

List of publications

[See www.mortensen-lab.org for an updated publication list]

220 peer-review journal papers, 7 preprints, and a total of 90+ other scientific contributions, including 2 US patents.

Publications in international peer-review journals (indexed in ISI Web of Science):

- [1] **N.A. Mortensen**, K. Flensberg, and A.-P. Jauho, “Angle dependence of Andreev scattering at semiconductor-superconductor interfaces”, [*Phys. Rev. B* **59**, 10176 \(1999\).](#)
- [2] **N.A. Mortensen**, A.-P. Jauho, K. Flensberg, and H. Schomerus, “Conductance enhancement in quantum point contact-semiconductor-superconductor devices”, [*Phys. Rev. B* **60**, 13762 \(1999\).](#)
- [3] **N.A. Mortensen**, K. Johnsen, A.-P. Jauho, and K. Flensberg, “Contact resistance of quantum tubes”, [*Superlattice Microst.* **26**, 351 \(1999\).](#)
- [4] **N.A. Mortensen**, A.-P. Jauho, and K. Flensberg, “Dephasing in semiconductor-superconductor structures by coupling to a voltage probe”, [*Superlattice Microstr.* **28**, 67 \(2000\).](#)
- [5] J. Erland, V. Mizeikis, W. Langbein, J.R. Jensen, **N.A. Mortensen**, and J.M. Hvam, “Seeding of Polariton Stimulation in a Homogeneously Broadened Microcavity”, [*Phys. Stat. Sol. \(b\)* **221**, 115 \(2000\).](#)
- [6] **N.A. Mortensen** and G. Bastian, “Side-gate modulation of critical current in mesoscopic Josephson junction”, [*Superlattice Microstr.* **28**, 231 \(2000\).](#)
- [7] **N.A. Mortensen**, H.M. Rønnow, H. Bruus, and P. Hedegård, “The magnetic neutron scattering resonance of high-Tc superconductors in external magnetic fields: an SO(5) study”, [*Phys. Rev. B* **62**, 8703 \(2000\).](#)
- [8] **N.A. Mortensen**, K. Flensberg, and A.-P. Jauho, “Coulomb Drag in Coherent Mesoscopic Systems”, [*Phys. Rev. Lett.* **86**, 1841 \(2001\).](#)
- [9] M. Titov, **N.A. Mortensen**, H. Schomerus, and C.W.J. Beenakker, “Andreev levels in a single-channel conductor”, [*Phys. Rev. B* **64**, 134206 \(2001\).](#)
- [10] K. Flensberg, T.S. Jensen, and **N.A. Mortensen**, “Diffusion equation and spin drag in spin-polarized transport”, [*Phys. Rev. B* **64**, 245308 \(2001\).](#)
- [11] **N.A. Mortensen**, K. Flensberg, and A.-P. Jauho, “Mesoscopic fluctuations of Coulomb drag between quasi-ballistic one-dimensional wires”, [*Phys. Rev. B* **65**, 85317 \(2002\).](#)
- [12] **N.A. Mortensen**, “Effective area of photonic crystal fibers”, [*Opt. Express* **10**, 341 \(2002\).](#)
- [13] **N.A. Mortensen** and J.R. Folkenberg, “Near-field to far-field transition of photonic crystal fibers: symmetries and interference phenomena”, [*Opt. Express* **10**, 475 \(2002\).](#)
- [14] **N.A. Mortensen**, J.R. Folkenberg, P.M.W. Skovgaard, and J. Broeng, “Numerical Aperture of Single-Mode Photonic Crystal Fibers”, [*IEEE Photonic. Technol. Lett.* **14**, 1094 \(2002\).](#)
- [15] **N.A. Mortensen** and J.C. Egues, “Universal spin-polarization fluctuations in 1D wires with magnetic impurities”, [*Phys. Rev. B* **66**, 153306 \(2002\).](#)
- [16] **N.A. Mortensen**, K. Flensberg, and A.-P. Jauho, “Coulomb drag in the mesoscopic regime”, [*Phys. Scripta* **T101**, 177 \(2002\).](#)
- [17] **N.A. Mortensen**, M.D. Nielsen, J.R. Folkenberg, A. Petersson, and H.R. Simonsen, “Improved large-mode area endlessly single-mode photonic crystal fibers”, [*Opt. Lett.* **28**, 393 \(2003\).](#)
- [18] **N.A. Mortensen** and J.R. Folkenberg, “Low-loss criterion and effective area considerations for photonic crystal fibers”, [*J. Opt. A: Pure Appl. Opt.* **5**, 163 \(2003\).](#)
- [19] J. Riishede, **N.A. Mortensen**, and J. Lægsgaard, “A poor man's approach to modelling of microstructured optical fibers”, [*J. Opt. A: Pure Appl. Opt.* **5**, 534 \(2003\).](#)

- [20] **N.A. Mortensen**, M. Stach, J. Broeng, A. Petersson, H.R. Simonsen, and R. Michalzik, “Multi-mode photonic crystal fibers for VCSEL based data transmission”, [Opt. Express **11**, 1953 \(2003\)](#).
- [21] M.D. Nielsen, **N.A. Mortensen**, and J.R. Folkenberg, “Reduced micro-deformation attenuation in large-mode area photonic crystal fibers for visible applications”, [Opt. Lett. **28**, 1645 \(2003\)](#).
- [22] **N.A. Mortensen**, J.R. Folkenberg, M.D. Nielsen, and K.P. Hansen, “Modal cut-off and the V-parameter in photonic crystal fibers”, [Opt. Lett. **28**, 1879 \(2003\)](#).
- [23] J.R. Folkenberg, **N.A. Mortensen**, K.P. Hansen, T.P. Hansen, H.R. Simonsen, and C. Jacobsen, “Experimental investigation of cut-off phenomena in non-linear photonic crystal fibers”, [Opt. Lett. **28**, 1882 \(2003\)](#).
- [24] J. Lægsgaard, **N.A. Mortensen**, and A. Bjarklev, “Mode area and field energy distribution in honeycomb photonic bandgap fibres”, [J. Opt. Soc. Am. B. **20**, 2037 \(2003\)](#).
- [25] J. Lægsgaard, **N.A. Mortensen**, J. Riishede, and A. Bjarklev, “Material effects in airguiding photonic band-gap fibers”, [J. Opt. Soc. Am. B. **20**, 2046 \(2003\)](#).
- [26] M.D. Nielsen and **N.A. Mortensen**, “Photonic crystal fiber design based on the V-parameter”, [Opt. Express **11**, 2762 \(2003\)](#).
- [27] M.D. Nielsen, **N.A. Mortensen**, J.R. Folkenberg, and A. Bjarklev, “Mode Field Radius of Photonic Crystal Fibers Expressed by the V-parameter”, [Opt. Lett. **28**, 2309 \(2003\)](#).
- [28] M.D. Nielsen, J.R. Folkenberg, and **N.A. Mortensen**, “Single-mode photonic crystal fiber with an effective area of $600 \mu\text{m}^2$ and low bending loss”, [Electron. Lett. **39**, 1802 \(2003\)](#).
- [29] **N.A. Mortensen**, M.D. Nielsen, J.R. Folkenberg, K.P. Hansen, and J. Lægsgaard, “Small-core photonic crystal fibers with weakly disordered air-hole claddings”, [J. Opt. A: Pure Appl. Opt. **6**, 221 \(2004\)](#).
- [30] **N.A. Mortensen** and M.D. Nielsen, “Modeling of realistic cladding structures for air-core photonic band-gap fibers”, [Opt. Lett. **29**, 349 \(2004\)](#).
- [31] K. Saitoh, **N.A. Mortensen**, and M. Koshiba, “Air-core photonic band-gap fibers: the impact of surface modes”, [Opt. Express **12**, 394 \(2004\)](#).
- [32] M.D. Nielsen, J.R. Folkenberg, **N.A. Mortensen**, and A. Bjarklev, “Bandwidth comparison of photonic crystal fibers and conventional single-mode fibers”, [Opt. Express **12**, 430 \(2004\)](#).
- [33] **N.A. Mortensen**, M.D. Nielsen, J.R. Folkenberg, C. Jakobsen, and H.R. Simonsen, “Photonic crystal fiber with a hybrid honeycomb cladding”, [Opt. Express **12**, 468 \(2004\)](#).
- [34] J.R. Folkenberg, M.D. Nielsen, **N.A. Mortensen**, C. Jakobsen, and H.R. Simonsen, “Polarization maintaining large mode area photonic crystal fiber”, [Opt. Express **12**, 956 \(2004\)](#).
- [35] M.D. Nielsen, C. Jakobsen, N.A. Mortensen, J.R. Folkenberg, and H.R. Simonsen, “Low loss photonic crystal fibers for transmission systems and their dispersion properties”, [Opt. Express **12**, 1372 \(2004\)](#).
- [36] M.D. Nielsen, **N.A. Mortensen**, M. Albertsen, J.R. Folkenberg, A. Bjarklev, and D. Bonacinni, “Predicting macrobending loss for large-mode area photonic crystal fibers”, [Opt. Express **12**, 1775 \(2004\)](#).
- [37] G. Vienne, Y. Xu, C. Jakobsen, H.J. Deyerl, J.B.D. Jensen, T. Sørensen, T.P. Hansen, Y. Huang, M. Terrel, R.K. Lee, **N.A. Mortensen**, J. Broeng, H. Simonsen, A. Bjarklev, and A. Yariv, “Ultra-large bandwidth hollow-core guiding in all-silica Bragg fibres with nano-supports”, [Opt. Express **12**, 3500 \(2004\)](#).
- [38] M. Gersborg-Hansen, S. Balslev, **N.A. Mortensen**, and A. Kristensen, “A Coupled Cavity Micro Fluidic Dye Ring Laser”, [Microelectronic Engineering **78-79**, 185 \(2005\)](#).
- [39] **N.A. Mortensen**, L.H. Olesen, L. Belmon, and H. Bruus, “Electro-hydrodynamics of binary electrolytes driven by modulated surface potentials”, [Phys. Rev. E **71**, 056306 \(2005\)](#).

