Research outputs:

Cavity-waveguide interplay in optical resonators and its role in optimal single-photon sources
Research output: Research - peer-review › Journal article – Annual report year: 2018

Benchmarking five numerical simulation techniques for computing resonance wavelengths and quality factors in photonic crystal membrane line defect cavities
Research output: Research - peer-review › Journal article – Annual report year: 2018

Benchmarking state-of-the-art optical simulation methods for analyzing large nanophotonic structures
Research output: Research - peer-review › Article in proceedings – Annual report year: 2018

Driving-induced population trapping and linewidth narrowing via the quantum Zeno effect
Research output: Research - peer-review › Journal article – Annual report year: 2018

Fano Resonances for Realizing Compact and Low Energy Consumption Photonic Switches
Research output: Research - peer-review › Book chapter – Annual report year: 2018

Fundamental cavity-waveguide interplay in cavity QED
Research output: Research - peer-review › Paper – Annual report year: 2018

Intrinsic and environmental effects on the interference properties of a high-performance quantum dot single-photon source
Research output: Research - peer-review › Journal article – Annual report year: 2018

Learning of Laser Dynamics using Bayesian Inference
Research output: Research - peer-review › Article in proceedings – Annual report year: 2018

Modes, stability, and small-signal response of photonic crystal Fano lasers
Research output: Research - peer-review › Journal article – Annual report year: 2018

Pulse carving using nanocavity-enhanced nonlinear effects in photonic crystal Fano structures
Rate equation description of quantum noise in nanolasers with few emitters

Signal reshaping and noise suppression using photonic crystal Fano structures

Small and Large Signal Analysis of Photonic Crystal Fano Laser

Which Computational Methods Are Good for Analyzing Large Photonic Crystal Membrane Cavities?

Strain tuning of optical properties in Bi₂Se₃

Benchmarking five computational methods for analyzing large photonic crystal membrane cavities

Collective effects in nanolasers: Steady-state characteristics and photon statistics

Comparison of five computational methods for computing Q factors in photonic crystal membrane cavities

Comparison of Five Numerical Methods for Computing Quality Factors and Resonance Wavelengths in Photonic Crystal Membrane Cavities

Control of exceptional points in photonic crystal slabs

Control of the rings of exceptional points in photonic crystal slabs
Demonstration of a self-pulsing photonic crystal Fano laser
Research output: Research - peer-review › Journal article – Annual report year: 2017

Efficient Modeling of Excitons in Type-II Nanowire Quantum Dots - Presented at: CLEO®/Europe-EQEC 2017, Munich
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2017

Efficient quality-eactor estimation of a vertical cavity employing a high-contrast grating
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2017

Experimental demonstration of a Fano laser based on photonic crystals
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2017

Fabrication and experimental demonstration of photonic crystal laser with buried heterostructure
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2017

Hybrid Si-on-chip Lasers with Nano Structures
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2017

Large signal simulation of photonic crystal Fano laser
Research output: Research - peer-review › Article in proceedings – Annual report year: 2017

Lasers, switches and non-reciprocal elements based on photonic crystal Fano resonances
Research output: Research - peer-review › Article in proceedings – Annual report year: 2017

Limitations of two-level emitters as nonlinearities in two-photon controlled-PHASE gates
Research output: Research - peer-review › Journal article – Annual report year: 2017

On the Theory of Coupled Modes in Optical Cavity-Waveguide Structures
Research output: Research - peer-review › Journal article – Annual report year: 2017
Optical Time Domain Demultiplexing using Fano Resonance in InP Photonic Crystals
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2017

Parity control of Fano resonances and its application for signal regeneration and pulse carving
Research output: Research - peer-review › Article in proceedings – Annual report year: 2018

Phonon limit to simultaneous near-unity efficiency and indistinguishability in semiconductor single photon sources
Research output: Research - peer-review › Article in proceedings – Annual report year: 2018

Phonon scattering inhibits simultaneous near-unity efficiency and indistinguishability in semiconductor single-photon sources
Iles-Smith, J., McCutcheon, D. P. S., Nazir, A. & Mørk, J. 2017 In : Nature Photonics. 11, 8, p. 521-+
Research output: Research - peer-review › Journal article – Annual report year: 2017

Photonic crystal Fano lasers and Fano switches
Research output: Research - peer-review › Article in proceedings – Annual report year: 2017

Photonic crystal Fano resonances for realizing optical switches, lasers and non-reciprocal elements
Research output: Research - peer-review › Article in proceedings – Annual report year: 2017

Probing Electron-Phonon Interaction through Two-Photon Interference in Resonantly Driven Semiconductor Quantum Dots
Research output: Research - peer-review › Journal article – Annual report year: 2017

Protocol for generating multiphoton entangled states from quantum dots in the presence of nuclear spin fluctuations
Research output: Research - peer-review › Journal article – Annual report year: 2017

Quality factor enhancement in photonic crystal slabs by manipulation of the ring of exceptional points
Research output: Research - peer-review › Journal article – Annual report year: 2017

Regimes of self-pulsing in photonic crystal Fano lasers
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2017

Self-consistent Maxwell-Bloch model of quantum-dot photonic-crystal-cavity lasers
Cartar, W., Mørk, J. & Hughes, S. 2017 In : Physical Review A (Atomic, Molecular and Optical Physics), 96, 2, 16 p., 023859
Research output: Research - peer-review › Journal article – Annual report year: 2017
Single-photon sources for quantum technologies - Results of the joint research project SIQUTE
Research output: Research - peer-review › Article in proceedings – Annual report year: 2017

Theory and simulations of self-pulsing in photonic crystal Fano lasers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2017

Theory of Self-pulsing in Photonic Crystal Fano Lasers
Research output: Research - peer-review › Journal article – Annual report year: 2017

Type-II quantum-dot-in-nanowire structures with large oscillator strength for optical quantum gate applications
Research output: Research - peer-review › Journal article – Annual report year: 2017

Type-II Quantum Dot Nanowire Structures with Large Oscillator Strengths for Optical Quantum Gating Applications
Research output: Research - peer-review › Article in proceedings – Annual report year: 2017

A broadband tapered nanocavity for efficient nonclassical light emission
Gregersen, N., McCutcheon, D., Mørk, J., Gérard, J-M. & Claudon, J. 2016 In : Optics Express. 24, 18, p. 20904-24
Research output: Research - peer-review › Journal article – Annual report year: 2016

All-Optical Switching Improvement Using Photonic-Crystal Fano Structures
Research output: Research - peer-review › Journal article – Annual report year: 2016

A modal approach to light emission and propagation in coupled cavity waveguide systems
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Broadband Purcell enhancement in highly efficient photonic nanowire-based single-photon sources
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Comparison of four computational methods for computing Q factors and resonance wavelengths in photonic crystal membrane cavities
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Efficient Modeling of Coulomb Interaction Effect on Exciton in Crystal-Phase Nanowire Quantum Dot
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016
A Hybrid Photonic Nanowire-Cavity Design for a Single-Indistinguishable-Photon Source
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

A New Compact Broadband Reflector: The Hybrid Grating
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Design and simulations of highly efficient single-photon sources
Research output: Research - peer-review › Paper – Annual report year: 2015

Design of Slow and Fast Light Photonic Crystal Waveguides for Single-photon Emission Using a Bloch Mode Expansion Technique
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2015

Effect of In-plane Mirror Dispersion on Vertical Cavities Based on High-Contrast Grating Mirrors
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

Experimental demonstration of non-reciprocal transmission in a nonlinear photonic-crystal Fano structure
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

Few-photon Non-linearities in Nanophotonic Devices for Quantum Information Technology
Research output: Research › Ph.D. thesis – Annual report year: 2015

Highly directive and Gaussian far-field emission from “giant” photonic trumpets
Research output: Research - peer-review › Journal article – Annual report year: 2015

Highly indistinguishable photons from a QD-microcavity with a large Purcell-factor
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

Highly Sensitive Photonic Crystal Cavity Laser Noise Measurements using Bayesian Filtering
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

Hybrid III-V-on-Si Laser with Ultra-low Energy Consumption
Taghizadeh, A., Mark, J. & Chung, I-S. 2015
Research output: Research - peer-review › Poster – Annual report year: 2015
Hybrid III-V/SOI single-mode vertical-cavity laser with in-plane emission into a silicon waveguide
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

Hybrid vertical-cavity laser with lateral emission into a silicon waveguide
Research output: Research - peer-review › Journal article – Annual report year: 2015

III-V/SOI vertical cavity laser structure for 120 Gbit/s speed
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

III-V/SOI vertical cavity laser with in-plane output into a Si waveguide
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

Impact of slow-light enhancement on optical propagation in active semiconductor photonic crystal waveguides
Research output: Research - peer-review › Journal article – Annual report year: 2015

Investigations on the parity of Fano resonances in photonic crystals
Research output: Research - peer-review › Poster – Annual report year: 2015

Laser Rate Equation Based Filtering for Carrier Recovery in Characterization and Communication
Research output: Research - peer-review › Journal article – Annual report year: 2015

Modeling and simulations of light emission and propagation in open nanophotonic systems

Nonreciprocal transmission in a nonlinear photonic-crystal Fano structure with broken symmetry
Research output: Research - peer-review › Journal article – Annual report year: 2015

Observation of resonance fluorescence and the Mollow triplet from a coherently driven site-controlled quantum dot
Research output: Research - peer-review › Journal article – Annual report year: 2015

Scattering of two photons on a quantum emitter in a one-dimensional waveguide: exact dynamics and induced correlations
Research output: Research - peer-review › Journal article – Annual report year: 2015

Semi-analytical quasi-normal mode theory for the local density of states in coupled photonic crystal cavity-waveguide structures
Research output: Research - peer-review › Letter – Annual report year: 2015
Slow-light effects in photonic crystal membrane lasers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

Strong nonlinearity-induced correlations for counterpropagating photons scattering on a two-level emitter
Research output: Research - peer-review › Journal article – Annual report year: 2015

Thermal analysis of line-defect photonic crystal lasers
Research output: Research - peer-review › Journal article – Annual report year: 2015

Two-photon interference from a quantum dot-microcavity: Persistent pure-dephasing and suppression of time-jitter
Research output: Research - peer-review › Journal article – Annual report year: 2015

Ultracompact resonator with high quality-factor based on a hybrid grating structure
Research output: Research - peer-review › Journal article – Annual report year: 2015

Ultrafast all-optical modulation using a photonic-crystal Fano structure with broken symmetry
Research output: Research - peer-review › Journal article – Annual report year: 2015

Ultrafast low-energy all-optical switching using a photonic-crystal asymmetric Fano structure
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

Vertical-Cavity In-plane Heterostructures: Physics and Applications
Research output: Research - peer-review › Journal article – Annual report year: 2015

130-nm tunable grating-mirror VCSEL
Research output: Research - peer-review › Conference article – Annual report year: 2014

A Bloch modal approach for engineering waveguide and cavity modes in two-dimensional photonic crystals
Research output: Research - peer-review › Article in proceedings – Annual report year: 2014

A Bloch mode expansion approach for analyzing quasi-normal modes in open nanophotonic structures
Research output: Research - peer-review › Article in proceedings – Annual report year: 2014

All-optical signal processing using InP photonic-crystal nanocavity switches
Research output: Research - peer-review › Article in proceedings – Annual report year: 2014
Application of Nanophotonic Devices in High Speed Optical Communications
Research output: Research › Ph.D. thesis – Annual report year: 2015

Bright single photon source based on self-aligned quantum dot–cavity systems
Research output: Research - peer-review › Journal article – Annual report year: 2014

Comparison of Different Numerical Methods for Quality Factor Calculation of Nano and Micro Photonic Cavities
Research output: Research - peer-review › Article in proceedings – Annual report year: 2014

Decoherence in semiconductor cavity QED systems due to phonon couplings
Research output: Research - peer-review › Journal article – Annual report year: 2014

