

High-Power 1.5  $\mu\text{m}$  Tapered Distributed Bragg Reflector Laser Diodes for Eye-Safe LIDAR

Tree species classification using structural features derived from terrestrial laser scanning

Fusionsense

Emotion classification using feature fusion of multimodal data and deep learning in a brain-inspired spiking neural network

Optically induced crossover from weak to strong coupling regime between surface plasmon polaritons and photochromic molecules

ClothFace

A Batteryless RFID-Based Textile Platform for Handwriting Recognition

High-Power 760 nm VECSEL Based on Quantum Dot Gain Mirror

Edge-enhanced optical parametric generation in periodically poled  $\text{LiNbO}_3$

Selective hydrogen production at Pt(111) investigated by Quantum Monte Carlo methods for metal catalysis

Low-noise octave-spanning mid-infrared supercontinuum generation in a multimode chalcogenide fiber

Zinc-indiffused  $\text{MgO:PPLN}$  waveguides for blue/UV generation via VECSEL pumping

Lensless hyperspectral phase imaging in a self-reference setup based on Fourier transform spectroscopy and noise suppression

Hyperspectral phase imaging based on denoising in complex-valued eigensubspace

Temporal ghost imaging with random fiber lasers

Instabilities in a dissipative soliton-similariton laser using a scalar iterative map

High-dimensional quantum gates using full-field spatial modes of photons

Single exposure lensless subpixel phase imaging

Optical system design, modelling, and experimental study

Precise length definition of active GaAs-based optoelectronic devices for low-loss silicon photonics integration

Comparative Analysis of Injection Microdisk Lasers Based on InGaAsN Quantum Wells and InAs/InGaAs Quantum Dots

Goos-Hänchen and Imbert-Fedorov shifts for epsilon-near-zero materials

Sequential Collinear Photofragmentation and Atomic Absorption Spectroscopy for Online Laser Monitoring of Triatomic Metal Species

Backscattering-based wireless communication and power transfer to small biomedical implants

Controlling the plasmon resonance via epsilon-near-zero multilayer metamaterials

Features of correlation measurements of the parameters of pulsed hyperspectral optical fields using an asymmetric interferometer

Full-field mode sorter using two optimized phase transformations for high-dimensional quantum cryptography

Harmonic mode-locking fiber ring laser with a pulse repetition rate up to 12 GHz

Multiphoton microscopy of the dermoepidermal junction and automated identification of dysplastic tissues with deep learning

Neuromorphic Photonics with Coherent Linear Neurons Using Dual-IQ Modulation Cells

Spectral invariance and scaling law for nonstationary optical fields

Stabilization of passive harmonic mode locking in a fiber ring laser

Environmental monitoring with distributed mesh networks  
An overview and practical implementation perspective for urban scenario

Eco-friendly flexible wireless platforms by 3D printing pen

Embroidered and e-textile conductors embedded inside 3D-printed structures

Maintenance-free moisture sensor on dishcloth substrate

Passive UHF RFID-based user interface on a wooden surface

Resolution and contrast in terahertz pulse time-domain holographic reconstruction

Terahertz pulse time-domain holography with balance detection  
Complex-domain sparse imaging

Spectral object recognition in hyperspectral holography with complex-domain denoising

Path-integral description of quantum nonlinear optics in arbitrary media

Statistical evaluation of barkhausen noise testing (BNT) for ground samples

Near-perfect measuring of full-field transverse-spatial modes of light

High Power 1.5 $\mu$ m Pulsed Laser Diode with Asymmetric Waveguide and Active Layer Near p-cladding

Double-asymmetric-structure 1.5  $\mu$  m high power laser diodes

Realization of Free-Space Long-Distance Self-Healing Bessel Beams

Observation of PT-symmetric quantum interference

Short-range supercontinuum-based lidar for temperature profiling

High power GaInNAs superluminescent diodes emitting over 400 mW in the 1.2  $\mu\text{m}$  wavelength range

