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Personal Data

Born: 19 June, 1955 in Krasnodar region, Russia
Citizenship: Danish
Work Address: University of Southern Denmark, Centre for Nano Optics,
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Education

1998 Dr. Scient. (Near-Field Optics), University of Aarhus, Denmark
1981 Ph.D. in Physics (Integrated Optics), Moscow Institute of Physics and Technology, Russia
1978 M. Sc. in Physics (Quant. Electronics), Moscow Institute of Physics and Technology, Russia

Employment

2016 - D-IAS Chair of Technical Sciences, University of Southern Denmark, Odense, Denmark
2013 - Head of Centre for Nano Optics, University of Southern Denmark, Odense, Denmark
2008 - Professor, University of Southern Denmark, Odense, Denmark
2003 - 2009 Professor (MSO) Aalborg University, Denmark
2001 - 2004 Technical Director (CTO), Micro Managed Photons A/S, Denmark
1998 - 1999 Associate Research Professor, COM, Technical University of Denmark
1994 - 2003 Associate Professor, Aalborg University, Denmark
1992 - 1994 Assistant Professor, Aalborg University, Denmark
1991 - 1992 Visiting scientist, Aalborg University, Denmark
1990 - 1991 Head of Section of Optical Technologies, Institute of Microelectronics, Russian Academy of Sciences, Yaroslavl, Russia
1987 - 1988 Visiting researcher, Aalborg University, Denmark
1985 - 1989 Associate Professor, Polytechnic University, Yaroslavl, Russia
1981 - 1984 Assistant Professor, Polytechnic University, Yaroslavl, Russia

Research Leadership

- Principal Investigator on 11 national and Partner on 5 European research projects and programmes (total funding > 10 M€)
- Reviewer for the EU-H2020 proposals with the FET domain
- Reviewer for Nature journals; Science; Nano Letters; APS, OSA, AIP and IOP journals
- Reviewer for research councils in Denmark, Netherlands, Australia, USA, UK, Israel, Canada, Finland
- Chair for the conference on Surface Plasmon Photonics (SPP9) and the accompanying PhD summer school to be held in 2019 in Copenhagen and Odense (Denmark)
- Co-chair for the Workshop on Topological Nanophotonics held in May, 2018 in Odense (Denmark)
- Co-organizer of the Quantum Plasmonics (2015) and Quantum Nanophotonics (2017 & 2019) workshops held at the Science Center of Benasque (Spain)
- Chair for Nanophotonics, Plasmonics, Near Field Optics at CLEO/Europe-EQEC (2009)
- Co-Chair for Optical Microscopy & Metrology at ICO Meetings on Optoinformatics (2004, 2006)
- Program committee member for international conferences: SPIE annual meetings on Plasmonics (2005 – 08), CLEO (2006), ICONO (2007), OSA Topical (IPR) Meetings on Integrated Photonics Research, Silicon and Nanophotonics (2010, 2011), META, SPP and NFO conferences since 2007
- Head of Centre for Nano Optics, University of Southern Denmark (www.sdu.dk/nano-optics) (since 2013)
- Management Committee for EU-COST Action MP0803 on plasmonics (since 2008)

- Management Committee for EU-COST Action MP0803 on plasmonics (since 2008) Chairman of 2008 Max Born Award Committee (OSA) (2007 – 2008)
- Chairman of the Research Board of the EU-NoE “PLASMO-NANO-DEVICES” (2006 – 2008)
- Technical Director (CTO), Micro Managed Photons A/S, Denmark (2001 – 2004)
- Elected member of the board, Institute of Physics, Aalborg University, (2000 – 2008)
- Coordinator of EU student exchange program “ERASMUS” at Aalborg University (1999 – 2008)

Research

- Peer-reviewed articles: > 500 (including 21 in Nano Letters, 9 in Physical Review Letters and 16 in Nature journals) with 18 highly cited papers (top 1% in the field according to Web of Science), 10 patents (incl. patent applications) and 14 book chapters; editor of “Plasmonic Nano-Guides and Circuits”, World Scientific, Singapore, 2008; co-editor of “Quantum Plasmonics”, Springer; Cham, 2017.
- Total citations: > 22.000 registered by Web of Science, h-index = 67 [ResearcherID: E-9423-2011] More than 100 invited talks at international conferences and research seminars.
- Research topics include linear and nonlinear nano-optics, plasmonics including quantum, nanophotonics, integrated and fiber optics, surface-enhanced Raman spectroscopy and imaging.

Supervision

Supervised 22 postdoctoral researchers, 22 Ph.D. students and 21 M.Sc. students. External censorship for overall > 15 PhD dissertations in Denmark, Sweden, UK, France, Germany, Austria and Australia.