- [40] **N.A. Mortensen**, F. Okkels, and H. Bruus, “Reexamination of Hagen-Poiseuille flow: shape-dependence of the hydraulic resistance in microchannels”, [Phys. Rev. E **71**, 057301 \(2005\)](#).
- [41] Dabirian, M. Akbari, and **N.A. Mortensen**, “Radiated fields of photonic crystal fibers”, [Opt. Express **13**, 3999 \(2005\)](#).
- [42] **N.A. Mortensen**, “Semi-analytical approach to short-wavelength dispersion and modal properties of photonic crystal fibers”, [Opt. Lett. **30**, 1455 \(2005\)](#).
- [43] Dabirian, M. Akbari, and **N.A. Mortensen**, “Propagation of Light in Photonic Crystal Fiber Devices”, [J. Opt. A: Pure Appl. Opt. **7**, 663 \(2005\)](#).
- [44] Flindt, **N.A. Mortensen**, and A.-P. Jauho, “Quantum computing via defect states in two-dimensional anti-dot lattices”, [Nano Lett. **5**, 2515 \(2005\)](#).
- [45] K. Saitoh, Y. Tsuchida, M. Koshiba, and **N.A. Mortensen**, “Endlessly single-mode holey fibers: the influence of core design”, [Opt. Express **13**, 10833 \(2005\)](#).
- [46] M. Gersborg-Hansen, S. Balslev, and **N.A. Mortensen**, “Finite-element simulation of cavity modes in a micro-fluidic dye ring laser”, [J. Opt. A: Pure Appl. Opt. **8**, 17 \(2006\)](#).
- [47] **N.A. Mortensen**, F. Okkels, and H. Bruus, “Universality in edge-source diffusion dynamics”, [Phys. Rev. E **73**, 012101 \(2006\)](#).
- [48] **N.A. Mortensen**, L.H. Olesen, and H. Bruus, “Transport coefficients for electrolytes in arbitrarily shaped nano and micro-fluidic channels”, [New J. Phys. **8**, 37 \(2006\)](#).
- [49] L. Ejlsing, K. Smistrup, C.M. Pedersen, **N.A. Mortensen**, and H. Bruus, “Frequency response in surface-potential driven electro-hydrodynamics”, [Phys. Rev. E **73**, 037302 \(2006\)](#).
- [50] L. Rindorf and **N.A. Mortensen**, “Non-perturbative approach to high-index-contrast variations in electromagnetic systems”, [Opt. Commun. **261**, 181 \(2006\)](#).
- [51] J. Corbett, A. Dabirian, T. Butterley, **N.A. Mortensen**, and J.R. Allington-Smith, “The coupling performance of photonic crystal fibres in fibre stellar interferometry”, [Mon. Not. R. Astron. Soc. **368**, 203 \(2006\)](#).
- [52] H. Azzouz, L. Alkhafadiji, S. Balslev, J. Johansson, **N.A. Mortensen**, S. Nilsson, and A. Kristensen, “Levitated droplet dye laser”, [Opt. Express **14**, 4374 \(2006\)](#).
- [53] **N.A. Mortensen** and H. Bruus, “Universal dynamics in the onset of a Hagen-Poiseuille flow”, [Phys. Rev. E **74**, 017301 \(2006\)](#).
- [54] L. Rindorf and **N.A. Mortensen**, “Calculation of optical-waveguide grating characteristics using Green's functions and the Dyson's equation”, [Phys. Rev. E **74**, 036616 \(2006\)](#).
- [55] K. Saitoh, M. Koshiba, and **N.A. Mortensen**, “Nonlinear photonic crystal fibres: pushing the zero-dispersion toward the visible”, [New J. Phys. **8**, 207 \(2006\)](#).
- [56] **N.A. Mortensen**, “Photonic crystal fibres: mapping Maxwell's equations onto a Schrödinger equation eigenvalue problem”, [J. Eur. Opt. Soc., Rapid Publ. **1**, 06009 \(2006\)](#).
- [57] **N.A. Mortensen**, S. Xiao, and D. Felbacq, “Mesoscopic magnetism in dielectric photonic crystal meta materials: topology and inhomogeneous broadening”, [J. Eur. Opt. Soc., Rapid Publ. **1**, 06019 \(2006\)](#).
- [58] S. Xiao and **N.A. Mortensen**, “Highly dispersive photonic band-gap-edge optofluidic biosensors”, [J. Eur. Opt. Soc., Rapid Publ. **1**, 06026 \(2006\)](#).
- [59] **N.A. Mortensen**, S. Ejlsing, and S. Xiao, “Liquid-infiltrated photonic crystals: Ohmic dissipation and broadening of modes”, [J. Eur. Opt. Soc., Rapid Publ. **1**, 06032 \(2006\)](#).
- [60] S. Xiao, **N.A. Mortensen**, and M. Qiu, “Enhanced transmission through arrays of subwavelength holes in gold films coated by a finite dielectric layer”, [J. Eur. Opt. Soc., Rapid Publ. **2**, 07009 \(2007\)](#).

- [61] M. Gersborg-Hansen, S. Balslev, **N.A. Mortensen**, and A. Kristensen, "Bleaching and diffusion dynamics in optofluidic dye lasers", [Appl. Phys. Lett. **90**, 143501 \(2007\).](#)
- [62] **N.A. Mortensen** and S. Xiao, "Slow-light enhancement of Beer-Lambert-Bouguer absorption", [Appl. Phys. Lett. **90**, 141108 \(2007\).](#)
- [63] **N.A. Mortensen**, L.H. Olesen, F. Okkels, and H. Bruus, "Mass and charge transport in micro and nano-fluidic channels", [Nanoscale Microscale Thermophys. Eng. **11**, 57 \(2007\).](#)
- [64] **N.A. Mortensen**, "Air-clad fibers: pump absorption assisted by chaotic wave dynamics?", [Opt. Express **15**, 8988 \(2007\).](#)
- [65] S. Xiao and **N.A. Mortensen**, "Proposal of highly sensitive optofluidic biosensors based on dispersive photonic crystal waveguides", [J. Opt. A: Pure Appl. Opt. **9**, S463 \(2007\).](#)
- [66] M.H. Sørensen, **N.A. Mortensen**, and M. Brandbyge, "Screening model for nanowire surface-charge sensors in liquid", [Appl. Phys. Lett. **91**, 102105 \(2007\).](#)
- [67] J. Pedersen, C. Flindt, **N.A. Mortensen**, and A.-P. Jauho, "Failure of standard approximations of the exchange coupling in nanostructures", [Phys. Rev. B **76**, 125323 \(2007\).](#)
- [68] J. Pedersen and **N.A. Mortensen**, "Enhanced circular dichroism via slow-light in dispersive structured media", [Appl. Phys. Lett. **91**, 213501 \(2007\).](#)
- [69] M.E.V. Pedersen, L.S. Rishøj, H. Steffensen, S. Xiao, and **N.A. Mortensen**, "Slow-light enhanced optical detection in liquid-infiltrated photonic crystals", [Opt. Quant. Electron. **39**, 903 \(2007\).](#)
- [70] **N.A. Mortensen**, S. Xiao, and J. Pedersen, "Liquid-infiltrated photonic crystals - enhanced light-matter interactions for lab-on-a-chip applications", [Microfluid. Nanofluid. **4**, 117 \(2008\).](#)
- [71] J. Pedersen, C. Flindt, **N.A. Mortensen**, and A.-P. Jauho, "Spin qubits in an antidot lattice", [Phys. Rev. B **77**, 045325 \(2008\).](#)
- [72] J. Pedersen, S. Xiao, and **N.A. Mortensen**, "Slow-light enhanced absorption for bio-chemical sensing applications: potential of low-contrast lossy materials", [J. Eur. Opt. Soc., Rapid Publ. **3**, 08007 \(2008\).](#)
- [73] **N.A. Mortensen** and A. Kristensen, "Electro-viscous effects in capillary filling of nanochannels", [App. Phys. Lett. **92**, 063110 \(2008\).](#)
- [74] J. Pedersen, C. Flindt, **N.A. Mortensen**, and A.-P. Jauho, "Designed defects in 2D antidot lattices for quantum information processing", [Physica E **40**, 1075 \(2008\).](#)
- [75] T.G. Pedersen, C. Flindt, J. Pedersen, **N.A. Mortensen**, A.-P. Jauho, and K. Pedersen, "Graphene Antidot Lattices - Designed Defects and Spin Qubits", [Phys. Rev. Lett. **100**, 136804 \(2008\);](#) [ibid. **100**, 189905 \(2008\).](#)
- [76] T.G. Pedersen, C. Flindt, J. Pedersen, A.-P. Jauho, **N.A. Mortensen**, and K. Pedersen "Optical properties of graphene antidot lattices", [Phys. Rev. B **77**, 245431 \(2008\).](#)
- [77] S. Xiao and **N.A. Mortensen**, and A.-P. Jauho, "Nanostructure design for surface-enhanced Raman spectroscopy – prospects and limits", [J. Eur. Opt. Soc., Rapid Publ. **3**, 08022 \(2008\).](#)
- [78] P.S. Nunes, **N.A. Mortensen**, J. P. Kutter, and K.B. Mogensen, "Photonic crystal sensor integrated in microfluidic system", [Opt. Lett. **33**, 1623 \(2008\).](#)
- [79] S. Xiao and **N.A. Mortensen**, "Resonant-tunnelling-assisted crossing for subwavelength plasmonic slot waveguides", [Opt. Express **16**, 14997 \(2008\).](#)
- [80] K.H. Jensen, M.N. Alam, B. Scherer, A. Lambrecht, and **N.A. Mortensen**, "Slow-light enhanced light-matter interactions with applications to gas sensing", [Opt. Commun. **281**, 5335 \(2008\).](#)