AlGaAs/AlGaInP VECSELs with Direct Emission at 740-770 nm

Bayesian inversion of a forest reflectance model using Sentinel-2 and Landsat 8 satellite images

Influence of pump coherence on the generation of position-momentum entanglement in optical parametric down-conversion

Temporal ghost imaging using wavelength conversion and two-color detection

Methods for simultaneous robot-world-hand-eye calibration  
A comparative study

Bioimpedance Sensor Array for Long-Term Monitoring of Wound Healing from Beneath the Primary Dressings and Controlled Formation of  $\text{H}_2\text{O}_2$  Using Low-Intensity Direct Current

Double-side pumped membrane external-cavity surface-emitting laser (MECSEL) with increased efficiency emitting  $> 3 \text{ W}$  in the 780 nm region

Frequency Comb Generation in a Continuous-Wave Pumped Second-Order Nonlinear Waveguide Resonator

GaInAsSb/AlGa(In)AsSb type I quantum wells emitting in  $3\mu\text{m}$  range for application in superluminescent diodes

High-Q resonance train in a plasmonic metasurface

Optical Frequency Comb Photoacoustic Spectroscopy

Alpha radiation-induced luminescence by am-241 in aqueous nitric acid solution

Positioning information privacy in intelligent transportation systems  
An overview and future perspective

Noise measurements from reconstructed digital breast tomosynthesis

Layered approach for improving the quality of free-viewpoint depth-image-based rendering images

Experimental realization of wave-packet dynamics in cyclic quantum walks

Supercontinuum generation  
Introduction

Additional lossless compression of JPEG images based on BPG

Combined no-reference IQA metric and its performance analysis

Phase masks optimization for broadband diffractive imaging

Thin form-factor super multiview head-up display system

Phosphate glasses with blue persistent luminescence prepared using the direct doping method

Comparison of single-side and double-side pumping of membrane external-cavity surface-emitting lasers

Efficient nonlinear metasurfaces by using multiresonant high-Q plasmonic arrays

Flip-chip Wafer-fused OP-VECSELs emitting 3.65 W at the 1.55- $\mu\text{m}$  waveband

Hyperspectral data denoising for terahertz pulse time-domain holography

Interferometric autocorrelation measurements of supercontinuum based on two-photon absorption

Large-scale efficient water harvesting using bioinspired micro-patterned copper oxide nanoneedle surfaces and guided droplet transport

Measuring stem diameters with TLS in boreal forests by complementary fitting procedure

Optical wireless cochlear implants

Random lasing control with optical spatial solitons in nematic liquid crystals

Spatiospectral features of a soliton-assisted random laser in liquid crystals

Tuning plasmon induced reflectance with hybrid metasurfaces

Intense radioluminescence of NO/N<sub>2</sub>-mixture in solar blind spectral region

Towards optical-frequency-comb generation in continuous-wave-pumped titanium-indiffused lithium-niobate waveguide resonators

Cascaded crystalline raman lasers for extended wavelength coverage  
Continuous-wave, third-stokes operation

M2M Communication Assessment in Energy-Harvesting and Wake-Up Radio Assisted Scenarios Using Practical Components

Control of Rydberg-state population with realistic femtosecond laser pulses

Tunable Reflection Type Plasmon Induced Transparency with Graphene

Super-resolution microscopy for biological specimens  
Lensless phase retrieval in noisy conditions

Metal/Polymer Back Reflectors with Diffraction Gratings for Light Trapping in III-V Solar Cells

Step-modulated decay cavity ring-down detection for double resonance spectroscopy

Demonstration of optical nonlinearity in InGaAsP/InP passive waveguides

Focus model for metric depth estimation in standard plenoptic cameras

Fluorescence bandwidth of 280nm from broadband  $Ce^{3+}$ -doped silica fiber pumped with blue laser diode

Accelerated optical solitons in reorientational media with transverse invariance and longitudinally modulated birefringence

Multiwavelength surface contouring from phase-coded noisy diffraction patterns  
Wavelength-division optical setup