Innovation

- Industrial collaboration within national and international research projects with: Danisco, Senmatic, Unisense, NanoNord, IBM, Alcatel-Lucent, Kodak, Oclaro, AMO, Silios, Sengenica and others.
- Co-founder and CTO of Micro Managed Photons A/S (2001-2004) set out to commercialize plasmonic (long-range surface plasmon-polariton based) interconnects within the topics enclosed by 3 patents.
- Co-author of 10 patents and patent applications (5 filed in Russia and 5 filed in Denmark).

Awards (selected)

2019	Danish Optical Society (DOPS) Senior Award
2019	Elected Member of Danish Academy of Technical Sciences (ATV)
2019	Villum Kann Rasmussen Award 2019 in Science and Technology
2017 -2018-2019	Web of Science (Clarivate/Thomson-Reuters) List of Highly Cited Researchers in physics
2016	Leverhulme Visiting Professorship at King’s College London
2013	ERC Advanced Grant “PLAQNAP”
2011	Elected Member of Danish Academy of Natural Sciences (DNA)
2009	Research Prize “Fyens Stiftstidendes Forskerpris 2009”
2007	Elected Fellow of the Optical Society of America (OSA Fellow)

Recent research grants > 100.000 DKK:

2019 -2024	Villum Kann Rasmussen Grant for Research in Technical and Natural Sciences.
2019	Novo Nordisk Grant “The 9th International Conference on Surface Plasmon Photonics (SPP9)”.
2014 - 2020	ERC Advanced Grant “Plasmon-based Functional and Quantum Nanophotonics (PLAQNAP)”.
2014 - 2020	SDU2020 Nano-Plasmonics for Future and Emerging Technologies (FET)
2014 - 2019	ERC Advanced Grant “Plasmon-based Functional and Quantum Nanophotonics (PLAQNAP)”.
2013 - 2016	FTP “Plasmonic metal nanostructures for thermophotovoltaics (PlasTPV)”.
2013 - 2015	FNU “Optical metamaterials using detuned electrical dipoles”.
2012 - 2016	EU-ICT IP “Photonics for High-Performance, Low-Cost & Low-Energy Data Centers, High Performance Computing Systems: Terabit/s Optical Interconnect Technologies for On-Board, Board-to-Board, Rack-to-Rack data links (PhoxTroT)”.
2010 - 2012	Lundbeck Fond “Plasmonic nanostructures for surface enhanced Raman imaging”.
2010 - 2014	FTP “Active Nano-Plasmonics (ANAP)”.
2010 - 2013	EU-ICT STREP “Merging plasmonic and silicon photonics technology toward Tb/s routing in optical interconnects (PLATON)” FP7-ICT-2009-4.
2007 - 2010	FTP “Channel plasmon polariton based components for nanophotonics”.
2006 - 2010	EU STREP “Polymer-based nanoplasmonic components and devices (PLASMOCOM)”.
2006 - 2009	SFR-NABIIT “Plasmonic optical chips for medical diagnostics and chemical sensing”.
2005 - 2006	FNU “Mapping of local fields at nanostructured surfaces”.

2005 - 2008	STVF "SPP guiding along nanostructured surfaces".
2004 - 2008	STVF "Planar Intergrated PBG Elements (PIPE)"
2004 - 2008	EU NoE "PLASMO-NANO-DEVICES" FP6-2002-IST-1-507879.
2003 - 2006	MVTU "Center for Micro-Optical Structures (CEMOST)".
2000 - 2003	EU STREP "Photonic integrated circuits using photonic crystal circuits (PICCO)".
2001	STVF "Telecom optical probing equipment for genuine integrated optics".
1999 - 2001	SNF "Nano-optics of semiconductor quantum dots".

Research outputs

Inducing room-temperature valley polarization of excitonic emission in transition metal dichalcogenide monolayers

Morozov, S., Yezeqyan, T., Wolff, C., Bozhevolnyi, S. I. & Mortensen, N. A., Dec 2024, In: npj 2D Materials and Applications. 8, 24, 24.

Sub-to-super-Poissonian photon statistics in cathodoluminescence of color centers in diamonds

Morozov, S., Fiedler, S., Komisar, D., Ekimov, E. A., Kulikova, L. F., Davydov, V. A., Agafonov, V. N., Kumar, S., Wolff, C., Bozhevolnyi, S. I. & Mortensen, N. A., 7. Jun 2024.

Tempering Multichannel Photon Emission from Emitter-Coupled Holographic Metasurfaces

Kan, Y., Liu, X., Kumar, S. & Bozhevolnyi, S. I., 17. Apr 2024, In: ACS Photonics. 11, 4, p. 1584-1591

Plasmonic electro-optic modulators on lead zirconate titanate platform

Yezeqyan, T., Thomaschewski, M., Thrane, P. C. V. & Bozhevolnyi, S. I., 22. Mar 2024, (E-pub ahead of print) In: Nanophotonics.

