', and 'Add to my alerts'. Below the search bar is a 'Filter results by:' section with expandable categories: PACS, Dates, Subjects, Journals, and Authors. Each category has several sub-items with checkboxes and counts. A red arrow points from the text 'Créer un flux RSS' to the 'RSS this search' button. Another red arrow points from the text 'vous pouvez cliquer sur un nom d'auteur...' to the 'Authors' category. A third red arrow points from the text 'Vous permet d'exporter...' to the 'Export Results' button. At the bottom, there is a red arrow pointing to a blue box containing the text 'Voir un extrait'. The IOPscience logo and the CADOC logo are at the bottom center.

Home Search Collections Journals About Contact us My IOPscience Authors Referees Librarians

Search Results

Your search (38580) e-prints (2858) News and Analysis (382)

(Field: All Fields: quantum optics)

Filter results by:

Full text search within results:

Filter Now

Export Results Ordered by: Publication Date

Page: Go 1 of 3858

Edge-emitting InGaAs/GaAs laser with high temperature stability of wavelength and threshold current
N Yu Gordeev, I I Novikov, A V Chunareva, N D Il'inskaya, Yu M Shernyakov, M V Maximov, A S Payusov, N A Kalyuzhnyy, S A Mintairov, V M Lantratov, V A Shchukin and N N Ledentsov
2010 *Semicond. Sci. Technol.* 25 045003 doi: 10.1088/0268-1242/25/4/045003
View extract

A rigorous analysis using optimal transport theory for a two-reflector design problem with a point source
Tilman Glimm
2010 *Inverse Problems* 26 045001 doi: 10.1088/0266-5611/26/4/045001
View extract

Tag this article
Full text PDF (102 KB)

Tag this article
Full text PDF (893 KB)

Voix un extrait

IOPscience CADOC

Search Results

Your search (38580) **e-prints (2858)** **News and Analysis (382)**

(Field: All Fields: quantum optics)

RSS this search

38580

IOPscience Result(s)

Save this search

Add to my alerts

Filter results by:

- PACS 42.60.Jf (4367) 42.55.Lt (2726) 42.79.Bh (2720)
- Dates 2010 (476) 2009 (2740) 2008 (2319)
- Subjects Optics, quantum optics and lasers (36637) Instrumentation and measurement (7856) Electronics and devices (4641)
- Journals Sov. J. Quantum Electron. (6134) Quantum Electron. (3391) J. Phys. D: Appl. Phys. (2575)
- Authors A M Prokhorov (209) Evgenii M Dianov (206) P G Eliseev (126)

Full text search within results:

Filter Now

Export Results Ordered by: Publication Date

Page: Go

1 of 3858

[Edge-emitting InGaAs/GaAs laser with high temperature stability of wavelength and threshold current](#)
 N Yu Gordeev, I I Novikov, A V Chunareva, N D Il'inskaya, Yu M Sherniyakov, M V Maximov, A S Payusov, N A Kalyuzhnyy, S A Mintairov, V M Lantratov, V A Shchukin and N N Ledentsov
 2010 *Semicond. Sci. Technol.* **25** 045003 doi: [10.1088/0268-1242/25/4/045003](#)
 [View extract](#)

Tag this article

Full text PDF (102 KB)

[A rigorous analysis using optimal transport theory for a two-reflector design problem with a point source](#)
 Tilmann Glimm
 2010 *Inverse Problems* **26** 045001 doi: [10.1088/0266-5611/26/4/045001](#)
 [View extract](#)

Tag this article

Full text PDF (893 KB)

Tag This article
 Donner une description à un article donné (mot clé) pour un futur référencement.

Full-text PDF



Une recherche : trois types de résultats

Your Research
Contenu des journaux
à comité de lecture
d'IOP.

Home Search Collections Journals About Contact us My IOPscience Authors Referees Librarians

Search Results

Your search (38580) e-prints (2858) News and Analysis (382)

(Field: All Fields: quantum optics) RSS this search **38580** IOPscience Result(s)
Save this search
Add to my alerts

Filter results by:

