Per Michael Johansen - Publications - DTU Orbit (25/01/2016)

Analytical and numerical study on grating depth effects in grating coupled waveguide sensors

The in-coupling process for grating-coupled planar optical waveguide sensors is investigated in the case of TE waves. A simple analytical model based on the Rayleigh-Fourier-Kiselev method is applied to take into account the depth of the grating coupler, which is usually neglected in the modeling. Analytical expressions are derived both for the position and width of the in-coupling peaks to illustrate the effects of grating depth on the guided mode resonances in grating coupled waveguide sensors. Numerical computations verify the model for shallow gratings both in terms of peak shape and position and provide the limitations for the analytical formulas.

General information

State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Horvath, R. (Intern), Wilcox, L. (Ekstern), Pedersen, H. (Intern), Skivesen, N. (Ekstern), Hesthaven, J. (Ekstern), Johansen, P. (Intern)
Pages: 65-73
Publication date: 2005
Main Research Area: Technical/natural sciences

Publication information

Journal: Applied Physics B-Lasers and Optics
Volume: 81
Issue number: 1
ISSN (Print): 0946-2171
Ratings:

BFI (2015): BFI-level 1

BFI (2014): BFI-level 1

ISI indexed (2013): ISI indexed yes

BFI (2013): BFI-level 1

BFI (2012): BFI-level 1

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BFI (2011): BFI-level 1

ISI indexed (2011): ISI indexed yes

BFI (2010): BFI-level 1

BFI (2009): BFI-level 1

BFI (2008): BFI-level 1
Original language: English
DOIs:

10.1007/s00340-005-1841-2
Source: orbit
Source-ID: 308185
Publication: Research - peer-review › Journal article – Annual report year: 2005

Limitations of the stretched exponential function for describing dynamics in disordered solid materials

General information

State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Apitz, D. (Intern), Johansen, P. (Intern)
Pages: 063507 (4 pages)
Publication date: 2005
Main Research Area: Technical/natural sciences

Publication information

Journal: Journal of Applied Physics
Volume: 97
ISSN (Print): 0021-8979
Ratings:

BFI (2015): BFI-level 1

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ISI indexed (2013): ISI indexed yes

BFI (2013): BFI-level 1
BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
DOIs:
10.1063/1.1852069
Source: orbit
Source-ID: 307933
Publication: Research - peer-review › Journal article – Annual report year: 2005

Theoretical study of conjugated porphyrin polymers

The optical gap of conjugated triply linked porphyrin chains is exceptionally low (similar to 0.5 eV). Hence, such chains are candidates for organic infrared detectors and solar cells harvesting the infrared part of the solar spectrum. However, a low exciton binding energy is required for these applications. From a theoretical analysis of excitons in long metalloporphyrin chains, we demonstrate that the binding energy is much lower than in usual conjugated polymers. Our calculated absorption spectra are in good agreement with measurements. (c) 2004 Elsevier B.V. All rights reserved.

General information

State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, T. (Ekstern), Lynge, T. (Ekstern), Kristensen, P. (Ekstern), Johansen, P. (Intern)
Keywords: (Conjugated polymers, Porphyrin, Excitons)
Pages: 182-186
Publication date: 2005
Conference: 2nd International Conference on Materials for Advanced Technologies, Singapore, Singapore, 07/12/2003 - 07/12/2003
Main Research Area: Technical/natural sciences

Publication information

Journal: Thin Solid Films
Volume: 477
Issue number: 1-2
ISSN (Print): 0040-6090
Ratings:
BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 1
BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 2
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 2
BFI (2009): BFI-level 2
BFI (2008): BFI-level 1
Original language: English
DOIs:
10.1016/j.tsf.2004.08.131
Source: orbit
Source-ID: 307931
Publication: Research - peer-review › Conference article – Annual report year: 2005

UV and RIR matrix assisted pulsed laser deposition of organic MEH-PPV films

A comparative study of thin film production based on gentle laser-ablation techniques has been carried out with the luminescent polymer poly [2-methoxy-5-(2'-ethylhexyloxy)-1,4-phenylene vinylene]. Using a free-electron laser films were made by resonant infrared pulsed laser deposition (RIR-PLD). For the first time resonant infrared matrix assisted pulsed laser evaporation (RIR-MAPLE) was successfully demonstrated on a luminescent polymer system. In addition to this, an excimer laser has been used for UV-MAPLE depositions at 193 and 248-nm irradiation. Films deposited onto NaCl and quartz substrates were analyzed by Fourier transform infrared spectroscopy, UV-visible absorbance and photoluminescence. Photoluminescent material was deposited by RIR-MAPLE and 248-nm MAPLE, while the RIR-PLD and 193-nm-MAPLE depositions displayed the smoothest surfaces but did not show photoluminescence. (C) 2003 Elsevier B.V. All rights reserved.

General information

State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Christensen, B. T. (Intern), Papantonalis, M. (Ekstern), Auyeung, R. (Ekstern), Kim, W. (Ekstern), O'Malley, S. (Ekstern), Bubb, D. (Ekstern), Horwitz, J. (Ekstern), Schou, J. (Intern), Johansen, P. (Intern), Haglund Jr., R. (Ekstern)
Pages: 177-181
Publication date: 2004
Conference: E-MRS 2003 Spring Conference, Strasbourg, France, 10/06/2003 - 10/06/2003
Main Research Area: Technical/natural sciences

Publication information

Journal: Thin Solid Films
Volume: 453-454
ISSN (Print): 0040-6090
Ratings:

BFI (2015): BFI-level 1

BFI (2014): BFI-level 1

ISI indexed (2013): ISI indexed yes

BFI (2013): BFI-level 1

BFI (2012): BFI-level 1

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BFI (2010): BFI-level 2

BFI (2009): BFI-level 2

BFI (2008): BFI-level 1
Original language: English
DOIs:

10.1016/j.tsf.2003.11.099
Source: orbit
Source-ID: 306747
Publication: Research - peer-review › Conference article – Annual report year: 2004

Dynamics of electro-optic polymers

General information

State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern), Apitz, D. (Intern), Jespersen, K. (Ekstern), Pedersen, T. (Ekstern)
Number of pages: 11
Publication date: 2003

Host publication information

Title of host publication: Proceedings
Place of publication: Espoo
Publisher: Helsinki University of Technology, Department of Engineering Physics and Mathematics
Editor: Noponen, E.
ISBN (Print): 951-22-6596-6)
Main Research Area: Technical/natural sciences
Conference: Northern Optics 2003, Espoo, Finland, 16/06/2003 - 16/06/2003

Source: orbit
Source-ID: 306323
Publication: Research › Conference abstract in proceedings – Annual report year: 2003

Electro-optic response of chromophores in a viscoelastic polymer matrix to a combined dc and ac poling field

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Jespersen, K. (Ekstern), Pedersen, T. (Ekstern), Johansen, P. (Intern)
Pages: 2179-2188
Publication date: 2003
Main Research Area: Technical/natural sciences

Publication information
Journal: Optical Society of America. Journal B: Optical Physics
Volume: 20
ISSN (Print): 0740-3224
Ratings:

BFI (2015): BFI-level 1

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ISI indexed (2013): ISI indexed yes

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BFI (2011): BFI-level 1

ISI indexed (2011): ISI indexed yes

BFI (2010): BFI-level 1

BFI (2009): BFI-level 1

BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 305968
Publication: Research - peer-review › Journal article – Annual report year: 2003

Orientational dynamics in dye-doped organic electro-optic materials
The time dependent birefringence of polymer-based electro-optic materials is investigated using ellipsometry. We show that the birefringence after switching off the poling field does not depend only on the induced refractive index, but also on how that level was reached. The role of the poling voltage and poling time is discussed in turn-on and turn-off experiments and an original curve-fit function is introduced. We also propose a schematic model of the polymer dynamics in the system, which is consistent with complementary dielectric measurements. © 2003 American Institute of Physics.

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General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Apitz, D. (Intern), Svanberg, C. (Ekstern), Jespersen, K. (Intern), Pedersen, T. (Ekstern), Johansen, P. (Intern)
Pages: 6263-6268
Publication date: 2003
Main Research Area: Technical/natural sciences

Publication information
Journal: Journal of Applied Physics
Volume: 94
Issue number: 10
ISSN (Print): 0021-8979
Ratings:

BFI (2015): BFI-level 1

BFI (2014): BFI-level 1
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 1
BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
DOIs:
10.1063/1.1621725
Source: orbit
Source-ID: 306036
Publication: Research - peer-review › Journal article – Annual report year: 2003

Orientational dynamics in dye-doped organic electro-optic materials

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Apitz, D. (Intern), Svanberg, C. (Ekstern), Jespersen, K. (Ekstern), Pedersen, T. (Ekstern), Johansen, P. (Intern)
Publication date: 2003
Event: Abstract from 9. International conference on photorefractive effects, materials, and devices (PR'03), post-deadline paper, La Colle sur Loup (FR), 17-21 Jun, .
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 306324
Publication: Research › Conference abstract for conference – Annual report year: 2003

Photorefractive space-charge field formation: Linear and nonlinear effects

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern)
Pages: S398-S415
Publication date: 2003
Main Research Area: Technical/natural sciences

Publication information
Journal: Journal of Optics A: Pure and Applied Optics (Print)
Volume: 5
ISSN (Print): 1464-4258
Ratings:
BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 1
BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1

BFI (2008): BFI-level 1
Original language: English
DOIs:
10.1088/1464-4258/5/6/R302
Source: orbit
Source-ID: 306184
Publication: Research - peer-review › Journal article – Annual report year: 2003

Polymer light emitting diodes

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Kristensen, P. (Ekstern), Pedersen, T. (Ekstern), Johansen, P. (Intern)
Pages: 9-11
Publication date: 2003
Main Research Area: Technical/natural sciences

Publication information
Journal: DOPS-Nyt
Volume: 18
Issue number: 2
Ratings:
ISI indexed (2013): ISI indexed no
ISI indexed (2012): ISI indexed no
ISI indexed (2011): ISI indexed no
Original language: English
Source: orbit
Source-ID: 306326
Publication: Communication › Journal article – Annual report year: 2003

Theoretical study of conjugated porphyrin polymers

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, T. (Ekstern), Lynge, T. (Ekstern), Kristensen, P. (Ekstern), Johansen, P. (Intern)
Publication date: 2003
Event: Abstract from 2nd International Conference on Materials for Advanced Technologies, Singapore, Singapore.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 306325
Publication: Research › Conference abstract for conference – Annual report year: 2003

AC and DC electro-optic response of dipoles in a viscoelastic polymer matrix (poster)

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Jespersen, K. (Intern), Pedersen, T. (Ekstern), Johansen, P. (Intern)
Publication date: 2002

Host publication information
Title of host publication: Programme. Abstracts. List of participants
Place of publication: Copenhagen
Publisher: HCØ Tryk
Main Research Area: Technical/natural sciences
Conference: 2002 Annual meeting of the Danish Physical Society, Nyborg, Denmark, 30/05/2002 - 30/05/2002

Links:
http://www.nbi.dk/dfs/
Source: orbit
Source-ID: 304110
Publication: Research › Conference abstract in proceedings – Annual report year: 2002

A study on Matrix assisted pulsed laser deposition of organic MEH-PPV films (poster)

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Christensen, B. T. (Intern), Jespersen, K. (Intern), Schou, J. (Intern), Johansen, P. (Intern)
Publication date: 2002

Host publication information
Title of host publication: Book of abstracts
Place of publication: Roskilde
Publisher: Dansk Optisk Selskab; Forskningscenter Risø
Main Research Area: Technical/natural sciences
Conference: Annual meeting of the Danish Optical Society 2002, Risø, Denmark, 21/11/2002 - 21/11/2002
Source: orbit
Source-ID: 304819
Publication: Research › Conference abstract in proceedings – Annual report year: 2002

dc and ac electro-optic response of chromophores in a viscoelastic polymer matrix: analytical model

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, T. (Ekstern), Jespersen, K. (Intern), Johansen, P. (Intern), Wyller, J. (Ekstern)
Pages: 2622-2631
Publication date: 2002
Main Research Area: Technical/natural sciences

Publication information
Journal: Optical Society of America. Journal B: Optical Physics
Volume: 19
ISSN (Print): 0740-3224
Ratings:
BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
ISI indexed (2013): ISI indexed yes
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BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 304887
Publication: Research - peer-review › Journal article – Annual report year: 2002

Dynamics of organic holographic materials

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Svanberg, C. (Ekstern), Apitz, D. (Ekstern), Jespersen, K. (Intern), Johansen, P. (Intern)
Pages: 95-102
Publication date: 2002

Host publication information
Title of host publication: Organic photorefractive and photosensitive materials for holographic applications
Place of publication: Bellingham, WA
Publisher: International Society for Optical Engineering
Editor: Meerholz
ISBN (Print): 0-8194-4570-3