Dual resonance approach to optical signal processing beyond the carrier relaxation rate
Research output: Research - peer-review › Article in proceedings – Annual report year: 2014

Dual-resonances approach to broadband cavity-assisted optical signal processing beyond the carrier relaxation rate
Research output: Research - peer-review › Journal article – Annual report year: 2014

Fano resonance control in a photonic crystal structure and its application to ultrafast switching
Research output: Research - peer-review › Journal article – Annual report year: 2014

Far-off-resonant coupling between a semiconductor quantum dot and an optical cavity
Research output: Research - peer-review › Article in proceedings – Annual report year: 2014

Hybrid grating reflector with high reflectivity and broad bandwidth
Research output: Research - peer-review › Journal article – Annual report year: 2014

Indistinguishable photons from a quantum dot–cavity system: competing roles of timing-jitter and pure-dephasing
Research output: Research - peer-review › Poster – Annual report year: 2014

Indistinguishable single photons generated by quantum dots in adiabatic micropillar cavities
Research output: Research - peer-review › Poster – Annual report year: 2014

Low-power 10 Gbit/s RZ-OOK all-optical modulation using a novel photonic-crystal Fano switch
Erratum: Dielectric GaAs Antenna Ensuring an Efficient Broadband Coupling between an InAs Quantum Dot and a Gaussian Optical Beam [Phys. Rev. Lett. 110, 177402 (2013)]


Research output: Research › Comment/debate – Annual report year: 2013

Global optimization of silicon nanowires for efficient parametric processes


Research output: Research - peer-review › Article in proceedings – Annual report year: 2013

Heterodyne pump probe measurements of nonlinear dynamics in an indium phosphide photonic crystal cavity


Research output: Research - peer-review › Journal article – Annual report year: 2013

High beta lasing in micropillar cavities with adiabatic layer design


Research output: Research - peer-review › Journal article – Annual report year: 2013

Highly efficient photonic nanowire single-photon sources for quantum information applications


Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2013

Improved switching using Fano resonances in photonic crystal structures

Heuck, M., Kristensen, P. T., Elesin, Y. & Mark, J. 2013 In : Optics Letters. 38, 14, p. 2466-2468

Research output: Research - peer-review › Journal article – Annual report year: 2013

Improving nanocavity switching using Fano resonances in photonic crystal structures


Research output: Research - peer-review › Article in proceedings – Annual report year: 2013

Measuring the effective phonon density of states of a quantum dot in cavity quantum electrodynamics


Research output: Research - peer-review › Journal article – Annual report year: 2013

Microscopic theory of indistinguishable single-photon emission from a quantum dot coupled to a cavity: The role of non-Markovian phonon-induced decoherence


Research output: Research - peer-review › Journal article – Annual report year: 2013

Modeling and Design of High-Efficiency Single-Photon Sources


Research output: Research - peer-review › Journal article – Annual report year: 2013

Nonlinear Gain Saturation in Active Slow Light Photonic Crystal Waveguides


Research output: Research - peer-review › Article in proceedings – Annual report year: 2013

Optimal switching using coherent control

**Photonic wires and trumpets for ultrabright single photon sources**

**Polarization-independent high-index contrast grating and its fabrication tolerances**

**Probing plasmon resonance's dependence on gap size in silver dimers by EELS**

**Proposed Quenching of Phonon-Induced Processes in Photoexcited Quantum Dots due to Electron-Hole Asymmetries**

**Quantum Optics with Photonic Nanowires and Photonic Trumpets: Basics and Applications**

**Speed enhancement in VCSELs employing grating mirrors**

**Switching characteristics of an InP photonic crystal nanocavity: Experiment and theory**

**Theory of carrier depletion and light amplification in active slow light photonic crystal waveguides**
Chen, Y. & Mørk, J. 2013 In : Optics Express. 21, 24, p. 29392-29400

**Theory of nanolaser devices: Rate equation analysis versus microscopic theory**

**The photonic nanowire: an emerging platform for highly efficient single-photon sources for quantum information applications**

**The role of phonon scattering in the indistinguishability of photons emitted from semiconductor cavity QED systems**
Three-dimensional integral equation approach to light scattering, extinction cross sections, local density of states, and quasi-normal modes


Research output: Research - peer-review › Journal article – Annual report year: 2013

Ultra-Fast Low Energy Switching Using an InP Photonic Crystal H0 Nanocavity


Research output: Research - peer-review › Article in proceedings – Annual report year: 2013

Ultra-high-speed hybrid laser for silicon photonic integrated chips


Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

VCSELs with a high-index-contrast grating for mode-division multiplexing


Research output: Research - peer-review › Conference article – Annual report year: 2013

Semiconductor Nanomembranes for Quantum Photonics: Quantum Light Sources and Optomechanics


Research output: Research › Ph.D. thesis – Annual report year: 2012

Fundamental properties of devices for quantum information technology


Research output: Research › Ph.D. thesis – Annual report year: 2012

Active Photonic Crystal Waveguides


Research output: Research › Ph.D. thesis – Annual report year: 2012

A bright single-photon source based on a photonic trumpet


Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2012

A Non-Hermitian Approach to Non-Linear Switching Dynamics in Coupled Cavity-Waveguide Systems


Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2012

Bloch-wave engineering of quantum dot-micropillars for cavity quantum electrodynamics experiments


Research output: Research - peer-review › Journal article – Annual report year: 2012

Coherent single-photon absorption by single emitters coupled to 1D nanophotonic waveguides


Research output: Research - peer-review › Article in proceedings – Annual report year: 2012

Controlling light emission from single-photon sources using photonic nanowires


Research output: Research - peer-review › Proceedings paper in proceedings – Annual report year: 2012
Demonstration of Optically Controlled re-Routing in a Photonic Crystal Three-Port Switch
Research output: Research - peer-review › Article in proceedings – Annual report year: 2012

Distributed Feedback Effects in Active Semiconductor Photonic Crystal Waveguides
Research output: Research - peer-review › Article in proceedings – Annual report year: 2012

Efficient and broadband spontaneous emission control in fiber-like photonic nanowires
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2012

Electromagnetic Scattering in Micro- and Nanostructured Materials.
Research output: Research - peer-review › Report – Annual report year: 2012

Emission dynamics in QD systems: from single QD resonance fluorescence to many-emitter laser switching
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2012

Enhanced Gain in Photonic Crystal Amplifiers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2012

Experimental demonstration of a four-port photonic crystal cross-waveguide structure
Research output: Research - peer-review › Journal article – Annual report year: 2012

Fundamental Limitations to Gain Enhancement in Periodic Media and Waveguides
Research output: Research - peer-review › Journal article – Annual report year: 2012

Fundamental limitations to gain enhancement in slow-light photonic structures
Research output: Research - peer-review › Article in proceedings – Annual report year: 2012

High-Q AlAs/GaAs adiabatic micropillar cavities with submicron diameters for cQED experiments
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2012

High-Q submicron-diameter quantum-dot microcavity pillars for cavity QED experiments
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2012

InGaAsP photonic crystal nanocavities with a Fano line shape resonant at 1.55 μm
Research output: Research - peer-review › Article in proceedings – Annual report year: 2012
Photonic nanowires for quantum optics
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2012

Physics and applications of slow and fast light in semiconductor optical waveguides
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2012

Properties of nanolasers based on few discrete emitters
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2012

Quantum-dot nano-cavity lasers with Purcell-enhanced stimulated emission
Research output: Research - peer-review › Journal article – Annual report year: 2012

Reducing dephasing in coupled quantum dot-cavity systems by engineering the carrier wavefunctions
Research output: Research - peer-review › Conference article – Annual report year: 2012

Resonance Fluorescence from Semiconductor Quantum Dots: Beyond the Mollow Triplet
Research output: Research - peer-review › Journal article – Annual report year: 2012

Simulation of Nonlinear Gain Saturation in Active Photonic Crystal Waveguides
Research output: Research - peer-review › Article in proceedings – Annual report year: 2012

Slow light enhancement and limitations in periodic media
Research output: Research › Ph.D. thesis – Annual report year: 2012

Slow-light enhancement of gain
Research output: Research - peer-review › Conference article – Annual report year: 2012

Slow-light enhancement of spontaneous emission in active photonic crystal waveguides
Research output: Research - peer-review › Conference article – Annual report year: 2012

Spontaneous emission from large quantum dots in nanostructures: Exciton-photon interaction beyond the dipole approximation
Research output: Research - peer-review › Journal article – Annual report year: 2012
Suppressing electron-phonon interactions in semiconductor quantum dot systems by engineering the electronic wavefunctions
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2012

Systematic design of loss-engineered slow-light waveguides
Research output: Research - peer-review › Journal article – Annual report year: 2012

Systematic Design of Slow Light Waveguides
Research output: Research › Ph.D. thesis – Annual report year: 2012

VCSELs and silicon light sources exploiting SOI grating mirrors
Research output: Research - peer-review › Conference article – Annual report year: 2012

Wave-front-engineered grating mirrors for VCSELs
Research output: Research - peer-review › Conference article – Annual report year: 2012

Active III-V Semiconductor Photonic Crystal Waveguides
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

A High-Efficiency Photonic Nanowire Single-Photon Source Featuring An Inverted Conical Taper
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

Bloch-Wave Engineered Submicron Diameter Micropillars with Quality Factors Exceeding 10,000
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

Coherent all-optical switching in a bistable waveguide-cavity-waveguide system
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

Coherent single-photon absorption by single emitters coupled to one-dimensional nanophotonic waveguides
Research output: Research - peer-review › Journal article – Annual report year: 2011

Decay dynamics of radiatively coupled quantum dots in photonic crystal slabs
Research output: Research - peer-review › Journal article – Annual report year: 2011
Decay dynamics of radiatively coupled quantum dots in photonic crystal slabs
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

Demultiplexing of OTDM-DPSK signals based on a single semiconductor optical amplifier and optical filtering
Research output: Research - peer-review › Journal article – Annual report year: 2011

Dependence of the modulation response of quantum dot based nanocavity devices on the number of emitters
Research output: Research - peer-review › Journal article – Annual report year: 2011

Design for an Electrically-Pumped Photonic Nanowire Single-Photon Source with an Efficiency of 89 %
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

Dynamical Properties of QD-based Nanolaser Devices
Research output: Research - peer-review › Article in proceedings – Annual report year: 2012

Efficient and broadband control of the spontaneous emission in photonic nanowires
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2011

Electrically pumped photonic nanowire single-photon source with an efficiency of 89%
Research output: Research - peer-review › Conference article – Annual report year: 2011

Energy-bandwidth trade-off in all-optical photonic crystal microcavity switches
Heuck, M., Kristensen, P. T. & Mark, J. 2011 In : Optics Express. 19, 19, p. 18410-18422
Research output: Research - peer-review › Journal article – Annual report year: 2011

Enhanced Gain in Slow-Light Photonic Crystal Waveguides with Embedded Quantum Dots
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

Enhancement of light-matter interactions in photonic crystal structures with quantum dots
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

Enhancing light-matter interactions by slow light
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

Enhancing slow- and fast-light effects in quantum dot semiconductor waveguides through ultrafast dynamics
Chen, Y. & Mark, J. 2011 In : Proceedings of SPIE--the international society for optical engineering. 7937, 1, p. 793709-11
Research output: Research - peer-review › Conference article – Annual report year: 2011
Finite element modeling of plasmon based single-photon sources
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

High-index-contrast grating reflector with beam steering ability for the transmitted beam
Carletti, L., Malureanu, R., Mark, J. & Chung, I-S. 2011 In : Optics Express. 19, 23, p. 23567-23572
Research output: Research - peer-review › Journal article – Annual report year: 2011

Hybrid Si/III-V vertical-cavity laser for silicon photonics
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

Modelling of Active Semiconductor Photonic Crystal Waveguides and Robust Designs based on Topology Optimization
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