<input checked="" type="checkbox"/> PACS	<input type="checkbox"/> 42.60.Jf (4367)	<input type="checkbox"/> 42.55.Lt (2726)	<input type="checkbox"/> 42.79.Bh (2720)
<input checked="" type="checkbox"/> Dates	<input type="checkbox"/> 2010 (476)	<input type="checkbox"/> 2009 (2740)	<input type="checkbox"/> 2008 (2319)
<input checked="" type="checkbox"/> Subjects	<input type="checkbox"/> Optics, quantum optics and lasers (36637)	<input type="checkbox"/> Instrumentation and measurement (7856)	<input type="checkbox"/> Electronics and devices (4641)
<input checked="" type="checkbox"/> Journals	<input type="checkbox"/> Sov. J. Quantum Electron. (6134)	<input type="checkbox"/> Quantum Electron. (3391)	<input type="checkbox"/> J. Phys. D: Appl. Phys. (2575)
<input checked="" type="checkbox"/> Authors:	<input type="checkbox"/> A M Prokhorov (209)	<input type="checkbox"/> Evgenii M Dianov (206)	<input type="checkbox"/> P G Eliseev (126)

Full text search within results:

Filter Now

Export Results Ordered by: Publication Date Page: **Go** 1 of 3858 ▶

Edge-emitting InGaAs/GaAs laser with high temperature stability of wavelength and threshold current
 N Yu Gordeev, I I Novikov, A V Chunareva, N D Il'inskaya, Yu M Shernyakov, M V Maximov, A S Payusov, N A Kalyuzhnyy, S A Mintairov, V M Lantratov, V A Shchukin and N N Ledentsov
 2010 *Semicond. Sci. Technol.* 25 045003 doi: [10.1088/0268-1242/25/4/045003](https://doi.org/10.1088/0268-1242/25/4/045003)
 View extract Tag this article Full text PDF (102 KB)

A rigorous analysis using optimal transport theory for a two-reflector design problem with a point source
 Tilmann Glimm
 2010 *Inverse Problems* 26 045001 doi: [10.1088/0266-5611/26/4/045001](https://doi.org/10.1088/0266-5611/26/4/045001)
 View extract Tag this article Full text PDF (893 KB)



Search Results

Your search (38580)

e-prints (2858)

News and analysis (382)

These are e-print results from eprintweb.org which is based on arXiv.org from Cornell University Library.

You searched for: (Field: All Fields: quantum optics)

Page: 1 2 3 4 5 6 7 8 9 Last »

Eprints 1 – 20 of 2858

Optical Lattices with Micromechanical Mirrors

< Hammerer, K. Stannigel, C. Genes, P. Zoller, F. Treutlein, S. Camerer, D. Hunger, T. W. Haensch

[View extract on eprintweb.org](#)



View full text on arxiv.org

[quant-ph/1002.4646](#) (2010)

Toward demonstrating controlled-X operation based on continuous variable four-partite cluster state and quantum teleporters

Yu Wang, Xiaolong Su, Heng Shen, Aihong Tan, Changde Xie, Kunchi Peng

Journal-ref: Phys. Rev. A 81, 022311 (2010)

[View extract on eprintweb.org](#)



View full text on arxiv.org

[quant-ph/1002.4272](#) (2010)

E-Prints
Résultats trouvés
sur le site [arXiv.org](#)
: sites contenant des
journaux gratuits.

Search Results

Your search (38580)

e-prints (2858)

News and analysis (382)

Created to promote innovation, growth and networking within physics and related disciplines, these sites provide both a valuable information source and an international forum within which community members can share and exchange their views.

You searched for: (Field: All Fields: quantum optics)

Page: 1 2 3 4 5 6 7 8 9 Last »

Results 1 – 33 of 382

News, Analysis and Opinion (369)

[Photo finish in race for strontium condensate](#)

2009/11/19

Photo finish in race for strontium condensate An Austrian group has beaten its US counterpart by a matter of days in a race to create a Bose-Einstein condensate (BEC) of strontium atoms. Researchers at the Institute of Quantum Optics and Information (IQOQI) at the Austrian Academy of Sciences submitted their paper on a strontium BEC – a mass of ultracold atoms all in the same quantum state – just 10 days before those at Rice University in Houston, Texas. The IQOQI group used it to create ...

[physicsworld.com](#)
[Nanodiamonds are a NSQM's best friend](#)

Industry, Jobs and Events (13)

[MSc in Quantum Technologies - Leeds, UK](#)

2010/03/01

MSc in Quantum Technologies - Leeds, UK University of Leeds School of Physics and Astronomy Faculty of Mathematics and Physical Sciences MSc in Quantum Technologies Quantum Information Science Quantum Optics Advanced Quantum Computation Spintronics Gain an understanding of the fundamental theories behind different quantum technologies and the principles and implementations of quantum information processing systems at one of the UK's foremost, research led Physics departments. For further ...

