List of publications

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

235 peer-review journal papers, **6** 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 μm^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. Ejsing, 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. Ejsing, 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 hehavior 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. Amooghorban, 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 flourescence 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] A. 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 Flurescent 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.B. Christiansen, J.S. Clausen, **N.A. Mortensen**, and A. Kristensen, *"Injection molding antireflective nanostrucutres"*, 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. Garnaes, **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. Hsiehg, 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. **219**, 99 (2017).

[219] C. Tserkezis, **N.A. Mortensen**, and M. Wubs, *"How nonlocal damping reduces plasmon-enhanced fluorescence in ultranarrow gaps"*, Phys. Rev. B **96**, 085413 (2017).

[220] 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**, 320 (2017).

[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"*, Nanoscale **9**, 12014 (2017).

[222] J.R. Maack, **N.A. Mortensen**, and M. Wubs, *"Size-dependent nonlocal effects in plasmonic semiconductor particles"*, EPL **119**, 17003 (2017).

[223] Y. Ding, X. Guan, X. Zhu, H. Hu, S.I. Bozhevolnyi, L.K. Oxenløwe, K.J. Jin, **N.A. Mortensen**, and S. Xiao, *"Effective electro-optic modulation in low-loss graphene-plasmonic slot waveguides"*, Nanoscale **9**, 15576 (2017).

[224] M. Settnes, J.R.M. Saavedra, K.S. Thygesen, A.-P. Jauho, F.J. García de Abajo, and **N.A. Mortensen**, *"Strong plasmon-phonon splitting and hybridization in 2D materials revealed through a self-energy approach"*, ACS Photonics **4**, 2908 (2017).

[225] A.J. Chaves, N.M.R. Peres, G. Smirnov, and **N.A. Mortensen**, *"Hydrodynamic model approach to the formation of plasmonic wakes in graphene"*, Phys. Rev. B **96**, 195438 (2017).

[226] M.K. Dezfouli, C. Tserkezis, **N.A. Mortensen**, and S. Hughes, *"Nonlocal quasinormal modes for arbitrarily shaped three-dimensional plasmonic resonators"*, Optica **4**, 1503 (2017).

[227] P.A.D. Gonçalves, S. Xiao, N.M.R. Peres, and **N.A. Mortensen**, *"Hybridized Plasmons in 2D Nano-slits: From Graphene to Anisotropic 2D Materials"*, ACS Photonics **4**, 3045 (2017).

[228] P.A.D. Gonçalves, L.P. Bertelsen, S. Xiao, and **N.A. Mortensen**, *"Plasmon-exciton polaritons in 2D semiconductor/metal interfaces"* Phys. Rev. B **97**, 041402(R) (2018).

[229] C. Tserkezis, M. Wubs, and **N.A. Mortensen**, *"Robustness of the Rabi splitting under nonlocal corrections in plexcitonics"*, ACS Photonics **5**, 133 (2018).

[230] J.R. Maack, **N.A. Mortensen**, and M. Wubs, *"Two-fluid hydrodynamic model for semiconductors"*, Phys. Rev. B **97**, 115415 (2018).

[231] C. Wolff, K. Busch, and **N.A. Mortensen**, *"Modal expansions in periodic photonic systems with material loss and dispersion"*, Phys. Rev. B **97**, 104203 (2018).

[232] S. Boroviks, R.A. Deshpande, **N.A. Mortensen**, and S.I. Bozhevolnyi, *"Multifunctional meta-mirror: polarization splitting and focusing"*, ACS Photonics **5**, 1648 (2018).

[233] M.S. Carstensen, X. Zhu, O. Iyore, **N.A. Mortensen**, U. Levy, and A. Kristensen, *"Holographic Resonant Laser Printing of metasurfaces using plasmonic template"*, ACS Photonics **5**, 1665 (2018).

[234] J. Linnet, A.R. Walther, C. Wolff, O. Albrektsen, **N.A. Mortensen**, and J. Kjeltrup-Hansen, *"Transparent and conductive electrodes by large-scale nano-structuring of noble metal thin-films"*, Opt. Mater. Express **8**, 1733 (2018).

[235] E.J.C. Dias, D.A. Iranzo, P.A.D. Gonçalves, Y. Jajati, Y.V. Bludov, A.-P. Jauho, **N.A. Mortensen**, F.H.L. Koppens, and N.M.R. Peres, *"Probing Nonlocal Effects in Metals with Graphene Plasmons"*, Phys. Rev. B **97**, 245405 (2018).

