Auf dem Weg zu einem bruchlosen Informationsraum

Zum Aufbau eines Informationsportals für die Max-Planck-Gesellschaft

MAX-PLANCK-GESELLSCHAFT

Worum es geht

Die Max-Planck-Gesellschaft bietet den Zugang zu einer Vielzahl von Informationsressourcen, die auf unterschiedlichen Plattformen mit unterschiedlichen Zugangs- und Erscheinungsformen liegen. Mit Hilfe eines Informationsportals wird an der Integration der Ressourcen gearbeitet. Durch den Einsatz eines SFX-Servers soll weiterhin die Verlinkung untereinander gewährleistet und damit ein (weitgehend) bruchloser Navigationsraum geschaffen werden.

MAX-PLANCK-GESELLSCHAFT

Vorgehen

- Die Max-Planck-Gesellschaft
- Die Ausgangssituation/Problemlage
- Das Ziel/Konzept
- Die Umsetzung
- Der Ausblick

Die Max-Planck-Gesellschaft

- 81 unabhängige Institute und Forschungseinrichtungen im In- und Ausland
- Haushalt 2001: ca. 2,3 Mrd. DM
- Mitarbeiter: 11.000; davon ca. 3.100 Wissenschaftler (zzgl. Gäste)
- organisiert in drei wiss. Sektionen:
  - GW (geisteswissenschaftlich)
  - BM (biologisch-medizinisch)
  - CPT (chemisch-physikalisch-technisch)