- [81] J. Pedersen, S. Xiao, and **N.A. Mortensen**, “Limits on slow-light in photonic crystals”, [Phys. Rev. B **78**, 153101 \(2008\)](#).
- [82] M.B. Christiansen, A. Kristensen, S. Xiao, and **N.A. Mortensen**, “Photonic integration in k -space: Enhancing the performance of photonic crystal dye lasers”, [Appl. Phys. Lett. **93**, 231101 \(2008\)](#).
- [83] **N.A. Mortensen**, O. Sigmund, and O. Breinbjerg, “Prospects for low-contrast all-dielectric cloaking”, [J. Eur. Opt. Soc., Rapid Publ. **4**, 09008 \(2009\)](#).
- [84] M.B. Christiansen, J.M. Lopacinska, M.H. Jakobsen, **N.A. Mortensen**, M. Dufva, and A. Kristensen, “Polymer photonic crystal dye lasers as optofluidic cell sensors”, [Opt. Express **17**, 2722 \(2009\)](#).
- [85] C. Karnutsch, C.L.C. Smith, A. Graham, R. McPhedran, B.J. Eggleton, L. O’Faolain, T.F. Kraus, S. Xiao, and **N.A. Mortensen**, “Temperature stabilization of optofluidic photonic crystal cavities”, [Appl. Phys. Lett. **94**, 231114 \(2009\)](#); *ibid.* **96**, 079901 (2010).
- [86] M. Yan and **N.A. Mortensen**, “Hollow-core infrared fibre incorporating metal-wire metamaterial”, [Opt. Express **17**, 14851 \(2009\)](#).
- [87] J.A. Fürst, J.G. Pedersen, C. Flindt, **N.A. Mortensen**, M. Brandbyge, T.G. Pedersen, and A.-P. Jauho, “Electronic properties of graphene antidote lattices”, [New J. Phys. **11**, 095020 \(2009\)](#).
- [88] J.G. Pedersen and **N.A. Mortensen**, “A spectral route to determining chirality”, [Appl. Phys. Lett. **95**, 151104 \(2009\)](#).
- [89] P. Skafte-Pedersen, P.S. Nunes, S. Xiao, and **N.A. Mortensen**, “Material limitations on the Detection Limit in Refractometry”, [Sensors **9**, 8382 \(2009\)](#).
- [90] C. Jeppesen, **N.A. Mortensen**, and A. Kristensen, “Capacitance tuning of nanoscale split-ring resonators”, [Appl. Phys. Lett. **15**, 193108 \(2009\)](#).
- [91] C. Jeppesen, R.B. Nielsen, A. Boltasseva, S. Xiao, **N.A. Mortensen**, and A. Kristensen, “Thin film Ag superlens toward lab-on-a-chip integration”, [Opt. Express **17**, 22543 \(2009\)](#).
- [92] S. Raza, J. Grgic, J.G. Pedersen, S. Xiao, and **N.A. Mortensen**, “Coupled-resonator optical waveguides: Q -factor influence on slow-light propagation and the maximal group delay”, [J. Europ. Opt. Soc. Rap. Public. **5**, 10009 \(2010\)](#).
- [93] **N.A. Mortensen**, M. Yan, O. Sigmund, and O. Breinbjerg, “On the unambiguous determination of effective optical properties of periodic metamaterials: a one-dimensional case study”, [J. Europ. Opt. Soc. Rap. Public. **5**, 10010 \(2010\)](#).
- [94] J. Zhang, Y. Luo, and **N.A. Mortensen**, “Transmission of electromagnetic waves through sub-wavelength channels”, [Opt. Express **18**, 3864 \(2010\)](#).
- [95] S. Xiao, L. Peng, and **N.A. Mortensen**, “Enhanced transmission of transverse electric waves through periodic arrays of structured subwavelength apertures”, [Opt. Express **18**, 6040 \(2010\)](#).
- [96] P.S. Nunes, **N.A. Mortensen**, J.P. Kutter, and K.B. Mogensen, “Refractive index sensor based on a 1D photonic crystal in a microfluidic channel”, [Sensors **10**, 2348 \(2010\)](#).
- [97] J. Zhang, Y. Luo, and **N.A. Mortensen**, “Minimizing the scattering of a non-magnetic cloak”, [Appl. Phys. Lett. **96**, 113511 \(2010\)](#).
- [98] J. Grgic, J.G. Pedersen, S. Xiao, and **N.A. Mortensen**, “Group-index limitations in slow-light photonic crystals”, [Photonics Nanostruct. **8**, 56 \(2010\)](#).
- [99] J.G. Pedersen, C. Flindt, A.-P. Jauho, and **N.A. Mortensen**, “Influence of confining potentials on the exchange coupling in double quantum dots”, [Phys. Rev. B **81**, 193406 \(2010\)](#).
- [100] L. Peng, L. Ran, and **N.A. Mortensen**, “Achieving Anisotropy in Metamaterials made of Dielectric Cylindrical Rods”, [Appl. Phys. Lett. **96**, 241108 \(2010\)](#).

- [101] J. Grgic, J. Mørk, A.-P. Jauho, and **N.A. Mortensen**, “Slow-light enhanced absorption in a hollow-core fiber”, [Opt. Express **18**, 14270 \(2010\).](#)
- [102] L. Peng, O. Breinbjerg, and **N.A. Mortensen**, “Wireless energy transfer through non-resonant magnetic coupling”, [J. Electromagn. Waves Appl. **24**, 1587 \(2010\).](#)
- [103] N. Aage, **N.A. Mortensen**, and O. Sigmund, “Topology optimization of metallic devices for microwave applications”, [Int. J. Num. Meth. Eng. **83**, 228 \(2010\).](#)
- [104] J. Zhang, S. Xiao, C. Jeppesen, A. Kristensen, and **N.A. Mortensen**, “Electromagnetically induced transparency in metamaterials at near-infrared frequency”, [Opt. Express **18**, 17187 \(2010\).](#)
- [105] S. Xiao, J. Zhang, L. Peng, C. Jeppesen, R. Malureanu, A. Kristensen, and **N.A. Mortensen**, “Nearly-zero transmission through periodically modulated ultrathin metal films”, [Appl. Phys. Lett. **98**, 071116 \(2010\).](#)
- [106] J.R. Ott, **N.A. Mortensen**, and P. Lodahl, “Quantum interference and entanglement induced by multiple scattering”, [Phys. Rev. Lett. **105**, 090501 \(2010\).](#)
- [107] J. Zhang, Y. Luo, and **N.A. Mortensen**, “Hiding levitating objects above a ground plane”, [Appl. Phys. Lett. **97**, 133501 \(2010\).](#)
- [108] C. Jeppesen, S. Xiao, **N.A. Mortensen**, and A. Kristensen, “Metamaterial localized resonance sensors: prospects and limitations”, [Opt. Express **18**, 25075 \(2010\).](#)
- [109] C. Jeppesen, **N.A. Mortensen**, and A. Kristensen, “The effect of Ti and ITO adhesion layers on gold split-ring resonators”, [Appl. Phys. Lett. **97**, 263103 \(2010\).](#)
- [110] C. Jeppesen, S. Xiao, **N.A. Mortensen**, and A. Kristensen, “Extended verification of scaling behavior in split-ring resonators”, [Opt. Commun. **284**, 799 \(2011\).](#)
- [111] S. Xiao and **N.A. Mortensen**, “Surface-plasmon-polariton induced suppressed transmission through ultrathin metal disk arrays”, [Opt. Lett. **36**, 37 \(2011\).](#)
- [112] L. Peng, J. Wang, L. Ran, O. Breinbjerg, and **N.A. Mortensen**, “Performance analysis and experimental verification of mid-range wireless energy transfer through non-resonant magnetic coupling”, [J. Electromagn. Waves Appl. **25**, 845 \(2011\).](#)
- [113] L. Peng, L. Ran, and **N.A. Mortensen**, “The scattering of a cylindrical invisibility cloak: reduced parameters and optimization”, [J. Phys. D: Appl. Phys. **44**, 135101 \(2011\).](#)
- [114] J. Zhang, L. Liu, Y. Luo, S. Zhang, and **N.A. Mortensen**, “Homogeneous optical cloak constructed with uniform layered structures”, [Opt. Express **19**, 8625 \(2011\).](#)
- [115] Z.F. Öztürk, S. Xiao, M. Yan, M. Wubs, A.-P. Jauho, and **N.A. Mortensen**, “Field enhancement at metallic interfaces due to quantum confinement” [J. Nanophot. **5**, 051602 \(2011\).](#)
- [116] L. Peng and **N.A. Mortensen**, “Equal-potential interpretation of electrically induced resonances in metamaterials”, [New J. Phys. **13**, 053012 \(2011\).](#)
- [117] Y. Jin, S. Xiao, **N.A. Mortensen**, and S.L. He, “Arbitrarily thin metamaterial structure for perfect absorption and giant magnification”, [Opt. Express **19**, 11114 \(2011\).](#)
- [118] J. Zhang, S. Xiao, M. Wubs, and **N.A. Mortensen**, “Adiabatic mode transformation for surface plasmon polaritons with short tapers”, [ACS Nano **5**, 4359 \(2011\).](#)
- [119] E. Amoorghorban, M. Wubs, **N.A. Mortensen**, and F. Kheirandish, “Casimir forces in multilayer magnetodielectrics with both gain and loss”, [Phys. Rev. A **83**, 013806 \(2011\).](#)
- [120] O. Nicoletti, M. Wubs, **N.A. Mortensen**, W. Sigle, P.A. van Aken, and P.A. Midgley, “Surface plasmon modes of a single silver nanorod: an electron energy loss study”, [Opt. Express **19**, 15371 \(2011\).](#)