Temporal dynamics of light-written waveguides in unbiased liquid crystals

1.34  $\mu m$  VECSEL mode-locked with a GaSb-based SESAM

Evaluation of screen printed silver trace performance and long-term reliability against environmental stress on a low surface energy substrate

Segmentation of vessel structures from photoacoustic images with reliability assessment

Acquiring respiration rate from photoplethysmographic signal by recursive bayesian tracking of intrinsic modes in time-frequency spectra

Evaluation of dry electrodes in canine heart rate monitoring

Morphology evolution of PS-b-PDMS block copolymer and its hierarchical directed self-assembly on block copolymer templates

Thermo-optic soliton routing in nematic liquid crystals

Sub-10 optical-cycle passively mode-locked  $Tm:(Lu_2/3Sc_1/3)2O_3$  ceramic laser at 2  $\mu m$

Ho:KY(WO<sub>4</sub>)<sub>2</sub> thin-disk laser passively Qswitched by a GaSb-based SESAM

AlGaAs-based vertical-external-cavity surface-emitting laser exceeding 4 W of direct emission power in the 740–790 nm spectral range

Comparison of metal/polymer back reflectors with half-sphere, blazed, and pyramid gratings for light trapping in III-V solar cells

Guided-mode resonance gratings for enhanced mid-infrared absorption in quantum dot intermediate-band solar cells

Ultra-large core birefringent Yb-doped tapered double clad fiber for high power amplifiers

Speckle reduction method for image-based coherent stereogram generation

Noise minimized high resolution digital holographic microscopy applied to surface topography

An activity recognition framework deploying the random forest classifier and a single optical heart rate monitoring and triaxial accelerometer wrist-band

87 fs mode-locked Tm,Ho:CaYAlO<sub>4</sub> laser at ~2043 nm

Surface relief and refractive index gratings patterned in chalcogenide glasses and studied by off-axis digital holography

Blind estimation of white Gaussian noise variance in highly textured images

Combined local and global image enhancement algorithm

Compression of signs of DCT coefficients for additional lossless compression of JPEG images

Conversion of sparsely-captured light field into alias-free fullparallax multiview content

Deep p-Fibonacci scattering networks

Lensless broadband diffractive imaging with improved depth of focus  
wavefront modulation by multilevel phase masks

Light propagation analysis in nervous tissue for wireless optogenetic nanonetworks

Methods and tools for denoising of complex-valued images based on block-matching and high order singular value decomposition

Narrow-linewidth 780 nm DFB lasers fabricated using nanoimprint lithography

Programming Photoresponse in Liquid Crystal Polymer Actuators with Laser Projector

Real-time full-field characterization of transient dissipative soliton dynamics in a mode-locked laser

Robust linearized combined metrics of image visual quality

Standoff alpha radiation detection for hot cell imaging and crime scene investigation

Sub-100 ps monolithic diamond Raman laser emitting at 573 nm

1.4  $\mu\text{m}$  continuous-wave diamond Raman laser

Bright off-axis directional emission with plasmonic corrugations

Bending reorientational solitons with modulated alignment

High-Power 1180-nm GaInNAs DBR Laser Diodes

Sub-50 ps pulses at 620 nm obtained from frequency doubled 1240 nm diamond Raman laser

Generation of Sub-100 ps Pulses at 532, 355, and 266 nm Using a SESAM Q-Switched Microchip Laser

Investigating solvent effects on aggregation behaviour, linear and nonlinear optical properties of silver nanoclusters

Paraxial light beams in structured anisotropic media

Diode-pumped Tm  
KY(WO<sub>4</sub>)<sub>2</sub> laser passively modelocked with a GaSb-SESAM

High power VECSEL prototype emitting at 625 nm

Sparse superresolution phase retrieval from phase-coded noisy intensity patterns

Tunable narrow-linewidth VECSELs for atomic and molecular physics

VECSEL  
a versatile laser tool for ion trappers

Computational super-resolution phase retrieval from multiple phase-coded diffraction patterns  
Simulation study and experiments