MEMS-integrated metasurfaces for dynamic linear polarizers

Deng, Y., Meng, C., Thrane, P. C. V., Sande, S. I., Bozhevolnyi, S. I. & Ding, F., Mar 2024, In: Optica. 11, 3, p. 326-332

Intracavity spatially modulated metasurfaces for a wavelength-tunable figure-9 vortex fiber laser

Wang, C., Gui, L., Mei, X., Chen, H., Ding, F., Meng, C., Bozhevolnyi, S. I. & Xu, K., 12. Feb 2024, In: Optics Express. 32, 4, p. 6423-6431

Electrically tunable topological phase transition in non-Hermitian optical MEMS metasurfaces

Ding, F., Deng, Y., Meng, C., Thrane, P. C. V. & Bozhevolnyi, S. I., 2. Feb 2024, In: Science Advances. 10, 5, 7 p.

Ultra-compact single-photon sources of linearly polarized vortex beams

Liu, X., Kan, Y., Kumar, S., Kulikova, L. F., Davydov, V. A., Agafonov, V. N., Zhao, C. & Bozhevolnyi, S. I., 25. Jan 2024, In: Advanced Materials. 36, 4, 8 p., 2304495.

2D semiconductors as integrated light sources for plasmonic waveguides

Frydendahl, C., Yezeqyan, T., Zenin, V. & Bozhevolnyi, S. I., 2024, *Nanophotonics X*. Andrews, D. L., Bain, A. J. & Ambrosio, A. (eds.). SPIE - International Society for Optical Engineering, 3 p. 129911H. (Proceedings of SPIE - The International Society for Optical Engineering, Vol. 12991).

Near-Field Observation of the Photonic Spin Hall Effect

Thomaschewski, M., Prämassing, M., Schill, H. J., Zenin, V. A., Bozhevolnyi, S. I., Sorger, V. J. & Linden, S., 27. Dec 2023, In: Nano Letters. 23, 24, p. 11447-11452

Advances in quantum meta-optics

Ding, F. & Bozhevolnyi, S. I., Dec 2023, In: Materials Today. 71, p. 63-72

Large Spontaneous Emission Enhancement with Silver Nanocube Dimers on Silver Substrates

Kan, Y., Bozhevolnyi, S. I. & Kumar, S., Dec 2023, In: Advanced Quantum Technologies. 6, 12, 2300196.

Multiple channelling single-photon emission with scattering holography designed metasurfaces

Komisar, D., Kumar, S., Kan, Y., Meng, C., Kulikova, L. F., Davydov, V. A., Agafonov, V. N. & Bozhevolnyi, S. I., Dec 2023, In: Nature Communications. 14, 1, 7 p., 6253.

Inducing room-temperature valley polarization in transition metal dichalcogenide monolayers

Morozov, S., Yezekyan, T., Wolff, C., Bozhevolnyi, S. I. & Mortensen, N. A., 22. Nov 2023.

Multichannel Quantum Emission with On-Chip Emitter-Coupled Holographic Metasurfaces

Kan, Y., Liu, X., Kumar, S. & Bozhevolnyi, S. I., 24. Oct 2023, In: ACS Nano. 17, 20, p. 20308-20314

Tungsten nanodisc-based spectrally-selective polarization-independent thermal emitters

Chirumamilla, A., Ding, F., Yang, Y., Mani Rajan, M. S., Bozhevolnyi, S. I., Sutherland, D. S., Pedersen, K. & Chirumamilla, M., 15. Aug 2023, In: Solar Energy Materials and Solar Cells. 259, 7 p., 112449.

On-chip generation of single-photon circularly polarized single-mode vortex beams

Liu, X., Kan, Y., Kumar, S., Komisar, D., Zhao, C. & Bozhevolnyi, S. I., 9. Aug 2023, In: Science Advances. 9, 32, 9 p., eadh0725.

Nonlocal electro-optic metasurfaces for free-space light modulation

Damgaard-Carstensen, C. & Bozhevolnyi, S. I., 1. Jul 2023, In: Nanophotonics. 12, 14, p. 2953-2962

Sub-to-super-Poissonian photon statistics in cathodoluminescence of color center ensembles in isolated diamond crystals

Fiedler, S., Morozov, S., Komisar, D., Ekimov, E. A., Kulikova, L. F., Davydov, V. A., Agafonov, V. N., Kumar, S., Wolff, C., Bozhevolnyi, S. I. & Mortensen, N. A., 1. Jun 2023, In: Nanophotonics. 12, 12, p. 2231-2237

Unusual phase transition in 1D localization and its observability in optics

Bozhevolnyi, S. I. & Suslov, I. M., 1. Jun 2023, In: Physica Scripta. 98, 6, 10 p., 065024.

Advances in Metaphotonics Empowered Single Photon Emission

Kan, Y. & Bozhevolnyi, S. I., 19. May 2023, In: Advanced Optical Materials. 11, 10, 15 p., 2202759.