- [121] J. Grgic, E. Campaioli, S. Raza, P. Bassi, and **N.A. Mortensen**, “Coupled-resonator optical waveguides: *Q*-factor and disorder influence”, [Opt. Quant. Electron. **42**, 511 \(2011\)](#).
- [122] S. Raza, G. Toscano, A.-P. Jauho, M. Wubs, and **N.A. Mortensen**, “Unusual resonances in nanoplasmonic structures due to nonlocal response”, [Phys. Rev. B **84**, 121412\(R\) \(2011\)](#).
- [123] J. Zhang and **N.A. Mortensen**, “Ultrathin Cylindrical Cloak”, [Prog. Electromagn. Res. **121**, 381 \(2011\)](#).
- [124] G. Gilardi, S. Xiao, R. Beccherelli, A. d’Alessandro, and **N.A. Mortensen**, “Geometrical and fluidic tuning of periodically modulated thin metal films”, [Phot. Nanostr. **10**, 177 \(2012\)](#).
- [125] G. Toscano, S. Raza, A.-P. Jauho, **N.A. Mortensen**, and M. Wubs, “Modified field enhancement in plasmonic nanowire dimers due to nonlocal response” [Opt. Express **20**, 4146 \(2012\)](#).
- [126] J. Clausen, A.B. Christiansen, J. Garnaes, **N.A. Mortensen**, and A. Kristensen, “Color effects from scattering on random surfaces structures in dielectrics”, [Opt. Express **20**, 4376 \(2012\)](#).
- [127] X. Zhu, S. Xiao, L. Shi, X. Liu, J. Zi, O. Hansen, and **N.A. Mortensen**, “A stretch-tunable plasmonic structure with a polarization-dependent response” , [Opt. Express **20**, 5237 \(2012\)](#).
- [128] J. Andkjær, **N.A. Mortensen**, and O. Sigmund, “Towards all-dielectric, polarization-independent optical cloaks”, [Appl. Phys. Lett. **100**, 101106 \(2012\)](#).
- [129] S. Xiao, E. Stassen, and **N.A. Mortensen**, “Ultrathin silicon solar cells with enhanced photocurrents assisted by plasmonic nanostructures” [J. Nanophot. **6**, 061503 \(2012\)](#).
- [130] J. Grgic, J.R. Ott, F. Wang, O. Sigmund, A.-P. Jauho, J. Mørk, and **N.A. Mortensen**, “Fundamental limitations to gain enhancement in periodic media and waveguides” , [Phys. Rev. Lett. **108**, 183903 \(2012\)](#).
- [131] M. Wubs and **N.A. Mortensen**, “Mode expansions in the quantum electrodynamics of photonic media with disorder”, [Phot. Nanostr. **10**, 296 \(2012\)](#).
- [132] M.B. Dühring, **N.A. Mortensen**, and O. Sigmund, “Plasmonic versus dielectric enhancement in thin-film solar cells”, [Appl. Phys. Lett. **100**, 211914 \(2012\)](#).
- [133] X. Zhu, F. Xie, L. Shi, X. Liu, **N.A. Mortensen**, S. Xiao, J. Zi, and W. Choy, “Broadband Purcell enhancement of spontaneous emission in a photonic-plasmonic structure” , [Opt. Lett. **37**, 2037 \(2012\)](#).
- [134] G. Toscano, S. Raza, S. Xiao, M. Wubs, A.-P. Jauho, S.I. Bozhevolnyi, and **N.A. Mortensen**, “Surface-enhanced Raman spectroscopy (SERS): nonlocal limitations” , [Opt. Lett **37**, 2538 \(2012\)](#).
- [135] X. Zhu, C. Zhang, X. Liu, O. Hansen, S. Xiao, **N.A. Mortensen**, and J. Zi, “Evaporation of water droplets on hydrophobic ‘lock-and-key’ structures with sub-micron features” , [Langmuir **28**, 9201 \(2012\)](#).
- [136] C. Jeppesen, D.N. Lindstedt, A.L. Vig, A. Kristensen, and **N.A. Mortensen**, “Wafer scale imprint uniformity evaluated by LSPR spectroscopy – a high volume characterization method for nanometer scale structures” , [Nanotechnology **23**, 385306 \(2012\)](#).
- [137] A.B. Christiansen, J. Clausen, **N.A. Mortensen**, and A. Kristensen, “Minimizing scattering from antireflective surfaces replicated from low-aspect-ratio black silicon” , [Appl. Phys. Lett. **101**, 131902 \(2012\)](#).
- [138] W. Yan, M. Wubs, and **N.A. Mortensen**, “Hyperbolic metamaterials: nonlocal response regularizes broadband super-singularity” , [Phys. Rev. B **86**, 205429 \(2012\)](#).

- [139] X. Zhu, Y. Ou, V. Jokubavicius, M. Syväjärvi, O. Hansen, H. Ou, **N.A. Mortensen**, and S. Xiao, “Broadband light-extraction enhancement by arrays of whispering gallery resonators”, [Appl. Phys. Lett. **101**, 241108 \(2012\).](#)
- [140] X. Zhu, W. Yan, **N.A. Mortensen**, and S. Xiao, “Bends and splitters in graphene nanoribbon waveguides”, [Opt. Express **21**, 3486 \(2013\).](#)
- [141] N.J. Alvarez, C. Jeppesen, K. Yvind, I. Teraoka, **N.A. Mortensen**, and O. Hassager, “The chromatographic separation of particles using optical electrical fields”, [Lab Chip **13**, 928 \(2013\).](#)
- [142] M. Hashemi, M.H. Farzad, **N.A. Mortensen**, and S. Xiao, “Enhanced absorption of graphene in the visible region by use of plasmonic nanostructures”, [J. Opt. **15**, 055003 \(2013\).](#)
- [143] X. Zhu, W. Yan, P.U. Jepsen, O. Hansen, **N.A. Mortensen**, and S. Xiao, “Experimental observation of plasmons in a graphene monolayer resting on a two-dimensional subwavelength silicon grating”, [Appl. Phys. Lett. **102**, 131101 \(2013\).](#)
- [144] E. Amooghorban, **N.A. Mortensen**, and M. Wubs, “Quantum optical effective-medium theory for loss-compensated metamaterials”, [Phys. Rev. Lett. **110**, 153602 \(2013\).](#)
- [145] S. Raza, N. Stenger, S. Kadkhodazadeh, S.V. Fischer, N. Kostesha, A.-P. Jauho, A. Burrows, M. Wubs, and **N.A. Mortensen**, “Blueshift of the surface plasmon resonance in silver nanoparticles studied with EELS”, [Nanophotonics **2**, 131 \(2013\).](#)
- [146] S. Raza, G. Toscano, A.-P. Jauho, **N.A. Mortensen**, and M. Wubs, “Refractive-index sensing with ultra-thin plasmonic nanotubes”, [Plasmonics **8**, 193 \(2013\).](#)
- [147] M. Hashemi, M.H. Farzad, **N.A. Mortensen**, and S. Xiao, “Enhanced plasmonic light absorption for silicon Schottky-barrier photodetectors”, [Plasmonics **8**, 1059 \(2013\).](#)
- [148] J.R. Ott, M. Wubs, P. Lodahl, **N.A. Mortensen**, and R. Kaiser, “Cooperative fluorescence from a strongly driven dilute cloud of atoms”, [Phys. Rev. A **87**, 061801\(R\) \(2013\).](#)
- [149] S. Arslanagic, T.V. Hansen, **N.A. Mortensen**, A.H. Gregersen, O. Sigmund, R.W. Ziolkowski, and O. Breinbjerg, “A review of the scattering parameter extraction method with clarification of ambiguity issues in relation to metamaterial homogenization”, [IEEE Antennas Propag. Mag. **55**\(2\), 91 \(2013\), *ibid.* **55**\(3\), 59 \(2013\)](#)
- [150] W. Yan, **N.A. Mortensen**, and M. Wubs, “Hyperbolic metamaterials lens with hydrodynamic nonlocal response”, [Opt. Express **21**, 15026 \(2013\).](#)
- [151] K. Andersen, K.L. Jensen, **N.A. Mortensen**, and K.S. Thygesen, “Visualizing hybridized quantum plasmon modes in coupled nanowires: From the classical to the tunneling regime”, [Phys. Rev. B **87**, 235433 \(2013\).](#)
- [152] G. Toscano, S. Raza, W. Yan, C. Jeppesen, S. Xiao, M. Wubs, A.-P. Jauho, S.I. Bozhevolnyi, and **N.A. Mortensen**, “Nonlocal response in plasmonic waveguiding with extreme light confinement”, [Nanophotonics **2**, 161 \(2013\).](#)
- [153] C. David, **N.A. Mortensen**, and J. Christensen, “Perfect imaging, epsilon-near zero phenomena and waveguiding in the scope of nonlocal effects”, [Sci. Rep. **3**, 2526 \(2013\).](#)
- [154] S. Raza, T. Christensen, M. Wubs, S.I. Bozhevolnyi, and **N.A. Mortensen**, “Nonlocal response in thin-film waveguides: loss versus nonlocality and breaking of complementarity” [Phys. Rev. B **88**, 115401 \(2013\).](#)
- [155] X. Zhu, L. Shi, M.S. Schmidt, A. Boisen, J. Zi, S. Xiao, and **N.A. Mortensen**, “Enhanced light-matter interactions in graphene-covered gold nanovoid arrays”, [Nano Lett. **13**, 4690 \(2013\).](#)
- [156] W. Yan, **N.A. Mortensen**, and M. Wubs, “Green function surface-integral method for nonlocal response of plasmonic nanowires in arbitrary dielectric environments”, [Phys. Rev. B **88**, 155414 \(2013\).](#)
- [157] S. Raza, W. Yan, N. Stenger, M. Wubs, and **N.A. Mortensen**, “Blueshift of the surface plasmon resonance in silver nanoparticles: substrate effects”, [Opt. Express **21**, 27344 \(2013\).](#)

- [158] J. Clausen, A.B. Christiansen, A. Kristensen, and **N.A. Mortensen**, “Enhancing the chroma of pigmented polymers using antireflective surface structures”, [Appl. Optics](#) **52**, 7832 (2013).
- [159] Yanai, **N.A. Mortensen**, and U. Levy, “Absorption and eigenmode calculation of 1D periodic metallic structures under the hydrodynamic approximation”, [Phys. Rev. B](#) **88**, 205120 (2013).
- [160] **N.A. Mortensen**, “Nonlocal formalism for nanoplasmonics: phenomenological and semi-classical considerations”, [Phot. Nanostr.](#) **11**, 303 (2013).
- [161] L. Peng and **N.A. Mortensen**, “Plasmonic-cavity model for radiating nano-rod antennas”, [Sci. Rep.](#) **4**, 3825 (2014).
- [162] G. Gilardi, S. Xiao, **N.A. Mortensen**, A. d’Alessandro, and R. Beccherelli, “Plasmon resonance optical tuning based on photosensitive composite structures”, [J. Opt. Soc. Am. B](#) **31**, 360 (2014).
- [163] A.V. Uskov, I.E. Protsenko, **N.A. Mortensen**, and E.P. O’Reilly, “Broadening of plasmonic resonance due to electron collisions with nanoparticle boundary: a quantum-mechanical consideration”, [Plasmonics](#) **9**, 185 (2014).
- [164] T. Christensen, W. Yan, S. Raza, A.-P. Jauho, **N.A. Mortensen**, and M. Wubs, “Nonlocal Response of Metallic Nanospheres Probed by Light, Electrons, and Atoms”, [ACS Nano](#) **8**, 1745 (2014).
- [165] Y. Ou, X. Zhu, V. Jokubavicius, R. Yakimova, **N.A. Mortensen**, M. Syväjärvi, S. Xiao, and H. Ou, “Broadband Antireflection and Light Extraction Enhancement in Fluorescent SiC with Nanodome Structures”, [Sci. Rep.](#) **4**, 4662 (2014).
- [166] J. Christensen, V. Romero-García, R. Picó, A. Cebrecos, F.J. García de Abajo, **N.A. Mortensen**, M. Willatzen, and V.J. Sánchez-Morcillo, “Extraordinary absorption of sound in porous lamella-crystals”, [Sci. Rep.](#) **4**, 4674 (2014).
- [167] A. Christiansen, J.S. Clausen, **N.A. Mortensen**, and A. Kristensen, “Injection molding antireflective nanostructures”, [Microelectronic Engineering](#) **121**, 47 (2014).
- [168] **N.A. Mortensen**, S. Raza, M. Wubs, T. Søndergaard, and S.I. Bozhevolnyi, “A generalized non-local optical response in nanoplasmonics”, [Nature Communications](#) **5**, 3809 (2014).
- [169] E. Højlund-Nielsen, T. Greibe, **N.A. Mortensen**, and A. Kristensen, “Single-spot E-beam lithography for defining large arrays of nano-holes”, [Microelectronics Engineering](#) **121**, 104 (2014).
- [170] E. Højlund-Nielsen, J. Weirich, J. Nørregaard, J. Garnæs, **N.A. Mortensen**, and A. Kristensen, “Structural colors of silicon diffraction gratings”, [J. Nanophot.](#) **8**, 083988 (2014).
- [171] X. Zhu, W. Wang, W. Yan, M. Larsen, P. Bøggild, T.G. Pedersen, S. Xiao, J. Zi, and **N.A. Mortensen**, “Plasmon-phonon coupling in large-area graphene dot and antidot arrays fabricated by nanosphere lithography”, [Nano Lett.](#) **14**, 2904 (2014).
- [172] S. Raza, N. Stenger, A. Pors, T. Holmgaard, S. Kadkhodazadeh, J.B. Wagner, K. Pedersen, M. Wubs, S.I. Bozhevolnyi, and **N.A. Mortensen**, “Extremely confined gap surface plasmon modes excited by electrons”, [Nature Communications](#) **8**, 4125 (2014).
- [173] J.S. Clausen, E. Højlund-Nielsen, A. Christiansen, S. Yaszdi, M. Grajower, H. Taha, U. Levy, A. Kristensen, and **N.A. Mortensen**, “Plasmonic metasurfaces for coloration of plastic consumer products”, [Nano Lett.](#) **14**, 4499 (2014).
- [174] J. Christensen, **N.A. Mortensen**, and M. Willatzen, “Modelling the acoustical response of lossy lamella-crystals”, [J. Appl. Phys.](#) **116**, 163508 (2014).
- [175] T. Christensen, W. Wang, A.-P. Jauho, M. Wubs, and **N.A. Mortensen**, “Classical and quantum plasmonics in graphene nanodisks: Role of edge states”, [Phys. Rev. B](#) **90**, 241414(R) (2014).
- [176] S. Raza, M. Wubs, S.I. Bozhevolnyi, and **N.A. Mortensen**, “Nonlocal study of ultimate plasmon hybridization”, [Opt. Lett.](#) **40**, 839 (2015).