[236] R. Deshpande, V.Z. Zenin, F. Ding, **N.A. Mortensen**, and S.I. Bozhevolnyi, *"Direct characterization of near-field coupling in gap plasmon-based metasurfaces"*, Nano Lett. **18**, in press (2018).

[237] **N.A. Mortensen**, P.A.D. Gonçalves, M. Khajavikhan, D.N. Christodoulides, C. Tserkezis, and C. Wolff, *"Fluctuations and noise-limited sensing near the exceptional point of parity-time-symmetric resonator systems"*, Optica **5**, in press (2018). arXiv:1807.02157

[238] C. Tserkezis, P.A.D. Gonçalves, C. Wolff, F. Todisco, K. Busch, and **N.A. Mortensen**, *"Mie-excitons: understanding strong coupling in dielectric nanoparticles"*, arXiv:1805.00788

[239] K.O. Wedel, **N.A. Mortensen**, K.S. Thygesen, and M. Wubs, *"Emergent scale invariance of non-classical plasmons in graphene nanoribbons"*, arXiv:1807.04552

[240] T. Tserkezis, AT.M. Yeşilyurt, J.-S. Huang, and **N.A. Mortensen**, *"Circular dichroism in nanoparticle helices as a template for assessing quantum-informed models in plasmonics"*, arXiv:1809.02417

[241] S. Boroviks, C. Wolff, J. Linnet, Y. Yang, F. Todisco, A.S. Roberts, S.I. Bozhevolnyi, B. Hecht, and **N.A. Mortensen**, *"Interference in edge-scattering from monocrystalline gold flakes"*, arXiv:1809.01542

[242] A.S. Roberts, S.M. Novikov, Y. Yang, Y. Chen, S. Boroviks, J. Beermann, **N.A. Mortensen**, and S. I. Bozhevolnyi, *"Laser writing of bright colours on near-percolation plasmonic reflector arrays"*, arXiv:1808.04556

[243] Y. Ding, Z. Cheng, X. Zhu, K. Yvind, J. Dong, M. Galili, H. Hu, **N.A. Mortensen**, S. Xiao, and L.K. Oxenløwe, *"Ultra-compact graphene plasmonic photodetector with the bandwidth over 110GHz"*, arXiv:1808.04815

[244] A.S. Roberts, M. Chirumamilla, D. Wang, L. An, K. Pedersen, **N.A. Mortensen**, and S.I. Bozhevolnyi, *"Refractory titanium nitride near-infrared multi-layer selective emitter for thermophotovoltaics"* (submitted, 2018).

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

[245] **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).

[246] **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).

[247] U. Levy, P. Berini, S.A. Maier, and **N.A. Mortensen**, *"Focus Issue on surface plasmon photonics: introduction"*, Opt. Express **23**, 32075 (2015).

[248] S.I. Bozhevolnyi and **N.A. Mortensen**, *"Plasmonics for emerging quantum technologies"*, Nanophotonics **6**, 1185 (2017).

[249] X. Zhu, M.K. Hedayati, S. Raza, U. Levy, **N.A. Mortensen**, and A. Kristensen, *"Digital resonant laser printing: Bridging nanophotonic science and consumer products"*, Nano Today **19**, 7 (2018).

[250] A.I. Fernández-Domínguez, S.I. Bozhevolnyi, and **N.A. Mortensen**, *"Plasmon-enhanced generation of non-classical light"*, ACS Photonics **5**, 3447 (2018).

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

[4] M. Wubs and **N.A. Mortensen**, *"Nonlocal Response in Plasmonic Nanostructures"* in *"Quantum Plasmonics"*, Springer Series in Solid-State Sciences **185**, 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: 10.1142/9789813228726_0003

Other publications:

[1] 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), 28 (2004).

[2] X. Zhu, C. Vannahme, E. Højlund-Nielsen, **N.A. Mortensen**, and A. Kristensen, *"Plasmon-Assisted Color Laser Printing"*, Optics & Photonics News **27**(12), 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-Niensen, C. Vannahme, and **N.A. Mortensen**, *"Photothermal modification of plasmonic structures"*, US 20180178571A1.