Jesper Mørk - DTU Orbit (10/11/2017)

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Publications:

**Strain tuning of optical properties in Bi$_2$Se$_3***


Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

**Benchmarking five computational methods for analyzing large photonic crystal membrane cavities***


Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

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


Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

**Comparison of Five Computational Methods for Computing Q Factors in Photonic Crystal Membrane Cavities***


Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

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


Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

**Control of exceptional points in photonic crystal slabs***


Publication: Research - peer-review › Journal article – Annual report year: 2017

**Control of the rings of exceptional points in photonic crystal slabs***


Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

**Demonstration of a self-pulsing photonic crystal Fano laser***


Publication: 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, 2017, Munich***

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Experimental demonstration of a Fano laser based on photonic crystals

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Fabrication and experimental demonstration of photonic crystal laser with buried heterostructure

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Large signal simulation of photonic crystal Fano laser

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Lasers, switches and non-reciprocal elements based on photonic crystal Fano resonances

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On the Theory of Coupled Modes in Optical Cavity-Waveguide Structures

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Self-consistent Maxwell-Bloch model of quantum-dot photonic-crystal-cavity lasers
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A Hybrid Photonic Nanowire-Cavity Design for a Single-Indistinguishable-Photon Source

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

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

Analysis of the effects of time delay in clock recovery circuits based on Phase-locked loops
Publication: Research - peer-review › Article in proceedings – Annual report year: 2004

Comparison of noise redistribution in an SOA in pass-through and wavelength conversion mode
Publication: Research - peer-review › Article in proceedings – Annual report year: 2004

Gain dynamics and saturation in semiconductor quantum dot amplifiers
Publication: Research - peer-review › Journal article – Annual report year: 2004

High-performance 10 GHz all-active monolithic mode-locked semiconductor lasers
Publication: Research - peer-review › Article in proceedings – Annual report year: 2004

Identification of amplitude and timing jitter in external-cavity mode-locked semiconductor lasers
Publication: Research - peer-review › Article in proceedings – Annual report year: 2004

Improving the All-Optical Response of SOAs Using a Modulated Holding Signal
Publication: Research - peer-review › Journal article – Annual report year: 2004

Increasing the Modulation Bandwidth of Semiconductor Optical Amplifier based Switches using Optical Filtering
Publication: Research - peer-review › Journal article – Annual report year: 2004

Low-jitter and high-power 40 GHz all-active mode-locked lasers
Publication: Research - peer-review › Journal article – Annual report year: 2004
Measurements and simulations of non-linear noise re-distribution in an SOA
Publication: Research - peer-review › Article in proceedings – Annual report year: 2004

Measurements of gain and index dynamics in quantum dash semiconductor optical amplifiers
Publication: Research - peer-review › Article in proceedings – Annual report year: 2004

Measurements of non-linear noise re-distribution in an SOA
Publication: Research - peer-review › Article in proceedings – Annual report year: 2004

Noise and regeneration in semiconductor waveguides with saturable gain and absorption
Publication: Research - peer-review › Journal article – Annual report year: 2004

Novel design of low-jitter 10 GHz all-active monolithic mode-locked lasers
Publication: Research - peer-review › Article in proceedings – Annual report year: 2004

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

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

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

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

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

The Role of Fast Carrier Dynamics in SOA Based Devices: (Invited paper)
Publication: 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
Publication: Research › Poster – Annual report year: 2004

Ultralow noise monolithic mode-locked semiconductor lasers
Publication: Research › Poster – Annual report year: 2004
Modeling of phonon- and Coulomb-mediated capture processes in quantum dots
Publication: Research › Ph.D. thesis – Annual report year: 2003

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

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

All optical regeneration using semiconductor devices
Mørk, J., Öhman, F. & Tromborg, B. 2003
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2003

Analytical expression for the bit error rate of cascaded all-optical regenerators
Publication: Research - peer-review › Journal article – Annual report year: 2003

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

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Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2003

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

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

Nonlinear and ultrafast dynamics in semiconductor lasers and optical amplifiers
Mørk, J. 2003
Publication: 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
Publication: Research - peer-review › Journal article – Annual report year: 2003
Optical label encoding using electroabsorption modulators and investigation of chirp properties
Publication: Research - peer-review › Journal article – Annual report year: 2003

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

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

Quantum dot amplifiers with high output power and low noise
Publication: Research - peer-review › Journal article – Annual report year: 2003

Semiconductor devices for all-optical regeneration: (invited)
Publication: Research - peer-review › Article in proceedings – Annual report year: 2003

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

Theoretical analysis of four wave mixing in quantum dot optical amplifiers
Publication: 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
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Two-phonon capture processes into quantum dots: The role of intermediate states
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Publication: 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)
Publication: Research - peer-review › Article in proceedings – Annual report year: 2003