Series: SPIE Proceedings Series, 4802
Main Research Area: Technical/natural sciences
Conference: SPIE annual meeting, Seattle (US), 7-11 Jul, 01/01/2002
Source: orbit
Source-ID: 304889
Publication: Research › Article in proceedings – Annual report year: 2002

Dynamics of organic holographic materials (poster)

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Apitz, D. (Intern), Svanberg, C. (Ekstern), Jespersen, K. (Intern), Johansen, P. (Intern), Jespersen, T. (Ekstern)
Publication date: 2002

Host publication information
Title of host publication: Book of abstracts
Place of publication: Roskilde
Publisher: Dansk Optisk Selskab; Forskningscenter Risø
Main Research Area: Technical/natural sciences
Conference: Annual meeting of the Danish Optical Society 2002, Risø, Denmark, 21/11/2002 - 21/11/2002
Source: orbit
Source-ID: 304816
Publication: Research › Conference abstract in proceedings – Annual report year: 2002

Electro-optic polymers

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, T. (Ekstern), Lynge, T. (Ekstern), Johansen, P. (Intern), Jespersen, K. (Intern)
Pages: 34-38
Publication date: 2002
Main Research Area: Technical/natural sciences

Publication information
Journal: DOPS-Nyt
Volume: 17
Issue number: 2
Ratings:

ISI indexed (2013): ISI indexed no

ISI indexed (2012): ISI indexed no

ISI indexed (2011): ISI indexed no
Original language: English
Source: orbit

Source-ID: 304890
Publication: Communication › Journal article – Annual report year: 2002

Investigations on organic and inorganic optical materials

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern)
Publication date: 2002
Event: Abstract from Visit to University of Bonn, Bonn (DE), 28-31 Oct, .
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 304891
Publication: Research › Conference abstract for conference – Annual report year: 2002

The combined ac and dc electro-optic response of an azo-dye containing viscoelastic polymer matrix

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Jespersen, K. (Intern), Pedersen, T. (Ekstern), Johansen, P. (Intern)
Pages: 747-748
Publication date: 2002

Host publication information
Title of host publication: Technical digest. Part 2
Place of publication: Bellingham, WA
Publisher: International Society for Optical Engineering
Editors: Consortini, A., Righini, G.
ISBN (Print): 0-8194-4569-7

Series: SPIE Proceedings Series, 4829
Main Research Area: Technical/natural sciences
Conference: 19th Congress of the International Commission for Optics (ICO 19), Firenze, Italy, 25/08/2002 - 25/08/2002
Source: orbit
Source-ID: 304888
Publication: Research › Article in proceedings – Annual report year: 2002

The combined ac and dc electro-optic response of chromophores in a viscoelastic polymer matrix

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Jespersen, K. (Intern), Johansen, P. (Intern), Pedersen, T. (Ekstern)
Publication date: 2002

Host publication information
Title of host publication: Book of abstracts
Place of publication: Roskilde
Publisher: Dansk Optisk Selskab; Forskningscenter Risø
Main Research Area: Technical/natural sciences
Conference: Annual meeting of the Danish Optical Society 2002, Risø, Denmark, 21/11/2002 - 21/11/2002
Source: orbit
Source-ID: 304812
Publication: Research › Conference abstract in proceedings – Annual report year: 2002

Analytical modeling of two beam coupling during grating translation in photorefractive media

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, H. (Intern), Johansen, P. (Intern), Pedersen, T. (Ekstern)
Pages: 377-385
Publication date: 2001
Main Research Area: Technical/natural sciences

Publication information
Journal: Optics Communications
Volume: 192
ISSN (Print): 0030-4018
Ratings:
BFI (2015): BFI-level 2
BFI (2014): BFI-level 2
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 2
BFI (2012): BFI-level 2
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 2
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 2
BFI (2009): BFI-level 2
BFI (2008): BFI-level 2
Original language: English
DOIs:
10.1016/S0030-4018(01)01205-6
Source: orbit
Source-ID: 302641
Publication: Research - peer-review › Journal article – Annual report year: 2001

Description of the photorefractive response in polymers

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Podivilov, E. (Ekstern), Sturman, B. (Ekstern), Johansen, P. (Intern), Pedersen, T. (Ekstern)
Pages: 226-228
Publication date: 2001
Main Research Area: Technical/natural sciences

Publication information
Journal: Optics Letters
Volume: 26
ISSN (Print): 0146-9592
Ratings:
BFI (2015): BFI-level 2
BFI (2014): BFI-level 2
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 2
BFI (2012): BFI-level 2
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 2
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 2
BFI (2009): BFI-level 1

BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 302267
Publication: Research - peer-review › Journal article – Annual report year: 2001

Fotorefraktive materialer - et skoleeksempel inden for den ikke-lineære optik

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern), Pedersen, H. (Intern), Petersen, P. (Intern)
Pages: 10-17
Publication date: 2001
Main Research Area: Technical/natural sciences

Publication information
Journal: Nat. Verden
Volume: 84
Issue number: 4
Original language: Danish
Source: orbit
Source-ID: 302857
Publication: Research - peer-review › Journal article – Annual report year: 2001

Mathematical properties of the rotational diffusion equation

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Wyller, J. (Ekstern), Pedersen, T. (Ekstern), Johansen, P. (Intern)
Pages: 6531-6542
Publication date: 2001
Main Research Area: Technical/natural sciences

Publication information
Journal: Journal of Physics A: Mathematical and Theoretical
Volume: 34
ISSN (Print): 1751-8113
Ratings:
BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 1
BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 302900
Publication: Research - peer-review › Journal article – Annual report year: 2001

Optics and Fluid Dynamics Department annual progress report for 2000

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Hanson, S. G. (Intern), Johansen, P. M. (Intern), Lynov, J. (Intern), Skaarup, B. (Intern)
Keywords: (Risø-R-1227, Risø-R-1227(EN))
Publication date: 2001

Publication information
ISBN (Print): 87-550-2794-6(Internet)
Original language: English

Series: Denmark. Forskningscenter Risoe. Risoe-R
Number: 1227(EN)
ISSN (print): 0106-2840
Main Research Area: Technical/natural sciences
Electronic versions:

ris_r_1227.pdf
Source: orbit
Source-ID: 302557
Publication: Research › Report – Annual report year: 2001

Rotational diffusion model of orientational enhancement in AC field biased photorefractive polymers
The response of photorefractive (PR) polymers subject to AC field biasing is analyzed within the space-charge field formalism. The frequency dependence of orientational enhancement is taken into account using a rotational diffusion model for the angular distribution of chromophores. The possibility for simultaneous utilization of AC and orientational enhancement techniques in polymers is discussed for different values of the rotational diffusion time.

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, T. (Ekstern), Jespersen, K. (Intern), Johansen, P. (Intern)
Keywords: (Photorefractive, Polymer, AC fields, Diffusion model)
Pages: 95-98
Publication date: 2001
Conference: E-MRS 2000 Spring meeting. Symposium J - Optoelectronics IV: Photorefractive Materials: Physical Phenomena and Applications, Strasbourg, France, 30/05/2000 - 30/05/2000
Main Research Area: Technical/natural sciences

Publication information
Journal: Optical Materials
Volume: 18
Issue number: 1
ISSN (Print): 0925-3467
Ratings:

BFI (2015): BFI-level 1

BFI (2014): BFI-level 1

ISI indexed (2013): ISI indexed yes

BFI (2013): BFI-level 1

BFI (2012): BFI-level 1

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BFI (2011): BFI-level 1

ISI indexed (2011): ISI indexed yes

BFI (2010): BFI-level 1

BFI (2009): BFI-level 1

BFI (2008): BFI-level 1
Original language: English
DOIs:

10.1016/S0925-3467(01)00141-0

Source: orbit
Source-ID: 302985
Publication: Research - peer-review › Conference article – Annual report year: 2001

AC field modulation of the optical properties of dye-containing polymers

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, T. (Ekstern), Jespersen, K. (Intern), Johansen, P. (Intern)
Publication date: 2000
Event: Abstract from E-MRS 2000 Spring meeting. Symposium H - Optoelectronics II: Molecular Photonics: from Macroscopic to Nanoscopic Applications, Strasbourg (FR), 30 May - 2 Jun, .
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 302028
Publication: Research › Conference abstract for conference – Annual report year: 2000

Characterization of azobenzene chromophores for reversible optical data storage: Molecular quantum calculations

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, T. (Ekstern), Johansen, P. (Intern), Pedersen, H. (Intern)
Pages: 272-278
Publication date: 2000
Main Research Area: Technical/natural sciences

Publication information
Journal: Journal of Optics A: Pure and Applied Optics (Print)
Volume: 2
ISSN (Print): 1464-4258
Ratings:
BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 1
BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 301589
Publication: Research - peer-review › Journal article – Annual report year: 2000

Critical enhancement of photorefractive beam coupling
We show that a hybridization of the optical and material nonlinearities takes place near the threshold of the subharmonic generation in photorefractive crystals. It results in a critical (with a singularity) enhancement of the rate of spatial amplification of light waves and leads to a variety of new optical critical phenomena.

General information
State: Published

Organisations: Risø National Laboratory for Sustainable Energy
Authors: Podivilov, E. (Ekstern), Sturman, B. (Ekstern), Pedersen, H. (Intern), Johansen, P. (Intern)
Pages: 1867-1870
Publication date: 2000
Main Research Area: Technical/natural sciences

Publication information
Journal: Physical Review Letters
Volume: 85
Issue number: 9
ISSN (Print): 0031-9007
Ratings:

BFI (2015): BFI-level 2

BFI (2014): BFI-level 2

ISI indexed (2013): ISI indexed yes

BFI (2013): BFI-level 2

BFI (2012): BFI-level 2

ISI indexed (2012): ISI indexed yes

BFI (2011): BFI-level 2

ISI indexed (2011): ISI indexed yes

BFI (2010): BFI-level 2

BFI (2009): BFI-level 2

BFI (2008): BFI-level 2
Original language: English
DOIs:

10.1103/PhysRevLett.85.1867
Source: orbit
Source-ID: 301360
Publication: Research - peer-review › Journal article – Annual report year: 2000

Dynamics of the electro-optic properties of dye-containing polymers

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern), Jespersen, K. (Intern), Pedersen, T. (Ekstern)
Publication date: 2000
Event: Abstract from Nonlinear Optics for the Information Society (NOIS 2000), Twente (NL), 26-28 Oct, .
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 302033
Publication: Research › Conference abstract for conference – Annual report year: 2000

Enhancement of the photorefractive 2W-coupling near the threshold of subharmonic generation

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Podivilov, E. (Ekstern), Sturman, B. (Ekstern), Pedersen, H. (Intern), Johansen, P. (Intern)
Publication date: 2000
Event: Abstract from E-MRS 2000 Spring meeting. Symposium J - Optoelectronics IV: Photorefractive Materials: Physical Phenomena and Applications, Strasbourg, France.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 302030
Publication: Research › Conference abstract for conference – Annual report year: 2000

Holographic grating formation in laser-deposited aluminium-doped zinc oxide and indium tin oxide films

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Thestrup, B. (Ekstern), Dam-Hansen, C. (Intern), Schou, J. (Intern), Johansen, P. (Intern)
Pages: 196-199
Publication date: 2000
Main Research Area: Technical/natural sciences

Publication information
Journal: Journal of Optics A: Pure and Applied Optics (Print)
Volume: 2
ISSN (Print): 1464-4258
Ratings:

BFI (2015): BFI-level 1

BFI (2014): BFI-level 1

ISI indexed (2013): ISI indexed yes

BFI (2013): BFI-level 1

BFI (2012): BFI-level 1

ISI indexed (2012): ISI indexed yes

BFI (2011): BFI-level 1

ISI indexed (2011): ISI indexed yes

BFI (2010): BFI-level 1

BFI (2009): BFI-level 1

BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 301222
Publication: Research - peer-review › Journal article – Annual report year: 2000

Optical data storage in liquid-crystalline azobenzene side-chain polymers

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, T. (Ekstern), Johansen, P. (Intern)
Publication date: 2000
Event: Abstract from Conference on Lasers and Electro-Optics Europe 2000, Nice, France.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 302032
Publication: Research › Conference abstract for conference – Annual report year: 2000

Optical fixing using shallow traps - application to $La_3Ga_5SiO_{14}$ doped with praseodymium

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Nikolajsen, T. (Intern), Johansen, P. (Intern)
Pages: 255-259
Publication date: 2000
Main Research Area: Technical/natural sciences

Publication information
Journal: Journal of Optics A: Pure and Applied Optics (Print)
Volume: 2
ISSN (Print): 1464-4258
Ratings:

BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 1
BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 301588
Publication: Research - peer-review › Journal article – Annual report year: 2000

Optical properties of liquid-crystalline azobenzene polymers

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, T. (Ekstern), Johansen, P. (Intern), Pedersen, H. (Intern)
Number of pages: 175
Publication date: 2000