Type: X03 jobs

[CERN COURIER](#)

News and Anlysis

Articles publiés sur le site
Physicsworld.com : site de
la communauté de IOP.

IOPcollections

These special collections provide instant access to IOP articles chosen for their quality and recency. Use the filters to refine your results for each collection.

- Collection type.**
- IOPselect**
- latest papers
- featured articles
- physics reviews

IOPselect (405) RSS this search

Articles from the last 12 months that have been chosen by our editors for their novelty, significance and potential impact on future research. All select articles are first published in the source journals.

Select All Journals

Select All Subjects

All dates

Go

Export selected results

1 of 3646

Zernike aberrations when pupil varies: selection rules, missing modes and graphical method to identify modes

Silvia A Comastri, Karina Bastida, Arturo Bianchetti, Liliana I Perez, Gervasio D Pérez and Gabriel Martin

2009 *J. Opt. A: Pure Appl. Opt.* **11** 085302 doi: [10.1088/1464-4258/11/8/085302](https://doi.org/10.1088/1464-4258/11/8/085302)

[View extract](#)
PACS [42.15.Fr](#) [42.66.Ct](#) [02.10.De](#) [42.79.Bh](#) [42.15.Dp](#)

Tag this article

Full Text PDF (1.74MB)

IOP select

Choisies par nos éditeurs pour leur nouveauté et leur impact sur le futur de la recherche.

Modeling and optimization of tensile shear strength of Titanium/Aluminum dissimilar welded component

E M Anawa, A G Olabi and F A Elshukri

2009 *J. Phys.: Conf. Ser.* **181** 012033 doi: [10.1088/1742-6596/181/1/012033](https://doi.org/10.1088/1742-6596/181/1/012033)

[View extract](#)
PACS [62.20.F-](#) [81.40.Lm](#) [62.20.Qp](#) [81.40.Np](#) [81.20.Vj](#)

Tag this article

Full Text PDF (860KB)

Latest papers

Publiés le mois précédent

Determination of refractive index variation of a glass-integrated optical waveguide by the acousto-optic effect

Luiz Poffo, Pierre Lemaître-Auger, Philippe Benech and Pierre Benech

2009 *2009 Meas. Sci. Technol.* **20** 045303 doi: [10.1088/0957-0233/20/4/045303](https://doi.org/10.1088/0957-0233/20/4/045303)

[View extract](#)
PACS [78.20.Ci](#) [42.70.Ce](#) [42.79.Gn](#) [77.84.Dy](#) [78.20.Hp](#)

Tag this article

Full Text PDF (122KB)

Featured Articles.

Articles récents intéressants.

Merocyanine dyes: synthesis, structure, properties and applications

A V Kulninch and Aleksandr A Ishchenko

2009 *Russ. Chem. Rev.* **78** 141 doi: [10.1070/RC2009v078n02ABEH003900](https://doi.org/10.1070/RC2009v078n02ABEH003900)

[View extract](#)

Tag this article

Full Text PDF (376KB)

Temperature measurement of an axisymmetric flame by using a schlieren system

C Alvarez-Herrera, D Moreno-Hernándezre and B Barrientos-García

2009 *J. Opt. A: Pure Appl. Opt.* **10** 104014 doi: [10.1088/1464-4258/10/10/104014](https://doi.org/10.1088/1464-4258/10/10/104014)

[View extract](#)

Keywords: temperature measurement, schlieren method, POD method.
Introduction: The measurement of temperature is an important task in several areas of science. has also been used to obtain quantitative temperature data in flows [4, 11–16]. For this, several approaches have been proposed, such as color schlieren [11, 13, 14], background schlieren [12, 15] and calibration schlieren [7, 16, 17]. Classical schlieren systems include a point-like light source, usually a xenon flash lamp. This is

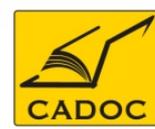
PACS [42.79.Mt](#) [07.20.Dt](#) [02.10.Ud](#) [47.70.Pq](#)

Tag this article

Full Text PDF (376KB)

Physics Reviews

Regroupe tous les articles « Review »



IOP Collections
Accès instantané à une collection d'articles récents choisis pour leur qualité



Liste des titres

[Current Titles](#)
[Publishing Partners](#)
[Journal Archive](#)

Biofabrication

Bioinspiration & Biomimetics

Biomedical Materials

Chinese Journal of Chemical Physics

Chinese Physics B

Chinese Physics C

Chinese Physics Letters

Classical and Quantum Gravity

Communications in Theoretical Physics

Computational Science & Discovery

EPL (Europhysics Letters)