Germanium metasurface assisted broadband detectors

Yezekyan, T., Zenin, V. A., Thomaschewski, M., Malureanu, R. & Bozhevolnyi, S. I., 11. May 2023, In: Nanophotonics. 12, 12, p. 2171-2177

Broadband spin-multiplexed single-celled metasurface holograms: a comprehensive comparison between different strategies

Im Sande, S., Bozhevolnyi, S. I. & Ding, F., 2. Apr 2023, In: Nanophotonics. 12, 8, p. 1363-1371

60 nm span wavelength-tunable vortex fiber laser with intracavity plasmon metasurfaces

Gui, L., Wang, C., Ding, F., Chen, H., Xiao, X., Bozhevolnyi, S. I., Zhang, X. & Xu, K., 15. Mar 2023, In: ACS Photonics. 10, 3, p. 623-631

Optical Metasurfaces

Bozhevolnyi, S. I. (Inventor), Meng, C. (Inventor), Ding, F. (Inventor), Dirdal, C. A. (Inventor), Gjessing, J. (Inventor) & Thrane, P. C. V. (Inventor), 9. Mar 2023, IPC No. G02B26/08, G02B5/00, Patent No. US2023072722 (A1), Priority date 7. Sept 2021, Priority No. US202117467542

Optical reflective metasurfaces based on mirror-coupled slot antennas

Ebel, S., Deng, Y., Hentschel, M., Meng, C., Sande, S. I., Giessen, H., Ding, F. & Bozhevolnyi, S. I., 2. Jan 2023, In: Advanced Photonics Nexus. 2, 1, 9 p., 016005.

Adaptive Metasurfaces for Smart Standalone Histopathology with Polarized Light using adaptive metasurfaces

Dirdal, C., Meng, C., Sieryi, O., Thrane, P., Bykov, A., Bozhevolnyi, S. I. & Meglinski, I., 2023, *2023 Conference on Lasers and Electro-Optics Europe & European Quantum Electronics Conference (CLEO/Europe-EQEC)*. IEEE, p. 1 (Conference

on Lasers & Electro-Optics Europe & International Quantum Electronics Conference).

Dark-probe scanning near-field microscopy

Parsamyan, H., Yezeqyan, T., Nerkararyan, K. & Bozhevolnyi, S. I., 2023, In: New Journal of Physics. 25, 10, 11 p., 103015.

Nanoscale light field imaging with graphene

Yu, T., Rodriguez, F., Schedin, F., Kravets, V. G., Zenin, V. A., Bozhevolnyi, S. I., Novoselov, K. S. & Grigorenko, A. N., Dec 2022, In: Communications Materials. 3, 1, 8 p., 40.

MEMS tunable metasurfaces based on gap plasmon or Fabry-Pérot resonances

Thrane, P. C. V., Meng, C., Ding, F. & Bozhevolnyi, S. I., 14. Sept 2022, In: Nano Letters. 22, 17, p. 6951-6957

Plasmonic lithium niobate Mach-Zehnder modulators

Thomaschewski, M., Zenin, V. A., Fiedler, S., Wolff, C. & Bozhevolnyi, S. I., 24. Aug 2022, In: Nano Letters. 22, 16, p. 6471-6475

Anapole states in gap-surface plasmon resonators

Yezeqyan, T., Zenin, V. A., Beermann, J. & Bozhevolnyi, S. I., 10. Aug 2022, In: Nano Letters. 22, 15, p. 6098-6104

Ultimate limit for optical losses in gold, revealed by quantitative near-field microscopy

Lebsir, Y., Boroviks, S., Thomaschewski, M., Bozhevolnyi, S. I. & Zenin, V. A., 27. Jul 2022, In: Nano Letters. 22, 14, p. 5759-5764

Electro-optic metasurface-based free-space modulators

Damgaard-Carstensen, C., Thomaschewski, M. & Bozhevolnyi, S. I., 26. Jul 2022, In: Nanoscale. 14, 31, p. 11407-11414

Characterization of gap-plasmon-based metasurfaces with scanning white-light interferometry

Akhmedzhanov, I. M., Baranov, D. V., Zavedeev, E. V., Deshpande, R. A. & Bozhevolnyi, S. I., Jul 2022, In: Journal of Optical Technology. 89, 7, p. 378-387

Molding photon emission with hybrid plasmon-emitter coupled metasurfaces

Kan, Y. & Bozhevolnyi, S. I., 20. Jun 2022, In: Advanced Optical Materials. 10, 12, 6 p., 2102697.

Gold metasurfaces as saturable absorbers for all-normal-dispersion ytterbium-doped mode-locked fiber laser

Chen, Z., Gui, L., Wang, C., Xiao, X., Meng, C., Bozhevolnyi, S. I., Zhang, T., Zhang, X. & Xu, K., 1. Jun 2022, In: IEEE Photonics Journal. 14, 3, 6 p., 1530406.