Modulation response of quantum dot nano-LEDs and nano-lasers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

Modulation response of quantum dot nanolight-emitting-diodes exploiting purcell-enhanced spontaneous emission
Research output: Research - peer-review › Journal article – Annual report year: 2011

Modulation Response of Semiconductor Quantum Dot Nanocavity Lasers
Research output: Research - peer-review › Conference article – Annual report year: 2012

Numerical modeling in photonic crystals integrated technology: the COPERNICUS Project
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

Patterning Effects in Ultrafast All-Optical Photonic Crystal Nanocavity Switches
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2011

Phase-locking regimes of photonic crystal nanocavity laser arrays
Research output: Research - peer-review › Journal article – Annual report year: 2011

Resonance fluorescence from quantum dots: beyond the Mollow triplet
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

Role of the lightmatter coupling strength on nonMarkovian phonon effects in semiconductor cavity QED
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011
Simple and efficient methods for the accurate evaluation of patterning effects in ultrafast photonic switches
Xu, J., Ding, Y., Peucheret, C., Xue, W., Seoane, J., Zsigri, B., Jeppesen, P. & Mørk, J. 2011 In : Optics Express. 19, 1, p. 155-161
Research output: Research - peer-review › Journal article – Annual report year: 2011

Slow-light enhancement of integrated photonics
Research output: Research - peer-review › Article in proceedings – Annual report year: 2012

SOA-based OTDM-DPSK Demultiplexing Assisted by Offset-Filtering
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

Switch-on dynamics of nanocavity laser devices
Research output: Research - peer-review › Journal article – Annual report year: 2011

The Influence of Optical Filtering on the Noise Performance of Microwave Photonic Phase Shifters Based on SOAs
Lloret, J., Ramos, F., Xue, W., Sancho, J., Gasulla, I., Sales, S., Mørk, J. & Capmany, J. 2011 In : Journal of Lightwave Technology. 29, 12, p. 1746-1752
Research output: Research - peer-review › Journal article – Annual report year: 2011

Tunable true-time delay of a microwave photonic signal realized by cross gain modulation in a semiconductor waveguide
Research output: Research - peer-review › Journal article – Annual report year: 2011

Modeling of plasmon mediated single-photon devices
Research output: Research › Ph.D. thesis – Annual report year: 2010

Quantum Dot Devices for Optical Signal Processing
Research output: Research › Ph.D. thesis – Annual report year: 2010

Slow and fast light effects in semiconductor optical amplifiers for applications in microwave photonics
Research output: Research › Ph.D. thesis – Annual report year: 2010

Slow light and pulse propagation in semiconductor waveguides
Research output: Research › Ph.D. thesis – Annual report year: 2010

Light-matter interaction in nanostructured materials
Research output: Research › Ph.D. thesis – Annual report year: 2010

Quantum Kinetics of charge carriers in quantum dots: applications to slow light and light amplification
80-nm-tunable high-index-contrast subwavelength grating long-wavelength VCSEL: Proposal and numerical simulations
Research output: Research - peer-review › Conference article – Annual report year: 2010

A high-efficiency electrically-pumped single-photon source based on a photonics nanowire
Gregersen, N., Nielsen, T. R., Mørk, J., Claudon, J. & Gérard, J-M. 2010
Research output: Research - peer-review › Paper – Annual report year: 2010

A highly efficient single-photon source based on a quantum dot in a photonic nanowire
Research output: Research - peer-review › Conference article – Annual report year: 2010

A highly efficient single-photon source based on a quantum dot in a photonic nanowire
Research output: Research - peer-review › Conference article – Annual report year: 2010

Analysis of optical properties of strained semiconductor quantum dots for electromagnetically induced transparency
Research output: Research - peer-review › Journal article – Annual report year: 2010

A scheme comparison of Autler-Townes based slow light in inhomogeneously broadened quantum dot media
Research output: Research - peer-review › Journal article – Annual report year: 2010

Broadband MEMS-tunable high-index-contrast subwavelength grating long-wavelength VCSEL
Research output: Research - peer-review › Journal article – Annual report year: 2010

Concept for phase-to-intensity conversion in SOAs by facet reflections
Research output: Research - peer-review › Journal article – Annual report year: 2010

Designs for high-efficiency electrically pumped photonic nanowire single-photon sources
Research output: Research - peer-review › Journal article – Annual report year: 2010

Enhanced amplified spontaneous emission in III-V semiconductor photonic crystal waveguides
Ek, S., Schubert, M., Yvind, K. & Mark, J. 2010 Proceedings IPR.
Research output: Research - peer-review › Article in proceedings – Annual report year: 2010

Enhancing slow and fast light effects in quantum dot semiconductor waveguides through ultrafast dynamics
Research output: Research - peer-review › Journal article – Annual report year: 2010
Experimental validation of efficient methods for the prediction of patterning effects in SOA-based optical switches
Research output: Research - peer-review › Article in proceedings – Annual report year: 2010

Finite-element modeling of spontaneous emission of a quantum emitter at nanoscale proximity to plasmonic waveguides
Research output: Research - peer-review › Journal article – Annual report year: 2010

High-index-contrast subwavelength grating VCSEL
Research output: Research - peer-review › Conference article – Annual report year: 2010

Hybrid vertical cavity laser
Research output: Research - peer-review › Article in proceedings – Annual report year: 2010

Influence of carrier dynamics on the modulation bandwidth of quantum-dot based nanocavity devices
Research output: Research - peer-review › Journal article – Annual report year: 2010

Investigation of patterning effects in ultrafast SOA-based optical switches
Research output: Research - peer-review › Journal article – Annual report year: 2010

Light propagation in finite-sized photonic crystals: multiple scattering using an electric field integral equation
Research output: Research - peer-review › Journal article – Annual report year: 2010

Microwave photonic true time delay based on cross gain modulation in semiconductor optical amplifiers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2010

Microwave signal processing based on ultrafast dynamics in quantum dot waveguides
Chen, Y. & Mørk, J. 2010 International Conference on Transparent Optical Networks. IEEE, p. 1-4
Research output: Research - peer-review › Article in proceedings – Annual report year: 2010

Modeling of mode-locked coupled-resonator optical waveguide lasers
Research output: Research - peer-review › Journal article – Annual report year: 2010

Modulation response of nanoLEDs and nanolasers exploiting Purcell enhanced spontaneous emission
Research output: Research - peer-review › Journal article – Annual report year: 2010

Monomode surface emitting laser: (Third year activity report)
Chung, I-S. & Mørk, J. 2010
Research output: Research - peer-review › Report – Annual report year: 2010

Non-markovian effects in semiconductor cavity QED: Role of phonon-mediated processes
Non-markovian model of photon-assisted dephasing by electron-phonon interactions in a coupled quantum-dot-cavity system
Research output: Research - peer-review › Journal article – Annual report year: 2010

Numerical and Experimental Study of the Q Factor of High-Q Micropillar Cavities
Research output: Research - peer-review › Journal article – Annual report year: 2010

On the use of slow light for enhancing waveguide properties
Research output: Research - peer-review › Journal article – Annual report year: 2010

Pulse delay measurements in cascaded quantum well gain and absorber media
Research output: Research - peer-review › Journal article – Annual report year: 2010

Recent advances in slow and fast light for applications in microwave photonics: [invited]
Research output: Research - peer-review › Conference article – Annual report year: 2010

Short pulse generation in a passively mode-locked photonic crystal semiconductor laser
Research output: Research - peer-review › Article in proceedings – Annual report year: 2010

Silicon-photonics light source realized by III-V/Si grating-mirror laser
Research output: Research - peer-review › Journal article – Annual report year: 2010

Slow and fast light effects and their applications to microwave photonics using semiconductor optical amplifiers
Sales, S., Xue, W., Mørk, J. & Gasulla, I. 2010 In : I E E E Transactions on Microwave Theory and Techniques. 58, 11, p. 3022-3038
Research output: Research - peer-review › Journal article – Annual report year: 2010

Slow and fast light in semiconductor waveguides
Research output: Research - peer-review › Journal article – Annual report year: 2010

Slow-light enhanced absorption in a hollow-core fiber
Grgic, J., Xiao, S., Mørk, J., Jauho, A-P. & Mortensen, A. 2010 In : Optics Express. 18, 13, p. 14270-14279
Research output: Research - peer-review › Journal article – Annual report year: 2010

Spontaneous decay of a single quantum dot coupled to a metallic slot waveguide in the presence of leaky plasmonic modes
Research output: Research - peer-review › Journal article – Annual report year: 2010

Theory of Passively Mode-Locked Photonic Crystal Semiconductor Lasers
Heuck, M., Blaaberg, S. & Mørk, J. 2010 In : Optics Express. 18, 17, p. 18003-18014
Research output: Research - peer-review › Journal article – Annual report year: 2010
Transverse-mode-selectable microlens vertical-cavity surface-emitting laser
Research output: Research - peer-review › Journal article – Annual report year: 2010

Ultrahigh-frequency microwave phase shifts mediated by ultrafast dynamics in quantum-dot semiconductor optical amplifiers
Research output: Research - peer-review › Journal article – Annual report year: 2010

Une source de photons uniques efficace basée sur une boîte quantique intégrée dans un fil photonique
Research output: Research › Sound/Visual production (digital) – Annual report year: 2010

Wideband 360 degrees microwave photonic phase shifter based on slow light in semiconductor optical amplifiers
Xue, W., Sales, S., Capmany, J. & Mørk, J. 2010 In : Optics Express. 18, 6, p. 6156-6163
Research output: Research - peer-review › Journal article – Annual report year: 2010

2R-regeneration in a monolithically integrated four-section SOA-EA chip
Research output: Research - peer-review › Journal article – Annual report year: 2009

Advanced vectorial simulation of VCSELs with nano structures invited paper
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

A highly efficient monomode single photon source in the photonic wire geometry
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

A method to achieve large tunable delays based on EIT in an inhomogeneously broadened quantum dot medium
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Broadband microwave phase shifter based on high speed cross gain modulation in quantum dot semiconductor optical amplifiers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Comparison of electromagnetically induced transparency schemes in semiconductor quantum dot structures: Impact of many-body interactions
Research output: Research - peer-review › Journal article – Annual report year: 2009

Controlling the speed of light in semiconductor waveguides: Physics and applications: [invited]
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009
Control of ultrafast pulse propagation in semiconductor components: [invited]
Research output: Research - peer-review › Conference article – Annual report year: 2009

Conversion of phase-modulated signals to amplitude-modulated signals in SOAs due to mirror reflections
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Demonstration of tunable microwave photonic notch filters using slow and fast light effects in semiconductor optical amplifiers
Xue, W., Sales, S., Mørk, J. & Capmany, J. 2009 Conference proceedings, OFC. IEEE
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Effect of temperature and phonons on the spectral properties of a multi-level semiconductor quantum dot single-photon source
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Enhancing slow and fast light effects in quantum dot optical amplifiers through ultrafast dynamics
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Experimental demonstration of 360 tunable RF phase shift using slow and fast light effects
Xue, W., Sales, S., Capmany, J. & Mørk, J. 2009 Proceedings of Slow and Fast Light, Topical meeting and Tabletop Exhibit. Optical Society of America, p. SMB6
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Exploring carrier dynamics in semiconductors for slow light: [invited]
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Fast, accurate and stable scattering calculation method with application to finite sized photonic crystal waveguides
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

General Method for Calculating the Response and Noise Spectra of Active Fabry-Perot Semiconductor Waveguides With External Optical Injection
Research output: Research - peer-review › Journal article – Annual report year: 2009

High-efficiency single-photon source: The photonic wire geometry
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Investigation of patterning effect in ultrafast SOA-based optical switches
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Microwave phase shifter with controllable power response based on slow-and fast-light effects in semiconductor optical amplifiers
Xue, W., Sales, S., Capmany, J. & Mørk, J. 2009 In : Optics Letters. 34, 7, p. 929-931
Microwave photonics processing controlling the speed of light in semiconductor waveguides: [invited]  