Environmental Research Letters

European Journal of Physics

Fluid Dynamics Research

IOP Conference Series: Earth and Environmental Science

IOP Conference Series: Materials Science and Engineering

Journal of Statistical Mechanics: Theory and Experiment

Measurement Science and Technology

Metrologia

Modelling and Simulation in Materials Science and Engineering

Nanotechnology

New Journal of Physics

Nonlinearity

Nuclear Fusion

Physica Scripta

Physical Biology

Physics Education

Physics in Medicine and Biology

Physics-Uspekhi

Physiological Measurement

Plasma Physics and Controlled Fusion

Plasma Science and Technology

View by subject

All Subjects

All Dates

Search

[Home](#) [Search](#) [Collections](#) [Journals](#) [About](#) [Contact us](#) [My IOPscience](#)

Éditeurs partenaires

[Current Titles](#) [Publishing Partners](#) [Journal Archive](#)

American Astronomical Society

The Astronomical Journal
 The Astrophysical Journal
 The Astrophysical Journal Letters
 The Astrophysical Journal Supplement Series

Bureau International des Poids et Mesures

Metrologia

Chinese Astronomical Society and National Astronomical Observatories

Research in Astronomy and Astrophysics

Chinese Institute of Electronics and the Institute of Semiconductors

Journal of Semiconductors

[Home](#) [Search](#) [Collections](#) [Journals](#) [About](#) [Contact us](#) [My IOPscience](#)

Archives de journaux

[Current Titles](#) [Publishing Partners](#) [Journal Archive](#)

[Journal of Physics A: General Physics](#) (1968-1972)

[Journal of Physics A: Mathematical and General](#) (1975-2006)

[Journal of Physics A: Mathematical and Theoretical](#) (2007 to date)

[Journal of Physics A: Mathematical, Nuclear and General](#) (1973-1974)

[Journal of Physics B: Atomic and Molecular Physics](#) (1968-1987)

[Journal of Physics B: Atomic, Molecular and Optical Physics](#) (1988 to date)

[Journal of Physics C: Solid State Physics](#) (1968-1988)

[Journal of Physics: Condensed Matter](#) (1989 to date)

[Journal of Physics D: Applied Physics](#) (1968 to date)

[Journal of Physics E: Scientific Instruments](#) (1968-1989)

[Journal of Physics F: Metal Physics](#) (1971-1988)

[Journal of Physics G: Nuclear and Particle Physics](#) (1989 to date)



This journal is concerned with all aspects of applied physics research, from magnetism, plasmas and semiconductors to the structure and properties of matter. From 2010, the journal will be published 50 times a year.

Latest Issue (Complete)
Number 10, 17 March 2010 (105001-105503)

Dernier Numéro

ISSN 0022-3727 (Print)
ISSN 1361-6463 (Online)

Create an alert RSS this journal

Volume listings

Current volume
Number 10, 17 March 2010

Journal archive
Vol 43, 2010

Forthcoming articles

An advance list of articles that have been accepted for publication.

2.104 2008 Impact Factor

Journal links

- [Journal home](#)
- [Scope](#)
- [Editorial board](#)
- [Abstracted in](#)
- [Author benefits](#)
- [Highlights of 2008](#)
- [Editorial information](#)
- [Fast Track Communications](#)
- [Copyright & permissions](#)
- [Contact us](#)
- [Submit an article](#)

IOPscience | express
on your iPhone

View by subject

Créer une alerte par email ou par flux RSS (sur google par ex)
Pour recevoir le contenu des dernières parutions.

Même menu que la page d'accueil sauf qu'il ne concerne que le journal sélectionné.

[Most read](#) | **[Most cited](#)** | [Latest articles](#) | [Select articles](#) | [Review articles](#)

In the last 30 days

- + [Investigation of discharge mechanisms in helium plasma jet at atmospheric pressure by laser spectroscopic measurements](#)
 Keiichiro Urabe *et al* 2010 *J. Phys. D: Appl. Phys.* **43** 095201  Tag this article
- + [Deconvolution of spectral line profiles: solution of the inversion problem](#)
 A Brablec *et al* 1999 *J. Phys. D: Appl. Phys.* **32** 1870  Tag this article
- + [Reactive sputter deposition of TiN layers: modelling the growth by characterization of particle fluxes towards the substrate](#)
 S Mahieu and D Depla 2009 *J. Phys. D: Appl. Phys.* **42** 053002  Tag this article
- + [Applications of magnetic nanoparticles in biomedicine](#)
 Q A Pankhurst *et al* 2003 *J. Phys. D: Appl. Phys.* **36** R167  Tag this article