Standorte

MAX-PLANCK-GESELLSCHAFT

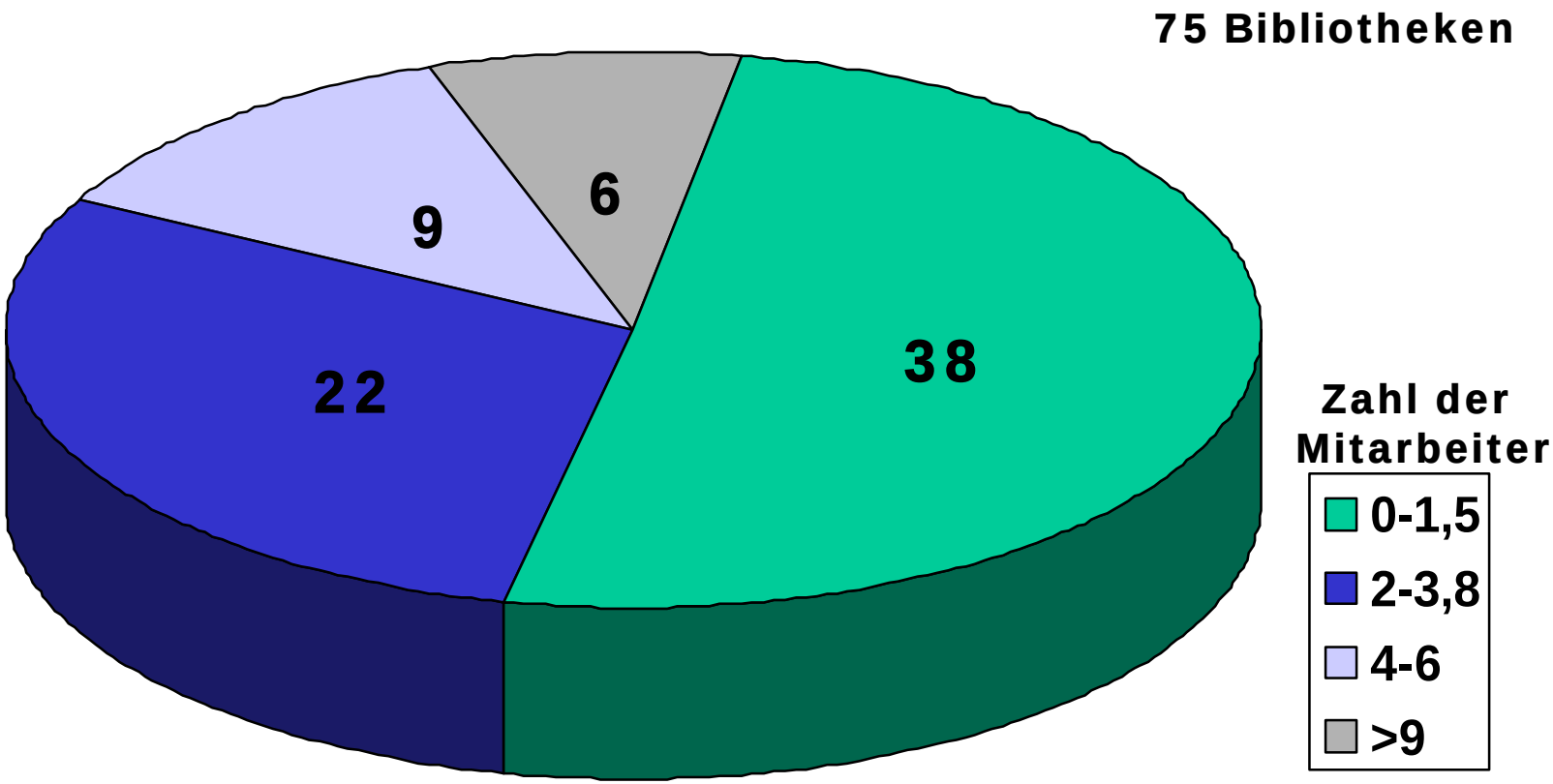
Ralf Schimmer
Generalverwaltung

Die Bibliotheken in der MPG

- 75 Max-Planck-Bibliotheken
  - OPLs bzw. kleine Spezialbibliotheken
- ebenfalls organisiert nach Sektionen
  - unterschiedliche inhaltliche Ausrichtung
- Heterogenität
  - unterschiedliche Ausstattungen und Bedingungen
- Dezentralität
  - lokale Eigenständigkeit in Anschaffungs- und Systemfragen
  - kaum gemeinsame Standards
- regionale Differenzen
  - unterschiedliche Verbunds-/Infrastrukturen

MAX-PLANCK-GESELLSCHAFT

Größe der MPI-Bibliotheken anhand der Zahl der Mitarbeiter



Je höher die Zahl der Mitarbeiter, desto geringer die Zahl der Institute

MPG-weites Informationsangebot

Datenbanken:

- ISI (WoS/JCR)
- OVID-Datenbanken
  - Inspec, Biosis, Medline, Sociofile u.a.
- STN-Datenbanken
- CSA-Datenbanken
- Beilstein/Gmelin
- Juris/WISO
- Oxford English Dictionary

E-Zeitschriften:

- Elsevier
- Springer
- Academic Press
- Wiley
- Kluwer
- IOPP
- JSTOR
- Nature
- Science Online
- Blackwell-Synergy

Ausgangssituation

- Vielzahl an Informationsressourcen und Zugriffsmöglichkeiten mit unterschiedlichen Standards
- Kein gemeinsames Bibliothekssystem
- Kein gemeinsamer Zeitschriften-gesamtnachweis (print: lokal; elektronisch: gesamt via EZB)