Nonlinear dynamics in photonic crystal nanocavity lasers  

Optical properties and optimization of electromagnetically induced transparency in strained InAs/GaAs quantum dot structures  

Optical signal processing using slow and fast light technologies: [invited]  

Optimizing the spontaneous-emission ß factor for single optical plasmon generation  

Oscillatory variations in the Q factors of high quality micropillar cavities  

Quantitative analysis of oscillatory variations in the quality factor of micropillar cavities  

Quantum dot waveguides: ultrafast dynamics and applications: [invited]  

Reducing the impact of inhomogeneous broadening on quantum dot based electromagnetically induced transparency  

Selectively-pumped grating-mirror long-wavelength VCSEL  
Slow and fast light: Controlling the speed of light using semiconductor waveguides
Research output: Research - peer-review › Journal article – Annual report year: 2009

Slow and fast light effects in semiconductor waveguides for applications in microwave photonics
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Slow and fast light in semiconductor structures: physics and applications: [invited]
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2009

Slow light based on material and waveguide dispersion
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Slow light in quantum dot photonic crystal waveguides
Research output: Research - peer-review › Journal article – Annual report year: 2009

Slow light pulse propagation in dispersive media
Research output: Research - peer-review › Journal article – Annual report year: 2009

The optical chip: high speed and diminutive size
Research output: Research - peer-review › Book chapter – Annual report year: 2009

The role of input chirp on phase shifters based on slow and fast light effects in semiconductor optical amplifiers
Xue, W., Chen, Y., Öhman, F. & Mørk, J. 2009 In : Optics Express. 17, 3, p. 1404-1413
Research output: Research - peer-review › Journal article – Annual report year: 2009

Vectorial analysis of dielectric photonic crystal VCSEL
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Widely tunable microwave photonic notch filter based on slow and fast light effects
Research output: Research - peer-review › Journal article – Annual report year: 2009

Controlling the emission profile of a nanowire with a conical taper
Research output: Research - peer-review › Journal article – Annual report year: 2008

A many-body model of semiconductor single-photon sources
Research output: Research - peer-review › Poster – Annual report year: 2008

Analysis of an effective optical filtering technique to enhance microwave phase shifts based on slow and fast light effects
Enhancing light slow-down in semiconductor optical amplifiers by optical filtering
Research output: Research - peer-review › Journal article – Annual report year: 2008

Experimental demonstration of strongly enhanced light slow-down in semiconductor optical amplifiers by optical filtering
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

Experimental observation of pulse delay and speed-up in cascaded quantum well gain and absorber media
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

Fractional decay of quantum dots in photonic crystals
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

Fractional decay of quantum dots in photonic crystals
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

Fractional decay of quantum dots in real photonic crystals
Research output: Research - peer-review › Journal article – Annual report year: 2008

General and efficient method for calculating modulation responses and noise spectra of active semiconductor waveguides
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

Influence of many-particle interactions on slow light phenomena in quantum dots
Research output: Research - peer-review › Journal article – Annual report year: 2008

Influence of pure dephasing on emission spectra from quantum dot-cavity systems
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

Influence of pure dephasing on emission spectra from single photon sources
Research output: Research - peer-review › Journal article – Annual report year: 2008

Introduction to the Feature Issue on Slow Light and Its Applications
Research output: Research - peer-review › Journal article – Annual report year: 2008
Low-noise monolithic mode-locked semiconductor lasers through low-dimensional structures
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

Microwave phase shifter based on mach-zehnder intensity modulator and polarization rotation in an SOA
Xue, W., Öhman, F., Blaaberg, S., Chen, Y., Sales, S. & Mørk, J. 2008 CLEO/QELS08. San Jose, CA, USA: Optical Society of America, p. CMP2
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

Mitigation of patterning effect in wavelength conversion by cascaded semiconductor optical amplifier and electroabsorption modulator
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

Nanofotonik: Nanofotonik kaster lys over fremtiden
Research output: Research - peer-review › Book chapter – Annual report year: 2008

Nanophotonics: Semiconductor Optical Devices
Research output: Research - peer-review › Poster – Annual report year: 2008

Optical Characterisation of Nanostructures Embedded in Materials
Research output: Research - peer-review › Poster – Annual report year: 2008

Pulse delay and advancement of ultrafast pulses in semiconductor waveguides
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2008

Pulse Delay and Speed-up of Ultra Fast Pulses in an Absorbing Quantum Well Medium
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

Pulse propagation in dispersive media
Research output: Research - peer-review › Poster – Annual report year: 2008

Pulse propagation in quantum dot photonic crystal waveguides
Research output: Research - peer-review › Poster – Annual report year: 2008

Pulse train amplification and regeneration based on semiconductor quantum dots waveguide
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008
Reduction of patterning effects in SOA-based wavelength converters by combining cross-gain and cross-absorption modulation
Zhou, E., Öhman, F., Cheng, C., Zhang, X., Hong, W., Mørk, J. & Huang, D. 2008 In : Optics Express. 16, 26, p. 21522-21528
Research output: Research - peer-review › Journal article – Annual report year: 2008

Semi-analytical model of filtering effects in microwave phase shifters based on semiconductor optical amplifiers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

Slow and fast light effects in semiconductor waveguides for applications in microwave photonics
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

Slow and fast light in semiconductor waveguides for applications in microwave photonics
Mørk, J., Öhman, F., Chen, Y., Poel, M. V. D. & Yvind, K. 2008 Photonics West. San Jose, USA: SPIE - International Society for Optical Engineering
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

Strong coupling of a quantum emitter to surface plasmon polaritons
Research output: Research - peer-review › Poster – Annual report year: 2008

Subwavelength grating-mirror VCSEL with a thin oxide gap
Research output: Research - peer-review › Journal article – Annual report year: 2008

Theory of Optical-Filtering Enhanced Slow and Fast Light Effects in Semiconductor Optical Waveguides
Research output: Research - peer-review › Journal article – Annual report year: 2008

To decay or not to decay - or both I quantum mechanics of spontaneous emission
Kristensen, P. T., Lodahl, P. & Mørk, J. 2008 In : DOPS - Nyt. 23, 1
Research output: Research - peer-review › Journal article – Annual report year: 2008

10 Gb/s-NRZ Optical 2R-regeneration in two-section SOA-EA chip
Research output: Research - peer-review › Article in proceedings – Annual report year: 2007

Analysis of the effects of pulse shape and width on the retiming properties of a 3R regenerator
Research output: Research - peer-review › Article in proceedings – Annual report year: 2007

Applications for the slow and fast light effects in SOA-EA structures in the radio over fiber links
Research output: Research - peer-review › Article in proceedings – Annual report year: 2007

Breakdown of Wigner-Weisskopf theory for spontaneous emission: a quantitative analysis
Kristensen, P. T., Tromborg, B., Lodahl, P. & Mørk, J. 2007
Research output: Research - peer-review › Poster – Annual report year: 2007
Controlling microwave signals by means of slow and fast light effects in SOA-EA structures
Research output: Research › Journal article – Annual report year: 2007

Frequency response of slow and fast light in integrated semiconductor waveguide amplifiers and absorbers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2007

Influence of Coulomb interactions on quantum coherence in quantum dots
Research output: Research - peer-review › Poster – Annual report year: 2007

Influence of geometry on the quality factor of a micro pillar
Research output: Research - peer-review › Article in proceedings – Annual report year: 2007

Large microwave phase shift and small distortion in an integrated waveguide device
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2007

Modelling Q-factors of micro pillars
Research output: Research - peer-review › Article in proceedings – Annual report year: 2007

Nanomaterials - quantum dots for optoelectronics
Mørk, J. 2007 European Conference on Integrated Optics (ECIO). Lyngby, Denmark
Research output: Research - peer-review › Article in proceedings – Annual report year: 2007

Numerical investigation of electromagnetically induced transparency in a quantum dot structure
Nielsen, P. K., Nielsen, H. T., Mørk, J. & Tromborg, B. 2007 In : Optics Express. 15, 10, p. 6396-6408
Research output: Research - peer-review › Journal article – Annual report year: 2007

Output power PDF of a saturated semiconductor optical amplifier: Second-order noise contributions by path integral method
Research output: Research - peer-review › Journal article – Annual report year: 2007

Phase noise analysis of clock recovery based on an optoelectronic phase-locked loop
Research output: Research - peer-review › Journal article – Annual report year: 2007

Quality factors of nonideal micro pillars
Research output: Research - peer-review › Journal article – Annual report year: 2007

Quality factors of nonideal micro pillars
Nielsen, T. R., Gregersen, N., Tromborg, B. & Mørk, J. 2007 Integrated photonics and nanophotonics research and applications. Salt Lake City, USA
Self-consistent FDTD Maxwell-Bloch solver
Research output: Research - peer-review › Article in proceedings – Annual report year: 2007

Slow light in a semiconductor waveguide for true-time delay applications in microwave photonics
Research output: Research - peer-review › Journal article – Annual report year: 2007

Slow light in semiconductor quantum dots
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2007

Slow light in semiconductor quantum dots
Research output: Research - peer-review › Poster – Annual report year: 2007

Slow light in semiconductor waveguides: theory and experiment
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2007

Slow light in semiconductor waveguides: Theory and experiment
Research output: Research - peer-review › Article in proceedings – Annual report year: 2007

The effect of timing jitter on a 160-Gb/s demultiplexer
Research output: Research - peer-review › Journal article – Annual report year: 2007

Analysis of timing jitter in external-cavity mode-locked semiconductor lasers
Research output: Research - peer-review › Journal article – Annual report year: 2006

Bandwidth enchancement of SOA-based switches using optical filtering: theory and experimental verification
Research output: Research - peer-review › Journal article – Annual report year: 2006

Comment on "Dephasing times in quantum dots due to elastic LO phonon-carrier collisions" - Uskov et al. reply
Research output: Research - peer-review › Editorial – Annual report year: 2006

Dynamic Spatio-temporal Speed Control of Ultrashort Pulses in Quantum-Dot SOAs
Research output: Research - peer-review › Journal article – Annual report year: 2006

Experimental and theoretical investigation of the impact of ultra-fast carrier dynamics on high-speed SOA-based all-optical switches
Research output: Research - peer-review › Journal article – Annual report year: 2006
Influence of wetting-layer wave functions on phonon-mediated carrier capture into self-assembled quantum dots
Research output: Research - peer-review › Journal article – Annual report year: 2006

Large Signal Modulation and Distortion in a Microwave Phase Shifter Based on Slow Light in a Semiconductor Waveguide
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

Modeling of Bit Error Rate in Cascaded 2R Regenerators
Research output: Research - peer-review › Journal article – Annual report year: 2006

Monolithically integrated reflective SOA-EA carrier re-modulator for broadband access nodes
Research output: Research - peer-review › Journal article – Annual report year: 2006

Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

Patterning effects in multi-purpose amplification by a quantum dot amplifier
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

Phased-array antennas employing slow and fast light in alternating amplifying and absorbing sections
Sales, S., Öhman, F., Bernejo, A., Mørk, J. & Capmany, J. 2006
Research output: Research - peer-review › Poster – Annual report year: 2006

Pulse interactions in a quantum dot waveguide in the regime of electromagnetically Induced transparency
Nielsen, P., Nielsen, H., Mark, J. & Tromborg, B. 2006 CLEO/QELS Technical Digest CD-Rom. p. CThW6
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

Pulse properties of external cavity mode locked semiconductor lasers
Research output: Research - peer-review › Journal article – Annual report year: 2006

Recent Advancements in Semiconductor-based Optical Signal Processing
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

Reduction of Timing Jitter by Clock Recovery based on an Optical Phase-Locked Loop
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

Semiconductor Quantum Dots Devices: Recent Advances and Application Prospects
Research output: Research - peer-review › Journal article – Annual report year: 2006
Slow and Fast Light in an Electro-Absorber
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