Host publication information
Title of host publication: Program and summaries of contributions
Place of publication: Stockholm
Publisher: Swedish Optical Society
Editors: Biedermann, K., Olin, U.
ISBN (Print): 91-7170-589-9
Main Research Area: Technical/natural sciences
Conference: Northern Optics 2000 and EOSAM 2000, Uppsala (SE), 6-8 Jun, 01/01/2000
Source: orbit
Source-ID: 301082
Publication: Research › Conference abstract in proceedings – Annual report year: 2000

Optical properties of liquid-crystalline azobenzene polymers

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, T. (Ekstern), Johansen, P. (Intern), Pedersen, H. (Intern)
Pages: 18
Publication date: 2000
Main Research Area: Technical/natural sciences

Publication information
Journal: DOPS-Nyt
Volume: 15
Issue number: 2
Ratings:
ISI indexed (2013): ISI indexed no
ISI indexed (2012): ISI indexed no
ISI indexed (2011): ISI indexed no
Original language: Danish
Source: orbit
Source-ID: 310558

Optics and Fluid Dynamics Department annual progress report for 1999

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Hanson, S. G. (Intern), Johansen, P. M. (Intern), Lynov, J. (Intern), Skaarup, B. (Intern)
Keywords: (Risø-R-1157, Risø-R-1157(EN))
Publication date: 2000

Publication information
ISBN (Print): 87-550-2650-8(Internet)
Original language: English

Series: Denmark. Forskningscenter Risoe. Risoe-R
Number: 1157(EN)
ISSN (print): 0106-2840
Main Research Area: Technical/natural sciences
Electronic versions:

ris_r_1157.pdf
Source: orbit
Source-ID: 300976
Publication: Research › Report – Annual report year: 2000

Particle-in-a-bos model of one-dimensional excitons in conjugated polymers
A simple two-particle model of excitons in conjugated polymers is proposed as an alternative to usual highly computationally demanding quantum chemical methods. In the two-particle model, the exciton is described as an electron-hole pair interacting via Coulomb forces and confined to the polymer backbone by rigid walls. Furthermore, by integrating out the transverse part, the two-particle equation is reduced to one-dimensional form. It is demonstrated how essentially exact solutions are obtained in the cases of short and long conjugation length, respectively. From a linear combination of these cases an approximate solution for the general case is obtained. As an application of the model the influence of a static electric field on the electron-hole overlap integral and exciton energy is considered.

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, T. (Ekstern), Johansen, P. (Intern), Pedersen, H. (Intern)
Pages: 10504-10510
Publication date: 2000
Main Research Area: Technical/natural sciences

Publication information
Journal: Physical Review B (Condensed Matter and Materials Physics)
Volume: 61
Issue number: 15
ISSN (Print): 1098-0121
Ratings:

BFI (2015): BFI-level 2

BFI (2014): BFI-level 2

ISI indexed (2013): ISI indexed yes

BFI (2013): BFI-level 2

BFI (2012): BFI-level 2

ISI indexed (2012): ISI indexed yes

BFI (2011): BFI-level 2

ISI indexed (2011): ISI indexed yes

BFI (2010): BFI-level 2

BFI (2009): BFI-level 2

BFI (2008): BFI-level 1
Original language: English
DOIs:
10.1103/PhysRevB.61.10504
Source: orbit
Source-ID: 300982
Publication: Research - peer-review › Journal article – Annual report year: 2000

Rotational diffusion model of orientational enhancement in AC field biased photorefractive polymers

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, T. (Ekstern), Jespersen, K. (Intern), Johansen, P. (Intern)
Publication date: 2000
Event: Abstract from E-MRS 2000 Spring meeting. Symposium J - Optoelectronics IV: Photorefractive Materials: Physical Phenomena and Applications, Strasbourg, France.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 302029
Publication: Research › Conference abstract for conference – Annual report year: 2000

Ac square-wave field-induced subharmonics in photorefractive sillenite: Threshold for excitation by inclusion of higher harmonics

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern), Pedersen, H. (Intern), Podivilov, E. (Ekstern), Sturman, B. (Ekstern)
Pages: 103-110
Publication date: 1999
Main Research Area: Technical/natural sciences

Publication information
Journal: Optical Society of America. Journal B: Optical Physics
Volume: 16
ISSN (Print): 0740-3224
Ratings:
BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 1
BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 300620
Publication: Research - peer-review › Journal article – Annual report year: 1999

Critical slowing down of space-charge field relaxation in photorefractive sillenites

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Sturman, B. (Ekstern), Podivilov, E. (Ekstern), Pedersen, H. (Intern), Johansen, P. (Intern)
Pages: 1163-1165
Publication date: 1999
Main Research Area: Technical/natural sciences

Publication information
Journal: Optics Letters
Volume: 24
ISSN (Print): 0146-9592
Ratings:
BFI (2015): BFI-level 2
BFI (2014): BFI-level 2
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 2
BFI (2012): BFI-level 2
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 2
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 2
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 300009
Publication: Research - peer-review › Journal article – Annual report year: 1999

Holographic gratings induced in laser deposited AZO and ITO films

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Thestrup, B. (Ekstern), Dam-Hansen, C. (Intern), Schou, J. (Intern), Johansen, P. (Intern)
Pages: 31-34
Publication date: 1999

Host publication information
Title of host publication: Post-deadline papers
Place of publication: Roskilde
Publisher: Risø National Laboratory
Main Research Area: Technical/natural sciences
Conference: 7th Topical Meet on Photorefractive Materials, Effects and Devices, Elsinore, Denmark, 27/06/1999 - 27/06/1999
Source: orbit
Source-ID: 300162
Publication: Research › Article in proceedings – Annual report year: 1999

Influence of quadratic recombination on grating recording in photorefractive crystals

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern), Pedersen, H. (Intern), Podivilov, E. (Ekstern)
Pages: 1120-1126
Publication date: 1999
Main Research Area: Technical/natural sciences

Publication information
Journal: Optical Society of America. Journal B: Optical Physics
Volume: 16
ISSN (Print): 0740-3224
Ratings:
BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 1
BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 300192
Publication: Research - peer-review › Journal article – Annual report year: 1999

Instability of the resonance excitation of space-charge waves in sillenite crystals

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Sturman, B. (Ekstern), Podivilov, E. (Ekstern), Chernykh, A. (Ekstern), Ringhofer, K. (Ekstern), Kamenov, V. (Ekstern), Pedersen, H. (Intern), Johansen, P. (Intern)
Pages: 556-564
Publication date: 1999
Main Research Area: Technical/natural sciences

Publication information
Journal: Optical Society of America. Journal B: Optical Physics
Volume: 16
ISSN (Print): 0740-3224
Ratings:
BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 1
BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 300445
Publication: Research - peer-review › Journal article – Annual report year: 1999

Longitudinal parametric oscillation in photorefractive sillenites: Comparison between theory and experiment
By using an alternative setup for photorefractive parametric oscillation in which wave mixing between the recording beams is avoided it has become possible to make more detailed comparisons with the space-charge wave theory. In the present paper we compare the experimental features of longitudinal parametric oscillation observed in a crystal of Bi12SiO20 with

the theoretical predictions.

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, H. (Intern), Johansen, P. (Intern), Webb, D. (Ekstern), Podivilov, E. (Ekstern)
Pages: 967-970
Publication date: 1999
Main Research Area: Technical/natural sciences

Publication information
Journal: Applied Physics B-Lasers and Optics
Volume: 68
Issue number: 5
ISSN (Print): 0946-2171
Ratings:

BFI (2015): BFI-level 1

BFI (2014): BFI-level 1

ISI indexed (2013): ISI indexed yes

BFI (2013): BFI-level 1

BFI (2012): BFI-level 1

ISI indexed (2012): ISI indexed yes

BFI (2011): BFI-level 1

ISI indexed (2011): ISI indexed yes

BFI (2010): BFI-level 1

BFI (2009): BFI-level 1

BFI (2008): BFI-level 1

Original language: English
DOIs:

10.1007/s003400050731
Source: orbit
Source-ID: 300370
Publication: Research › Journal article – Annual report year: 1999

Low-temperature thermal fixing of holograms in photorefractive $La_3Ga_5SiO_{14}:Pr^{3+}$ crystal

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Nikolajsen, T. (Intern), Johansen, P. (Intern)
Pages: 1419-1421
Publication date: 1999
Main Research Area: Technical/natural sciences

Publication information
Journal: Optics Letters
Volume: 24
ISSN (Print): 0146-9592
Ratings:

BFI (2015): BFI-level 2

BFI (2014): BFI-level 2

ISI indexed (2013): ISI indexed yes

BFI (2013): BFI-level 2

BFI (2012): BFI-level 2

ISI indexed (2012): ISI indexed yes

BFI (2011): BFI-level 2

ISI indexed (2011): ISI indexed yes

BFI (2010): BFI-level 2

BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 299751
Publication: Research - peer-review › Journal article – Annual report year: 1999

New aspects of optical storage in photorefractive $La_3Ga_5SiO_{14}:Pr^{3+}$ crystals

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern), Nikolajsen, T. (Intern)
Publication date: 1999
Event: Abstract from Workshop on applications of nonlinear optical phenomena and related industrial perspectives, joined to the 2. Annual meeting of the COST Action P2, Amalfi (IT), 6-9 Oct, .
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 299755
Publication: Research › Conference abstract for conference – Annual report year: 1999

Nonlinear optical polymers for reversible optical data storage

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, T. (Ekstern), Johansen, P. (Intern)
Publication date: 1999
Event: Abstract from Workshop on applications of nonlinear optical phenomena and related industrial perspectives, joined to the 2. Annual meeting of the COST Action P2, Amalfi (IT), 6-9 Oct, .
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 299756
Publication: Research › Conference abstract for conference – Annual report year: 1999

Nonlinear optical properties of liquid crystalline polymers

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, T. (Ekstern), Johansen, P. (Intern), Pedersen, H. (Intern)
Publication date: 1999
Event: Abstract from Nonlinear Science Festival 2, Risø, Denmark.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 299403
Publication: Research › Conference abstract for conference – Annual report year: 1999

Optical fixing in a $La_3Ga_5SiO_{14}$ crystal doped with praseodymium

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Nikolajsen, T. (Intern), Johansen, P. (Intern), Yue, X. (Ekstern), Kip, D. (Ekstern), Krätzig, E. (Ekstern)
Pages: 43-46
Publication date: 1999

Host publication information
Title of host publication: Post-deadline papers
Place of publication: Roskilde
Publisher: Risø National Laboratory
Main Research Area: Technical/natural sciences
Conference: 7th Topical Meet on Photorefractive Materials, Effects and Devices, Elsinore, Denmark, 27/06/1999 - 27/06/1999
Source: orbit
Source-ID: 300161
Publication: Research › Article in proceedings – Annual report year: 1999

Optical materials: Linear and non-linear effects

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern)
Publication date: 1999
Event: Abstract from Coloquium på Fysisk Institut, Odense Universitet, Odense (DK), 1 Dec, .
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 299008
Publication: Research › Conference abstract for conference – Annual report year: 1999

Optics and Fluid Dynamics Department annual progress report for 1998

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Hanson, S. G. (Intern), Johansen, P. M. (Intern), Lading, L. (Intern), Lynov, J. (Intern), Skaarup, B. (Intern)
Keywords: (Risø-R-1100, Risø-R-1100(EN))
Number of pages: 100
Publication date: 1999

Publication information
ISBN (Print): 87-550-2511-0
Original language: English

Series: Denmark. Forskningscenter Risoe. Risoe-R
Number: 1100(EN)
ISSN (print): 0106-2840
Main Research Area: Technical/natural sciences
Electronic versions:
ris_r_1100.pdf

Bibliographical note
(Internet)
Source: orbit
Source-ID: 298988
Publication: Research › Report – Annual report year: 1999

Phase locking of laser diode arrays using a photorefractive Rh:$BaTiO_3$ crystal (Invited paper)

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Petersen, P. (Intern), Juul Jensen, S. (Ekstern), Johansen, P. (Intern)
Pages: 142-146
Publication date: 1999

Host publication information
Title of host publication: Proceedings
Place of publication: Bellingham, WA
Publisher: International Society for Optical Engineering
Editor: Kudryashov, A.
ISBN (Print): 0-8194-3081-1

Series: SPIE Proceedings Series, v. 3611
Main Research Area: Technical/natural sciences
Conference: Laser resonators 2, San José, CA (US), 23-29 Jan, 01/01/1999
Source: orbit
Source-ID: 299757
Publication: Research › Article in proceedings – Annual report year: 1999

Photorefractive holographic storage: Fundamental limits and new materials

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern), Petersen, P. (Intern)
Publication date: 1999
Event: Abstract from Møde i WG1 under COST Action P2 "Application of non-linear optical phenomena", Technische Universität Berlin, Fachbereich Physik, Berlin (DE), 12 Feb, .
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 300556
Publication: Research › Conference abstract for conference – Annual report year: 1999

Physical origin of laser frequency scanning induced by photorefractive phase-conjugate feedback

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Løbel, M. (Ekstern), Petersen, P. (Intern), Johansen, P. (Intern)
Pages: 219-227
Publication date: 1999
Main Research Area: Technical/natural sciences

Publication information
Journal: Optical Society of America. Journal B: Optical Physics
Volume: 16
ISSN (Print): 0740-3224
Ratings:
BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 1
BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 300603
Publication: Research - peer-review › Journal article – Annual report year: 1999

Risø - et moderne forskningscenter

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern)
Publication date: 1999
Event: Abstract from Møde i Aalborg "Stigsborg" Rotary Klub, Aalborg (DK), 15 Feb, .
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 300618
Publication: Research › Conference abstract for conference – Annual report year: 1999

Space-charge wave theory of photorefractive parametric amplification

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, H. (Intern), Johansen, P. (Intern)
Pages: 1185-1188
Publication date: 1999
Main Research Area: Technical/natural sciences

Publication information
Journal: Optical Society of America. Journal B: Optical Physics
Volume: 16
ISSN (Print): 0740-3224
Ratings:
BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 1
BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 300068
Publication: Research - peer-review › Journal article – Annual report year: 1999

Two-step two-color recording in a photorefractive praseodymium-doped $La_3Ga_5SiO_{14}$ crystal
Two-step two-color recording is demonstrated in a photorefractive La3Ga5SiO14:Pr3+ crystal using cw laser radiation. The 488 nm line from an Ar-ion laser is used for gating and gratings are written using a Ti:sapphire laser operating in the range from 788 to 840 nm. The dependence of holographic recording on grating and writing intensity is investigated. A saturation of the sensitivity is found for 2 W/cm(2) of grating intensity. A threshold photon energy of 1.53 eV for the second excitation step is observed. (C) 1999 American Institute of Physics.