Extremely confined gap plasmon modes: when nonlocality matters

Boroviks, S., Lin, Z. H., Zenin, V. A., Ziegler, M., Dellith, A., Gonçalves, P. A. D., Wolff, C., Bozhevolnyi, S. I., Huang, J. S. & Mortensen, N. A., Jun 2022, In: Nature Communications. 13, 1, 8 p., 3105.

Pockels modulation in integrated nanophotonics

Thomaschewski, M. & Bozhevolnyi, S. I., Jun 2022, In: Applied Physics Reviews. 9, 2, 021311.

Recent progress in metasurface-enabled optical waveplates

Deng, Y., Cai, Z., Ding, Y., Bozhevolnyi, S. I. & Ding, F., 1. May 2022, In: Nanophotonics. 11, 10, p. 2219-2244

Full-range birefringence control with piezoelectric MEMS-based metasurfaces

Meng, C., Thrane, P. C. V., Ding, F. & Bozhevolnyi, S. I., 19. Apr 2022, In: Nature Communications. 13, 1, 7 p., 2071.

Quantum hybrid plasmonic nanocircuits for versatile polarized photon generation

Wu, C., Kumar, S., Komisar, D., Meng, C., Deng, Y., Wang, Z., Bozhevolnyi, S. I. & Ding, F., 18. Mar 2022, In: Advanced Optical Materials. 10, 6, 11 p., 2101596.

Room-temperature on-chip orbital angular momentum single-photon sources

Wu, C., Kumar, S., Kan, Y., Komisar, D., Wang, Z., Bozhevolnyi, S. I. & Ding, F., 11. Mar 2022, In: *Science Advances*. 8, 2, eabk3075.

Gold Metasurface for Passive Mode-locking at 1 μm Region

Chen, Z., Gui, L., Xiao, X., Meng, C., Bozhevolnyi, S. I. & Xu, K., 2022, *2022 Conference on Lasers and Electro-Optics, CLEO 2022 - Proceedings*. The Optical Society, JW3B.114. (Conference on Lasers and Electro-Optics).

Plasmon-empowered nanophotonics: from circuitry to metasurfaces

Bozhevolnyi, S. I., 2022, In: *EPJ Web of Conferences*. 267, 1 p., 02048.

Vortex Beam Generation Directly from a Fiber Laser Incorporating Plasmon Metasurface

Wang, C., Gui, L., Zhang, T., Ding, F., Bozhevolnyi, S. I. & Xu, K., 2022, *CLEO: QELS_Fundamental Science, QELS 2022*. Optica Publishing Group, FW1C.4. (Optics InfoBase Conference Papers).

Functional metasurface quarter-wave plates for simultaneous polarization conversion and beam steering

Deng, Y., Wu, C., Meng, C., Bozhevolnyi, S. I. & Ding, F., 23. Nov 2021, In: *ACS Nano*. 15, 11, p. 18532–18540

Spectrally selective emitters based on 3D Mo nanopillars for thermophotovoltaic energy harvesting

Chirumamilla, A., Yang, Y., Salazar, M. H., Ding, F., Wang, D., Kristensen, P. K., Fojan, P., Bozhevolnyi, S. I., Sutherland, D. S., Pedersen, K. & Chirumamilla, M., Nov 2021, In: *Materials Today Physics*. 21, 10 p., 100503.

Nanofocusing: reaching out

Zenin, V. A. & Bozhevolnyi, S. I., 2. Oct 2021, In: *Nanophotonics*. 10, 14, p. 3613-3618

Single photon emitters coupled to plasmonic waveguides: a review

Kumar, S. & Bozhevolnyi, S. I., Oct 2021, In: *Advanced Quantum Technologies*. 4, 10, 14 p., 2100057.

On-chip Ge photodetector efficiency enhancement by local laser-induced crystallization

Yezekyan, T., Thomaschewski, M. & Bozhevolnyi, S. I., 22. Sept 2021, In: *Nano Letters*. 21, 18, p. 7472-7478

Generation of radially polarized single photons with plasmonic bullseye antennas

Komisar, D., Kumar, S., Kan, Y., Wu, C. & Bozhevolnyi, S. I., 18. Aug 2021, In: *ACS Photonics*. 8, 8, p. 2190-2196

Unprecedented thermal stability of plasmonic titanium nitride films up to 1400 °C

Krekeler, T., Rout, S. S., Krishnamurthy, G. V., Störmer, M., Arya, M., Ganguly, A., Sutherland, D. S., Bozhevolnyi, S. I., Ritter, M., Pedersen, K., Petrov, A. Y., Eich, M. & Chirumamilla, M., 18. Aug 2021, In: *Advanced Optical Materials*. 9, 16, 11 p., 2100323.

Electrical Tuning of Fresnel Lens in Reflection

Damgaard-Carstensen, C., Thomaschewski, M., Ding, F. & Bozhevolnyi, S. I., 16. Jun 2021, In: *ACS Photonics*. 8, 6, p. 1576–1581

Dual-functional optical waveplates based on gap-surface plasmon metasurfaces

Cai, Z., Deng, Y., Wu, C., Meng, C., Ding, Y., Bozhevolnyi, S. I. & Ding, F., 4. Jun 2021, In: *Advanced Optical Materials*. 9, 11, 2002253.