Slow and fast light in SOA-EA structures for phased-array antennas
Sales, S., Öhman, F., Bermejo, A., Mørk, J. & Capmany, J. 2006
Research output: Research - peer-review › Poster – Annual report year: 2006

Slow Light at High Frequencies in an Amplifying Semiconductor Waveguide
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

Steep and Adjustable Transfer Functions of Monolithic SOA-EA 2R-Regenerators
Research output: Research - peer-review › Journal article – Annual report year: 2006

The impact of gating timing jitter on a 160 Gb/s demultiplexer
Research output: Research - peer-review › Conference article – Annual report year: 2006

True-time delay by slow light in a semiconductor waveguide with alternating amplifying and absorbing sections
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

Ultrafast gain and index dynamics of quantum dash structures emitting at 1.55 mu m
Research output: Research - peer-review › Journal article – Annual report year: 2006

Voltage-controlled slow light in an integrated semiconductor structure with net gain
Öhman, F., Yvind, K. & Mørk, J. 2006 In : Optics Express. 14, 21, p. 9955-9962
Research output: Research - peer-review › Journal article – Annual report year: 2006

A new orthogonal labeling scheme based on a 40-Gb/s DPSK payload and a 2.5-Gb/s PolSK label
Research output: Research - peer-review › Journal article – Annual report year: 2005

A second order model of noise in saturated semiconductor optical amplifiers
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2005

Bandwidth Enhancement of SOA-based Switches Using Optical Filtering: Theory and Experiment
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Carrier dynamics in quantum well and quantum dot lasers and optical amplifiers
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2005
Controllable delay of ultrashort pulses in a quantum dot optical amplifier
Poel, M. V. D., Mørk, J. & Hvam, J. M. 2005 In : Optics Express. 13, 20, p. 8032-8037
Research output: Research - peer-review › Journal article – Annual report year: 2005

Design and evaluation of modelocked semiconductor lasers for low noise and high stability
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Detailed modelling and experimental characterisation of an ultra-fast optoelectronic clock recovery circuit
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Experimental Demonstration and Theoretical Analysis of Slow Light in a Semiconductor Waveguide at GHz Frequencies
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Impact of Optical Filtering on Linear and Nonlinear Patterning Effects in SOA-based All-optical Switches
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Influence of wetting layer wave functions on carrier capture in quantum dots
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Influence of wetting layer wave functions on carrier capture in quantum dots
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2005

InP based lasers and optical amplifiers with wire-/dot-like active regions
Research output: Research - peer-review › Journal article – Annual report year: 2005

Integrated Pattern Effect Compensator based on Self-Switching
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Integrated SO-MZI for pattern effect free amplification
Research output: Research - peer-review › Journal article – Annual report year: 2005

Light slow-down in semiconductor waveguides due to population pulsations
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2005
Measurement and Modeling of the Transfer Function of a Monolithic SOA-EA 2R-Regenerator
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Measurements and simulations of non-linear noise re-distribution in an SOA
Research output: Research - peer-review › Journal article – Annual report year: 2005

Measurements and Simulations of nonlinear noise redistribution in an SOA
Research output: Research - peer-review › Journal article – Annual report year: 2005

Mode-locked semiconductor lasers with low noise and high stability
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2005

Nonlinear saturation dynamics and its application to all-optical regeneration and light slow-down
Mørk, J., Öhman, F., Kjær, R. & Yvind, K. 2005
Research output: Research › Conference abstract for conference – Annual report year: 2005

Optical Regeneration and Noise in Semiconductor Devices
Research output: Research › Ph.D. thesis – Annual report year: 2005

Propagation delay of femtosecond pulses in an optical amplifier
Poel, M. V. D., Mørk, J. & Hvam, J. M. 2005
Research output: Research › Poster – Annual report year: 2005

Pulsewidth and stability properties of external-cavity mode-locked semiconductor lasers: Simulations and experiments
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2005

Quantum dot devices for optical communications
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2005

Reduction of nonlinear patterning effects in SOA-based All-optical Switches using Optical filtering
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Self-slowdown and -advancement of fs pulses in a quantum-dot semiconductor optical amplifier
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2005

Semiconductor laser
Research output: Research - peer-review › Book chapter – Annual report year: 2005

Slow light in a semiconductor waveguide at gigahertz frequencies
Mørk, J., Kjær, R., Poel, M. V. D. & Yvind, K. 2005 In : Optics Express. 13, 20, p. 8136

Research output: Research - peer-review › Article in proceedings – Annual report year: 2005
The Influence of Nonlinearity, Noise and Extinction Ratio on the Cascading Properties of 2R-Regenerators
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Theoretical and experimental study of fundamental differences in the noise suppression of high-speed SOA-based all-optical switches
Research output: Research - peer-review › Journal article – Annual report year: 2005

Timing Jitter Analysis for Clock recovery Circuits Based on an Optoelectronic Phase-Locked Loop (OPLL)
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Tunable propagation delay of femtosecond pulse in quantum-dot optical amplifier at room temperature
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Tunable propagation delay of femtosecond pulses in a quantum-dot optical amplifier at room temperature
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Electroabsorption modulators used for all-optical signal processing and labelling
Research output: Research › Ph.D. thesis – Annual report year: 2004

Experimental and theoretical investigation of semiconductor optical amplifier (SOA) based all-optical switches
Research output: Research › Ph.D. thesis – Annual report year: 2004

106 to 10 Gb/s all-optical demultiplexing using a single electroabsorption modulator
Research output: Research - peer-review › Article in proceedings – Annual report year: 2004

2R Regeneration in Concatenated Semiconductor Optical Amplifiers and Electroabsorbers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2004

7x40 Gb/s base rate RZ all-optical broadcasting utilizing an electroabsorption modulator
Research output: Research - peer-review › Journal article – Annual report year: 2004

8x40 Gb/s RZ all-optical broadcasting using an electroabsorption modulator
Research output: Research - peer-review › Article in proceedings – Annual report year: 2004

All-optical Extraction of 40 GHz Component from 40 Gb/s NRZ data using Signal Processing in an SOA combined with optical filtering
Analysis of the effects of time delay in clock recovery circuits based on Phase-locked loops

Comparison of noise redistribution in an SOA in pass-through and wavelength conversion mode

Gain dynamics and saturation in semiconductor quantum dot amplifiers

High-performance 10 GHz all-active monolithic mode-locked semiconductor lasers

Identification of amplitude and timing jitter in external-cavity mode-locked semiconductor lasers

Improving the All-Optical Response of SOAs Using a Modulated Holding Signal

Increasing the Modulation Bandwidth of Semiconductor Optical Amplifier based Switches using Optical Filtering

Low-jitter and high-power 40 GHz all-active mode-locked lasers

Measurements and simulations of non-linear noise re-distribution in an SOA

Measurements of gain and index dynamics in quantum dash semiconductor optical amplifiers

Measurements of non-linear noise re-distribution in an SOA

Noise and regeneration in semiconductor waveguides with saturable gain and absorption
Novel design of low-jitter 10 GHz all-active monolithic mode-locked lasers
CD-Rom. IEEE
Research output: Research - peer-review › Article in proceedings – Annual report year: 2004

Numerical investigations on the performance of external-cavity mode-locked semiconductor lasers
Research output: Research - peer-review › Journal article – Annual report year: 2004

On the mechanisms governing the repetition rate of mode-locked semiconductor lasers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2004

Quantum Dot Semiconductor Optical Amplifiers - Physics and Applications
Research output: Research › Ph.D. thesis – Annual report year: 2005

Saturation and noise properties of quantum-dot optical amplifiers
Research output: Research - peer-review › Journal article – Annual report year: 2004

Theory of Pulse Train Amplification Without Patterning Effects in Quantum Dot Semiconductor Optical Amplifiers
Research output: Research - peer-review › Journal article – Annual report year: 2004

The Role of Fast Carrier Dynamics in SOA Based Devices: (invited paper)
Research output: Research - peer-review › Journal article – Annual report year: 2004

Ultrafast optical properties of quantum dot devices
Poel, M. V. D., Berg, T. W., Birkedal, D., Mørk, J. & Hvam, J. M. 2004
Research output: Research › Poster – Annual report year: 2004

Ultralow noise monolithic mode-locked semiconductor lasers
Research output: Research › Poster – Annual report year: 2004

Modeling of phonon- and Coulomb-mediated capture processes in quantum dots
Research output: Research › Ph.D. thesis – Annual report year: 2003

10 GHz All-Active Monolithic Mode-Locked Lasers
Research output: Research › Paper – Annual report year: 2003

Absorption recovery in strongly saturated quantum-well electroabsorption modulators
Research output: Research - peer-review › Journal article – Annual report year: 2003

All optical regeneration using semiconductor devices
Mark, J., Öhman, F. & Tromborg, B. 2003
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2003
Analytical expression for the bit error rate of cascaded all-optical regenerators
Research output: Research - peer-review › Journal article – Annual report year: 2003

Geometry dependence of Auger carrier capture rates into cone-shaped self-assembled quantum dots
Research output: Research - peer-review › Journal article – Annual report year: 2003

Geometry dependence of Auger carrier capture rates into self-assembled quantum dots
Magnúsdóttir, I., Bischoff, S., Uskov, A. V. & Mørk, J. 2003
Research output: Research - peer-review › Poster – Annual report year: 2003

Low jitter and high power all-active mode-locked lasers
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2003

Low jitter and high power all-active mode-locked lasers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2003

Noise properties of semiconductor waveguides with alternating sections of saturable gain and absorption
Ohman, F., Bischoff, S., Tromborg, B. & Mørk, J. 2003
Research output: Research - peer-review › Poster – Annual report year: 2003

Nonlinear and ultrafast dynamics in semiconductor lasers and optical amplifiers
Mørk, J. 2003
Research output: Research › Doctoral thesis – Annual report year: 2003

On high-speed cross-gain modulation without pattern effects in quantum dot semiconductor optical amplifiers
Uskov, A. V., Mørk, J., Tromborg, B., Berg, T. W., Magnúsdóttir, I. & O'Reilly, E. P. 2003 In : Optics communications. 227, 4-6, p. 363-369
Research output: Research - peer-review › Journal article – Annual report year: 2003

Optical label encoding using electroabsorption modulators and investigation of chirp properties
Research output: Research - peer-review › Journal article – Annual report year: 2003

Optical signal processing using electro-absorption modulators: (invited)
Research output: Research - peer-review › Article in proceedings – Annual report year: 2003

Polarisation independent optical sampling using four-wave mixing: SCOOP
Research output: Research - peer-review › Article in proceedings – Annual report year: 2003

Quantum dot amplifiers with high output power and low noise
Research output: Research - peer-review › Journal article – Annual report year: 2003
Semiconductor devices for all-optical regeneration: (invited)
Research output: Research - peer-review › Article in proceedings – Annual report year: 2003

The Dynamics of Semiconductor Optical Amplifiers – Modeling and Applications
Research output: Research - peer-review › Journal article – Annual report year: 2003

Theoretical analysis of four wave mixing in quantum dot optical amplifiers
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2003

Theoretical and experimental investigation of a balanced phase-locked loop based clock recovery at a bit rate of 160 Gb/s
Research output: Research - peer-review › Article in proceedings – Annual report year: 2003

Two-phonon capture processes into quantum dots: The role of intermediate states
Magnúsdóttir, I., Uskov, A. V., Bischoff, S., Tromborg, B. & Mørk, J. 2003 In : Physica E: Low-Dimensional Systems and Nanostructures. 17, 1-4, p. 111-113
Research output: Research - peer-review › Conference article – Annual report year: 2003

Ultrafast dynamics in semiconductor optical amplifiers and all-optical processing: Bulk versus quantum dot devices: (invited)
Research output: Research - peer-review › Article in proceedings – Annual report year: 2003