- [177] T. Christensen, A.-P. Jauho, M. Wubs, and **N.A. Mortensen**, “Localized plasmons in graphene-coated nanospheres”, [Phys. Rev. B **91**, 125414 \(2015\)](#).
- [178] W. Wang, T. Christensen, A.-P. Jauho, K.S. Thygesen, M. Wubs, and **N.A. Mortensen**, “Plasmonic eigenmodes in individual and bow-tie graphene nanotriangles”, [Sci. Rep. **5**, 9535 \(2015\)](#).
- [179] S. Raza, S.I. Bozhevolnyi, M. Wubs, and **N.A. Mortensen**, “Nonlocal optical response in metallic nanostructures (invited Topical Review)”, [J. Phys. Cond. Matter. **27**, 183204 \(2015\)](#).
- [180] G. Toscano, J. Straubel, A. Kwiatkowski, C. Rockstuhl, F. Evers, H. Xu, **N.A. Mortensen**, and M. Wubs, “Resonance shifts and spill-out effects in self-consistent hydrodynamic nanoplasmonics”, [Nature Communications **6**, 7132 \(2015\)](#)
- [181] Y. Dai, X. Zhu, **N.A. Mortensen**, J. Zi, and S. Xiao, “Nanofocusing of mid-infrared light in a tapered graphene plasmonic waveguide”, [J. Opt. **17**, 065002 \(2015\)](#)
- [182] A.B. Christiansen, G.P. Caringal, J.S. Clausen, M. Grajower, H. Taha, U. Levy, **N.A. Mortensen**, and A. Kristensen, “Black metal thin films by deposition on dielectric antireflective moth-eye nanostructures”, [Sci. Rep. **5**, 10563 \(2015\)](#).
- [183] C.L.C. Smith, N. Stenger, A. Kristensen, **N.A. Mortensen**, and S.I. Bozhevolnyi, “Gap and channelled plasmons in V-shaped grooves: fundamentals and applications (invited review)”, [Nanoscale **7**, 9355 \(2015\)](#).
- [184] Y. Ding, X. Zhu, S. Xiao, H. Hu, L.H. Frandsen, **N.A. Mortensen**, and K. Yvind, “Effective electro-optical modulation with high extinction ratio by a graphene-silicon microring resonator”, [Nano Lett. **15**, 4393 \(2015\)](#)
- [185] Y. Yang, H. Chen, S. Xiao, **N.A. Mortensen**, and J. Zhang, “Ultrathin 90-degree sharp bends for spoof surface plasmon polaritons”, [Opt. Express **23**, 19074 \(2015\)](#).
- [186] M. Danaeifar, N. Granpayeh, **N.A. Mortensen**, and S. Xiao, “Equivalent conductivity method: straightforward analytical solution for metasurface-based structures”, [J. Phys. D: Appl. Phys. **48**, 385106 \(2015\)](#).
- [187] T. Christensen, W. Yan, A.-P. Jauho, M. Wubs, and **N.A. Mortensen**, “Kerr nonlinearity and plasmonic bistability in graphene nanoribbons”, [Phys. Rev. B **92**, 121407\(R\) \(2015\)](#).
- [188] W. Yan, M. Wubs, and **N.A. Mortensen**, “Projected Dipole Model for Quantum Plasmonics”, [Phys. Rev. Lett. **115**, 137403 \(2015\)](#).
- [189] E. Højlund-Nielsen, X. Zhu, M.S. Carstensen, M.K. Sørensen, C. Vannahme, **N.A. Mortensen**, and A. Kristensen, “Polarization-dependent aluminum metasurface operating at 450 nm”, [Opt. Express **23**, 2882 \(2015\)](#).
- [190] S. Raza, S. Kadkhodazadeh, T. Christensen, M. Di Vece, M. Wubs, **N.A. Mortensen**, and N. Stenger, “Multipole plasmons and their disappearance in few-nanometre silver nanoparticles”, [Nature Communications **6**, 8788 \(2015\)](#).
- [191] S. Xiao, X. Zhu, B.-H. Li, and **N.A. Mortensen**, “Graphene-plasmon polaritons: From fundamental properties to potential applications”, [Front. Phys. **11**, 117801 \(2016\)](#).
- [192] W. Wang, B.-H. Li, E. Stassen, **N.A. Mortensen**, and J. Christensen, “Localized Surface Plasmons in Vibrating Graphene Nanodisks”, [Nanoscale **8**, 3809 \(2016\)](#).
- [193] J. Lee, S. Sung, J.-H. Choi, J. Koh, S.C. Eom, **N.A. Mortensen**, and J.H. Shin, “Ultra sub-wavelength surface plasmon confinement using air-gap, sub-wavelength ring resonator arrays”, [Sci. Rep. **6**, 22305 \(2016\)](#).
- [194] W. Yan and **N.A. Mortensen**, “Nonclassical effects in plasmonics: An energy perspective to quantify nonclassical effects”, [Phys. Rev. B **93**, 115439 \(2016\)](#).

- [195] X. Zhu, C. Vannahme, E. Højlund-Nielsen, **N.A. Mortensen**, and A. Kristensen, “*Plasmonic colour laser printing*”, [Nature Nanotechnology **11**, 325 \(2016\)](#).
- [196] W. Wang, S. Xiao, and **N.A. Mortensen**, “*Localized plasmons in bilayer graphene nanodisks*”, [Phys. Rev. B **93**, 165407 \(2016\)](#).
- [197] C. Tserkezis, J.R. Maack, Z. Liu, M. Wubs, and **N.A. Mortensen**, “*Robustness of the far-field response of nonlocal plasmonic ensembles*”, [Sci. Rep. **6**, 28441 \(2016\)](#).
- [198] S. Saravi, R. Quintero-Bermudez, F. Setzpfandt, **N.A. Mortensen**, and T. Pertsch, “*Effect of loss on slow-light-enhanced second harmonic generation in periodic nanostructures*”, [Opt. Lett. **41**, 3110 \(2016\)](#).
- [199] S.M. Novikov, J. Beermann, C. Frydendahl, N. Stenger, V. Coello, **N.A. Mortensen**, and S.I. Bozhevolnyi, “*Enhancement of two-photon photoluminescence and SERS for low coverage gold films*”, [Opt. Express **24**, 16743 \(2016\)](#).
- [200] E. Højlund-Nielsen, J. Clausen, T. Mäkela, L. H. Thamdrup, M. Zalkovskij, T. Nielsen, N. Li Pira, J. Ahopelto, **N.A. Mortensen**, and A. Kristensen, “*Plasmonic colors: Toward mass-production of metasurfaces*”, [Advanced Materials Technologies **1**, 1600054 \(2016\)](#).
- [201] C. Tserkezis, N. Stefanou, M. Wubs, and **N.A. Mortensen**, “*Molecular fluorescence enhancement in plasmonic environments: exploring the role of nonlocal effects*”, [Nanoscale **8**, 17532 \(2016\)](#).
- [202] C. David, J. Christensen, and **N.A. Mortensen**, “*Spatial dispersion in 2D plasmonic crystals: Large blueshifts promoted by diffraction anomalies*”, [Phys. Rev. B **94**, 165410 \(2016\)](#).
- [203] Z. Wang, T. Li, K. Almdal, **N.A. Mortensen**, S. Xiao, and S. Ndoni, “*Experimental demonstration of graphene plasmons working close to the near-infrared window*”, [Opt. Lett. **41**, 5345 \(2016\)](#).
- [204] O. Lotan, C.L.C. Smith, J.B. David, **N.A. Mortensen**, A. Kristensen, and U. Levy, “*Propagation of Channel Plasmons at the Visible Regime in Aluminum V-Groove Waveguides*”, [ACS Photonics **3**, 2150 \(2016\)](#).
- [205] P.A.D. Gonçalves, E.J.C. Dias, S. Xiao, M.I. Vasilevskiy, **N.A. Mortensen**, and N.M.R. Peres, “*Graphene Plasmons in Triangular Wedges and Grooves*”, [ACS Photonics **3**, 2176 \(2016\)](#).
- [206] S. Raza, M. Esfandyarpour, A.L. Koh, **N.A. Mortensen**, M.L. Brongersma, and S.I. Bozhevolnyi, “*EELS study of branched gap plasmon resonators*”, [Nature Communications **7**, 13790 \(2016\)](#).
- [207] A. Kristensen, J.K.W. Yang, S.I. Bozhevolnyi, S. Link, P. Nordlander, N.J. Halas, and **N.A. Mortensen**, “*Plasmonic colour generation*”, [Nature Reviews Materials **2**, 16088 \(2016\)](#).
- [208] C. Gritti, S. Raza, S. Kadkhodazadeh, B. Kardynal, R. Malureanu, **N.A. Mortensen**, and A.V. Lavrinenko, “*Broadband infrared absorption enhancement by electroless-deposited silver nanoparticles*”, [Nanophotonics **6**, 289 \(2017\)](#).
- [209] U. Levy, M. Grajower, P.A.D. Gonçalves, **N.A. Mortensen**, and J.B. Khurgin, “*Plasmonic silicon Schottky photodetectors: The Physics behind graphene enhanced internal photoemission*”, [APL Photonics **2**, 026103 \(2017\)](#).
- [210] S. Yan, X. Zhu, L.H. Frandsen, S. Xiao, **N.A. Mortensen**, J. Dong and Y. Ding, “*Slow-light-enhanced energy efficiency for the graphene microheater on silicon photonic crystal waveguides*”, [Nature Communications **8**, 14411 \(2017\)](#).
- [211] S. Kadkhodazadeh, T. Christensen, M. Beleggia, **N.A. Mortensen**, and J. Wagner, “*The substrate effect in electron energy-loss spectroscopy of localized surface plasmons in gold and silver nanoparticles*”, [ACS Photonics **4**, 251 \(2017\)](#).
- [212] T. Christensen, W. Yan, A.-P. Jauho, M. Soljacic, and **N.A. Mortensen**, “*Quantum corrections in nanoplasmonics: shape, scale, and material*”, [Phys. Rev. Lett. **118**, 157402 \(2017\)](#).