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Nikolajsen, T. (Intern), Johansen, P. (Intern), Yue, X. (Ekstern), Kip, D. (Ekstern), Kratzig, E. (Ekstern)

Pages: 4037-4039
Publication date: 1999
Main Research Area: Technical/natural sciences

Publication information
Journal: Applied Physics Letters
Volume: 74
Issue number: 26
ISSN (Print): 0003-6951
Ratings:
BFI (2015): BFI-level 2
BFI (2014): BFI-level 2
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 2
BFI (2012): BFI-level 2
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 2
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 2
BFI (2009): BFI-level 2
BFI (2008): BFI-level 2
Original language: English
DOIs:
10.1063/1.123253
Source: orbit
Source-ID: 300176
Publication: Research › Journal article – Annual report year: 1999

Cascading solution of the space-charge field problem in ac field biased photorefractive media

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern), Pedersen, H. (Intern), Pedersen, T. (Ekstern), Wyller, J. (Ekstern)
Pages: 1168-1176
Publication date: 1998
Main Research Area: Technical/natural sciences

Publication information
Journal: Optical Society of America. Journal B: Optical Physics
Volume: 15
ISSN (Print): 0740-3224
Ratings:
BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 1
BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 298852
Publication: Research - peer-review › Journal article – Annual report year: 1998

Excitation of higher harmonic gratings in AC-field biased photorefractive crystals

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, H. (Intern), Johansen, P. (Intern), Podivilov, E. (Ekstern), Webb, D. (Ekstern)
Pages: 93-99
Publication date: 1998
Main Research Area: Technical/natural sciences

Publication information
Journal: Optics Communications
Volume: 154
ISSN (Print): 0030-4018
Ratings:
BFI (2015): BFI-level 2
BFI (2014): BFI-level 2
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 2
BFI (2012): BFI-level 2
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 2
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 2
BFI (2009): BFI-level 2
BFI (2008): BFI-level 2
Original language: English
Source: orbit
Source-ID: 298363
Publication: Research - peer-review › Journal article – Annual report year: 1998

Fundamental characteristics of space-charge waves in photorefractive sillenite crystals

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, H. (Intern), Webb, D. (Ekstern), Johansen, P. (Intern)
Pages: 2573-2580
Publication date: 1998
Main Research Area: Technical/natural sciences

Publication information
Journal: Optical Society of America. Journal B: Optical Physics
Volume: 15
ISSN (Print): 0740-3224
Ratings:
BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 1
BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1

BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 298186
Publication: Research - peer-review › Journal article – Annual report year: 1998

Influence of beam-coupling on photorefractive parametric oscillation in a dc-field-biased $Bi_{12}SiO_{20}$

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, H. (Intern), Webb, D. (Ekstern), Johansen, P. (Intern)
Pages: 2439-2445
Publication date: 1998
Main Research Area: Technical/natural sciences

Publication information
Journal: Optical Society of America. Journal B: Optical Physics
Volume: 15
ISSN (Print): 0740-3224
Ratings:
BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 1
BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 298318
Publication: Research - peer-review › Journal article – Annual report year: 1998

Mean-field theory of optical storage in liquid crystalline side-chain polymers

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, T. (Ekstern), Johansen, P. (Intern)
Pages: 212-215
Publication date: 1998
Main Research Area: Technical/natural sciences

Publication information
Journal: Opt. Mater.
Volume: 9
Ratings:
BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 1
BFI (2012): BFI-level 1

ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 298798
Publication: Research › Journal article – Annual report year: 1998

Mean-field theory of photoinduced formation of surface reliefs in side-chain azobenzene polymers

A mean-field model of photoinduced surface reliefs in dye containing side-chain polymers is presented. It is demonstrated that photoinduced ordering of dye molecules subject to anisotropic intermolecular interactions leads to mass transport even when the intensity of the incident light is spatially uniform. Theoretical profiles are obtained using a simple variational method and excellent agreement with experimental surface reliefs recorded under various polarization configurations is found. The polarization dependence of both period and shape of the profiles is correctly reproduced by the model.

General information

State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, T. G. (Intern), Johansen, P. M. (Intern), Holme, N. (Ekstern), Ramanujam, P. (Intern), Hvilsted, S. (Intern)
Pages: 89-92
Publication date: 1998
Main Research Area: Technical/natural sciences

Publication information

Journal: Physical Review Letters
Volume: 80
Issue number: 1
ISSN (Print): 0031-9007
Ratings:
BFI (2015): BFI-level 2
BFI (2014): BFI-level 2
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 2
BFI (2012): BFI-level 2
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 2
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 2
BFI (2009): BFI-level 2
BFI (2008): BFI-level 2
Original language: English
DOIs:
10.1103/PhysRevLett.80.89
Source: orbit
Source-ID: 182018
Publication: Research - peer-review › Journal article – Annual report year: 1998

Nonlinear self-defocusing in doped silica sono-gels (vol 81, pg 7728, 1997)

General information

State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Ramos, R. (Ekstern), Petersen, P. (Intern), Johansen, P. (Intern), Lindvold, L. (Intern), Ramirez, M. (Ekstern), Blanco, E. (Ekstern)

Pages: 2870
Publication date: 1998
Main Research Area: Technical/natural sciences

Publication information
Journal: Journal of Applied Physics
Volume: 83
ISSN (Print): 0021-8979
Ratings:
BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 1
BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 310594
Publication: Research - peer-review › Journal article – Annual report year: 1998

Optical materials: Linear and non-linear effects

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern)
Publication date: 1998
Event: Abstract from Møde på Kemisk Institut, Århus Universitet, Århus (DK), 9 Jun, .
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 298043
Publication: Research › Conference abstract for conference – Annual report year: 1998

Optics and Fluid Dynamics Department annual progress report for 1997

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Hanson, S. G. (Intern), Johansen, P. M. (Intern), Lading, L. (Intern), Lynov, J. (Intern), Skaarup, B. (Intern)
Keywords: (Risø-R-1015, Risø-R-1015(EN))
Number of pages: 130
Publication date: 1998

Publication information
ISBN (Print): 87-550-2339-8
Original language: English

Series: Denmark. Forskningscenter Risoe. Risoe-R
Number: 1015(EN)
ISSN (print): 0106-2840
Main Research Area: Technical/natural sciences
Electronic versions:
ris_r_1015.pdf

Source: orbit
Source-ID: 298735
Publication: Research › Report – Annual report year: 1998

Photorefractive space-charge field with running grating and applied sinusoidal ac electric field: Solution for all time scales

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern), Pedersen, H. (Intern)
Pages: 1366-1374
Publication date: 1998
Main Research Area: Technical/natural sciences

Publication information
Journal: Optical Society of America. Journal B: Optical Physics
Volume: 15
ISSN (Print): 0740-3224
Ratings:
BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 1
BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 298791
Publication: Research - peer-review › Journal article – Annual report year: 1998

Photorefractive subharmonics - a beam-coupling effect?

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, H. (Intern), Johansen, P. (Intern), Webb, D. (Ekstern)
Pages: 1528-1532
Publication date: 1998
Main Research Area: Technical/natural sciences

Publication information
Journal: Optical Society of America. Journal B: Optical Physics
Volume: 15
ISSN (Print): 0740-3224
Ratings:
BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 1
BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1

ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 298727
Publication: Research - peer-review › Journal article – Annual report year: 1998

Photorefractive two-step recording in a piezoelectric $La_3Ga_5SiO_{14}$ crystal doped with praseodymium

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Nikolajsen, T. (Intern), Johansen, P. (Intern), Dubovik, E. (Ekstern), Batirov, T. (Ekstern), Djalalov, R. (Ekstern)
Pages: 1164-1166
Publication date: 1998
Main Research Area: Technical/natural sciences

Publication information
Journal: Optics Letters
Volume: 23
ISSN (Print): 0146-9592
Ratings:
BFI (2015): BFI-level 2
BFI (2014): BFI-level 2
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 2
BFI (2012): BFI-level 2
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 2
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 2
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 298444
Publication: Research - peer-review › Journal article – Annual report year: 1998

Quantum theory and experimental studies of absorption spectra and photoisomerization of azobenzene polymers
The microscopic properties of azobenzene chromophores are important for a correct description of optical storage systems based on photoinduced anisotropy in azobenzene polymers. A quantum model of these properties is presented and verified by comparison to experimental absorption spectra for trans and cis isomers of cyano methoxy azobenzene. In addition, the trans --> cis quantum efficiency is measured, and hence the combined experimental and theoretical work allows one to determine the essential molecular properties, including magnitude and anisotropy of the absorption cross section and various components of the polarizability tensor for both trans and cis isomers. It is shown that the trans isomer is almost perfectly anisotropic, whereas the cis isomer is approximately isotropic in the plane containing the central C-N=N-C azobridge. The implications for models of the storage mechanism are discussed.

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy, The Danish Polymer Centre
Authors: Pedersen, T. G. (Intern), Ramanujam, P. (Intern), Johansen, P. (Intern), Hvilsted, S. (Intern)
Pages: 2721-2730
Publication date: 1998
Main Research Area: Technical/natural sciences

Publication information
Journal: Optical Society of America. Journal B: Optical Physics
Volume: 15
Issue number: 11
ISSN (Print): 0740-3224
Ratings:
BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 1
BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
DOIs:
10.1364/JOSAB.15.002721
Source: orbit
Source-ID: 181958
Publication: Research - peer-review › Journal article – Annual report year: 1998

Single-mode high-power semiconductor lasers using phase conjugation

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Løbel, M. (Ekstern), Petersen, P. (Intern), Johansen, P. (Intern)
Pages: 6-10
Publication date: 1998
Main Research Area: Technical/natural sciences

Publication information
Journal: DOPS-Nyt
Volume: 13
Issue number: 3
Ratings:
ISI indexed (2013): ISI indexed no
ISI indexed (2012): ISI indexed no
ISI indexed (2011): ISI indexed no
Original language: Danish
Source: orbit
Source-ID: 298161
Publication: Communication › Journal article – Annual report year: 1998

Single-mode operation of a laser-diode array with frequency-selective phase-conjugate feedback

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Løbel, M. (Ekstern), Petersen, P. (Intern), Johansen, P. (Intern)
Pages: 825-827
Publication date: 1998
Main Research Area: Technical/natural sciences

Publication information

Journal: Optics Letters
Volume: 23
ISSN (Print): 0146-9592
Ratings:
BFI (2015): BFI-level 2
BFI (2014): BFI-level 2
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 2
BFI (2012): BFI-level 2
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 2
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 2
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 298584
Publication: Research - peer-review › Journal article – Annual report year: 1998

Single mode operation of laser diode arrays using frequency selective phase conjugate feedback

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Petersen, P. (Intern), Løbel, M. (Ekstern), Johansen, P. (Intern)
Publication date: 1998

Host publication information
Title of host publication: Programme and book of abstracts
Place of publication: Limerick
Publisher: University of Limerick
Main Research Area: Technical/natural sciences
Conference: Workshop on "Applications of nonlinear phenomena", Limerick (IE), 12-13 Jun, 01/01/1998
Source: orbit
Source-ID: 297745
Publication: Research › Conference abstract in proceedings – Annual report year: 1998

Single-mode operation of laser diode arrays using photorefractive phase conjugators (Invited paper)

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Petersen, P. (Intern), Løbel, M. (Ekstern), Johansen, P. (Intern)
Number of pages: 236
Publication date: 1998

Host publication information
Title of host publication: CLEO/Europe'98. Technical digest
Place of publication: Piscataway, NJ
Publisher: IEEE
Main Research Area: Technical/natural sciences
Conference: Conference on Lasers and Electro-Optics-Europe 1998, Glasgow, United Kingdom, 14/09/1998 - 14/09/1998
Source: orbit
Source-ID: 297744
Publication: Research › Conference abstract in proceedings – Annual report year: 1998

Space charge dynamics in photorefractive media

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern)
Publication date: 1998
Event: Abstract from Graduate School in Nonlinear Science, Risø, Denmark.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 298468
Publication: Research › Conference abstract for conference – Annual report year: 1998

Steady-state analysis of ac subharmonic generation in photorefractive sillenite crystals
The stationary solution is obtained for the photorefractive subharmonic gratings excited in crystals of the sillenite family by a standing light interference pattern and an applied ac electric field. We show that the main subharmonic with doubled spatial period may become unstable against excitation of the subharmonic with quadrupled spatial period. The threshold condition for this bifurcation is found. [S1050-2947(98)05808-9].