Absorption and refractive index dynamics in waveguide semiconductor electroabsorbers
Research output: Research › Ph.D. thesis – Annual report year: 2003

Analysis of noise suppression in cascaded all-optical regenerators
Research output: Research - peer-review › Article in proceedings – Annual report year: 2002

Bandwidth and chirp characterisation of wavelength conversion based on electroabsorption modulators
Research output: Research - peer-review › Article in proceedings – Annual report year: 2002

BER estimation for all-optical regenerators influenced by pattern effects
Research output: Research - peer-review › Journal article – Annual report year: 2002

Dispersion-induced nonlinearities in semiconductors
Mørk, J. & Mecozzi, A. 2002 In : Optics Communications. 210, 3-6, p. 173-177
Research output: Research - peer-review › Journal article – Annual report year: 2002

Experimental characterisation of wavelength conversion at 40 Gb/s based on electroabsorption modulators
Research output: Research - peer-review › Article in proceedings – Annual report year: 2002
Performance of external cavity mode-locked semiconductor lasers employing reverse biased saturable absorbers
Research output: Research - peer-review › Journal article – Annual report year: 2002

Precise measurement of EAM chirp alpha-parameter and theoretical analysis of effective chirp under large signal modulating
Research output: Research - peer-review › Article in proceedings – Annual report year: 2002

Reduction of pattern effects in SOA-based all-optical switches by using cross-gain modulated holding signal
Research output: Research - peer-review › Article in proceedings – Annual report year: 2002

Short pulse absorption dynamics in a p-i-n InGaAsP MQW waveguide saturable absorber
Research output: Research - peer-review › Article in proceedings – Annual report year: 2002

Theoretical analysis of quantum dot amplifiers with high saturation power and low noise figure
Research output: Research - peer-review › Article in proceedings – Annual report year: 2002

Two-phonon capture processes into quantum dots: The role of intermediate states
Magnúsdóttir, I., Uskov, A., Bischoff, S., Tromborg, B. & Mørk, J. 2002
Research output: Research - peer-review › Poster – Annual report year: 2002

Ultrafast optical signal processing using semiconductor optical devices
Research output: Research - peer-review › Article in proceedings – Annual report year: 2002

Ultrafast optical signal processing using semiconductor quantum dot amplifiers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2002

Ultrafast signal processing in quantum dot amplifiers through effective spectral holeburning
Research output: Research - peer-review › Article in proceedings – Annual report year: 2002

Absorption and refractive index recovery in an InGaAsP MQW electro-absorption modulator
Research output: Research › Article in proceedings – Annual report year: 2001

Comparison of all-optical co- and counter-propagating high-speed signal processing in SOA-based Mach-Zehnder interferometers
Bischoff, S., Buxens, A., Fischer, S., Dülk, M., Clausen, A., Poulsen, H. N. & Mørk, J. 2001 In : Optical and Quantum Electronics. 33, 7-10, p. 907-926
Research output: Research - peer-review › Journal article – Annual report year: 2001

Efficient phonon-assisted capture into quantum dots
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2001
Electrical versus optical pumping of quantum dot amplifiers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2001

Gain recovery dynamics and limitations in quantum dot amplifiers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2001

Improvement of noise redistribution by employing an SOA-EA cascade
Research output: Research › Article in proceedings – Annual report year: 2001

Limit to speed of semiconductor devices for all-optical processing
Research output: Research - peer-review › Article in proceedings – Annual report year: 2001

Line broadening caused by Coulomb carrier-carrier correlations and dynamics of carrier capture and emission in quantum dots
Research output: Research - peer-review › Journal article – Annual report year: 2001

Modeling of carrier transport in multi-quantum-well p-i-n modulators
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2001

Modeling of semiconductor devices for high-speed all-optical signal processing
Research output: Research - peer-review › Journal article – Annual report year: 2001

Modeling of temperature characteristics of quantum dot amplifiers: rate vs. master equation models
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2001

Multiphonon capture processes in self-assembled quantum dots
Research output: Research - peer-review › Article in proceedings – Annual report year: 2001

Numerical Investigation of Dual-order Mode Wavelength converter
Research output: Research - peer-review › Article in proceedings – Annual report year: 2001

Pattern effects and noise accumulation in concatenated all-optical regenerators
Research output: Research - peer-review › Article in proceedings – Annual report year: 2001
SCOOP - Semiconductor Components for Optical signal Processing
Research output: Communication › Journal article – Annual report year: 2001

Semiconductor quantum dot amplifiers for optical signal processing
Research output: Research › Article in proceedings – Annual report year: 2001

Temperature characteristics of quantum dot devices: Rate vs. Master Equation Models
Research output: Research - peer-review › Article in proceedings – Annual report year: 2001

Ultrafast gain recovery and modulation limitations in self-assembled quantum-dot devices
Research output: Research - peer-review › Journal article – Annual report year: 2001

All-optical wavelength conversion and signal regeneration using an electroabsorption modulator
Research output: Research - peer-review › Journal article – Annual report year: 2000

All-optical clear/drop optimisation for a 4x40 Gbit/s signal in Mach-Zehnder Interferometers Based on Semiconductor Optical Amplifiers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2000

All-optical demultiplexing using an electroabsorption modulator
Research output: Research - peer-review › Article in proceedings – Annual report year: 2000

All-optical signal regeneration at 40 Gbit/s using a Mach-Zehnder Interferometer based on semiconductor optical amplifiers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2000

A transfer function approach to the small-signal response of saturated semiconductor optical amplifiers
Research output: Research - peer-review › Journal article – Annual report year: 2000

Dephasing times in quantum dots due to elastic LO phonon-carrier collisions
Research output: Research - peer-review › Journal article – Annual report year: 2000

Elastic LO-phonon scattering as an efficient mechanism of dephasing and homogeneous broadening in quantum dots
Research output: Research - peer-review › Article in proceedings – Annual report year: 2000

Elastic LO-phonon scattering as an efficient mechanism of dephasing and homogeneous broadening in quantum dots
Research output: Research - peer-review › Article in proceedings – Annual report year: 2000
Measurement of pulse amplitude and phase distortion in a semiconductor optical amplifier: from pulse compression to breakup
Research output: Research - peer-review › Journal article – Annual report year: 2000

Non-adiabatic effects in semiconductor waveguide
Research output: Research - peer-review › Article in proceedings – Annual report year: 2000

Pulse-distortion in a quantum-dot optical amplifier
Research output: Research - peer-review › Article in proceedings – Annual report year: 2000

Room-Temperature Dephasing in InAs Quantum Dots
Research output: Research - peer-review › Journal article – Annual report year: 2000

Separation of coherent and incoherent nonlinearities in a heterodyne pump-probe experiment
Research output: Research - peer-review › Journal article – Annual report year: 2000

All-optical Demultiplexing Using an Electroabsorption Modulator
Research output: Research › Article in proceedings – Annual report year: 1999

All-optical wavelength conversion and signal regeneration using an electroabsorption modulator
Research output: Research › Article in proceedings – Annual report year: 1999

Bi-directional four wave mixing in semiconductor amplifiers for mid-span spectral inversion: theory and experiment
Research output: Research › Article in proceedings – Annual report year: 1999

Bi-directional four-wave mixing in semiconductor optical amplifiers
Research output: Research › Article in proceedings – Annual report year: 1999

Bidirectional Four-Wave Mixing in Semiconductor Optical Amplifiers: Theory and Experiment
Research output: Research - peer-review › Journal article – Annual report year: 1999

Bit rate and pulse width dependence of four-wave mixing of short optical pulses in semiconductor optical amplifiers
Research output: Research - peer-review › Journal article – Annual report year: 1999

Carrier Dynamics in Quantum Dots and Quantum Dot Lasers
Research output: Research › Article in proceedings – Annual report year: 1999
Dephasing in InAs/GaAs quantum dots
Research output: Research - peer-review › Journal article – Annual report year: 1999

Dispersion-induced non-linearities in semiconductors
Research output: Research - peer-review › Article in proceedings – Annual report year: 1999

Fotonik - et nyt og revolutionerende begreb
Research output: Research › Journal article – Annual report year: 1999

Four-wave mixing between short optical pulses in SOAs
Research output: Research › Article in proceedings – Annual report year: 1999

Heterodyne pump-probe and four-wave mixing in semiconductor optical amplifiers using balanced lock-in detection
Borri, P., Langbein, W., Mørk, J. & Hvam, J. M. 1999 In : Optics Communications. 169, p. 317-324
Research output: Research - peer-review › Journal article – Annual report year: 1999

Measurements and calculation of the critical pulsewidth for gain saturation in semiconductor optical amplifiers
Research output: Research - peer-review › Journal article – Annual report year: 1999

Numerical model of frequency converter based on four-wave mixing in semiconductor amplifiers
Research output: Research › Article in proceedings – Annual report year: 1999

Return-map for low-frequency fluctuations in semiconductor lasers with optical feedback
Mørk, J., Sabbatier, H., Sørensen, M. P. & Tromborg, B. 1999 In : Optics Communications. 171, 1-3, p. 93-97
Research output: Research - peer-review › Journal article – Annual report year: 1999

Return-map for semiconductor lasers with optical feedback
Research output: Research - peer-review › Article in proceedings – Annual report year: 1999

Room-temperature dephasing in InGaAs quantum dots
Research output: Research › Article in proceedings – Annual report year: 1999

Saturation properties of four-wave mixing between short optical pulses in semiconductor optical amplifiers
Research output: Research - peer-review › Article in proceedings – Annual report year: 1999

Semiconductor Devices for All Optical Signal Processing: Just How Fast can They Go?
Research output: Research - peer-review › Article in proceedings – Annual report year: 1999
Sub-picosecond pulse break-up in an InGaAsP optical amplifier
Research output: Research › Article in proceedings – Annual report year: 1999

Sub-picosecond pulse distortion in an InGaAsP optical amplifier
Research output: Research - peer-review › Article in proceedings – Annual report year: 1999

The Modulation Response of a Semiconductor Laser Amplifier
Research output: Research - peer-review › Journal article – Annual report year: 1999

Ultrafast gain and index dynamics in quantum dot amplifiers
Research output: Research - peer-review › Article in proceedings – Annual report year: 1999

Measurement and calculation of the critical pulsewidth for gain saturation in semiconductor optical amplifiers
Research output: Research - peer-review › Article in proceedings – Annual report year: 1998

Theory of four-wave mixing
Research output: Research › Book chapter – Annual report year: 1998

Chirp of hybridly modelocked monolithic CPM diode lasers
Research output: Research - peer-review › Journal article – Annual report year: 1997

Chirp of monolithic colliding pulse mode-locked diode lasers
Research output: Research - peer-review › Journal article – Annual report year: 1997

Monolithic colliding pulse mode-locked semiconductor lasers
Research output: Research - peer-review › Journal article – Annual report year: 1997

Theory of nondegenerate four-wave mixing between pulses in a semiconductor waveguide
Research output: Research - peer-review › Journal article – Annual report year: 1997

Projects:

Light-matter interaction and laser dynamics in nanophotonic structures
Rasmussen, T. S., Mørk, J., Gregersen, N. & Yu, Y.
Grundforskningsfonden
15/08/2017 → 14/08/2020
Project: PhD
Photonic quantum technologies in structured environments
Denning, E. V., Mørk, J., Iles-Smith, J. & Willatzen, M.
Grundforskningsfonden
01/02/2017 → 31/01/2020
Project: PhD

An open quantum systems approach to few photon scattering in photonic devices
Joanesarson, K. B., Mørk, J., Gregersen, N. & Iles-Smith, J.
Grundforskningsfonden
01/02/2017 → 31/01/2020
Project: PhD

Fabrication and characterization of novel nanophotonic structures with electrical control
Marchevsky, A., Yvind, K., Mørk, J. & Ottaviano, L.
Samfinansierede - Virksomhed
01/10/2016 → 30/09/2019
Project: PhD