- [213] H. Shen, L. Chen, L. Ferrari, M-H. Lin, **N.A. Mortensen**, S. Gwo, and Z. Liu, “Optical observation of plasmonic nonlocal effect in an ultra-small super lattice Au nanoparticle monolayer”, [Nano Lett. 17, 2234 \(2017\)](#).
- [214] X. Zhu, W. Yan, U. Levy, **N.A. Mortensen**, and A. Kristensen, “Resonant laser printing of structural colors on high-index dielectric metasurfaces”, [Science Advances 3, e1602487 \(2017\)](#).
- [215] S.M. Novikov, C. Frydendahl, J. Beermann, V.A. Zenin, N. Stenger, V. Coello, **N.A. Mortensen**, and S.I. Bozhevolnyi, “White light generation and anisotropic damage in gold films near percolation threshold”, [ACS Photonics 4, 1207 \(2017\)](#).
- [216] P.A.D. Gonçalves, S.I. Bozhevolnyi, **N.A. Mortensen**, and N.M.R. Peres, “Universal description of channel plasmons in 2D materials” [Optica 4, 595 \(2017\)](#).
- [217] C. Tserkezis, W. Yan, W. Hsieh, G. Sun, J.B. Khurgin, M. Wubs, and **N.A. Mortensen**, “On the origin of nonlocal damping in plasmonic monomers and dimers”, [Int. J. Mod. Phys. B 31, 1740005 \(2017\)](#).
- [218] L. Li, S. Lanteri, **N.A. Mortensen**, and M. Wubs, “A hybridizable discontinuous Galerkin method for solving nonlocal optical response models” [Comp. Phys. Commun., in press \(2017\)](#) [[arXiv:1611.08313](#)].
- [219] M.N. Gjerding, R. Petersen, T.G. Pedersen, **N.A. Mortensen**, and K.S. Thygesen, “Layered van der Waals crystals with hyperbolic light dispersion”, [Nature Communications 8, in press \(2017\)](#).
- [220] C. Tserkezis, **N.A. Mortensen**, and M. Wubs, “How nonlocal damping reduces plasmon-enhanced fluorescence in ultranarrow gaps”, [Phys. Rev. B 96, in press \(2017\)](#) [[arXiv:1703.00728](#)].
- [221] C. Frydendahl, T. Repän, M. Geisler, S.M. Novikov, J. Beermann, A. Lavrinenko, S. Xiao, S.I. Bozhevolnyi, **N.A. Mortensen**, and N. Stenger, “Optical reconfiguration and polarization control in semi-continuous gold films close to the percolation threshold” (in re-review, 2017) [[arXiv:1704.08550](#)].
- [222] Y. Ding, X. Guan, X. Zhu, H. Hu, S.I. Bozhevolnyi, L.K. Oxenløwe, **N.A. Mortensen**, and S. Xiao, “Efficient graphene based electro-optical modulator enabled by interfacing plasmonic slot and silicon waveguides” (in review, 2016) [[arXiv:1610.05352](#)].
- [223] J.R. Maaack, **N.A. Mortensen**, and M. Wubs, “Size-dependent nonlocal effects in plasmonic semiconductor particles” (submitted, 2017) [[arXiv:1706.03813](#)].
- [224] C. Tserkezis, M. Wubs, and **N.A. Mortensen**, “Robustness of the Rabi splitting under nonlocal corrections in plexcitonics” (resubmitted, 2017) [[arXiv:1707.05134](#)].
- [225] P.A.D. Gonçalves, S. Xiao, N.M.R. Peres, and **N.A. Mortensen**, “Hybrid plasmons in 2D nano-slits: From graphene to other 2D materials” (to be resubmitted, 2017).
- [226] M.S. Carstensen, X. Zhu, O. Iyore, **N.A. Mortensen**, U. Levy, and A. Kristensen, “Holographic Resonant Laser Printing of flat optics using template plasmonic metasurfaces” (submitted, 2017).
- [227] M.K. Dezfouli, C. Tserkezis, **N.A. Mortensen**, and S. Hughes, “Nonlocal quasinormal modes for three-dimensional plasmonic resonators” (submitted, 2017) [[arXiv:1707.05750](#)].
- Miscellaneous, international peer-review journals (indexed in ISI Web of Science):**
- [228] **N.A. Mortensen**, “Comment on ‘Pinched Flow Fractionation: Continuous Size Separation of Particles Utilizing a Laminar Flow Profile in a Pinched Microchannel’”, [Anal. Chem. 79, 9240 \(2007\)](#).
- [229] **N.A. Mortensen**, “Comment on ‘Design of a broadband highly dispersive pure silica photonic crystal fiber’ by Subbaraman et al.”, [Appl. Optics 47, 3328 \(2008\)](#).
- [230] U. Levy, P. Berini, S.A. Maier, and **N.A. Mortensen**, “Focus Issue on surface plasmon photonics: introduction”, [Opt. Express 23, 32075 \(2015\)](#).
- [231] S.I. Bozhevolnyi and **N.A. Mortensen**, “Plasmonics for emerging quantum technologies”, [Nanophotonics 6, in press \(2017\)](#).

Publications in international proceedings series:

- [1] **N.A. Mortensen**, A. Kühle, and K.A. Mørch, “*Interfacial tension in water at solid surfaces*” in *Proceedings of Third International Symposium on Cavitation* ed. J.M. Michel and H. Kato, Vol. **1**, pp. 87-91 (Grenoble, France, 1998). [[arXiv:physics/9901014](https://arxiv.org/abs/physics/9901014)]
- [2] V. Mizeikis, J. Erland, J.R. Jensen, **N.A. Mortensen**, and J.M. Hvam, “*Stimulation of polariton emission in a homogeneously broadened semiconductor microcavity*”, [Springer Proceedings in Physics **87**, 687 \(2001\)](#).
- [3] **N.A. Mortensen**, K. Flensberg, and A.-P. Jauho, “*Coulomb drag in phase-coherent mesoscopic structures*”, [Springer Proceedings in Physics **87**, 1347 \(2001\)](#). [[arXiv:cond-mat/0108204](https://arxiv.org/abs/cond-mat/0108204)]
- [4] R. Michalzik, H.R. Roscher, M. Stach, D. Wiedenmann, M. Miller, J. Broeng, A. Petersson, **N.A. Mortensen**, H.R. Simonsen, and E. Kube, “*Recent Progress in Short-Wavelength VCSEL-Based Optical Interconnections*”, [Proc. SPIE **5248**, 117 \(2003\)](#).
- [5] J. Lægsgaard, K.P. Hansen, M.D. Nielsen, T.P. Hansen, J. Riishede, K. Hougaard, T. Sørensen, T.T. Larsen, **N.A. Mortensen**, J. Broeng, J.B. Jensen, and A. Bjarklev, “*Photonic Crystal Fibers*”, [Proceedings of SBMO/IEEE MTT-S IMOC 2003 **1**, 259 \(2003\)](#).
- [6] J. Broeng, G. Vienne, A. Petersson, P.M.W. Skovgaard, J.R. Folkenberg, M.D. Nielsen, C. Jakobsen, H. Simonsen, and **N.A. Mortensen**, “*Air-clad photonic crystal fibers for high-power single-mode lasers*”, [Proc. SPIE **5335**, 192 \(2004\)](#).
- [7] H. Azzouz, L. Alkafadiji, J. Johansson, **N.A. Mortensen**, S. Nilsson, and A. Kristensen, “*Levitated droplet dye laser - a new approach for single molecule detection?*”, [Proc. SPIE **6092**, 73 \(2006\)](#).
- [8] M. Gersborg-Hansen, S. Balslev, **N.A. Mortensen**, and A. Kristensen, “*Diffusion dynamics in microfluidic dye lasers*”, [Proc. SPIE **6465**, 646506 \(2007\)](#).
- [9] J. Pedersen, C. Flindt, **N.A. Mortensen**, and A.-P. Jauho, “*Quantum information processing using designed defects in 2D anti-dot lattices*”, [AIP Conf. Proc. **893**, 821 \(2007\)](#).
- [10] M. Gersborg-Hansen, **N.A. Mortensen**, and A. Kristensen, “*Diffusive and convective dye replenishment in optofluidic light sources*”, [Proc. SPIE **6645**, 664551 \(2007\)](#).
- [11] S. Xiao, J. Pedersen, and **N.A. Mortensen**, “*Liquid-infiltrated photonic crystals for lab-on-a-chip applications*”, [Proc. SPIE **6645**, 664558 \(2007\)](#).
- [12] S. Xiao and **N.A. Mortensen**, “*Low-loss intersection of subwavelength Plasmon slot waveguides*”, [Proc. SPIE **7135**, 71352J \(2008\)](#).
- [13] M. Yan, **N.A. Mortensen**, and M. Qiu, “*Engineering modes in optical fibers with metamaterial*”, [Front. Optoelectron. China **2**, 153 \(2009\)](#).
- [14] J.G. Pedersen and **N.A. Mortensen**, “*Spectral signatures of chirality*”, [Proc. SPIE **7392**, 739208 \(2009\)](#).
- [15] C. Jeppesen, R.B. Nielsen, S. Xiao, **N.A. Mortensen**, A.E. Boltasseva, and A. Kristensen, “*An experimental investigation of Fang’s Ag Superlens suitable for integration*”, [Proc. SPIE **7395**, 73951I \(2009\)](#).
- [16] M.B. Christiansen, J.M. Lopacinska, M.H. Jakobsen, **N.A. Mortensen**, M. Dufva, and A. Kristensen, “*Polymer photonic crystal dye lasers as label free evanescent sensors*”, [Proc. SPIE **7402**, 74020L \(2009\)](#).
- [17] C. Karnutsch, S. Tomljenovic-Hanic, C. Monat, C. Grillet, P. Domachuk, R. McPhedran, B.J. Eggleton, L. O’Faolain, T.F. Krauss, S. Xiao, and **N.A. Mortensen**, “*Waveguide-based optofluidics*”, [Proc. SPIE **7606**, 760615 \(2010\)](#).
- [18] C. Jeppesen, S. Xiao, **N.A. Mortensen**, and A. Kristensen, “*Capacitance tuning of nanoscale split-ring resonators*”, [Proc. SPIE **7711**, 77111K \(2010\)](#).