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern), Pedersen, H. (Intern), Podivilov, E. (Ekstern), Sturman, B. (Ekstern)
Pages: 1601-1604
Publication date: 1998
Main Research Area: Technical/natural sciences

Publication information
Journal: Physical Review A (Atomic, Molecular and Optical Physics)
Volume: 58
Issue number: 2
ISSN (Print): 1050-2947
Ratings:

BFI (2015): BFI-level 1

BFI (2014): BFI-level 1

ISI indexed (2013): ISI indexed yes

BFI (2013): BFI-level 1

BFI (2012): BFI-level 1

ISI indexed (2012): ISI indexed yes

BFI (2011): BFI-level 1

ISI indexed (2011): ISI indexed yes

BFI (2010): BFI-level 1

BFI (2009): BFI-level 1

BFI (2008): BFI-level 1
Original language: English
DOIs:

10.1103/PhysRevA.58.1601
Source: orbit
Source-ID: 298368
Publication: Research › Journal article – Annual report year: 1998

Subharmonics in photorefractive sillenites generated by running grating and dc electric field and by ac square wave field

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern), Pedersen, H. (Intern), Podivilov, E. (Ekstern)
Pages: 25-27

Publication date: 1998

Host publication information
Title of host publication: IPC'98. Proceedings
Place of publication: Taipei (TW)
Publisher: National Taiwan University, College of Electrical Engineering
Main Research Area: Technical/natural sciences
Conference: 1998 International photonics conference, Taipei (TW), 15-18 Dec, 01/01/1998
Source: orbit
Source-ID: 297743
Publication: Research › Article in proceedings – Annual report year: 1998

Suppressing self-induced frequency scanning of a phase conjugate diode laser array with using counterbalance dispersion
Experimental results show that angular dispersion strongly influences the self-induced frequency scanning of a multimode broad-area diode laser array coupled to a photorefractive self-pumped phase conjugate mirror. Prisms or a dispersive grating placed in the external cavity opposing the material frequency dispersion of the phase conjugate BaTiO3 crystal suppress the frequency scanning and stabilize the center wavelength and the output power. We show that the dispersion of the crystal is crucial for the mechanism of the frequency scanning. (C) 1998 American Institute of Physics.

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Løbel, M. (Ekstern), Petersen, P. (Intern), Johansen, P. (Intern)
Pages: 1263-1265
Publication date: 1998
Main Research Area: Technical/natural sciences

Publication information
Journal: Applied Physics Letters
Volume: 72
Issue number: 11
ISSN (Print): 0003-6951
Ratings:
BFI (2015): BFI-level 2
BFI (2014): BFI-level 2
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 2
BFI (2012): BFI-level 2
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 2
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 2
BFI (2009): BFI-level 2
BFI (2008): BFI-level 2
Original language: English
DOIs:
10.1063/1.120605
Source: orbit
Source-ID: 298825
Publication: Research › Journal article – Annual report year: 1998

Theoretical model of photoinduced anisotropy in liquid-crystalline azobenzene side-chain polyesters
A theoretical framework for the temporal behavior of photoinduced anisotropy in liquid-crystalline azobenzene side-chain polyesters is constructed. The domain structure of the material is taken into account and inter molecular interactions are included through a mean-field description. Photoinduced trans cis isomerization is taken as the dominating source of chromophore reorientation events, and it is demonstrated how this mechanism in conjunction with the multidomain picture is able to account for the long-term stability of the anisotropy. The photoinduced birefringence is calculated by means of a truncated basis method, and in addition the photostationary solution is obtained. Comparison between theory and experiment shows excellent agreement in the entire range of intensities used experimentally.

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy, Department of Photonics Engineering, Optical Microsensors and Micromaterials, Department of Chemical and Biochemical Engineering, The Danish Polymer Centre, Risø National Laboratory
Authors: Pedersen, T. G. (Intern), Johansen, P. M. (Intern), Holme, N. (Ekstern), Ramanujam, P. (Intern), Hvilsted, S. (Intern)
Pages: 1120-1129
Publication date: 1998
Main Research Area: Technical/natural sciences

Publication information
Journal: Optical Society of America. Journal B: Optical Physics
Volume: 15
Issue number: 3
ISSN (Print): 0740-3224
Ratings:

BFI (2015): BFI-level 1

BFI (2014): BFI-level 1

ISI indexed (2013): ISI indexed yes

BFI (2013): BFI-level 1

BFI (2012): BFI-level 1

ISI indexed (2012): ISI indexed yes

BFI (2011): BFI-level 1

ISI indexed (2011): ISI indexed yes

BFI (2010): BFI-level 1

BFI (2009): BFI-level 1

BFI (2008): BFI-level 1
Original language: English
DOIs:

10.1364/JOSAB.15.001120
Source: orbit
Source-ID: 182014
Publication: Research - peer-review › Journal article – Annual report year: 1998

Transversal parametric oscillation and its external stability in photorefractive sillenite crystals
We develop the nonlinear theory of transversal parametric oscillation in photorefractive sillenite crystals. The theory is nonlinear in the sense that the nonlinear feedback from the parametric space-charge field waves, above threshold of their excitation, is taken into account. In this manner, an analytical solution for the stationary state of the parametric waves is obtained. We analyze the stationary states' stability both against small perturbations in amplitude and phase (internal stability) and against excitation of new secondary waves (external stability). It is shown that the stationary state of transversal parametric oscillation is stable within certain regions of external and internal parameters. This is opposed to the degenerate case (K/2 subharmonic generation), which is unstable.

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Podivilov, E. (Ekstern), Pedersen, H. (Intern), Johansen, P. (Intern), Sturman, B. (Ekstern)
Pages: 6112-6126
Publication date: 1998
Main Research Area: Technical/natural sciences

Publication information
Journal: Physical Review E (Statistical, Nonlinear, and Soft Matter Physics)
Volume: 57
Issue number: 5
ISSN (Print): 1063-651X
Ratings:

BFI (2015): BFI-level 1

BFI (2014): BFI-level 1

ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 1
BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
DOIs:
10.1103/PhysRevE.57.6112
Source: orbit
Source-ID: 298574
Publication: Research › Journal article – Annual report year: 1998

Tunable single-mode operation of a high-power laser-diode array by use of an external cavity with a grating and a photorefractive phase-conjugate mirror

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Løbel, M. (Ekstern), Petersen, P. (Intern), Johansen, P. (Intern)
Pages: 2000-2005
Publication date: 1998
Main Research Area: Technical/natural sciences

Publication information
Journal: Optical Society of America. Journal B: Optical Physics
Volume: 15
ISSN (Print): 0740-3224
Ratings:
BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 1
BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 298491
Publication: Research - peer-review › Journal article – Annual report year: 1998

Dynamic grating formation in $LiNbO_3$:Fe crystals under influence of an externally applied magnetic field

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern), Dam-Hansen, C. (Intern), Petersen, P. (Intern), Fridkin, V. (Ekstern)
Pages: 555-564
Publication date: 1997

Host publication information
Title of host publication: Proceedings of the international conference on lasers'96
Place of publication: McLean, VA
Publisher: STS Press
Editors: Corcoran, V., Goldman, T.
Main Research Area: Technical/natural sciences
Conference: Lasers'96, Portland, OR (US), 2-6 Dec, 01/01/1996
Source: orbit
Source-ID: 296425
Publication: Research › Article in proceedings – Annual report year: 1997

Influence of two-beam coupling on subharmonic generation in sillenites

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, H. (Intern), Webb, D. (Ekstern), Johansen, P. (Intern)
Publication date: 1997
Event: Abstract from Institute of Physics, half-day technical meeting on photorefractive materials and applications, London (GB), 10 Dec, .
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 296453
Publication: Research › Conference abstract for conference – Annual report year: 1997

Krystaller som harddiske

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Petersen, P. (Intern), Dam-Hansen, C. (Intern), Johansen, P. (Intern)
Pages: 6-8
Publication date: 1997
Main Research Area: Technical/natural sciences

Publication information
Journal: Geologisk Nyt
Issue number: 4
ISSN (Print): 0906-6861
Ratings:

ISI indexed (2013): ISI indexed no

ISI indexed (2012): ISI indexed no

ISI indexed (2011): ISI indexed no
Original language: Danish
Source: orbit
Source-ID: 296426
Publication: Communication › Journal article – Annual report year: 1997

Lineære og ikke-lineære optiske materialer

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern)
Publication date: 1997
Event: Abstract from Ålborg Universitetscenter, Fysisk Institut, Ålborg (DK), 12 Sep, .
Main Research Area: Technical/natural sciences
Source: orbit

Source-ID: 296452
Publication: Research › Conference abstract for conference – Annual report year: 1997

Linear and nonlinear optics at Risø National Laboratory

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern)
Publication date: 1997
Event: Abstract from H.C. Ørsted Institutet, København, Denmark.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 297221
Publication: Research › Conference abstract for conference – Annual report year: 1997

Longitudinal, degenerate, and transversal photorefractive parametric oscillation: Theory and experiment

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, H. (Intern), Johansen, P. (Intern)
Pages: 1418-1427
Publication date: 1997
Main Research Area: Technical/natural sciences

Publication information
Journal: Optical Society of America. Journal B: Optical Physics
Volume: 14
ISSN (Print): 0740-3224
Ratings:
BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 1
BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 296977
Publication: Research - peer-review › Journal article – Annual report year: 1997

Mean-field theory of photoinduced molecular reorientation in azobenzene liquid crystalline side-chain polymers
A novel mean-field theory of photoinduced reorientation and optical anisotropy in liquid crystalline side-chain polymers is presented and compared with experiments, The reorientation mechanism is based on photoinduced trans <-> cis isomerization and a multidomain model of the material is introduced. The theory provides an explanation for the high long-term stability of the photoinduced anisotropy as well as a theoretical prediction of the temporal behavior of photoinduced birefringence. The theoretical results agree favorably with measurements in the entire range of writing intensities used experimentally.