Meta-materialer i antenne-teknik til trådløs kommunikation
Arslanagic, S., Breinbjerg, O., Mørk, J., Mosig, J. R. & Nosich, A. I.
DTU-lønnet stipendie
15/03/2004 → 03/09/2007
Project: PhD

Ulineær Dynamik i Halvlederlasere
Blaaberg, S., Rottwitt, K., Petersen, P. M., Tromborg, B., Mørk, J., Buus, J. & Willatzen, M.
Rise (Løn)
01/11/2002 → 30/01/2007
Project: PhD

Ulineære effekter i fotoniske krystalfibre
Erhvervsforskerordningen
01/04/2001 → ...
Project: PhD

Opto-elektriske komponenter baseret på kvante-strukturer
Berg, T. W., Mørk, J., Birkedal, D., Tromborg, B., Jauho, A. & Willatzen, M.
DTU-lønnet stipendie
15/10/2000 → 06/09/2004
Project: PhD

Logiske funktioner til rent-optiske netværk
Nielsen, M. L., Dittmann, L., Clausen, A., Mørk, J., Jeppesen, P., Manning, R. J. & Friis Pedersen, C.
DTU-lønnet stipendie
15/10/2000 → 09/03/2005
Project: PhD

UV-skrivning af optiske bølgeledere
Færch, K. U., Kristensen, M., Svalgaard, M., Mørk, J., Bætiger, J. & Douay, M.
Forskningsrådsfinansiering
01/10/2000 → 24/05/2004
Project: PhD

Ikke-lineære pulser i optiske medier
DTU-lønnet stipendie
01/02/1998 → 29/05/2001
Project: PhD

Photonic Crystal Fano Lasers
Mathiesen, K. S., Mørk, J. & Yvind, K.
Samfinansierede - Virksomhed
01/09/2016 → 31/08/2019
Project: PhD

Theory of superradiance and quantum noise in few-emitter lasers
André, E. C., Wubs, M. & Mørk, J.
Samfinansierede - Virksomhed
01/07/2016 → 30/06/2019
Project: PhD

k.p Theory of Two-Dimensional Materials
Brems, M. R., Willatzen, M. & Mørk, J.
Grundforskningsfonden
01/07/2016 → 29/11/2019
Project: PhD

Active nanophotonic antenna arrays for effective light-matter interactions
Kaminski, P. M., Arslanagic, S., Breinbjerg, O. & Mørk, J.
Samfinansierede - Virksomhed
15/08/2015 → 14/03/2019
Project: PhD

Tailored nanoscale optical materials and devices
Sakanas, A., Yvind, K., Mørk, J. & Semenova, E.
Samfinansierede - Virksomhed
01/08/2015 → 31/01/2019
Project: PhD

Single-photon quantum information technology
Taherkhani, M., Gregersen, N., Mørk, J., Jauho, A., Marquardt, O., Zinner, N. T., McCutcheon, D., Marquardt, O. & Zinner, N. T.
Forskningsrådsfinansiering
15/05/2015 → 05/09/2018
Project: PhD

Photonic crystal Fano structures
Bekele, D. A., Mørk, J., Ottaviano, L., Yvind, K., Frandsen, L. H., De Rossi, A., O'Faolain, L. & O'Faolain, L.
Samfinansieret - Andet
15/05/2015 → 30/09/2018
Project: PhD

Single photon sources for quantum information applications
Østerkryger, A. D., Gregersen, N., Mørk, J., Lavrinenko, A., Burger, S. & Kristensen, P. T.
Samfinansieret - Andet
15/03/2015 → 05/09/2018
Project: PhD

Synthesis and RealTime Implementation of DSP Algorithms for Nonlinearity Mitigation
Marie Curie (EU-stipendium)
01/11/2014 → 05/04/2018
Project: PhD
Dispersionskompenserende fotomiske krystalfibre
ErhvervsPhD-ordningen VTU
01/05/2002 → 04/11/2005
Project: PhD

Technology Platform for digital optical filter structures
Philipp, H. T., Rottwitt, K., Povlsen, J. H., Mørk, J., Johansen, P. M. & Margalit, M.
Samarbejdsaftalefinans
01/02/2001 → 26/10/2004
Project: PhD

Optical networking in future aircraft systems
Anden EU-finansiering
15/11/2009 → 04/04/2013
Project: PhD

High Channel Density Wavelength Division Multiplexed Systems
Seoane, J., Jeppesen, P., Clausen, A., Mørk, J. & Eisenstein, G.
Eksternt EU-finansieret
01/11/2001 → 26/09/2005
Project: PhD

Optical Methods for Characterization of Surface or Interface Structures on a Nanometer Scale
Gregersen, N., Mørk, J., Garnæs, J., Hanson, S. G., Tromborg, B., Lægsgaard, J., Bienstman, P. & Vohnsen, B.
Offentlig finansiering
01/11/2003 → 30/03/2007
Project: PhD

Systems technology and component characterisation
Oxenløwe, L. K., Stubkjær, K., Mørk, J., Tromborg, B., Devaux, F. & Friis Pedersen, C.
Ansat eksternt
01/09/1998 → 14/11/2002
Project: PhD

Slow light enhancement and limitations in periodic media
Grgic, J., Mortensen, N. A., Jauho, A., Mørk, J., Lavrinenko, A., De Rossi, A. & Willatzen, M.
Eksternt finansieret virksomhed
01/01/2009 → 19/04/2012
Project: PhD

Characterization of pulse propagation in photonic crystal structures and ultrafast dynamics in quantum dots
Ek, S., Merk, J., Hansen, P. L., Yvind, K., Oxenløwe, L. K., Albrektsen, O. & Dorren, H. J. S.
Eksternt finansieret virksomhed
01/11/2008 → 22/06/2012
Project: PhD

Methods for stability and Noise Analysis of Coupled Oscillating Systems
Djurhuus, T., Krozer, V., Vidkjær, J., Merk, J., Leuzzi, G. & Quéré, R.
Institut/centerfinansieret
01/07/2004 → 24/06/2008
Project: PhD

Processing and Characterization of optoelectronic components for ultra high-speed signal processing
Romstad, F., Hvam, J. M., Mørk, J., Tromborg, B. & Thirstrup, C.
Technical University of Denmark
01/05/1998 → 30/08/2002
Project: PhD

**Kompakte Fiberbaserede Ultrahurtige Pulskilder**
Greibe, T., Hvam, J. M., Birkedal, D., Yvind, K., Mørk, J., Hanberg, P. J. & Larsson, A. G.
Centerfinansieret
01/09/2001 → 01/03/2007
Project: PhD

**Systematic design of nano-photonic systems**
Wang, F., Jensen, J. S., Mørk, J., Sigmund, O., Pedersen, N. L., Qiu, M. & Tortorelli, D. A.
Programbevilling
01/09/2009 → 20/12/2012
Project: PhD

**Pulse Shaping**
Palushani, E., Oxenløwe, L. K., Clausen, A., Mørk, J., Alic, N. & Doran, N. J.
Forskningsrådsfinansiering
15/01/2009 → 22/06/2012
Project: PhD

**Topology Optimization of Transient Optoelastic Wave-interaction Problems**
Matzen, R., Sigmund, O., Jensen, J. S., Mørk, J., Diaz, A. R. & Kawamoto, A.
Forskningsrådsfinansiering
01/04/2008 → 31/08/2011
Project: PhD

**Slow and Fast Light for Applications in Microwave Photonics**
Xue, W., Mørk, J., Sales, S., Öhman, F., Oxenløwe, L. K., Morthier, G. J. I. & Nielsen, M. L.
Forskningsrådsfinansiering
01/07/2007 → 29/09/2010
Project: PhD

**Low Power Adaptive Beamforming**
Zibar, D., Jeppesen, P., Clausen, A., Mørk, J., Oxenløwe, L. K., Christensen, E. L., Jacobsen, G. & Petermann, K.
Forskningsrådsfinansiering
01/05/2004 → 28/09/2007
Project: PhD

**Polymer Dye Micro-Cavity Lasers**
Balslev, S., Kristensen, A., Mørk, J., Lading, L. & Turnbull, G. A.
Forskningsrådsfinansiering
01/02/2003 → 31/05/2006
Project: PhD

**Modelling of Ultrafast Semiconductor Components**
Nielsen, J. A., Mørk, J., Yvind, K., Hvam, J. M., Lenstra, D. & Willatzen, M.
Forskningsrådsfinansiering
01/01/2003 → 29/10/2007
Project: PhD

**High-capacity optical communication systems employing optical signal processing**
Forskningsrådsfinansiering
01/11/2001 → 17/12/2004
Project: PhD
Modeling of optoelectronic components for ultra high-speed optical signal processing
Højfeldt, S., Mørk, J., Bischoff, S., Rottwitt, K., Olin, U. & Tessier, N.
Forskningsrådsstipendium
01/08/1998 → 14/11/2002
Project: PhD

Novel Fibre-ring Laser System Based on Frequency Chirping for Optical Coherence Tomography (OCT)
Agger, S. D., Povlsen, J. H., Rottwitt, K., Mørk, J., Pedersen, B. & Taylor, J. R.
DTU, Samfinansiering
01/10/2002 → 31/05/2006
Project: PhD

Photonic Bandgap Based Add/Drop Multiplexer
Harpøth, A., Kristensen, M., Børel, P. I., Mørk, J., Pedersen, J. E. & Wehrspohn, R. B.
DTU, Samfinansiering
01/12/2001 → 12/02/2005
Project: PhD

Metamaterial Homogenization and Antenna Miniaturization
Hansen, T. V., Breinbjerg, O., Arslanagic, S., Kim, O. S., Mørk, J., Gustafsson, M. & Yaghjian, A. D.
1/3 DTU-stip, 2/3 FUR/andet
01/04/2010 → 15/01/2014
Project: PhD

Traffic analysis and signal processing in optical packet switched networks
Fjelde, T., Dittmann, L., Stubkjær, K., Mørk, J., Koonen, T. & Poustie, A. J.
DTU-lønnet stipendie
01/11/1998 → 03/05/2002
Project: PhD

Quantum Photonics in Nanostructured Media
Ivinskaya, A., Lavrinenko, A., Lodahl, P., Mørk, J., Lægsgaard, J., Busch, K. & Søndergaard, T.
DTU-lønnet stipendie
01/04/2006 → 24/08/2011
Project: PhD

Quantum-limited measurement in mesoscopic
Flindt, C., Jauho, A., Flensberg, K., Mørk, J., Brandes, T. & Loss, D.
DTU-lønnet stipendie
15/08/2004 → 29/10/2007
Project: PhD

Optical switching in nanophotonic structures
Yu, Y., Mark, J., Yvind, K., Morioka, T., Krauss, T. F., Manning, R. J., Krauss, T. F. & Manning, R. J.
Institut/centerfinansieret
01/09/2011 → 18/03/2015
Project: PhD

Elektroniske og Fotoniske Halvleder Nanostruktur
DTU-lønnet stipendie
01/04/2005 → 29/08/2008
Project: PhD

Electrons And Photons In Periodic Structures
Pedersen, J. G., Mortensen, N. A., Mørk, J., Qiu, M. & Schomerus, H.
DTU, Samfinansiering
01/03/2007 → 29/09/2010
Project: PhD

Semiconductor Quantum Dot Devices for Optical Signal Processing
Chen, Y., Mørk, J., Poel, M. V. D., Öhman, F., Jeppesen, P., Manning, R. J. & Willatzen, M.
DTU-lønnet stipendie
01/05/2007 → 29/09/2010
Project: PhD

Semiconductor Devices for Quantum Information Processing
Andersen, M. L., Lodahl, P., Mørk, J., Hvam, J. M., Pedersen, T. G. & Pedersen, T. G.
DTU-lønnet stipendie
01/03/2007 → 21/12/2010
Project: PhD