- [19] M.B. Christiansen, C. Smith, T. Buss, S. Xiao, **N.A. Mortensen**, and A. Kristensen, “Nanoimprinted polymer photonic crystal dye lasers”, [Proc. SPIE 7716, 77160Q \(2010\)](#).
- [20] G. Toscano, M. Wubs, S. Xiao, M. Yan, Z.F. Öztürk, A.-P. Jauho, and **N.A. Mortensen**, “Plasmonic nanostructures: local versus nonlocal response”, [Proc. SPIE 7757, 77571T \(2010\)](#).
- [21] S. Xiao, L. Peng, and **N.A. Mortensen**, “Antenna-assisted enhanced transmission through subwavelength nanoholes”, [Proc. SPIE 7754, 775418 \(2010\)](#).
- [22] J. Zhang, Y. Luo, and **N.A. Mortensen**, “Rigorous analysis of non-magnetic cloaks”, [Proc. SPIE 7754, 775428 \(2010\)](#).
- [23] S. Xiao and **N.A. Mortensen**, “Quenched transmission of light through ultrathin metal film”, [Proc. SPIE 8104, 81040B \(2011\)](#).
- [24] J.R. Ott, M. Wubs, **N.A. Mortensen**, and P. Lodahl, “Scattering induced quantum interference of multiple quantum optical states”, [AIP Conf. Proc. 1398, 82 \(2011\)](#).
- [25] M. Wubs, S. Raza, G. Toscano, J.M. Pedersen, A.-P. Jauho, and **N.A. Mortensen**, “Are there novel resonances in nanoplasmonic structures due to nonlocal response?”, [Proc. SPIE 8260, 82601E \(2012\)](#).
- [26] **N.A. Mortensen**, G. Toscano, S. Raza, N. Stenger, W. Yan, A.-P. Jauho, S. Xiao, and M. Wubs, “Nanophotonics beyond Ohm’s law”, [AIP Conf. Proc. 1475, 28 \(2012\)](#) [[arXiv:1208.0146](#)].
- [27] W. Yan, M. Wubs, and **N.A. Mortensen**, “Effects of nonlocal response on the density of states of hyperbolic metamaterials”, [Proc. SPIE 8455, 84550V \(2012\)](#).
- [28] X. Zhu, S. Xiao, and **N.A. Mortensen**, “Active resonance tuning of stretchable plasmonic structures”, [Proc. SPIE 8457, 845742 \(2012\)](#).
- [29] S. Xiao and **N.A. Mortensen**, “Enhanced light absorption in an ultrathin silicon solar cell utilizing plasmonic nanostructures”, [Proc. SPIE 8457, 84572A \(2012\)](#).
- [30] A.B. Christiansen, E. Højlund-Nielsen, J. Clausen, G.P. Caringal, **N.A. Mortensen**, and A. Kristensen, “Imprinted and injection moulded nano structured optical surfaces”, [Proc. SPIE 8818, 881803 \(2013\)](#).
- [31] M. Wubs, W. Yan, E. Amooghorban, and **N.A. Mortensen**, “Nonlocal modification and quantum optical generalization of effective-medium theory for metamaterials”, [Proc. SPIE 8806, 88061F \(2013\)](#).
- [32] X. Zhu, W. Yan, C. Jeppesen, P.U. Jepsen, O. Hansen, **N.A. Mortensen**, and S. Xiao, “Propagation and excitation of graphene plasmons”, [Proc. SPIE 8809, 88090S \(2013\)](#).
- [33] S. Raza and **N.A. Mortensen**, “Interplay of nonlocal response, damping, and low group velocity in surface-plasmon polaritons”, [Proc. SPIE 9763, 97630Y \(2016\)](#).
- [34] M. Wubs, E. Amooghorban, J. Zhang, and **N.A. Mortensen**, “Quantum optical effective-medium theory and transformation quantum optics for metamaterials”, [Proc. SPIE 9918, 99180P \(2016\)](#).
- [35] C. Tzerkezis, J.R. Maack, Z. Liu, M. Wubs, and **N.A. Mortensen**, “Inhomogeneous broadening in non-interacting nonlocal plasmonic ensembles”, [Proc. Metamaterials’2016, 367-369 \(2016\)](#).

Extended abstracts in international conference proceedings (incomplete list):

- [1] **N.A. Mortensen**, A.-P. Jauho, and K. Flensberg, “Andreev scattering and conductance enhancement in mesoscopic semiconductor-superconductor junctions” in *Extended abstracts of Electron Transport in Mesoscopic Systems* ed. P. Delsing, T. Henning, E. Hürfeld, and T. Nord, pp. 120-121 (Göteborg, Sweden, 1999). [[arXiv:cond-mat/9911372](#)]
- [2] M.D. Nielsen, **N.A. Mortensen**, J.R. Folkenberg, K.P. Hansen, and A. Bjarklev, “Optical Properties of Photonic Crystal Fibers Expressed by the V-parameter” in *Proceedings of 29th European Conference on Optical Communication* (Rimini, Italy, 2003).

- [3] M. Stach, J. Broeng, A. Petersson, **N.A. Mortensen**, H.R. Simonsen, and R. Michalzik, “10 Gbit/s 850 nm VCSEL Based Data Transmission over 100 m-long Multimode Photonic Crystal Fibers” in *Proceedings of 29th European Conference on Optical Communication* (Rimini, Italy, 2003).
- [4] J. Riishede, **N.A. Mortensen**, and J. Lægsgaard, “Scalar Modelling of Photonic Crystal Fibres in MATLAB” in *Proceedings of Nordic MATLAB Conference* (Copenhagen, Denmark, 2003).
- [5] M.D. Nielsen, **N.A. Mortensen**, J.R. Folkenberg, A. Petersson, and A. Bjarklev, “Improved All-Silica Endlessly Single-mode Photonic Crystal Fiber”, in [Proceedings of OFC 2003 \(Atlanta, Georgia, 2003\)](#) [OSA Trends in Optics and Photonics **86**, 701 (2003).]
- [6] K. Saitoh, **N.A. Mortensen**, and M. Koshiba, “Modeling of Realistic Air-Core Photonic Band-Gap Fibers” in [Proceedings of IPR 2004 \(San Francisco, CA, 2004\)](#).
- [7] G. Vienne, Y. Xu, C. Jakobsen, H.J. Deyerl, T.P. Hansen, B.H. Larsen, J.B. Jensen, T. Sørensen, M. Terrel, Y. Huang, R. Lee, **N.A. Mortensen**, J. Broeng, H. Simonsen, A. Bjarklev, and A. Yariv, “First demonstration of air-silica Bragg fiber”, in [Proceedings of OFC 2004 \(Los Angeles, CA, 2004\)](#) [OSA Trends in Optics and Photonics **95**, PDP25 (2004).]
- [8] J. Limpert, A. Liem, T. Schreiber, S. Nolte, H. Zelmer, A. Tünnermann, J. Broeng, A. Petersson, C. Jakobsen, H. Simonsen, and **N.A. Mortensen**, “Extended large-mode-area single-mode microstructured fiber laser”, in [Proceedings of CLEO 2004 \(San Francisco, CA, 2004\)](#) [OSA Trends in Optics and Photonics **96**, CMS6 (2004)]
- [9] M. Gersborg-Hansen, S. Balslev, **N.A. Mortensen**, and A. Kristensen, “A Coupled Cavity Micro Fluidic Dye Ring Laser” in *Proceedings of Micro- and Nano-Engineering (MNE) 2004 Conference* (Rotterdam, The Netherlands, 2004).
- [10] G. Vienne, M. Yan, **N.A. Mortensen**, H.-J. Deyerl, T. Sørensen, and J. Broeng, “Air-silica Bragg Fiber: Experiments and Simulations” in *Proceedings of The 10th OptoElectronics and Communications Conference* (Seoul, 2005).
- [11] A. Kristensen, S. Balslev, M. Gersborg-Hansen, B. Bilenberg, T. Rasmussen, M. Hansen, D. Nilsson, and **N. A. Mortensen**, “Microfluidic Dye Lasers” in [Proceedings of 2006 IEEE/LEOS Summer Topical Meetings \(Quebec City, Canada, 2006\)](#).
- [12] **N.A. Mortensen**, L.H. Olesen, and H. Bruus, “Mass and charge transport in micro and nano-fluidic channels”, invited paper in *Proceedings of 2nd Int. Conf. Transport Phenomena in Micro and Nanodevices* (Barga, Italy, 2006).
- [13] H. Bruus, **N.A. Mortensen**, F. Okkels, and L.H. Olesen, “Universality in microfluidic phenomena inside microchannels with arbitrarily shaped cross-sections” in *Proceedings of Euromech Fluid Mechanics Conference EFMC-6* (Stockholm, Sweden, 2006).
- [14] M. Gersborg-Hansen, S. Balslev, **N.A. Mortensen**, and A. Kristensen, “Micro-Fluidic Dye Ring Laser – Experimental Tuning of the Wavelength and Numerical Simulation of the Cavity Modes” in [Proceedings of CLEO 2006 \(Long Beach, California, 2006\)](#).
- [15] J. Pedersen, S. Xiao, and **N.A. Mortensen**, “Effect of loss on slow-light enhanced absorption in liquid-infiltrated photonic crystals”, in [Proceedings of CLEO 2008 \(San Jose, CA, 2008\)](#).
- [16] P.S. Nunes, **N.A. Mortensen**, J.P. Kutter, and K.B. Mogensen, “1-D photonic crystal sensor integrated in a microfluidic system”, in [Proceedings of CLEO 2009 \(Baltimore, ML, 2009\)](#).
- [17] M.B. Christiansen, S. Xiao, **N.A. Mortensen**, and A. Kristensen, “Enhancement of polymer dye lasers by multifunctional photonic crystal lattice”, in [Proceedings of CLEO 2009 \(Baltimore, ML, 2009\)](#).
- [18] M.B. Christiansen, J.M. Lopacinska, M.H. Jakobsen, **N.A. Mortensen**, G. Blagoi, M. Dufva, and A. Kristensen, “Polymer photonic crystal dye lasers as optofluidic cell sensors”, in [Proceedings of CLEO 2009 \(Baltimore, ML, 2009\)](#).