General information

State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, T. (Ekstern), Johansen, P. (Intern)
Pages: 2470-2473
Publication date: 1997
Main Research Area: Technical/natural sciences

Publication information
Journal: Physical Review Letters
Volume: 79
Issue number: 13
ISSN (Print): 0031-9007
Ratings:
BFI (2015): BFI-level 2
BFI (2014): BFI-level 2
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 2
BFI (2012): BFI-level 2
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 2
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 2
BFI (2009): BFI-level 2
BFI (2008): BFI-level 2
Original language: English
DOIs:
10.1103/PhysRevLett.79.2470
Source: orbit
Source-ID: 296696
Publication: Research › Journal article – Annual report year: 1997

Nonlinear self-defocusing in doped silica sono-gels

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Ramos, R. (Ekstern), Petersen, P. (Intern), Johansen, P. (Intern), Lindvold, L. (Intern), Ramirez, M. (Ekstern), Blanco, E. (Ekstern)
Pages: 7728-7733
Publication date: 1997
Main Research Area: Technical/natural sciences

Publication information
Journal: Journal of Applied Physics
Volume: 81
ISSN (Print): 0021-8979
Ratings:
BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 1
BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1

Original language: English
Source: orbit
Source-ID: 296424
Publication: Research - peer-review › Journal article – Annual report year: 1997

Optics and Fluid Dynamics Department annual progress report for 1996

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Hanson, S. G. (Intern), Johansen, P. M. (Intern), Lading, L. (Intern), Lynov, J. (Intern), Skaarup, B. (Intern)
Keywords: (Risø-R-951, Risø-R-951(EN))
Number of pages: 114
Publication date: 1997

Publication information
ISBN (Print): 87-550-2258-8
Original language: English

Series: Denmark. Forskningscenter Risoe. Risoe-R
Number: 951(EN)
ISSN (print): 0106-2840
Main Research Area: Technical/natural sciences
Electronic versions:

ris_r_951.pdf
Source: orbit
Source-ID: 297360
Publication: Research › Report – Annual report year: 1997

Optisk datalagring i ulineære materialer

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Petersen, P. (Intern), Dam-Hansen, C. (Intern), Johansen, P. (Intern)
Pages: 4-7
Publication date: 1997
Main Research Area: Technical/natural sciences

Publication information
Journal: DOPS-Nyt
Volume: 12
Issue number: 4
Ratings:

ISI indexed (2013): ISI indexed no

ISI indexed (2012): ISI indexed no

ISI indexed (2011): ISI indexed no
Original language: Danish
Source: orbit
Source-ID: 296427
Publication: Research › Journal article – Annual report year: 1997

Parametric instabilities in photorefractive nonlinear optics

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern)

Publication date: 1997
Event: Abstract from Nonlinear Science Day, Risø, Denmark.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 296456
Publication: Research › Conference abstract for conference – Annual report year: 1997

Ph.d. - uddannelsen er en national opgave

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern), Petersen, P. (Intern)
Publication date: 1997
Main Research Area: Technical/natural sciences

Publication information
Journal: Berlingske Tidende. Univers
Issue number: 3. juni
Original language: Danish
Source: orbit
Source-ID: 296451
Publication: Communication › Journal article – Annual report year: 1997

Photorefractive effect in praseodymium-doped lanthanum gallium silicate crystals

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Dam-Hansen, C. (Intern), Johansen, P. (Intern), Fridkin, V. (Ekstern)
Pages: 569-572
Publication date: 1997

Host publication information
Title of host publication: Proceedings. 1997 Topical meeting on photorefractive materials, effects and devices
Place of publication: Tokyo
Publisher: Optical Society of Japan
Main Research Area: Technical/natural sciences
Conference: Photorefractive Materials, Effects and Devices, Chiba, Japan, 11/06/1997 - 11/06/1997
Source: orbit
Source-ID: 296892
Publication: Research › Article in proceedings – Annual report year: 1997

Photorefractive parametric oscillation in photorefractive media

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern)
Publication date: 1997
Event: Abstract from Institute of Crystallography. Russian Academy of Sciences, Moscow (RU), 15 Apr, .
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 297222
Publication: Research › Conference abstract for conference – Annual report year: 1997

Photorefractives and other optical materials at Risø

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern)
Publication date: 1997
Event: Abstract from Fachbereich Physik, Universität Osnabrück, Osnabrück (DE), 24 Oct, .
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 296152
Publication: Research › Conference abstract for conference – Annual report year: 1997

Response of photorefractive $Bi_{12}SiO_{20}$ to running gratings and AC electric field

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern), Pedersen, H. (Intern)
Pages: 359-362
Publication date: 1997

Host publication information
Title of host publication: Proceedings. 1997 Topical meeting on photorefractive materials, effects and devices
Place of publication: Tokyo
Publisher: Optical Society of Japan
Main Research Area: Technical/natural sciences
Conference: Photorefractive Materials, Effects and Devices, Chiba, Japan, 11/06/1997 - 11/06/1997
Source: orbit
Source-ID: 296882
Publication: Research › Article in proceedings – Annual report year: 1997

Stability of the photorefractive transversal parametric oscillation states in sillenite crystals

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, H. (Intern), Johansen, P. (Intern), Podivilov, E. (Ekstern), Sturman, B. (Ekstern)
Pages: 452-455
Publication date: 1997

Host publication information
Title of host publication: Proceedings. 1997 Topical meeting on photorefractive materials, effects and devices
Place of publication: Tokyo
Publisher: Optical Society of Japan
Main Research Area: Technical/natural sciences
Conference: Photorefractive Materials, Effects and Devices, Chiba, Japan, 11/06/1997 - 11/06/1997
Source: orbit
Source-ID: 296889
Publication: Research › Article in proceedings – Annual report year: 1997

The influence of dispersion on the self-induced scanning of a broad area diode laser with phase conjugate feedback

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Løbel, M. (Ekstern), Petersen, P. (Intern), Johansen, P. (Intern)
Pages: 507-510
Publication date: 1997

Host publication information
Title of host publication: Proceedings. 1997 Topical meeting on photorefractive materials, effects and devices
Place of publication: Tokyo
Publisher: Optical Society of Japan
Main Research Area: Technical/natural sciences
Conference: Photorefractive Materials, Effects and Devices, Chiba, Japan, 11/06/1997 - 11/06/1997
Source: orbit
Source-ID: 296890
Publication: Research › Article in proceedings – Annual report year: 1997

Theory of nonlinear multiple-grating interaction in diffusion-dominated photorefractive media: errata

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, H. (Intern), Andersen, P. E. (Intern), Petersen, P. (Intern), Johansen, P. (Intern)
Pages: 989
Publication date: 1997
Main Research Area: Technical/natural sciences

Publication information
Journal: Optical Society of America. Journal B: Optical Physics
Volume: 14
ISSN (Print): 0740-3224
Ratings:
BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 1
BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 310622
Publication: Research - peer-review › Journal article – Annual report year: 1997

Two-photon photorefractive effect in piezoelectric $La_3Ga_3SiO_14$ crystals doped with Pr^{3+}

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Nikolajsen, T. (Intern), Johansen, P. (Intern)
Publication date: 1997
Event: Abstract from 1997 Annual meeting of the Danish Optical Society (DOPS), Lyngby, Denmark.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 296626
Publication: Research › Conference abstract for conference – Annual report year: 1997

Degenerate parametric amplification in photorefractive media: Theoretical analysis

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, H. (Intern), Johansen, P. (Intern)
Pages: 590-600
Publication date: 1996
Main Research Area: Technical/natural sciences

Publication information
Journal: Optical Society of America. Journal B: Optical Physics
Volume: 13
ISSN (Print): 0740-3224
Ratings:
BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 1
BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 295675
Publication: Research - peer-review › Journal article – Annual report year: 1996

Dynamic grating formation in $LiNbO_3$ under the influence of an externally applied magnetic field

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern), Dam-Hansen, C. (Intern), Petersen, P. (Intern)
Publication date: 1996
Event: Abstract from Lasers '96, Portland, OR (US), 5 Dec, .
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 294728
Publication: Research › Conference abstract for conference – Annual report year: 1996

Fremtidens datalagring sker ved hjælp af hologrammer

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Petersen, P. (Intern), Dam-Hansen, C. (Intern), Johansen, P. (Intern)
Pages: 4-5
Publication date: 1996
Main Research Area: Technical/natural sciences

Publication information
Journal: Risønyt
Issue number: 3
Original language: Danish
Source: orbit
Source-ID: 295085
Publication: Communication › Journal article – Annual report year: 1996

Holographic gratings induced in laser ablated thin films of indium tin oxide

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Thestrup, B. (Ekstern), Nordskov, A. (Ekstern), Dam-Hansen, C. (Intern), Johansen, P. (Intern), Schou, J. (Intern)
Number of pages: 28
Publication date: 1996

Host publication information
Title of host publication: Annual meeting of the Danish Optical Society. Book of abstracts
Place of publication: Roskilde
Publisher: Risø National Labratory
Editors: Petersen, P., Johansen, P., Skaarup, B.
Main Research Area: Technical/natural sciences
Conference: 11th Annual meeting of the Danish Optical Society, Risø, Denmark, 21/11/1996 - 21/11/1996
Source: orbit
Source-ID: 294977
Publication: Research › Conference abstract in proceedings – Annual report year: 1996

Holographic wave instabilities in photorefractive sillenite crystals

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern), Pedersen, H. (Intern)
Number of pages: 17
Publication date: 1996

Host publication information
Title of host publication: Annual meeting of the Danish Optical Society. Book of abstracts
Place of publication: Roskilde
Publisher: Risø National Laboratory
Editors: Petersen, P., Johansen, P., Skaarup, B.
Main Research Area: Technical/natural sciences
Conference: 11th Annual meeting of the Danish Optical Society, Risø, Denmark, 21/11/1996 - 21/11/1996
Source: orbit
Source-ID: 294844
Publication: Research › Conference abstract in proceedings – Annual report year: 1996

Longitudinal, degenerate, and transversal parametric oscillation in a photorefractive media
We present a theoretical model of photorefractive parametric oscillation that covers, for the first time, to our knowledge, the occurrence of the whole spectrum of parametric processes from transversal over degenerate to longitudinal parametric oscillation. It is shown that inclusion of so-called noneigenwaves is essential for completing the model. We report on the first experiment that shows the transition from transversal over degenerate to longitudinal parametric oscillation. The experimental observations agree well with the theoretical predictions.

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, H. (Intern), Johansen, P. (Intern)
Pages: 3106-3109
Publication date: 1996
Main Research Area: Technical/natural sciences

Publication information
Journal: Physical Review Letters
Volume: 77

Issue number: 15
ISSN (Print): 0031-9007
Ratings:
BFI (2015): BFI-level 2
BFI (2014): BFI-level 2
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 2
BFI (2012): BFI-level 2
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 2
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 2
BFI (2009): BFI-level 2
BFI (2008): BFI-level 2
Original language: English
DOIs:
10.1103/PhysRevLett.77.3106
Source: orbit
Source-ID: 295004
Publication: Research › Journal article – Annual report year: 1996

Magnetophotorefractive effect in $LiNbO_3$:Fe crystals: theory and experiments

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Dam-Hansen, C. (Intern), Johansen, P. (Intern), Petersen, P. (Intern), Fridkin, V. (Ekstern)
Pages: 2286-2298
Publication date: 1996
Main Research Area: Technical/natural sciences

Publication information
Journal: Optical Society of America. Journal B: Optical Physics
Volume: 13
ISSN (Print): 0740-3224
Ratings:
BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 1
BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 294943
Publication: Research - peer-review › Journal article – Annual report year: 1996

Magnetophotorefractive effect in photovoltaic $LiNbO_3$:Fe

General information
State: Published

Organisations: Risø National Laboratory for Sustainable Energy
Authors: Dam-Hansen, C. (Intern), Johansen, P. (Intern), Petersen, P. (Intern)
Publication date: 1996
Event: Abstract from 1996 Annual meeting of the Danish Physical Society, Nyborg, Denmark.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 295543
Publication: Research › Conference abstract for conference – Annual report year: 1996

Nonlinear crosstalk in photorefractive storage

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Petersen, P. (Intern), Johansen, P. (Intern)
Publication date: 1996
Event: Abstract from International symposium on holographic memories, Vouliagmeni (GR), 14 May, .
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 294727
Publication: Research › Conference abstract for conference – Annual report year: 1996

Nonlinear self-refraction of Gaussian laser beams in silica sono-gels doped with copper tetrasulfonated phtalocyanine

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Petersen, P. (Intern), Ramos, R. (Ekstern), Johansen, P. (Intern), Lindvold, L. (Intern)
Pages: 202-209
Publication date: 1996

Host publication information
Title of host publication: High-power lasers: Gas and solid state lasers
Place of publication: Bellingham, WA
Publisher: The International Society for Optical Engineering
Editors: Letardi, T., Weber, H.

Series: SPIE Proceedings Series, 2788
Main Research Area: Technical/natural sciences
Conference: Conference on high-power lasers, Besancon (FR), 10-11 Jun, 01/01/1996
Source: orbit
Source-ID: 294805
Publication: Research › Article in proceedings – Annual report year: 1996

Observation of non-degenerate photorefractive parametric amplification
We report on the first experimental observation of so-called nondegenerate photorefractive parametric amplification. We show that due to this effect it is possible for a weakly modulated photoinduced grating to be parametrically amplified via nonlinear interaction with a strongly modulated photoinduced grating.

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, H. (Intern), Johansen, P. (Intern)
Pages: 4159-4162
Publication date: 1996
Main Research Area: Technical/natural sciences

Publication information
Journal: Physical Review Letters

Volume: 76
Issue number: 22
ISSN (Print): 0031-9007
Ratings:
BFI (2015): BFI-level 2
BFI (2014): BFI-level 2
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 2
BFI (2012): BFI-level 2
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 2
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 2
BFI (2009): BFI-level 2
BFI (2008): BFI-level 2
Original language: English
DOIs:
10.1103/PhysRevLett.76.4159
Source: orbit
Source-ID: 295520
Publication: Research › Journal article – Annual report year: 1996

Photorefractive grating formation in piezoelectric $La_3Ga_5SiO_{14}:Pr^{3+}$ crystals

Photorefractive grating formation and erasure in piezoelectric crystals of La3Ga5SiO14:Pr3+ are presented. The specific photoconductivity and the photorefractive sensitivity are determined. The polarization dependence of the grating formation due to the bulk photovoltaic effect is shown and compared favorably with the theoretical expression. This photorefractive material provides a possibility for separate investigations of the charge migration processes responsible for the photorefractive effect. (C) 1996 American Institute of Physics.