Metamaterialer til lab-on-a-chip applikationer
DTU-lønnet stipendie
15/12/2007 → 20/04/2011
Project: PhD

Modelling of semiconductor single-photon sources
DTU-lønnet stipendie
01/09/2007 → 21/12/2010
Project: PhD

Light-matter Interaction in Nano-structured Materials
Kristensen, P. T., Mørk, J., Lodahl, P., Breinbjerg, O., Busch, K. & Willatzen, M.
DTU-lønnet stipendie
15/10/2006 → 21/04/2010
Project: PhD

Transport in nanostructures
Donarini, A., Jauho, A., Novotny, T., Mørk, J., Armour, A. D. & Platero, G.
DTU-lønnet stipendie
01/09/2001 → 27/10/2004
Project: PhD

Gain dynamics in quantum dot structures
Magnúsdóttir, I., Mørk, J., Bischoff, S., Hvam, J. M., Bjarklev, A. O., Vinter, B. & Willatzen, M.
DTU-lønnet stipendie
01/09/1999 → 28/05/2003
Project: PhD

Ultrahurtige Data Signalers Transmission og Databehandling i optiske Fibre
DTU-lønnet stipendie
01/07/2005 → 27/10/2008
Project: PhD

Advanced devices for ultra-high capacity optical communication systems
Öhman, F., Mørk, J., Bischoff, S., Tromborg, B., Bang, O., Jacobsen, G. & Shtaif, M.
DTU-lønnet stipendie
01/09/2001 → 18/03/2005
Project: PhD
Advanced simulation tools for nanophotonic devices
de Lasson, J. R., Gregersen, N., Kristensen, P. T., Mørk, J., Lavrinenko, A., Hughes, S., Søndergaard, T. & Hughes, S.
Institut stipendie (DTU) Samf.
01/10/2012 → 20/01/2016
Project: PhD

Processing and Characterization of Quantum dot Devices
Forskningsrådsfinansiering
15/06/2006 → 26/05/2010
Project: PhD

Fundamentale egenskaber af komponenter til kvanteinformationsteknologi
Nielsen, P. K., Mørk, J., Jauho, A., Lodahl, P., Knorr, A. & Mølmer, K.
Institut stipendie (DTU) Samf.
01/02/2009 → 20/09/2012
Project: PhD

Hybrid III-V-on-Si laser with ultralow energy consumption
Forskningsrådsfinansiering
01/02/2013 → 04/05/2016
Project: PhD

Applications of Nanophotonic Devices for Terabit Optical Communications
Vukovic, D., Oxenløwe, L. K., Mørk, J., Peucheret, C., Xu, J., Rottwitt, K., Cassan, E. & Schubert, C.
Institut, samfinansiering
01/10/2011 → 18/03/2015
Project: PhD

Probing photonic nanostructures with electron energy loss spectroscopy
Institut stipendie (DTU) Samf.
01/09/2011 → 15/11/2014
Project: PhD

Quantum Kinetics of charge carriers in quantum dots: applications to slow light and light amplification
Houmark-Nielsen, J., Jauho, A., Mørk, J., Nielsen, T. R., Willatzen, M., Mortensen, N. A., Kuhn, T. & Pedersen, T. G.
Forskningsrådsfinansiering
15/05/2006 → 20/01/2010
Project: PhD

Threshold less Photonic Crystal Laser
Forskningsrådsfinansiering
01/02/2006 → 23/09/2009
Project: PhD

Nanophotonic devices for quantum information technology
Nysteen, A., Mørk, J., Kristensen, P. T., McCutcheon, D., Nielsen, P. K., Wubs, M., Busch, K. & Fiore, A.
Institut stipendie (DTU)
15/02/2012 → 18/06/2015
Project: PhD
All-optical transistor / Optisk transistor
Heuck, M., Mørk, J., Kristensen, P. T., Willatzen, M., Manning, R. J. & Santagiustina, M.
Institut stipendie (DTU) Samf.
01/01/2010 → 15/08/2013
Project: PhD

Single-photon emission in disordered photonic crystal waveguides
Institut stipendie (DTU) Samf.
15/07/2009 → 27/09/2012
Project: PhD

Modeling of Coupled Nano-Cavity Lasers
Skovgård, T. S., Mørk, J., Gregersen, N., Abram, I. & Willatzen, M.
Institut stipendie (DTU) Samf.
01/10/2008 → 19/04/2012
Project: PhD

Properties of single quantum dot lasers
Lund, A. M., Mørk, J., Nielsen, P. K., Jauho, A., Björk, G. & Kapon, E.
Institut stipendie (DTU)
01/09/2010 → 19/03/2014
Project: PhD

Coherent Dynamics of Quantum Dots in Photonic Crystals
Madsen, K. H., Mørk, J., Lodahl, P., Gregersen, N., Atatüre, M. & Julsgaard, B.
Institut stipendie (DTU)
15/03/2010 → 30/09/2013
Project: PhD

High-speed Laser with Ultralow Energy Consumption for Silicon Photonics
Chung, I., Ran, Q., Mørk, J. & Yvind, K.
01/01/2012 → 31/12/2014
Project: Research

NATEC: Nanophotonics for terabit communications : VKR centre of excellence - NATEC
Ukendt
01/09/2008 → 31/08/2014
Project: Research

GOSPEL: Governing the speed of light
Mørk, J., Gregersen, N., Yvind, K., Kristensen, P. T., Hansen, P. L., Semenova, E., Xue, W., Pu, M. & Larsson, D.
Forskningsrådene - STVF
01/09/2008 → 31/12/2011
Project: Research

QUEST: Quantum dot structures enabling light slow-down and amplification
Forskningsrådene - STVF
01/01/2006 → 30/06/2012
Project: Research

Hybrid vertical cavity laser
Nielsen, T., Chung, I. & Mørk, J.
Forskningsprojekter - Andre ministerier og styrelser
Ultrafast dynamics after optical pulse excitation in semiconductor waveguide structures
Ukendt
01/03/1997 → 31/12/2002
Project: Research

Plasmon-based Light-Emitting Diodes
Chen, Y., Ou, H. & Mørk, J.
Forskningsrådene - Andre
15/03/2011 → 14/03/2013
Project: Research

QDLaser: Development of novel quantum dot based materials for compact laser devices for potential
Mørk, J. & Semenova, E.
Forsk. EU - Andre EU-midler
01/01/2011 → 31/12/2012
Project: Research

From classical to quantum all-optical switching
Kristensen, P. T., Mørk, J. & Lodahl, P.
Forskningsrådene - Andre
01/01/2011 → 31/12/2013
Project: Research

Modelling/SCOOP (Semiconductor COMponents for Optical signal Processing)
Hvam, J. M., Mørk, J., Bischoff, S. & Højfeldt, S.
Ukendt
01/01/1998 → 31/12/1999
Project: Research

Ultrafast dynamics after optical pulse excitation in semiconductor waveguide structures
01/03/1997 → 31/12/1999
Project: Research

Photonic devices for multi-wavelength amplification and regeneration (M-WARE)
Öhman, F., Mørk, J., Yvind, K. & Tromborg, B.
Forskningsrådene - STVF
01/03/2006 → 28/02/2009
Project: Research

MOSEL: Monomode Surface Emitting Lasers
Tchelinkov, A., Fulbert, L., Gilet, P., Kapon, E., Rudra, A., Actenhagen, M., Garcia, J. C., Hamelin, R., Hammar, M.,
Forsk. EU - Andre EU-midler
01/06/2006 → 31/05/2009
Project: Research

COPERNICUS: Compact Otdm/wdm oPtical rEceiveRs based on photoNic crystal Integrated
Prevoteat, O., Wynne-Jones, M., Traimond, G., Bujan, G., Nielsen, C., Pallesen, L., Kristensen, P. T., Mørk, J., Ottaviano,
Forsk. EU - Andre EU-midler
01/07/2012 → 01/07/2015
Project: Research
A high-efficiency nanowire single-photon source
Gregersen, N., Mørk, J., Lodahl, P. & Gerard, J. M.
Forskningsrådene - Andre
01/06/2010 → 31/05/2011
Project: Research

FLASH: Femtosecond semiconductor LASers Harnessed
Yvind, K., Kim, J. M., Semenova, E., Mørk, J., Hvam, J. M. & Penty, R.
Forskningsrådene - Andre
01/09/2009 → 31/10/2012
Project: Research

Optical coherent control in photonic nanostructures
Lodahl, P., Tromborg, B., Yvind, K., Poel, M. V. D., Johansen, J., Hvam, J. M. & Mørk, J.
Forskningsrådene - STVF
01/09/2005 → 31/08/2008
Project: Research

Thermo-electro-optical analysis of subwavelength grating-mirror VCSELs
Chung, I., Mørk, J. & Lavrinenko, A.
Forskningsrådene - Andre
01/01/2009 → 31/12/2011
Project: Research

Optoelectronic integration technologies
Yvind, K., Larsson, D., Mørk, J., Hvam, J. M. & Greibe, T.
Forskningsrådene - STVF
01/08/2004 → 31/07/2006
Project: Research

Self-configurable optical links
Forsk. Private danske - Fonde
01/02/2010 → 28/02/2012
Project: Research

Modulation response of semiconductor quantum dot nanolasers and nanoLEDs
Nielsen, T. R., Lorke, M., Mørk, J. & Jauho, A.
Forskningsrådene - Andre
01/01/2010 → 31/12/2012
Project: Research

DOTCOM: Quantum DOT laser devices for optoelectronic information COMmunication
Forsk. EU - Rammeprogram
01/09/2001 → 31/05/2005
Project: Research

Study of semiconductor devices for ultrafast all-optical signal processing
Kawaguchi, H., Takahashi, Y., Katayama, T., Mørk, J., Bischoff, S., White, I. H. & Sukhoivanov, I. A.
Forsk. Andre offentlige og private - Udenlandske
01/01/2002 → 31/12/2003
Project: Research

Modelling/SCOOP (Semiconductor COmponents for Optical signal Processing)
Mørk, J., Hvam, J. M., Bischoff, S. & Højfeldt, S.
Modelling of quantum dot semiconductor devices
Mørk, J., Bischoff, S. & Magnúsdóttir, I.
01/08/1999 → 31/08/2002
Project: Research

Activities:

3rd International Workshop on Theoretical and Computational Nano-Photonics
Mørk, J. (Participant)
3 Nov 2010 → 5 Nov 2010
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.

Journées de la Matière Condensée
Mørk, J. (Participant)
23 Aug 2010 → 27 Aug 2010
Activity: Attending an event › Participating in or organising a conference

10th International Workshop on Nonlinear Optics and Excitation Kinetics in Semiconductors
Mørk, J. (Participant)
16 Aug 2010 → 19 Aug 2010
Activity: Attending an event › Participating in or organising a conference

Integrated Photonics Research, Silicon and Nano Photonics
Mørk, J. (Participant)
25 Jul 2010 → 28 Jul 2010
Activity: Attending an event › Participating in or organising a conference

International Conference on Superlattices, Nanostructures and Nanodevices
Mørk, J. (Participant)
18 Jul 2010 → 23 Jul 2010
Activity: Attending an event › Participating in or organising a conference

International Conference on Transparent Optical Networks (ICTON); 12
Mørk, J. (Other)
27 Jun 2010 → 1 Jul 2010
Activity: Talks and presentations › Conference presentations

6th International Conference on Quantum Dots 2010
Mørk, J. (Participant)
26 Apr 2010 → 30 Apr 2010
Activity: Attending an event › Participating in or organising a conference

International Nano-Optoelectronics Workshop (iNOW)
Mørk, J. (Speaker)
10 Aug 2009 → 14 Aug 2009
Activity: Talks and presentations › Conference presentations

17th International Workshop on Optical Waveguide Theory and Numerical Modelling
Mørk, J. (Participant)
13 May 2008 → 14 May 2008
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.