Chiral near-field manipulation in Au-GaAs hybrid hexagonal nanowires

Dynamic speckle analysis with smoothed intensity-based activity maps

Enhanced self-mixing interferometry based on volume Bragg gratings and laser diodes emitting at 405-nm wavelengths

Broadband Anti-reflective Coatings for Multi-junction Solar Cells

Reply to "comment on 'Spatial optical solitons in highly nonlocal media'"

Anisotropic tapered polarization-maintaining large mode area optical fibers

Nonlinear imaging of nanostructures using beams with binary phase modulation

Universal scaling relations for the energies of many-electron Hooke atoms

Halogen bonding stabilizes a cis-azobenzene derivative in the solid state  
A crystallographic study

Simulation studies of DFB laser longitudinal structures for narrow linewidth emission

33 W continuous output power semiconductor disk laser emitting at 1275 nm

Diode-pumped mode-locked Tm  
LuAG laser at 2  $\mu\text{m}$  based on GaSb-SESAM

Spin-orbit interactions in optically active materials

Very high dose electron irradiation effects on photoluminescence from GaInNAs/GaAs quantum wells grown by molecular beam epitaxy

Polarization resolved photoluminescence in  $\text{GaAs}_{1-x}\text{Bi}_x/\text{GaAs}$  quantum wells

Architectures and codecs for real-time light field streaming

All-optical guided-wave random laser in nematic liquid crystals

BM3D-HVS  
Content-Adaptive denoising for improved visual quality

Design of a 25 MWe Solar Thermal Power Plant in Iran with Using Parabolic Trough Collectors and a Two-Tank Molten Salt Storage System

Evaluation of long-term post process inactivation of bioleaching microorganisms

Full-reference metrics multidistortional analysis

High-resolution coded-aperture design for compressive X-ray tomography using low resolution detectors

Optimal control of photoelectron emission by realistic waveforms

Optimization of convectively cooled heat sinks

Pipeline for effective denoising of digital mammography and digital breast tomosynthesis

Thermal Modification of ALD Grown Titanium Oxide Ultra Thin Film for Photoanode Applications

Nonlinear guided waves  
Preface

Fabrication of Ion-Shaped Anisotropic Nanoparticles and their Orientational Imaging by Second-Harmonic Generation Microscopy

Frequency-doubled passively Q-switched microchip laser producing 225 ps pulses at 671 nm

VECSEL systems for the generation and manipulation of trapped magnesium ions

Adaptive multiresolution method for MAP reconstruction in electron tomography

UPS and DFT investigation of the electronic structure of gas-phase trimesic acid

RF measurements to pinpoint defects in inkjet-printed, thermally and mechanically stressed coplanar waveguides

General polarizability and hyperpolarizability estimators for the path-integral Monte Carlo method applied to small atoms, ions, and molecules at finite temperatures

1.3  $\mu\text{m}$  InAs quantum dot semiconductor disk laser

Advanced scheme of amplifier similariton laser

State of polarization in anisotropic tapered fiber with extremely large core diameter

Semiclassical two-step model for strong-field ionization

Nonlocal soliton scattering in random potentials

Electronically tunable thulium-holmium modelocked fiber laser for the 1700-1800 nm wavelength band

Single-frequency 571nm VECSEL for photo-ionization of magnesium

Roadmap on optical rogue waves and extreme events

Robust statistical approaches for RSS-based floor detection in indoor localization

Vortex stabilization by means of spatial solitons in nonlocal media

Temporal coherence characterization of supercontinuum pulse trains using Michelson's interferometer

Detection of single microparticles in airflows by edge-filter enhanced self-mixing interferometry

Microwave assisted laser-induced breakdown spectroscopy at ambient conditions

Validity of power functionals for a homogeneous electron gas in reduced-density-matrix-functional theory

Super-resolution in a defocused plenoptic camera: a wave-optics-based approach

High-power temperature-stable GaInNAs distributed Bragg reflector laser emitting at 1180 nm