General information

State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Dam-Hansen, C. (Intern), Johansen, P. (Intern), Fridkin, V. (Ekstern)
Pages: 2003-2005
Publication date: 1996
Main Research Area: Technical/natural sciences

Publication information

Journal: Applied Physics Letters
Volume: 69
Issue number: 14
ISSN (Print): 0003-6951
Ratings:
BFI (2015): BFI-level 2
BFI (2014): BFI-level 2
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 2
BFI (2012): BFI-level 2
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 2
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 2
BFI (2009): BFI-level 2
BFI (2008): BFI-level 2
Original language: English
DOIs:
10.1063/1.116860
Source: orbit

Source-ID: 295018
Publication: Research › Journal article – Annual report year: 1996

Theory of nonlinear multiple-grating interaction in diffusion-dominated photorefractive media

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, H. (Intern), Andersen, P. E. (Intern), Petersen, P. (Intern), Johansen, P. (Intern)
Pages: 2569-2579
Publication date: 1996
Main Research Area: Technical/natural sciences

Publication information
Journal: Optical Society of America. Journal B: Optical Physics
Volume: 13
ISSN (Print): 0740-3224
Ratings:
BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 1
BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 294857
Publication: Research - peer-review › Journal article – Annual report year: 1996

Thin films of ITO produced by pulsed laser deposition

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Thestrup, B. (Ekstern), Nordskov, A. (Ekstern), Schou, J. (Intern), Svendsen, W. (Ekstern), Johansen, P. (Intern)
Publication date: 1996
Event: Abstract from Gordon Research Conference , Plymouth, NH, United States.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 295479
Publication: Research › Conference abstract for conference – Annual report year: 1996

Thin films of ITO produced by pulsed laser deposition

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Thestrup, B. (Ekstern), Nordskov, A. (Ekstern), Schou, J. (Intern), Svendsen, W. (Ekstern), Johansen, P. (Intern)
Publication date: 1996
Event: Abstract from 1996 Annual meeting of the Danish Physical Society, Nyborg, Denmark.
Main Research Area: Technical/natural sciences

Source: orbit
Source-ID: 295481
Publication: Research › Conference abstract for conference – Annual report year: 1996

Analysis of wave coupling in photorefractive cubic media far from the paraxial limit

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, H. (Intern), Johansen, P. (Intern)
Pages: 592-599
Publication date: 1995
Main Research Area: Technical/natural sciences

Publication information
Journal: Optical Society of America. Journal B: Optical Physics
Volume: 12
ISSN (Print): 0740-3224
Ratings:
BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 1
BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 294040
Publication: Research - peer-review › Journal article – Annual report year: 1995

Experimental characteristics of spatial subharmonics in BSO

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern), Hansen, R. (Ekstern), Olsen, T. (Ekstern)
Pages: 308-314
Publication date: 1995
Main Research Area: Technical/natural sciences

Publication information
Journal: Optics Communications
Volume: 115
ISSN (Print): 0030-4018
Ratings:
BFI (2015): BFI-level 2
BFI (2014): BFI-level 2
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 2
BFI (2012): BFI-level 2
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 2

ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 2
BFI (2009): BFI-level 2
BFI (2008): BFI-level 2
Original language: English
Source: orbit
Source-ID: 293980
Publication: Research - peer-review › Journal article – Annual report year: 1995

External sinusoidal electric field applied to photorefractive materials: New cascading solution

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern), Pedersen, H. (Intern)
Pages: 168-171
Publication date: 1995

Host publication information
Title of host publication: Photorefractive materials effects and devices. Technical digest
Place of publication: Washington, DC
Publisher: The Optical Society of America
Main Research Area: Technical/natural sciences
Conference: Photorefractive Materials Effects and Devices , Estes Park, CO, United States, 11/06/1995 - 11/06/1995
Source: orbit
Source-ID: 293945
Publication: Research › Article in proceedings – Annual report year: 1995

Incoherent enhancement of the photorefractive response in $Bi_{12}SiO_2O$ by subharmonic interaction

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, H. (Intern), Johansen, P. (Intern)
Pages: 689-691
Publication date: 1995
Main Research Area: Technical/natural sciences

Publication information
Journal: Optics Letters
Volume: 20
ISSN (Print): 0146-9592
Ratings:
BFI (2015): BFI-level 2
BFI (2014): BFI-level 2
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 2
BFI (2012): BFI-level 2
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 2
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 2
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 294042
Publication: Research - peer-review › Journal article – Annual report year: 1995

Influence of an externally applied magnetic field on vectorial interaction in $LiNbO_3$:Fe crystals

An experimental investigation of the influence of an externally applied magnetic field on the dynamic grating formation in iron-doped lithium niobate is carried out. The diffraction efficiency and the two-beam gain depends strongly on the applied magnetic field. We observe changes in the two-beam gain and the diffraction efficiency of up to 40 and 75 %, respectively. The magnitude depends on the direction of the magnetic field. The interaction is believed to occur due to the anomalously high mobility of the nonthermalized free electrons responsible for the photovoltaic current, which in the vectorial interaction scheme causes the grating formation. A phenomenological description of the photovoltaic current including the photo-flail effect shows a linear dependence on the magnetic field, which does not explain the obtained experimental results.

General information

State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Dam-Hansen, C. (Intern), Johansen, P. (Intern), Petersen, P. (Intern), Fridkin, V. (Ekstern)
Pages: R13098-R13101
Publication date: 1995
Main Research Area: Technical/natural sciences

Publication information

Journal: Physical Review B Condensed Matter
Volume: 52
Issue number: 18
ISSN (Print): 0163-1829
Ratings:
BFI (2015): BFI-level 2
BFI (2014): BFI-level 2
ISI indexed (2013): ISI indexed no
BFI (2013): BFI-level 2
BFI (2012): BFI-level 2
ISI indexed (2012): ISI indexed no
BFI (2011): BFI-level 2
ISI indexed (2011): ISI indexed no
BFI (2010): BFI-level 2
BFI (2009): BFI-level 2
BFI (2008): BFI-level 2
Original language: English
Source: orbit
Source-ID: 293294
Publication: Research › Journal article – Annual report year: 1995

Magnetic field effect on holographic grating formation in Fe:$LiNbO_3$

General information

State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Dam-Hansen, C. (Intern), Johansen, P. (Intern), Fridkin, V. (Ekstern), Petersen, P. (Intern)
Pages: 264-267
Publication date: 1995

Host publication information

Title of host publication: Photorefractive materials effects and devices. Technical digest
Place of publication: Washington, DC
Publisher: The Optical Society of America
Main Research Area: Technical/natural sciences
Conference: Photorefractive Materials Effects and Devices , Estes Park, CO, United States, 11/06/1995 - 11/06/1995
Source: orbit
Source-ID: 293947
Publication: Research › Article in proceedings – Annual report year: 1995

Magnetic field enhancement of photovoltaic grating formation in iron-doped lithium niobate crystals

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Dam-Hansen, C. (Intern), Johansen, P. (Intern), Petersen, P. (Intern)
Publication date: 1995

Host publication information
Title of host publication: Dansk Optisk Selskabs årsmøde 1995. 10-års jubilæum. Abstracts
Place of publication: Roskilde
Publisher: DOPS. Forskningscenter Risø
Main Research Area: Technical/natural sciences
Conference: Dansk Optisk Selskabs årsmøde 1995, Snekkersten, Denmark, 23/11/1995 - 23/11/1995
Source: orbit
Source-ID: 293393
Publication: Research › Conference abstract in proceedings – Annual report year: 1995

Nonlinear optical properties of photorefractive materials

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern), Petersen, P. (Intern)
Pages: 157-169
Publication date: 1995

Host publication information
Title of host publication: Current topics in quantum electronics. Vol. 1
Place of publication: Kaithamukku, Trivandrum (IN)
Publisher: Research Trends. Council of Scientific Research Integration
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 293214
Publication: Research - peer-review › Book chapter – Annual report year: 1995

Observation of beam fanning in bulk $Bi_{12}SiO_{20}$ crystals in the presence of an applied DC electric field

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, H. (Intern), Johansen, P. (Intern)
Pages: 204-207
Publication date: 1995

Host publication information
Title of host publication: Photorefractive materials effects and devices. Technical digest
Place of publication: Washington, DC
Publisher: The Optical Society of America
Main Research Area: Technical/natural sciences
Conference: Photorefractive Materials Effects and Devices , Estes Park, CO, United States, 11/06/1995 - 11/06/1995
Source: orbit
Source-ID: 293946
Publication: Research › Article in proceedings – Annual report year: 1995

Observation of photorefractive parametric oscillation in $Bi_{12}SiO_{20}$

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, H. (Intern), Johansen, P. (Intern)
Pages: 112-115
Publication date: 1995

Host publication information
Title of host publication: Photorefractive materials effects and devices. Technical digest
Place of publication: Washington, DC
Publisher: The Optical Society of America
Main Research Area: Technical/natural sciences
Conference: Photorefractive Materials Effects and Devices , Estes Park, CO, United States, 11/06/1995 - 11/06/1995
Source: orbit
Source-ID: 293944
Publication: Research › Article in proceedings – Annual report year: 1995

Observation of spontaneously frequency-shifted beam fanning in photorefractive $Bi_{12}SiO_{20}$

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, H. (Intern), Andersen, P. E. (Intern), Johansen, P. (Intern)
Pages: 2475-2477
Publication date: 1995
Main Research Area: Technical/natural sciences

Publication information
Journal: Optics Letters
Volume: 20
ISSN (Print): 0146-9592
Ratings:
BFI (2015): BFI-level 2
BFI (2014): BFI-level 2
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 2
BFI (2012): BFI-level 2
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 2
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 2
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 293072
Publication: Research - peer-review › Journal article – Annual report year: 1995

Parametric oscillation in photorefractive media

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, H. (Intern), Johansen, P. (Intern)
Pages: 1065-1073
Publication date: 1995
Main Research Area: Technical/natural sciences

Publication information
Journal: Optical Society of America. Journal B: Optical Physics
Volume: 12
ISSN (Print): 0740-3224
Ratings:
BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 1
BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 293873
Publication: Research - peer-review › Journal article – Annual report year: 1995

Photorefractive materials: Linear- and nonlinear properties

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern)
Publication date: 1995
Event: Abstract from Mikroelektronik Centeret. DTU, Lyngby (DK), 28 Sep, .
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 293648
Publication: Research › Conference abstract for conference – Annual report year: 1995

Properties of photorefractive materials: Linear- and nonlinear aspects

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern), Pedersen, H. (Intern), Dam-Hansen, C. (Intern), Petersen, P. (Intern)
Publication date: 1995
Event: Abstract from DFS 95. Dansk Fysisk Selskab og Astronomisk Udvalg, Odense, Denmark.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 293644
Publication: Research › Conference abstract for conference – Annual report year: 1995

Setup for pulsed laser deposition of thin ITO films

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Thestrup, B. (Ekstern), Nordskov, A. (Ekstern), Schou, J. (Intern), Svendsen, W. (Ekstern), Johansen, P. (Intern)
Publication date: 1995

Host publication information

Title of host publication: Dansk Optisk Selskabs årsmøde 1995. 10-års jubilæum. Abstracts
Place of publication: Roskilde
Publisher: DOPS. Forskningscenter Risø
Main Research Area: Technical/natural sciences
Conference: Dansk Optisk Selskabs årsmøde 1995, Snekkersten, Denmark, 23/11/1995 - 23/11/1995
Source: orbit
Source-ID: 293394
Publication: Research › Conference abstract in proceedings – Annual report year: 1995

Temperature properties of laser-induced interference filters in lithium niobate

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Dam-Hansen, C. (Intern), Johansen, P. (Intern), Petersen, P. (Intern)
Pages: 607-614
Publication date: 1995
Main Research Area: Technical/natural sciences

Publication information
Journal: Optics Communications
Volume: 118
ISSN (Print): 0030-4018
Ratings:
BFI (2015): BFI-level 2
BFI (2014): BFI-level 2
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 2
BFI (2012): BFI-level 2
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 2
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 2
BFI (2009): BFI-level 2
BFI (2008): BFI-level 2
Original language: English
Source: orbit
Source-ID: 293733
Publication: Research - peer-review › Journal article – Annual report year: 1995

The influence of nonlinear interaction between gratings on light amplification in photorefractive $BaTiO_3$

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Petersen, P. (Intern), Andersen, P. E. (Intern), Johansen, P. (Intern), Buchhave, P. (Ekstern)
Pages: 320-323
Publication date: 1995

Host publication information
Title of host publication: Photorefractive materials effects and devices. Technical digest
Place of publication: Washington, DC
Publisher: The Optical Society of America
Main Research Area: Technical/natural sciences
Conference: Photorefractive Materials Effects and Devices , Estes Park, CO, United States, 11/06/1995 - 11/06/1995
Source: orbit
Source-ID: 293948
Publication: Research › Article in proceedings – Annual report year: 1995