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

Analysis of noise suppression in cascaded all-optical regenerators
Noise properties and cascadability of SOA-EA regenerators
Publication: Research - peer-review › Article in proceedings – Annual report year: 2002

Numerical Analysis of an All-optical Logic XOR gate based on an active MZ Interferometer
Publication: Research - peer-review › Article in proceedings – Annual report year: 2002

One- and two-phonon capture processes in quantum dots
Publication: Research - peer-review › Journal article – Annual report year: 2002

Performance of external cavity mode-locked semiconductor lasers employing reverse biased saturable absorbers
Publication: 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 moduling
Publication: 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
Publication: Research - peer-review › Article in proceedings – Annual report year: 2002

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

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

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

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

Ultrafast signal processing in quantum dot amplifiers through effective spectral holeburning
Absorption and refractive index recovery in an InGaAsP MQW electro-absorption modulator

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

Efficient phonon-assisted capture into quantum dots

Electrical versus optical pumping of quantum dot amplifiers

Gain recovery dynamics and limitations in quantum dot amplifiers

Improvement of noise redistribution by employing an SOA-EA cascade

Limits to speed of semiconductor devices for all-optical processing

Line broadening caused by Coulomb carrier-carrier correlations and dynamics of carrier capture and emission in quantum dots

Measurement of the amplitude and phase transfer functions of an optical modulator using a heterodyne technique

Modeling of carrier transport in multi-quantum-well p-i-n modulators

Modeling of semiconductor devices for high-speed all-optical signal processing

Modeling of temperature characteristics of quantum dot amplifiers: rate vs. master equation models
Multiphonon capture processes in self-assembled quantum dots
Publication: Research - peer-review › Article in proceedings – Annual report year: 2001

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

Pattern effects and noise accumulation in concatenated all-optical regenerators
Publication: Research - peer-review › Article in proceedings – Annual report year: 2001

SCOOP - Semiconductor COmponents for Optical signal Processing
Publication: Communication › Journal article – Annual report year: 2001

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

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

Ultrafast gain recovery and modulation limitations in self-assembled quantum-dot devices
Publication: Research › Article in proceedings – Journal article – Annual report year: 2001

All-optical wavelength conversion and signal regeneration using an electroabsorption modulator
Publication: Research - peer-review › Article in proceedings – 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
Publication: Research - peer-review › Article in proceedings – Annual report year: 2000

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

A transfer function approach to the small-signal response of saturated semiconductor optical amplifiers
Publication: Research - peer-review › Journal article – Annual report year: 2000
Dephasing times in quantum dots due to elastic LO phonon-carrier collisions
Publication: 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
Publication: 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
Publication: Research - peer-review › Journal article – Annual report year: 2000

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

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

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

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

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

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

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

Bi-directional four-wave mixing in semiconductor optical amplifiers
Publication: Research › Article in proceedings – Annual report year: 1999
Bidirectional Four-Wave Mixing in Semiconductor Optical Amplifiers: Theory and Experiment
Publication: 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
Publication: Research - peer-review › Journal article – Annual report year: 1999

Carrier Dynamics in Quantum Dots and Quantum Dot Lasers
Publication: Research › Article in proceedings – Annual report year: 1999

Dephasing in InAs/GaAs quantum dots
Publication: Research - peer-review › Journal article – Annual report year: 1999

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

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

Four-wave mixing between short optical pulses in SOAs
Publication: 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
Publication: Research - peer-review › Journal article – Annual report year: 1999

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

Numerical model of frequency converter based on four-wave mixing in semiconductor amplifiers
Publication: 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
Publication: Research - peer-review › Journal article – Annual report year: 1999

Return-map for semiconductor lasers with optical feedback
Publication: Research - peer-review › Article in proceedings – Annual report year: 1999
Room-temperature dephasing in InGaAs quantum dots
Publication: Research › Article in proceedings – Annual report year: 1999

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

Semiconductor Devices for All Optical Signal Processing: Just How Fast can They Go?
Publication: Research - peer-review › Article in proceedings – Annual report year: 1999

Sub-picosecond pulse break-up in an InGaAsP optical amplifier
Publication: Research › Article in proceedings – Annual report year: 1999

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

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

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

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

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

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

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

Theory of nondegenerate four-wave mixing between pulses in a semiconductor waveguide
Publication: 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.
15/08/2017 → 14/08/2020
Project: PhD

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

Photonic quantum technologies in structured environments
Denning, E. V., Mørk, J., Iles-Smith, J. & Willatzen, M.
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.
01/10/2016 → 30/09/2019
Project: PhD