Machine-to-machine communications over FiWi enhanced LTE networks  
A power-saving framework and end-to-end performance

Optimization of light field display-camera configuration based on display properties in spectral domain

Effect of the glass melting condition on the processing of phosphate-based glass-ceramics with persistent luminescence properties

Effects of insertion of strain-engineering Ga(In)NAs layers on optical properties of InAs/GaAs quantum dots for high-efficiency solar cells

Ghost imaging in the time domain

Analysis of single mass-regulated particles in precisely controlled trap using laser-induced breakdown spectroscopy

Intensity-based pointwise processing in dynamic laser speckle analysis

High performance corrosion resistant coatings by novel coaxial cold- and hot-wire laser cladding methods

Rapid and facile synthesis of graphene oxide quantum dots with good linear and nonlinear optical properties

Determination of beam incidence conditions based on the analysis of laser interference patterns

Nonlinear negative refraction in reorientational soft matter

Incoherent broadband cavity enhanced absorption spectroscopy using supercontinuum and superluminescent diode sources

Performance of intensity-based non-normalized pointwise algorithms in dynamic speckle analysis

Measuring synthesis yield in graphene oxide synthesis by modified hummers method

Highly Nonlinear Dispersion Increasing Fiber for Femtosecond Pulse Generation

Effects of thinning and heating for TiO<sub>2</sub>/AlInP junctions

Bringing High-Performance GaInNAsSb/GaAs SOAs to True Data Applications

Influence of relative humidity and physical load during storage on dustiness of inorganic nanomaterials  
implications for testing and risk assessment

Localization of light at vanishingly small disorder-levels with heavy photons

Optimal emission enhancement in orthogonal double-pulse laser-induced breakdown spectroscopy

Adiabatic and nonadiabatic static polarizabilities of H and H<sub>2</sub>

Tolman-Oppenheimer-Volkoff equations in nonlocal  $f(R)$  gravity

Dynamics of rogue wave and soliton emergence in spontaneous modulation instability

Comparison of three light doses in the photodynamic treatment of actinic keratosis using mathematical modeling

Workplace performance of a loose-fitting powered air purifying respirator during nanoparticle synthesis

An integrated "sense-and-communicate" broad-/narrow-band optically controlled reconfigurable antenna for cognitive radio systems

Broadband infrared continuum generation in dispersion shifted tapered fiber

Dilute nitride SOAs for high-speed data processing in variable temperature conditions

Mode-locked Tm,Ho:KLu(WO<sub>4</sub>)<sub>2</sub> laser at 2060 nm using InGaSb-based SESAMs

High speed, high strength microwelding of Si/glass using ps-laser pulses

GaSb-based SESAM mode-locked Tm  
YAG ceramic laser at 2  $\mu$ m

Microfluidic tunable inkjet-printed metamaterial absorber on paper

Compact intracavity singly-resonant optical parametric oscillator pumped by GaSb-based vertical external cavity surface-emitting laser  
Concept and the main operational characteristics

Frequency modulation of semiconductor disk laser pulses

Generation of a broad IR spectrum and N-soliton compression in a longitudinally inhomogeneous dispersion-shifted fibre

Generation of bound states of pulses in a soliton laser with complex relaxation of a saturable absorber

High-gain 1.3  $\mu$ m GaInNAs semiconductor optical amplifier with enhanced temperature stability for all-optical signal processing at 10 Gb/s

Interstitial photodynamic therapy and glioblastoma  
Light fractionation study on a preclinical model: Preliminary results

Light-Induced Waveguides in Nematic Liquid Crystals

Observation of stable-vector vortex solitons

Soliton enhancement of spontaneous symmetry breaking

Supercontinuum generation as a signal amplifier

Theoretical treatment of the interaction between two-level atoms and periodic waveguides

Two-time coherence of pulse trains and the integrated degree of temporal coherence