Dynamic piezoelectric MEMS-based optical metasurfaces

Meng, C., Thrane, P. C. V., Gjessing, J., Ding, F., Thomaschewski, M., Wu, C., Dirdal, C. & Bozhevolnyi, S. I., Jun 2021, In: *Science Advances*. 7, 26, 11 p., eabg5639.

Recent Advances in Polarization-Encoded Optical Metasurfaces

Ding, F., Tang, S. & Bozhevolnyi, S. I., Jun 2021, In: *Advanced Photonics Research*. 2, 6, 18 p., 2000173.

High-Speed Plasmonic Electro-Optic Beam Deflectors

Thomaschewski, M., Wolff, C. & Bozhevolnyi, S. I., 30. Apr 2021, In: *Nano Letters*. 21, 9, p. 4051-4056

Fluorescence enhancement of a single germanium vacancy center in a nanodiamond by a plasmonic Bragg cavity

Kumar, S., Wu, C., Komisar, D., Kan, Y., Kulikova, L. F., Davydov, V. A., Agafonov, V. N. & Bozhevolnyi, S. I., 28. Jan 2021, In: *The Journal of Chemical Physics*. 154, 4, 8 p., 044303.

Dielectric-loading approach for extra electric field enhancement and spatially transferring plasmonic hot-spots

Wan, M., Wu, J., Liu, J., Chen, Z., Gu, P., Zhan, P., Wang, Z. & Bozhevolnyi, S. I., 15. Jan 2021, In: *Nanotechnology*. 32, 3, 035205.

Anisotropic second-harmonic generation from monocrystalline gold flakes

Boroviks, S., Yezekyan, T., Echarri, Á. R., Abajo, F. J. G. D., Cox, J. D., Bozhevolnyi, S. I., Mortensen, N. A. & Wolff, C., 2021, In: *Optics Letters*. 46, 4, p. 833-836

Single-Photon Generation Engineering

Kumar, S. & Bozhevolnyi, S. I., 2021, In: *ACS Photonics*. 8, 11, p. 3119–3124

Versatile linearly polarized photon generation from a quantum emitter in metasurface-decorated waveguides

Wu, C., Ding, F., Wang, Z. & Bozhevolnyi, S. I., 2021, *Integrated Optics: Design, Devices, Systems and Applications VI*. Cheben, P., Ctyroky, J. & Molina-Fernandez, I. (eds.). SPIE - International Society for Optical Engineering, 117750S. (Proceedings of SPIE, the International Society for Optical Engineering, Vol. 11775).

Demonstration of $> 2\pi$ reflection phase range in optical metasurfaces based on detuned gap-surface plasmon resonators

Damgaard-Carstensen, C., Ding, F., Meng, C. & Bozhevolnyi, S. I., 1. Dec 2020, In: *Scientific Reports*. 10, 1, 19031.

Spin-Orbit Controlled Excitation of Quantum Emitters in Hybrid Plasmonic Nanocircuits

Kan, Y., Kumar, S., Ding, F., Zhao, C. & Bozhevolnyi, S. I., Nov 2020, In: *Advanced Optical Materials*. 8, 21, 2000854.

Versatile Polarization Generation and Manipulation Using Dielectric Metasurfaces

Ding, F., Chang, B., Wei, Q., Huang, L., Guan, X. & Bozhevolnyi, S. I., Nov 2020, In: *Laser and Photonics Reviews*. 14, 11, 7 p., 2000116.

Efficient Coupling of Single Organic Molecules to Channel Plasmon Polaritons Supported by V-Grooves in Monocrystalline Gold

Kumar, S., Leißner, T., Boroviks, S., Andersen, S. K. H., Fiutowski, J., Rubahn, H.-G., Mortensen, N. A. & Bozhevolnyi, S. I., 19. Aug 2020, In: *ACS Photonics*. 7, 8, p. 2211-2218

On the applicability of quantum-optical concepts in strong-coupling nanophotonics

Tserkezis, C., Fernández-Domínguez, A. I., Gonçalves, P. A. D., Todisco, F., Cox, J. D., Busch, K., Stenger, N., Bozhevolnyi, S. I., Mortensen, N. A. & Wolff, C., Aug 2020, In: *Reports on progress in physics. Physical Society (Great Britain)*. 83, 8, 10 p., 082401.