- [19] C. Karnutsch, C.L. Smith, A. Graham, S. Tomljenovic-Hanic, R. McPhedran, B.J. Eggleton, L. O’Faolain, T.F. Krauss, S. Xiao, and **N.A. Mortensen**, “Thermo-optic stabilization of optofluidic photonic crystal resonators”, in [Proceedings of CLEO 2009 \(Baltimore, ML, 2009\)](#).
- [20] C. Jeppesen, A. Kristensen, S. Xiao, and **N.A. Mortensen**, “Geometrical and fluidic tuning of nanoscale splitting resonators”, in [Proceedings of CLEO 2010 \(San Jose, CA, 2010\)](#).
- [21] M. Yan and **N.A. Mortensen**, “Metamaterial reflector for hollow-core infrared fiber design”, in [Proceedings of OELS 2010 \(San Jose, CA, 2010\)](#).
- [22] J.R. Ott, **N.A. Mortensen**, and P. Lodahl, “Quantum interference of multiple beams induced by multiple scattering”, in [Proceedings of OELS 2011 \(Baltimore, ML, 2011\)](#).
- [23] J.R. Ott, **N.A. Mortensen**, and P. Lodahl, “Multiple scattering of quantum optical states” in [Proceedings of CLEO Europe 2011 \(Munich, Germany, 2011\)](#).
- [24] J. Grgic, J.R. Ott, F. Wang, O. Sigmund, A.-P. Jauho, J. Mørk, and **N.A. Mortensen**, “Fundamental limitations to gain enhancement in slow-light photonic structures”, in [Proceedings of OELS 2012 \(San Jose, CA, 2012\)](#).
- [25] A. Kristensen, J. Clausen, A.B. Christiansen, E. Højlund-Nielsen, C.H. Nielsen, C.F. Hansen, T. Kristiansen, E.L. Simonsen, P. Høvsgaard, and **N.A. Mortensen**, “Nanostructured optical polymer surfaces by imprinting and injection moulding”, in [Proceedings of CLEO 2013 \(San Jose, CA, 2013\)](#).
- [26] N.A. Mortensen, “Nonlocal Light-Matter Interactions in Noble-Metal and Graphene Nanostructures”, in [Proceedings of CLEO Europe 2013 \(Munich, Germany, 2015\)](#).
- [27] **N.A. Mortensen**, “Classical and quantum effects in noble metal and graphene plasmonics”, in [2015 International Conference on Electromagnetics in Advanced Applications \[ICEAA\] \(Turin, 2015\)](#).
- [28] **N.A. Mortensen**, “Nanoplasmonics: Exploring Nonlocal and Quantum Effects”, in [Proceedings of CLEO 2016 \(San Jose, CA, 2016\)](#).
- [29] S. Saravi, R. Quintero-Bermudez, F. Setzpfandt, **N.A. Mortensen**, and T. Pertsch, “Effect of Loss on Slow-light-enhanced Second Harmonic Generation in Periodic Nanostructures”, in [Proceedings of CLEO 2016 \(San Jose, CA, 2016\)](#).

Academic dissertations:

- [1] M.V. Bollinger, K.R. Bukh, **N.A. Mortensen**, and M.P. Sager, “Low temperature studies of hybrid superconductor-semimetal components”, Bachelor’s Thesis (Polyteknisk midtvejsprojekt), Technical University of Denmark (1996) [grade 11/13 equivalent to A (ECTS)].
- [2] **N.A. Mortensen**, “Theoretical models of transport in macroscopic and mesoscopic NS structures”, Master’s Thesis, Technical University of Denmark (1998) [grade 13/13 equivalent to A (ECTS)].
- [3] **N.A. Mortensen**, “Mesoscopic Coulomb Drag”, PhD Thesis, Technical University of Denmark (2001). ISBN:87-89935-13-6 [[arXiv:cond-mat/0111397](#)]
- [4] **N.A. Mortensen**, “Microstructured Optical Fibres - Theory and Simulations”, Dr. Techn. Thesis, Technical University of Denmark (2006). ISBN:87-89935-67-5

Invited book chapters:

- [1] K. Mølhave, A. Kristensen and **N.A. Mortensen**, “Liquid-droplet dye lasers and resonators” in “Innovative Photonic Structures for Bio/Chemical Detection”, Springer series on “Integrated Microanalytical Systems (Springer, 2009), Chapter 17, pp. 471-486. [ed. Prof. X. Fan, (Univ. Missouri)]
DOI: [10.1007/978-0-387-98063-8_17](#)

- [2] A. Kristensen and **N.A. Mortensen**, “*Optofluidic dye lasers*” in “*Optofluidics: Fundamentals, Devices, and Applications*”, Biophotonics Series (McGraw-Hill, 2009), Chapter 11, pp. 241-258. [eds. Prof. S. Fainman (UC San Diego), Prof. L. Lee (UC Berkeley), Prof. D. Psaltis (Caltech/EPFL), Prof. C. Yang (Caltech)]
- [3] A. Kristensen and **N.A. Mortensen**, “*Optofluidic light sources*” in “*Handbook of Optofluidics*” (CRC Press, 2010). [eds. Prof. A.R. Hawkins (Brigham Young Univ., Utah) and Prof. H. Schmidt (UC Santa Cruz)]
DOI: [10.1201/9781420093551-c12](https://doi.org/10.1201/9781420093551-c12)
- [4] M. Wubs and **N.A. Mortensen**, “*Nonlocal Response in Plasmonic Nanostructures*” in “*Quantum Plasmonics*”, [Springer Series in Solid-State Sciences 185](https://doi.org/10.1007/978-1-4939-9888-8_18), 279-302 (2016).
[eds. Prof. S.I. Bozhevolnyi (SDU), Prof. L. Martín-Moreno (ICMA), and Prof. F.J. García-Vidal (UAM)]
- [5] **N.A. Mortensen**, J.B. Khurgin, and M. Wubs, “*Nonlocality in Plasmonics*” in “*World Scientific Handbook of Metamaterials and Plasmonics*” (World Scientific), Chapter 3, Volume 4 [eds. Prof. S.A. Maier (Imperial College London) and Prof. J. Aizpurua (CSIC)]
DOI: [10.1142/10642-vol4](https://doi.org/10.1142/10642-vol4)

Other publications:

- [1] **N.A. Mortensen**, “*Unavoidable fluctuations*” in *MIC annual report 2000* ed. F. Grey, p. 33 (2001).
- [2] **N.A. Mortensen**, “*Fotoniske krystal-fibre*” (popularizing, in Danish), *Gamma* **139**, 9 (2003).
- [3] T. Sørensen, Y. Xu, G. Vienne, C. Jakobsen, H.J. Deyerl, J.B. Jensen, T.P. Hansen, Y. Huang, M. Terrel, R.K. Lee, **N.A. Mortensen**, J. Broeng, H. Simonsen, A. Bjarklev, and A. Yariv, “*Air-guiding air-silica Bragg fibers with nano-structured cladding*”, [Optics & Photonics News 15\(12\)](https://doi.org/10.1364/OPN.15.12.028), 28 (2004).
- [4] C. Flindt, J. Pedersen, **N.A. Mortensen**, and A.-P. Jauho, “*Antidot lattices for quantum information processing*”, in *MIC annual report 2005-2006*, p. 26 (2007). [ed. M. Dinnetz]
- [5] A. Lavrinenko and **N.A. Mortensen**, “*Metafuture for metamaterials*” in “*Beyond Optical Horizons – Today and tomorrow with photonics*” (popularizing), Chapter 13, pp. 230-234 (2009). [eds. A. Bjarklev, C.B. Hansen, and C. Smit]
- [6] J. Zhang, S. Zhang, and **N.A. Mortensen**, “*Towards very compact invisibility cloaks*” (popularizing), 2Physics.com (2011).
- [7] X. Zhu, C. Vannahme, E. Højlund-Nielsen, **N.A. Mortensen**, and A. Kristensen, “*Plasmon-Assisted Color Laser Printing*”, [Optics & Photonics News 27\(12\)](https://doi.org/10.1364/OPN.27.12.052), 52 (2016).

Issued US patents:

- [1] S.E. Barkou, J. Broeng, A. Bjarklev, **N.A. Mortensen**, and J.R. Jensen, “*Dual core photonic crystal fibers (PCF) with special dispersion properties*”, US 7174078B2.
- [2] J.R. Folkenberg, M.D. Nielsen, and **N.A. Mortensen**, “*Photonic crystal fibres comprising stress elements*”, US 7289709B2.

International patent applications:

- [3] **N.A. Mortensen**, J. Broeng, A. Petersson, J.R. Folkenberg, and G. Vienne, “*Photonic Crystal Fibre*”, WO 2004/019092.
- [4] K.B. Mogensen, **N.A. Mortensen**, and J.P. Kutter, “*A device and a system for analysis of a fluid sample*”, EP1942341-A1.
- [5] M. Yan and **N.A. Mortensen**, “*Hollow-core optical fiber incorporating a metamaterial cladding*”, WO 2010/127676.

- [6] A. Kristensen, E. Højlund-Nielsen, **N.A. Mortensen**, and J. Nørregaard, "*An optical device capable of providing a structural color, and a corresponding method of manufacturing such a device*", US 20160131808A1.
- [7] J. Clausen, N.A. Mortensen, A. Kristensen, E. Højlund-Nielsen, and A.B. Christensen, "*Nanostructures for structural colouring*", US 20160202394A1.
- [8] A.B. Christiansen, **N.A. Mortensen**, and A. Kristensen "*A nanostructured surface for grey scale colouring*", US 20160202401A1.
- [9] X. Zhu, A. Kristensen, E. Højlund-Nielsen, C. Vannahme, and **N.A. Mortensen**, "*Photothermal modification of plasmonic structures*". WO 2016/198657A1.