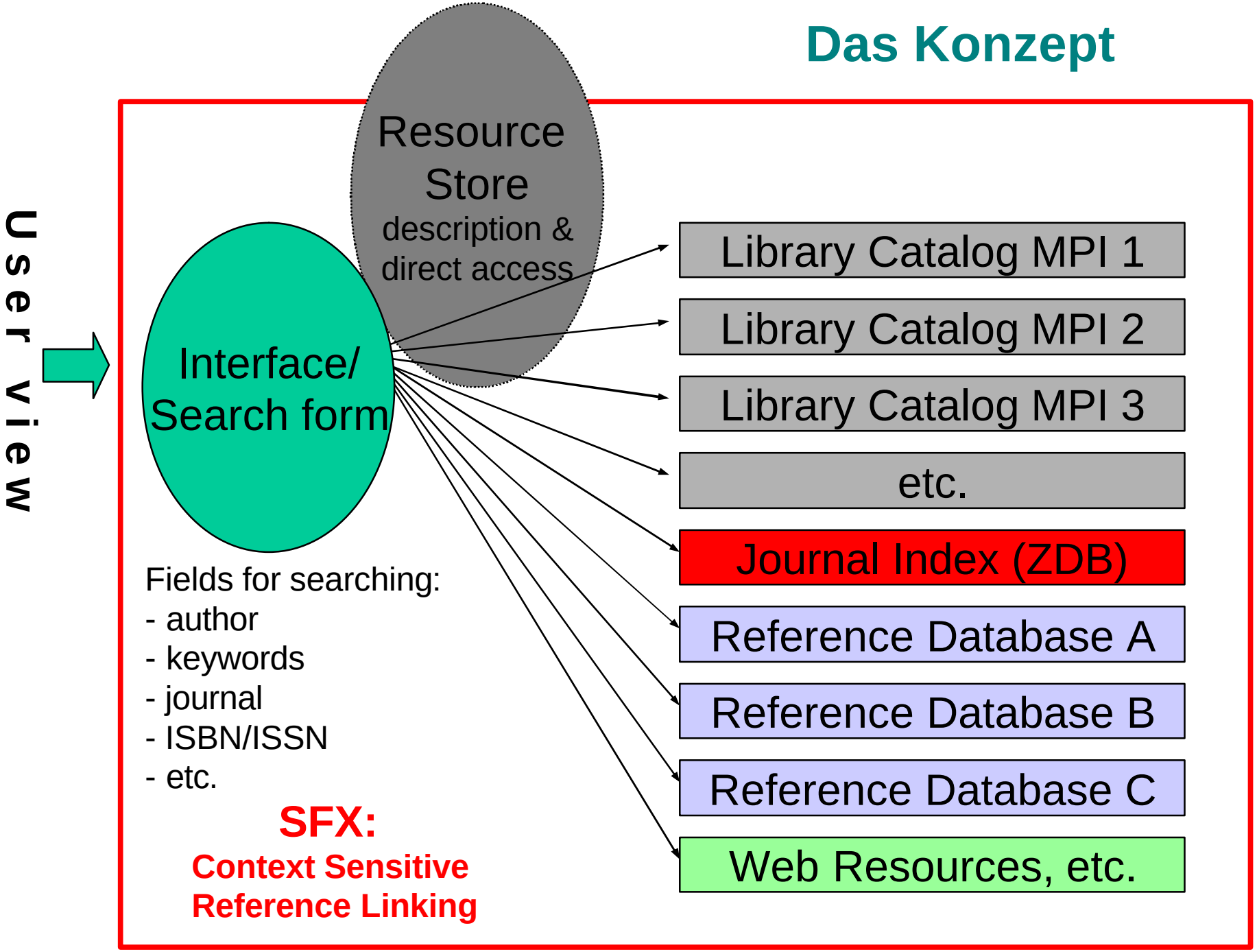
➢ Wunsch und Notwendigkeit der Vereinheitlichung

Die Zielanforderungen

- Integration aller Ressourcen (Datenbanken, Bibliothekskataloge etc.) unter einer Oberfläche
- Aufbau eines MPG-Zeitschriften-verzeichnisses
- Simultane verteilte Suche (cross domain)
- Max Planck Context Sensitive Reference Linking (bruchlose Navigation)
- Höchstmaß an Personalisierung
- Möglichkeit des Fernzugriffs (remote access) zumindest in späterer Ausbaustufe