Optical Gap-Surface Plasmon Metasurfaces for Spin-Controlled Surface Plasmon Excitation and Anomalous Beam Steering

Meng, C., Tang, S., Ding, F. & Bozhevolnyi, S. I., 17. Jul 2020, In: *ACS Photonics*. 7, 7, p. 1849-1856

Fractal Shaped Periodic Metal Nanostructures Atop Dielectric-Metal Substrates for SERS Applications

Novikov, S. M., Boroviks, S., Evlyukhin, A. B., Tatarkin, D. E., Arsenin, A. V., Volkov, V. S. & Bozhevolnyi, S. I., 15. Jul 2020, In: *ACS Photonics*. 7, 7, p. 1708-1715

Metasurface-enabled broadband beam splitters integrated with quarter-wave plate functionality

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Preface

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Near Field Optical Microscopy: A Rigorous Approach
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Activities

Anapole states in gap-surface plasmon resonators

Yezekyan, T. (Speaker), Zenin, V. (Co-author), Kristiansen, J. B. (Co-author) & Bozhevolnyi, S. I. (Co-author)
25. Oct 2022

The case for quantum plasmonics

Bozhevolnyi, S. I. (Lecturer)
5. Jan 2017

Nanophotonics: light on nanoscale

Bozhevolnyi, S. I. (Lecturer)
7. Dec 2016

Plasmon-based nanophotonics: challenges and perspectives

Bozhevolnyi, S. I. (Lecturer)
25. Nov 2016

Making the best of plasmonics: gradient metasurfaces and single-photon sources

Bozhevolnyi, S. I. (Lecturer)
22. Nov 2016

Plasmonic nanoguides and metasurfaces

Bozhevolnyi, S. I. (Lecturer)
21. Nov 2016

Plasmonics: on the slope of enlightenment

Bozhevolnyi, S. I. (Lecturer)
9. Nov 2016

The case for quantum plasmonics

Bozhevolnyi, S. I. (Lecturer)
2. Nov 2016

Complete control over reflected fields with gap surface plasmons

Bozhevolnyi, S. I. (Lecturer)
5. Oct 2016

Efficient polarization sorting with gap-plasmon based metasurfaces

Bozhevolnyi, S. I. (Lecturer)
21. Sept 2016

Nanophotonics: principles and applications

Bozhevolnyi, S. I. (Lecturer)
4. Jul 2016

Plasmonic waveguides: challenges and perspectives

Bozhevolnyi, S. I. (Lecturer)
8. Jun 2016

Coupling of quantum emitters to channel plasmon polaritons

Bozhevolnyi, S. I. (Lecturer)
4. Apr 2016

Gap plasmon resonators for radiation control

Bozhevolnyi, S. I. (Lecturer)
31. Mar 2016

Coupling of NV centers in nanodiamonds to plasmonic waveguides

Bozhevolnyi, S. I. (Lecturer)
7. Jul 2015

Gap-plasmon based amplitude and phase-gradient metasurfaces

Bozhevolnyi, S. I. (Lecturer)
6. Jul 2015

Radiation control with gap surface plasmons

Bozhevolnyi, S. I. (Lecturer)
3. Jun 2015

Resonant coupling of individual quantum emitters and localized surface plasmons

Bozhevolnyi, S. I. (Lecturer)
11. Mar 2015

Relaxation dynamics of a quantum emitter resonantly coupled to a coherent state of localized surface plasmon

Bozhevolnyi, S. I. (Lecturer)
17. Feb 2015

Controlling radiation scattering and emission with gap plasmon resonators

Bozhevolnyi, S. I. (Lecturer)
8. Jan 2015

Optical metasurfaces based on gap plasmon resonators

Bozhevolnyi, S. I. (Lecturer)
3. Sept 2014

High-efficiency gradient metasurfaces in reflection

Bozhevolnyi, S. I. (Lecturer)
8. Jul 2014

Quantum plasmonics: Coupling of individual quantum emitters to surface plasmons

Bozhevolnyi, S. I. (Lecturer)
4. Jun 2014

Shaping reflected light with gap plasmon based metasurfaces

Bozhevolnyi, S. I. (Lecturer)
4. Mar 2014

Channel plasmon based nanophotonic components: Groove story

Bozhevolnyi, S. I. (Lecturer)
31. Jan 2014

Seminar at the Niels Bohr Institute, Copenhagen University

Bozhevolnyi, S. I. (Participant)
15. Jan 2014

Nano-optics: solving mega problems

Bozhevolnyi, S. I. (Participant)

9. Dec 2013

Molding reflected light with gap plasmon-based metasurfaces

Bozhevolnyi, S. I. (Keynote speaker)

12. Nov 2013

Activ plasmonics for datacom applications

Bozhevolnyi, S. I. (Lecturer)

13. Aug 2013

Gap plasmon based gradient metasurfaces for control of reflected light

Bozhevolnyi, S. I. (Lecturer)

12. Aug 2013

Plasmon nanoguides for quantum photonics

Bozhevolnyi, S. I. (Lecturer)

23. Jul 2013

Anisotropic plasmonic metasurfaces for ultra-thin wave plates

Bozhevolnyi, S. I. (Lecturer)