$\pi$ -Expanded  $\alpha,\beta$ -unsaturated ketones  
Synthesis, optical properties, and two-photon-induced polymerization

Mode-locked 1.33  $\mu\text{m}$  semiconductor disk laser with a bismuth-doped fiber amplifier

Vedyn Stark-ilmiön ja polarisoituvuuksien mallintaminen polkuintegraali-Monte Carlo-menetelmällä  
Translated title of the contribution: : Stark Effect and polarizabilities of hydrogen with path integral Monte Carlo method

Short-Term and Long-Term Stability in Ytterbium-Doped High-Power Fiber Lasers and Amplifiers

Bistable optical propagation in nematic liquid crystals

Enhanced nonlinearity by H-bonded polymer-dye complex in liquid crystal for holographic gratings

A 1.33  $\mu\text{m}$  picosecond pulse generator based on semiconductor disk mode-locked laser and bismuth fiber amplifier

Influence of the P2O5/Al2O3 co-doping on the local environment of erbium ions and on the 1.5  $\mu\text{m}$  quantum efficiency of Er<sup>3+</sup>-borosilicate glasses

Role of cavity dispersion on soliton grouping in a fiber lasers

An Optical Sensor for Volatile Amines Based on an Inkjet-Printed, Hydrogen-Bonded, Cholesteric Liquid Crystalline Film

Polymer stabilization enhances the orientational optical nonlinearity of oligothiophene-doped nematic liquid crystals

Passive wireless antenna sensor for strain and crack sensing - Electromagnetic modeling, simulation, and testing

Optical vortices in antiguides

A near-infrared optoelectronic approach to detection of road conditions

Boundary element method for surface nonlinear optics of nanoparticles  
Erratum

Comment on "solitons in highly nonlocal nematic liquid crystals  
Variational approach"

Dipole polarizabilities of PdN ( $N = 2-25$ ) clusters

160W single-frequency laser based on active tapered double-clad fiber amplifier

Calculation of the scalar diffraction field from curved surfaces by decomposing the three-dimensional field into a sum of Gaussian beams

Deflection of nematicons through interaction with dielectric particles

Detection of KC1 and KOH using collinear photofragmentation and atomic absorption spectroscopy

Spoof-plasmon relevant one-way collimation and multiplexing at beaming from a slit in metallic grating

All-optical switching of a signal by a pair of interacting nematicons

Refraction of nonlinear light beams in nematic liquid crystals

Scalar diffraction field calculation from curved surfaces via Gaussian beam decomposition

Composite chiral metamaterials with negative refractive index and high values of the figure of merit

Development of a new illumination procedure for photodynamic therapy of the abdominal cavity

Second-harmonic generation from coupled plasmon modes in a single dimer of gold nanospheres

Parametric conversion in micrometer and submicrometer structured ferroelectric crystals by surface poling

Third order nonlinear optical response of TTF-based molecular corners

Features of randomized electric-field assisted domain inversion in lithium tantalate

Localized nonlinear wavepackets with radial-azimuthal modulated nonlinearity and an external potential

Progress in direct nanoparticle deposition for the development of the next generation fiber lasers

Dipole azimuthons and vortex charge flipping in nematic liquid crystals

Light bullets in the spatiotemporal nonlinear Schrödinger equation with a variable negative diffraction coefficient

Modulation analysis of nonlinear beam refraction at an interface in liquid crystals

Photoinduced bending upon pulsed irradiation in azobenzene-containing crosslinked liquid-crystalline polymers

Single-layer one-dimensional nonpolarizing guided-mode resonance filters under normal incidence

Integrated Bragg reflectors in low-index media  
Enabling strategies for wavelength tunability in electro-optic liquid crystals

Three-dimensional spatiotemporal vector solitary waves

Self-trapping of scalar and vector dipole solitary waves in Kerr media

Micro-Raman characterization of Germanium thin films evaporated on various substrates

Optical power monitors in Ge monolithically integrated on SOI chips

Thermal evaporation of Ge on Si for near infrared detectors  
Material and device characterization