MAX-PLANCK-GESELLSCHAFT

Das Konzept


User view
Resource Store
description & direct access
Interface/ Search form
Library Catalog MPI 1
Library Catalog MPI 2
Library Catalog MPI 3
etc.
Journal Index (ZDB)
Reference Database A
Reference Database B
Reference Database C
Web Resources, etc.
Fields for searching:
- author
- keywords
- journal
- ISBN/ISSN
- etc.
SFX:
Context Sensitive
Reference Linking

Besonderheit in der MPG

- Konzeption und Realisation des Informationsportals muss standort- und sektionsübergreifend erfolgen
- Sonst typisches Vorgehen:
  - Standortbezogen (z.B. durch UB oder Rechenzentrum für jeweilige Uni)
  - Fachbezogen (z.B. IuK-Projekte der Fachgesellschaften oder virtuelle Fachbibliotheken der DFG)

Die Umsetzung

- Nach langer konzeptioneller und systemischer Vorbereitung Einsatz kommerzieller Portalsoftware
  - Metalib der Firma Ex Libris
- Einsatz von SFX
  - Ebenfalls vertrieben von Ex Libris

➢ Implementierung seit Dez. 2001

➢ Freigabe vorgesehen für Sommer 2002

Datei Bearbeiten Ansicht Favoriten Extras ? Links »

HOME

Ralf Schimmer

Personalization

End Session | Home | Locate Resources | My Profile | Back

Results Summary | Results List | History | e-Shelf | Help

My Resource List

Agriculture
Anthropology
Area Studies
Arts and Architecture
Astronomy
Biology
Business Marketing
Chemistry
Computer Science
Economics
Education
Engineering
Environmental Science
History
Humanities
Language
Law
Libraries in BM Section
Libraries in CPT Section
Libraries in GW Section
External Libraries
Literature
Mathematics
Medicine
Multidisciplinary
News
Philosophy
Physics
Political Science
Psychology

Welcome to MPG Search

The MPG Search Information Gateway is your portal to a wide variety of information resources and services. Begin by selecting the most appropriate category from the list on the left.

You can also use the "Locate Resources" function, which provides search tools to assist you in identifying relevant resources.

Some resources can be searched directly through MPG Search, whilst others still form an integral part of your search environment, and can be linked to from MPG Search and searched via their native interface.

At the moment MPG Search is under construction and can be used only for demonstrations and tests. It is scheduled to go live as a search tool for Max Planck researchers in Summer 2002.

MetaLib

- MetaLib Overview
- MetaLib Resources
- MetaLib Help
- MetaLib FAQ

SFX

- SFX Overview
- Open URL
- SFX Sources
- SFX Targets
- FAQ

Internet

Datei Bearbeiten Ansicht Favoriten Extras ? Links »

Search

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My Resource List

Agriculture
Anthropology
Area Studies
Arts and Architecture
Astronomy
Biology
Business Marketing
Chemistry
Computer Science
Economics
Education
Engineering
Environmental Science
History
Humanities
Language
Law
Libraries in BM Section
Libraries in CPT Section
Libraries in GW Section
External Libraries
Literature
Mathematics
Medicine
Multidisciplinary
News
Philosophy
Physics
Political Science
Psychology

Field to search: All Fields — Type word or phrase: Miller

And Or Not

Field to search: All Fields — Type word or phrase:

GO or CLEAR

Search My resources:

- Current Contents (Ovid)
- INSPEC (STN)
- MPI für Bildungsforschung
- MPI für Pflanzenphysiologie
- MPI für Polymerforschung
- PsycINFO (Ovid)
- PubMed

Cross Search

Link to My resources:

- MPI für Quantenoptik

Internet

Datei Bearbeiten Ansicht Favoriten Extras ? Links »

Results Summary

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Search | Results Summary | Results List | History | e-Shelf | Help

Refine | Merge | Save Search

Current Search : Any word=(Miller)

Current Contents (Ovid) | INSPEC (STN) | MPI für Bildungsforschung | MPI für Pflanzenphysiologie | MPI für Polymerforschung