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

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

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

Active nanophotonic antenna arrays for effective light-matter interactions
Kaminski, P. M., Arslanagic, S., Breinbjerg, O. & Mørk, J.
15/08/2015 → 14/08/2018
Project: PhD

Tailored nanoscale optical materials and devices
Sakanas, A., Yvind, K., Mørk, J. & Semenova, E.
01/08/2015 → 31/07/2018
Project: PhD
Photonic crystal Fano structures
Bekele, D. A., Mørk, J., Ottaviano, L. & Yvind, K.
15/05/2015 → 14/05/2018
Project: PhD

Single-photon quantum information technology
Taherkhani, M., Gregersen, N. & Mørk, J.
15/05/2015 → 14/05/2018
Project: PhD

Single photon sources for quantum information applications
Østerkryger, A. D., Gregersen, N. & Mørk, J.
15/03/2015 → 14/03/2018
Project: PhD

Hybrid III-V-on-Si laser with ultralow energy consumption
01/02/2013 → 04/09/2016
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.
01/10/2012 → 20/01/2016
Project: PhD

Compact Otdm/wdm optical receiveRs based on photoNic crystal Integrated
01/07/2012 → 01/07/2015
Project

Nanophotonic devices for quantum information technology
Nysteen, A., Mørk, J., Kristensen, P. T., McCutcheon, D., Nielsen, P. K., Wubs, M., Busch, K. & Fiore, A.
15/02/2012 → 18/06/2015
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

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.
01/10/2011 → 18/03/2015
Project: PhD

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

Probing photonic nanostructures with electron energy loss spectroscopy
Raza, S., Mortensen, N. A., Wagner, J. B., Wubs, M., Mørk, J., Abajo, J. G. D. & Wegener, M.
01/09/2011 → 15/11/2014
Project: PhD
Plasmon-based Light-Emitting Diodes
Chen, Y., Ou, H. & Mørk, J.
15/03/2011 → 14/03/2013
Project

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

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

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

A high-efficiency nanowire single-photon source
Gregersen, N., Mørk, J., Lodahl, P. & Gérard, J.
01/06/2010 → 31/05/2011
Project

Hybrid vertical cavity laser
Nielsen, T., Chung, I. & Mørk, J.
01/06/2010 → 31/12/2011
Project

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

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

Self-configurable optical links
01/02/2010 → 28/02/2012
Project

All-optical transistor / Optisk transistor
Heuck, M., Mørk, J., Kristensen, P. T., Willatzen, M., Manning, R. J. & Santagiustina, M.
01/01/2010 → 15/08/2013
Project: PhD

Modulation response of semiconductor quantum dot nanolasers and nanoLEDs
Nielsen, T. R., Lorke, M., Mørk, J. & Jauho, A.
01/01/2010 → 31/12/2012
Project
Optical networking in future aircraft systems
15/11/2009 → 04/04/2013
Project: PhD

Energy Harvesting for Photocatalysis
Hansen, L. C., Mortensen, N. A., Mørk, J. & Sigmund, O.
01/10/2009 → 31/03/2010
Project: PhD

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

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

Single-photon emission in disordered photonic crystal waveguides
15/07/2009 → 27/09/2012
Project: PhD

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

Pulse Shaping
Palushani, E., Oxenløwe, L. K., Clausen, A., Mørk, J., Alic, N. & Doran, N. J.
15/01/2009 → 22/06/2012
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.
01/01/2009 → 19/04/2012
Project: PhD

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

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

Modeling of Coupled Nano-Cavity Lasers
Skovgård, T. S., Mørk, J., Gregersen, N., Abram, I. & Willatzen, M.
01/10/2008 → 19/04/2012
Project: PhD
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.
01/09/2008 → 31/12/2011
Project

Nanophotonics for terabit communications: VKR centre of excellence - NATEC
Mørk, J., Hvam, J. M., Yvind, K., Mortensen, N. A., Jeppesen, P., Oxenløwe, L. K., Peucheret, C., Chung, I., Sigmund, O.,
Jensen, J. S., Jauho, A., Burrows, A. & Hübner, J.
01/09/2008 → 31/08/2014
Project

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

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

Modelling of semiconductor single-photon sources
01/09/2007 → 21/12/2010
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.
01/07/2007 → 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.
01/05/2007 → 29/09/2010
Project: PhD

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

Semiconductor Devices for Quantum Information Processing
Andersen, M. L., Lodahl, P., Mørk, J., Hvam, J. M. & Pedersen, T. G.
01/03/2007 → 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.
15/10/2006 → 21/04/2010
Project: PhD