On beam propagation in anisotropic media  
One-dimensional analysis

Multimode nematicon waveguides

Nonlinear pulse compression by the second-harmonic generation in quasiphase and group-velocity matched samples

Dark solitons in nematic liquid crystals

Directional selectivity through the subwavelength slit in metallic gratings

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Multimode waveguides in nematic liquid crystals

Self-assembled monolayers (SAMs) of porphyrin deposited inside solid-core photonic crystal fibre (SCPCF)

Spatial solitons carrying phase singularities in nematic liquid crystals

Spatial solitons in a self-focusing medium with tunable nonlinearity

Theory of near-IR metatronic nanocircuits using transparent conducting oxides (TCO)

Third harmonic generation enhancement in nematic liquid crystals via nonlocal solitons propagation

Efficient production of NV colour centres in nanodiamonds using high-energy electron irradiation

One-way transmission through the subwavelength slit in nonsymmetric metallic gratings

Coupling effect between two adjacent chiral structure layers

Controlled wettability of paperboard by nanoparticles using liquid flame spray process

Nematicon routing in liquid crystal light valve

Soliton self-deflection via power-dependent walk-off

Frequency dependent steering with backward leaky waves via photonic crystal interface layer

Coherent nonlinear emission from a single KTP nanoparticle with broadband femtosecond pulses

Experimental observation of subwavelength localization using metamaterial-based cavities

Routing light with nematicons

Light localization and steering in liquid crystals

Single KTiOPO<sub>4</sub> nanocrystals for nonlinear probing of local optical fields and interaction with a metallic nanostructure

Cavity formation in split ring resonators

Surface wave splitter based on metallic gratings with sub-wavelength aperture

Experimental observation of cavity formation in composite metamaterials

Observation of defect formation in metamaterials

Study of the field emitted by a source placed inside a two-dimensional left-handed metamaterial

Designing materials with desired electromagnetic properties

Plasmonic structures with extraordinary transmission and highly directional beaming properties

Experimental demonstration of subwavelength focusing of electromagnetic waves by labyrinth-based two-dimensional metamaterials

High power fiber lasers

Experimental demonstration of labyrinth-based left-handed metamaterials

Beaming of light and enhanced transmission via surface modes of photonic crystals

Highly directional enhanced radiation from sources embedded inside three-dimensional photonic crystals

Highly directive radiation and negative refraction using photonic crystals

Walking anisotropic spatial solitons and their steering in nematic liquid crystals

Extraordinary grating-coupled microwave transmission through a subwavelength annular aperture

Physics and applications of photonic crystals

$^{129}\text{Xe}$  adsorbed in  $\text{AlPO}_4\text{-11}$  molecular sieve  
Molecular dynamics simulation of adsorbate dynamics and NMR chemical shift

Inequivalence of single  $\text{CH}_a$  and  $\text{CH}_b$  methylene bonds in the interior of a diunsaturated lipid bilayer from a molecular dynamics simulation

Diffusion processes and growth on aluminum cluster surfaces

Structural transitions and melting of copper clusters

Analysis of the magic numbers observed for metallocarbohedrane clusters

Simulation of cluster impact fusion

Effects of repulsion and dispersion forces in liquid crystals  
Alignment and deformation of  $\text{H}_2$  solute

Structure of the  $\text{Si}_{45}$  cluster

Linear and nonlinear optical properties of small silicon clusters

Molecular dynamics investigation of the premelting effects of Lennard-Jones (111) surfaces

Potential energy curves for diatomic molecules calculated with numerical basis functions

Analysis of the reactivity of small cobalt clusters

A finite cluster approach to the electron-hole pair damping of the adsorbate vibration  
 $\text{CO}$  adsorbed on  $\text{Cu}(100)$

Anomalous Auger-electron spectra of metallic calcium

Direct measurement of the kinetic energy shift between the molecular and atomic  $\text{M}_{4.5}\text{N}_{4.5}\text{N}_{4.5}$  Auger spectra of iodine