PsycINFO (Ovid) | PubMed

Database	Status	Hits
Current Contents (Ovid)		2882
INSPEC (STN)		2917
MPI für Bildungsforschung		201
MPI für Pflanzenphysiologie		0
MPI für Polymerforschung		0
PsycINFO (Ovid)		1536
PubMed		55997

Search Returns

Done Internet

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Any word=(Miller)

Records 1- 10 of 2917

Search Details

Jump to: Go Previous Next

PubMed | Current Contents (Ovid) | INSPEC (STN) | MPI für Bildungsforschung | MPI für Pflanzenphysiologie | MPI für Polymerforschung | PsycINFO (Ovid)

#			Author	Title	Year	Resource
1	MORE	☐	Avsec J.	The influence of anisotropic interactions on velocity of sound	2001	INSPEC (STN)
2	MORE	☐	Palumbo G.	Feedback amplifiers: a simplified analysis of harmonic distortion in the frequency domain	2001	INSPEC (STN)
3	MORE	☐	Ranjan R.	Antiferrodistortive phase transition in Pb(Ti0.48Zr0.52)O3: A powder neutron diffraction study	2002	INSPEC (STN)
4	MORE	☐	Mooradian A.	High brightness cavity-controlled surface emitting GaInAs lasers operating at 980 nm	2001	INSPEC (STN)
5	MORE	☐	Kanie H.	Observation of dark spots and dark lines of GaN microcrystals grown by nitridation of gallium sulfide	2001	INSPEC (STN)
6	MORE	☐	Fitzenz D.D.	A forward model for earthquake generation on interacting faults including tectonics, fluids, and stress	2001	INSPEC (STN)
7	MORE	☐	Seres J.	Dispersion of second-order nonlinear optical coefficient	2001	INSPEC (STN)
8	MORE	☐	Wei Chen	Dual-loop feedback for fast low dropout regulators	2001	INSPEC (STN)
9	MORE	☐	Room R.	Filtered non-hydrostatic models in pressure-related coordinates	2001	INSPEC (STN)

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From Any word=(Miller)
Record 7 of 2917

Choose format: Standard Original Converted

Previous Next

ADD TO e-SHELF SAVE SEND S·F·X

SFX – Context Sensitive Reference Linking

Resource	INSPEC (STN)
Title	Dispersion of second-order nonlinear optical coefficient
Author	Seres J.
Corp.Author	Dept. of Phys., Univ. of Szeged, Hungary
Citation	Appl. Phys. B, Lasers Opt. (Germany) vol.B73, no.7
YEAR	2001
Abstract	A simple, approximate relation between the dispersion of the second-order nonlinear optical (SNLO) coefficient and first-order susceptibility has been derived using the well-known results of density-matrix calculation of quantum-mechanical theory. A new tensor of SNLO coefficient has been defined, which retains symmetries when the input beams are in the spectral range of transparency while the generated beam can also be in the spectral range of absorption. The validity of the relation has been checked for three ferroelectric crystals, KTP, LiNbO3 and KNbO3, which are transparent in the visible and near infrared, and for two semiconductors, GaP and GaAs, which absorb in the visible. Contrary to MillerÏs law, the presented relation is in good agreement with measurements
Subject	DISPERSION RELATIONS
	FERROELECTRIC MATERIALS
	GALLIUM ARSENIDE
	GALLIUM COMPOUNDS
	III-V SEMICONDUCTORS
	LITHIUM COMPOUNDS

Seite http://metalib.gwdg.de/V/HM8V93AGHCF34EAGUC9VV1V56VLBSH48HAU2PCGENXBCU7NYSR-06410/file/full-service-sfx-0?P01=0000475 Internet

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Title Dispersion of second-order nonlinear optical coefficient
Source Appl [0946-2171]
yr: 2001 vol: B73 iss: 7