Présentation de l'article

Home Search Collections Journals About Contact us My IOPscience Authors Referees Librarians

Investigation of discharge mechanisms in helium plasma jet at atmospheric pressure by laser spectroscopic measurements

Author Keiichiro Urabe¹, Tadasuke Morita¹, Kunihide Tachibana^{1,2} and Biswa N Ganguly³

Affiliations ¹ Department of Electronic Science and Engineering, Kyoto University, Kyoto-daigaku Katsura Nishikyo-ku, Kyoto 615-8510, Japan
² Promotion Laboratory for Plasma and Photonic Science Researches, Ehime University, 3 Bunkyo-cho, Matsuyama, Ehime 790-8577, Japan
³ Air Force Research Laboratory, Wright Patterson Air Force Base, OH 45433-7251, USA

Journal [Journal of Physics D: Applied Physics](#)  Create an alert  RSS this journal

Issue [Volume 43, Number 9](#)

Citation Keiichiro Urabe *et al* 2010 *J. Phys. D: Appl. Phys.* **43** 095201
 doi: [10.1088/0022-3727/43/9/095201](https://doi.org/10.1088/0022-3727/43/9/095201)

Article links

- [Post to CiteULike](#)
- [Post to Connotea](#)
- [Post to Bibsonomy](#)

 BOOKMARK 

View by subject

All Subjects

All Dates

All journals This journal only

Envoyer vers un outil de gestion de références bibliographiques

Références :
Vous permet
de voir et
d'accéder aux
articles cités

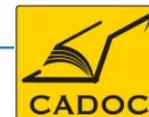
Articles similaires

**Codes PACS des
mots clés de l'article**

**Thèmes cernés par
l'article**

Article	References Related Articles beta
	 Tag this article  Full text PDF (2.72 MB)
Abstract	<p>We have measured spatiotemporal structures of excited species by laser spectroscopic methods in a plasma jet, which was driven by a bipolar impulse voltage pulse train of the order of kilohertz repetition rate applied across a pair of electrodes wrapped around a glass tube with a helium gas flow. We noticed the differences between the positive and the negative phases of the voltage applied to the front-side electrode placed closer to the tube exit while the back-side electrode was grounded. The experimental results showed that the radial distribution of the excited species had a hollow shape at the centre in the positive voltage phase, while it had a more uniform shape in the negative phase. The peak density of the helium metastable atom in the positive phase was almost constant irrespective of the peak applied voltage. However, it increased with the increase in the peak applied voltage in the negative phase. The mechanism causing these differences was argued from the respects of positive and negative corona discharges. We have also investigated the property of the plasma plume under conditions similar to material processing with a conductive substrate placed in front of the plasma jet. In this case, the plasma production by electron impact ionization became dominant near the substrate as was revealed from the spatiotemporal distributions of helium metastable atom and nitrogen ion densities.</p>
PACS	<p>52.80.Hc Glow; corona 52.25.Jm Ionization of plasmas 52.70.Kz Optical (ultraviolet, visible, infrared) measurements 52.25.Os Emission, absorption, and scattering of electromagnetic radiation 52.50.Dg Plasma sources</p>
Subjects	<p>Instrumentation and measurement Plasma physics</p>
Dates	<p>Issue 9 (10 March 2010) Received 1 novembre 2009 , in final form 21 janvier 2010 Published 15 février 2010</p>

IOPscience



Export

BibTeX format (bib) 



Abstract



References

Export Results

[Home](#)
[Search](#)
[Collections](#)
[Journals](#)
[About](#)
[Contact us](#)
[My IOPscience](#)
[Authors](#)
[Referees](#)
[Librarians](#)

My IOPscience

Introducing the quick and easy way to personalise your IOPscience. Use the settings in this section to control what you see and the way you see it.

My IOPscience article tags

manage 

ablation materials

[Tagged Articles](#)
[My Searches](#)
[My Alerts](#)
[Downloads](#)
[Order History](#)

All your tagged articles are listed below.

Click on any tag to view all the articles you have labelled with that tag, or remove any articles you no longer want to keep tagged.

[Effect of nonlinear light scattering in air on ablation of materials produced by femtosecond laser pulses](#)

Date last tagged: 03/03/2010 11:19:24

Tags: [ablation materials](#)

 Clear

Tous les mots clés descriptifs que vous avez choisis pour les articles