Nonlinear excitations of space-charge waves in photorefractive media

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern)
Publication date: 1994
Event: Abstract from Institut d'Optique Théorique et Appliqueé, Paris, France.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 292043
Publication: Research › Conference abstract for conference – Annual report year: 1994

Nonlinear two-wave mixing by anisotropic grating diffraction in photorefractive BSO

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, H. (Intern), Johansen, P. (Intern)
Publication date: 1994
Event: Abstract from Laser '94. Dansk Optisk Selskab. Dansk Fysisk Selskab, Odense, Denmark.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 292746
Publication: Research › Conference abstract for conference – Annual report year: 1994

Observation af nye subharmoniske gitre i fotorefractive medier

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, H. (Intern), Johansen, P. (Intern)
Pages: 10
Publication date: 1994
Main Research Area: Technical/natural sciences

Publication information
Journal: DOPS-Nyt
Volume: 9
Issue number: 4
Ratings:

ISI indexed (2013): ISI indexed no

ISI indexed (2012): ISI indexed no

ISI indexed (2011): ISI indexed no
Original language: Danish
Source: orbit
Source-ID: 291823
Publication: Communication › Journal article – Annual report year: 1994

Observation of angularly tilted subharmonic gratings in photorefractive bismuth silicon oxide

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, H. (Intern), Johansen, P. (Intern)

Pages: 1418-1420
Publication date: 1994
Main Research Area: Technical/natural sciences

Publication information
Journal: Optics Letters
Volume: 19
ISSN (Print): 0146-9592
Ratings:
BFI (2015): BFI-level 2
BFI (2014): BFI-level 2
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 2
BFI (2012): BFI-level 2
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 2
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 2
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 292041
Publication: Research - peer-review › Journal article – Annual report year: 1994

Observation of misalignment of the subharmonic grating in photorefractive $Bi_{12}SiO_{20}$

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern)
Publication date: 1994
Event: Abstract from Universidad de Cadiz, Cadiz (ES), 10 Oct, .
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 292046
Publication: Research › Conference abstract for conference – Annual report year: 1994

Observation of misalignment of the subharmonic grating in photorefractive $Bi_{12}SiO_{20}$

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, H. (Intern), Johansen, P. (Intern)
Pages: 84-85
Publication date: 1994

Host publication information
Title of host publication: Conference on lasers and electro-optics Europe
Place of publication: Piscataway, NJ
Publisher: The Institute of Electrical and Electronics Engineers
Main Research Area: Technical/natural sciences
Conference: CLEO/Europe '94, Amsterdam, Netherlands, 28/08/1994 - 28/08/1994
Source: orbit
Source-ID: 292274
Publication: Research › Article in proceedings – Annual report year: 1994

Photorefractive interference filters

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern)
Publication date: 1994
Event: Abstract from Institut d'Optique Théorique et Appliqueé, Paris, France.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 292042
Publication: Research › Conference abstract for conference – Annual report year: 1994

Photorefractive interference filters

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern)
Publication date: 1994
Event: Abstract from Universidad de Cadiz, Cadiz (ES), 10 Oct, .
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 292044
Publication: Research › Conference abstract for conference – Annual report year: 1994

Photorefractive interference filters

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern)
Publication date: 1994
Event: Abstract from Universidad Autónoma de Madrid, Madrid (ES), 11 Oct, .
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 292047
Publication: Research › Conference abstract for conference – Annual report year: 1994

Properties of laser induced gratings in lithium niobate crystals

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Dam-Hansen, C. (Intern), Johansen, P. (Intern), Petersen, P. (Intern)
Publication date: 1994
Event: Abstract from Laser '94. Dansk Optisk Selskab. Dansk Fysisk Selskab, Odense, Denmark.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 292742
Publication: Research › Conference abstract for conference – Annual report year: 1994

Subharmonic generation in BSO

General information
State: Published

Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern)
Publication date: 1994
Event: Abstract from Universidad Autónoma de Madrid, Madrid (ES), 11 Oct, .
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 292048
Publication: Research › Conference abstract for conference – Annual report year: 1994

Two-wave mixing with externally applied magnetic field and Faraday effect on photorefractive medium

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern)
Pages: 1916-1923
Publication date: 1994
Main Research Area: Technical/natural sciences

Publication information
Journal: I E E E Journal of Quantum Electronics
Volume: 30
ISSN (Print): 0018-9197
Ratings:
BFI (2015): BFI-level 2
BFI (2014): BFI-level 2
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 2
BFI (2012): BFI-level 2
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 292275
Publication: Research - peer-review › Journal article – Annual report year: 1994

Z-scan technique for measuring N_2

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern)
Publication date: 1994
Event: Abstract from Universidad de Cadiz, Cadiz (ES), 10 Oct, .
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 292045
Publication: Research › Conference abstract for conference – Annual report year: 1994

Analysis of two incoherently written thick holographic grittings

General information

State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern)
Publication date: 1993
Event: Abstract from Fysisk Institut, DTH, Lyngby (DK), 18 Jan, .
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 291410
Publication: Research › Conference abstract for conference – Annual report year: 1993

Analysis of two incoherent written thick holographic gratings

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern)
Publication date: 1993
Event: Abstract from Optikgruppen. Fysisk Institut. DTH, Lyngby (DK), 26 Mar, .
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 291017
Publication: Research › Conference abstract for conference – Annual report year: 1993

Arbejdet med fotobrydende materialer

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern)
Publication date: 1993
Event: Abstract from Besøg af Professorforeningen fra DTH, Risø, Denmark.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 291010
Publication: Research › Conference abstract for conference – Annual report year: 1993

Current aspects of the photorefractive effect

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern)
Publication date: 1993
Event: Abstract from Afdelingen for Optik og Fluid Dynamik, Risø (DK), 22 Sep, .
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 291008
Publication: Research › Conference abstract for conference – Annual report year: 1993

Current aspects of the photorefractive effect

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern)
Publication date: 1993

Event: Abstract from Afdelingen for Faststoffysik, Risø (DK), 29 Sep, .
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 291009
Publication: Research › Conference abstract for conference – Annual report year: 1993

Dynamics of magnetophotorefractive wave mixing

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern), Skov Jensen, A. (Ekstern)
Pages: 403-406
Publication date: 1993

Host publication information
Title of host publication: Photorefractive materials. Effects and devices. PRM '93. Technical digest
Place of publication: Kiev
Publisher: Ukrainian Academy of Sciences
Main Research Area: Technical/natural sciences
Conference: Topical meeting on photorefractive materials. Effects and devices, Kiev (UA), 11-15 Aug, 01/01/1993
Source: orbit
Source-ID: 291166
Publication: Research › Article in proceedings – Annual report year: 1993

Higher spatial harmonics in nonlinear photorefractive interference filters

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Petersen, P. (Intern), Johansen, P. (Intern), Bruun, P. (Ekstern), Pedersen, P. (Ekstern)
Pages: 162-166
Publication date: 1993

Host publication information
Title of host publication: 1. International symposium on laser and optoelectronics technology and applications. Proceedings
Place of publication: Singapore
Publisher: Singapore National University
Editors: Chong, T., Lu, Y.
Main Research Area: Technical/natural sciences
Conference: ISLOE '93, Singapore (SG), 11-13 Nov, 01/01/1993
Source: orbit
Source-ID: 290915
Publication: Research › Article in proceedings – Annual report year: 1993

Photorefractive interference filters

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Dam-Hansen, C. (Intern), Johansen, P. (Intern)
Publication date: 1993
Event: Abstract from Dansk Optisk Selskabs årsmøde 1993, Lyngby, Denmark.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 290928
Publication: Research › Conference abstract for conference – Annual report year: 1993

Polarization and energy transfer dependencies on crystal depth in self-diffraction in BSO

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, H. (Intern), Johansen, P. (Intern)
Pages: 659-676
Publication date: 1993
Main Research Area: Technical/natural sciences

Publication information
Journal: Pure Appl. Opt.
Volume: 2
Original language: English
Source: orbit
Source-ID: 290830
Publication: Research › Journal article – Annual report year: 1993

Rumlig subharmonisk generation i $Bi_{12}SiO_{20}$

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Olsen, T. (Ekstern), Hansen, R. (Ekstern), Johansen, P. (Intern)
Publication date: 1993
Event: Abstract from Dansk Optisk Selskabs årsmøde 1993, Lyngby, Denmark.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 290930
Publication: Research › Conference abstract for conference – Annual report year: 1993

Subharmonic diffraction in photorefractive crystals

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Pedersen, H. (Intern), Johansen, P. (Intern)
Publication date: 1993
Event: Abstract from Dansk Optisk Selskabs årsmøde 1993, Lyngby, Denmark.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 290944
Publication: Research › Conference abstract for conference – Annual report year: 1993

Undersøgelser i fotorefraktive materialer

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern)
Publication date: 1993
Event: Abstract from Besøg af Optikgruppen. Fysisk Institut. DTH, Risø (DK), 5 Oct, .
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 291011
Publication: Research › Conference abstract for conference – Annual report year: 1993

Photorefractive interference filters

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern)
Publication date: 1992
Event: Abstract from Dansk Optisk Selskabs og Dansk Fysisk Selskabs årsmøde 1992, Lyngby, Denmark.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 289913
Publication: Research › Conference abstract for conference – Annual report year: 1992

Photorefractive interference filters: Theory and application

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern), Petersen, P. (Intern)
Pages: 322-324
Publication date: 1992

Host publication information
Title of host publication: Nonlinear optics: Materials, fundamentals, and applications. Summaries of papers. Conference edition
Place of publication: Washington, DC
Publisher: Optical Society of America

Series: 1992 Tecnical Digest Series, 18
Main Research Area: Technical/natural sciences
Conference: Nonlinear optics: Materials, fundamentals and applications topical meeting, Lahaina, Maui, Hawaii (US), 17-21 Aug, 01/01/1992
Source: orbit
Source-ID: 290188
Publication: Research › Article in proceedings – Annual report year: 1992

Space-charge field in photorefractive media with a constant applied magnetic field

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern), Skov Jensen, A. (Ekstern)
Pages: 2342-2354
Publication date: 1991
Main Research Area: Technical/natural sciences

Publication information
Journal: Optical Society of America. Journal B: Optical Physics
Volume: 8
ISSN (Print): 0740-3224
Ratings:

BFI (2015): BFI-level 1

BFI (2014): BFI-level 1

ISI indexed (2013): ISI indexed yes

BFI (2013): BFI-level 1

BFI (2012): BFI-level 1

ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Original language: English
Source: orbit
Source-ID: 288965
Publication: Research - peer-review › Journal article – Annual report year: 1991

Frequency analysis of the photo refractive band transport model and its applications in multifrequency wave mixing

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern)
Pages: 534-543
Publication date: 1990

Host publication information
Title of host publication: Optical information processing systems and architectures
Place of publication: Bellingham, WA
Publisher: International Society for Optical Engineering
Editor: Javidi, B.

Series: SPIE Proceedings, 1151
Main Research Area: Technical/natural sciences
Conference: Optical information processing systems and architectures, San Diego, CA, 8-11 Aug, 01/01/1990
Source: orbit
Source-ID: 288506
Publication: Research › Article in proceedings – Annual report year: 1990

Enhanced Four-Wave Mixing in Photorefractive BSO Produced by Temporal Phase Shifts

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern)
Pages: 247-253
Publication date: 1989
Main Research Area: Technical/natural sciences

Publication information
Journal: Journal of Physics D: Applied Physics
Volume: 22
ISSN (Print): 0022-3727
Ratings:
BFI (2015): BFI-level 1
BFI (2014): BFI-level 1
ISI indexed (2013): ISI indexed yes
BFI (2013): BFI-level 1
BFI (2012): BFI-level 1
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1

BFI (2009): BFI-level 1
BFI (2008): BFI-level 2
Original language: English
Source: orbit
Source-ID: 288092
Publication: Research - peer-review › Journal article – Annual report year: 1989

The Photorefractive Effect Studied by Nondegenerate Optical Phase Conjugation. Theoretical and Experimental Aspects

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern)
Keywords: (Risø-M-2776)
Number of pages: 102
Publication date: 1989

Publication information
ISBN (Print): 87-550-1507-7
Original language: English

Series: Risø-M
Number: 2776
ISSN (print): 0418-6435
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 288368
Publication: Research › Report – Annual report year: 1989

Vectorial Solution to the Photorefractive Band Transport Model in the Spatial and Temporal Fourier Transformed Domain

General information
State: Published
Organisations: Risø National Laboratory for Sustainable Energy
Authors: Johansen, P. (Intern)
Pages: 530-539
Publication date: 1989
Main Research Area: Technical/natural sciences

Publication information
Journal: I E E E Journal of Quantum Electronics
Volume: 25
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