SFX Linking Services

- Full text available via **Springer**
  year: 2001 volume: B73 issue: 7 start page:
- Holdings in **MPI PICA Gesamtkatalog**
- Holdings in **MPI for Human Development Library Catalog**
- Other articles by this author? – using **Web of Science**
  author: Seres, J (last name: Seres, initials: J)
- Ist die Zeitschrift elektronisch erhältlich? Suche in der **Elektronische Zeitschriftenbibliothek (EZB Regensburg)**
- Find this author's email in **MyEmail**
  author: Seres, J (last name: Seres, initials: J)
- Find related information in **Google**
  Google
  title words: Dispersion of second-order nonlinea

Resource
Title
Author
Corp.Author
Citation
YEAR

Abstract

second-order nonlinear optical
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are in the spectral range of
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crystals, KTP, LiNbO3 and
and for two semiconductors, GaP
the presented relation is in good

Subject

- GALLIUM COMPOUNDS
- III-V SEMICONDUCTORS

Seite http://metalib.gwdg.de/V/HM8V93AGHCF34EAGUC9VV1V56VLBSH48HAU2PCGENXBCU7NYSR-06410/file/full-service-sfx-0?P01=0000475 | Internet

Datei Bearbeiten Ansicht Favoriten Extras ?

Lesezeichen Thumbnails

Appl. Phys. B 73, 705–709 (2001)
DOI: 10.1007/s003400100651

Applied Physics B
Lasers and Optics

Full Text

J. SERES

Dispersion of second-order nonlinear optical coefficient

University of Szeged, JGyTFK, Department of Physics, Boldogasszony sgt. 6, 6725 Szeged, Hungary

Received: 8 February 2001/Revised version: 2 July 2001
Published online: 10 October 2001 • **© Springer-Verlag 2001**

ABSTRACT A simple, approximate relation between the dispersion of the second-order nonlinear optical (SNLO) coefficient and first-order susceptibility has been derived using the well-known results of density-matrix calculation of quantum-mechanical theory. A new tensor of SNLO coefficient has been defined, which retains symmetries when the input beams are in the spectral range of transparency while the generated beam can also be in the spectral range of absorption. The validity of the relation has been checked for three ferroelectric crystals, KTP, $LiNbO_3$ and $KNbO_3$, which are transparent in the visible and near infrared, and for two semiconductors, GaP and GaAs, which absorb in the visible. Contrary to Miller's law, the presented relation is in good agreement with measurements.

PACS 42.65Ky; 42.70.Mp; 42.70.Nq

1 Introduction

of Miller's law has been disputed [2–4] because Miller's coefficient δ_{ijk} did not prove to be independent of the wavelength according to measurements.

Various theoretical methods have been established to describe the nonlinear optical response of crystals. Dispersion relations can be derived from the equation of classical anharmonic oscillators, Schrödinger equation calculations or density-matrix formalism of quantum mechanics [1, 5]. The quantum mechanical approach has been developed and widely used, especially for semiconductors [6–9].

In Sect. 2 a simple dispersion relation of SNLO coefficient is derived using the formula of second-order susceptibility obtained by the density-matrix description of light–matter interaction [5]. In Sect. 3 the validity of the new dispersion relation is proved using experimental values of SNLO coefficients obtained from the literature for five different crystals.

2 Dispersion relation

Describing the electric field and the second-order polarization density by real quantities in the conventional forms of (1) and (2)

131 % 1 von 5 209,9 x 276,9 mm

Fertig Internet

Der Ausblick

Mittelfristiges Ziel ist der Ausbau des Systems zu einer entwickelten hybriden virtuellen Bibliothek der Max-Planck-Gesellschaft, die integrierten Zugang zu allen relevanten Informationsressourcen mit maximaler Personalisierung und der Selbstverständlichkeit des Zugriffs von überall auf alles bietet.

Informationen + Kontakt

- Homepage der MPG
  - http://www.mpg.de
- Informationsportal der MPG
  - http://metalib.gwdg.de/V (vorläufig)
- Projektleitung

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