Processing and Characterization of Quantum dot Devices
15/06/2006 → 26/05/2010
Project: PhD
Monomode Surface Emitting Lasers
01/06/2006 → 31/05/2009
Project

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.
15/05/2006 → 20/01/2010
Project: PhD

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

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

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

Quantum dot structures enabling light slow-down and amplification
01/01/2006 → 30/06/2012
Project

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

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

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

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

Optoelectronic integration technologies
Yvind, K., Larsson, D., Mørk, J., Hvam, J. M. & Greibe, T.
Methods for stability and Noise Analysis of Coupled Oscillating Systems
Djurhuus, T., Krozer, V., Vidkjaer, J., Mørk, J., Leuzzi, G. & Quéré, R.
01/07/2004 → 24/06/2008
Project: PhD

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

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

Active Devices Based on Planar Photonic Crystal Structures
Rasmussen, M. M., Tromborg, B., Kristensen, M. & Mørk, J.
01/01/2004 → 30/09/2005
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. & Vohsen, B.
01/11/2003 → 30/03/2007
Project: PhD

Polymer Dye Micro-Cavity Lasers
Balslev, S., Kristensen, A., Mørk, J., Lading, L. & Turnbull, G. A.
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.
01/01/2003 → 29/10/2007
Project: PhD

Ulineær Dynamik i Halvlederlasere
Blaaberg, S., Rottwitt, K., Petersen, P. M., Tromborg, B., Mørk, J., Buus, J. & Willatzen, M.
01/11/2002 → 30/01/2007
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.
01/10/2002 → 31/06/2006
Project: PhD

Dispersionskompenserende fotoniske krystalfibre
01/05/2002 → 04/11/2005
Project: PhD

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.
01/01/2002 → 31/12/2003
Photonic Bandgap Based Add/Drop Multiplexer
Harpøth, A., Kristensen, M., Borel, P. I., Mørk, J., Pedersen, J. E. & Wehrspohn, R. B.
01/12/2001 → 12/02/2005
Project: PhD

High-capacity optical communication systems employing optical signal processing
01/11/2001 → 17/12/2004
Project: PhD

High Channel Density Wavelength Division Multiplexed Systems
Seoane, J., Jeppesen, P., Clausen, A., Mørk, J. & Eisenstein, G.
01/11/2001 → 26/09/2005
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.
01/09/2001 → 18/03/2005
Project: PhD

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

Quantum DOT laser devices for optoelectronic information COMmunication
01/09/2001 → 31/05/2005
Project

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

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

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

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

Opto-elektroniske komponenter baseret på kvante-strukturer
Berg, T. W., Mørk, J., Birkedal, D., Tromborg, B., Jauho, A. & Willatzen, M.
15/10/2000 → 06/09/2004
Project: PhD
UV-skriver af optiske bølgeledere
Færch, K. U., Kristensen, M., Svalgaard, M., Mørk, J., Bøttiger, J. & Douay, M.
01/10/2000 → 24/05/2004
Project: PhD

Techniques for Sampling of Ultra-High Speed Optical Signals
Tersigni, A., Jeppesen, P., Mørk, J. & Poulsen, H. N.
01/06/2000 → 01/09/2004
Project: PhD

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

Modelling of quantum dot semiconductor devices
Mørk, J., Bischoff, S. & Magnúsdóttir, I.
01/08/1999 → 31/08/2002
Project

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

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

Modeling of optoelectronic components for ultra high-speed optical signal processing
Højfeldt, S., Mørk, J., Bischoff, S., Rottwitt, K., Olin, U. & Tessler, N.
01/08/1998 → 14/11/2002
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.
01/05/1998 → 30/08/2002
Project: PhD

Ikke-lineære pulser i optiske medier
Schjødt-Eriksen, J., Christiansen, P. L., Rasmussen, J. J., Sørensen, M. P., Mørk, J., Bergé, L. & Johansen, P. M.
01/02/1998 → 29/05/2001
Project: PhD

Modelling/SCOOP (Semiconductor COmponents for Optical signal Processing)
Mørk, J., Hvam, J. M., Bischoff, S. & Højfeldt, S.
01/01/1998 → 31/12/2005
Project

Modelling/SCOOP (Semiconductor COmponents for Optical signal Processing)
Hvam, J. M., Mørk, J., Bischoff, S. & Højfeldt, S.
01/01/1998 → 31/12/1999
Project
Ultrafast dynamics after optical pulse excitation in semiconductor waveguide structures
01/03/1997 → 31/12/1999
Project

Ultrafast dynamics after optical pulse excitation in semiconductor waveguide structures
01/03/1997 → 31/12/2002
Project

Activities:

The International Workshop on Theoretical and computational Nanophotonics 3
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.