19. Jun 2013

Plasmonic metasurfaces for broadband absorption and phase control

Bozhevolnyi, S. I. (Lecturer)

27. May 2013

Plasmonic black: broadband light absorption by nanostructured metals

Bozhevolnyi, S. I. (Lecturer)

4. Jan 2013

Active plasmonics for optical interconnects

Bozhevolnyi, S. I. (Lecturer)

16. Sept 2012

Optically interconnecting with plasmonic waveguides

Bozhevolnyi, S. I. (Lecturer)

30. Aug 2012

Plasmonic black: Holes, surfaces and bodies

Bozhevolnyi, S. I. (Lecturer)

1. Jun 2012

Plasmonic waveguide components: Going practical

Bozhevolnyi, S. I. (Lecturer)

16. May 2012

TUTORIAL: "Plasmonic waveguides: Fundamentals and applications"

Bozhevolnyi, S. I. (Lecturer)

18. Apr 2012

TUTORIAL: "Plasmonic waveguides: Challenges and opportunities"

Bozhevolnyi, S. I. (Lecturer)

7. Mar 2012

Ultimate light confinement with plasmonics

Bozhevolnyi, S. I. (Lecturer)
24. Nov 2011

Squeezing light into a nanobox: reaching the ultimate light confinement with plasmonics

Bozhevolnyi, S. I. (Lecturer)
9. Nov 2011

Plasmonic waveguides and circuits: Fundamental issues and practical perspectives

Bozhevolnyi, S. I. (Lecturer)
17. Oct 2011

Plasmonic configurations based on detuned electrical dipoles

Bozhevolnyi, S. I. (Lecturer)
14. Oct 2011

Plasmonic waveguides: fundamentals and practical perspectives

Bozhevolnyi, S. I. (Lecturer)
13. Jul 2011

Optical metamaterials using detuned electrical dipoles

Bozhevolnyi, S. I. (Lecturer)
9. Jun 2011

Optical interconnects using plasmonics: fundamentals and perspectives

Bozhevolnyi, S. I. (Lecturer)
25. May 2011

Plenary talk: Plasmonic interconnects and circuitry: fundamental issues and practical perspectives

Bozhevolnyi, S. I. (Lecturer)
23. May 2011

Optical transparency by detuned electrical dipoles

Bozhevolnyi, S. I. (Lecturer)
4. Jan 2011

Plasmon-based nanophotonics: Fundamentals and practical perspectives

Bozhevolnyi, S. I. (Lecturer)
25. Nov 2010

Plasmonics beyond the diffraction limit

Bozhevolnyi, S. I. (Lecturer)
18. Oct 2010

NanoLight in NanoWorld

Bozhevolnyi, S. I. (Lecturer)
26. Aug 2010 → ...

Nanophotonics: plasmonics beyond the diffraction limit

Bozhevolnyi, S. I. (Lecturer)
27. May 2010

Channel plasmon nanofocusing

Bozhevolnyi, S. I. (Lecturer)

12. Apr 2010

The Optical Properties of a Truncated Spherical Cavity Embedded in Gold

Bozhevolnyi, S. I. (Speaker)

14. Oct 2009 → 16. Oct 2009

Plasmonic nanoguides and circuits

Bozhevolnyi, S. I. (Lecturer)

28. Aug 2009

Dielectric-loaded plasmonic waveguide components

Bozhevolnyi, S. I. (Lecturer)

22. Jun 2009

Plasmonic nano-circuitry

Bozhevolnyi, S. I. (Lecturer)

9. Jun 2009

Plasmonic metasurfaces for waveguiding and field enhancement

Bozhevolnyi, S. I. (Lecturer)

14. Apr 2009

Plasmonic nanoguides

Bozhevolnyi, S. I. (Lecturer)

13. Jan 2009

Plasmonic components for nanophotonics

Bozhevolnyi, S. I. (Lecturer)

6. Jan 2009

Plasmonic nano-guides and circuits

Bozhevolnyi, S. I. (Lecturer)

22. Oct 2008

Plasmonics: light manipulation at nanoscale

Bozhevolnyi, S. I. (Lecturer)

23. Sept 2008

Nanoplasmonics: mega-fields and nano-guides

Bozhevolnyi, S. I. (Lecturer)

7. Jul 2008

Subwavelength waveguiding by surface plasmon polaritons

Bozhevolnyi, S. I. (Lecturer)

30. Jun 2008

Plasmonics: enhancing and guiding fields at nanoscale

Bozhevolnyi, S. I. (Lecturer)

24. Jun 2008

Field enhancement and guiding at nanoscale with surface plasmons

Bozhevolnyi, S. I. (Lecturer)

11. Jun 2008

Nanoplasmonics: subwavelength waveguides, resonators and antennas

Bozhevolnyi, S. I. (Lecturer)

5. May 2008

Nano-antennas and resonators utilizing slow surface plasmons

Bozhevolnyi, S. I. (Lecturer)

25. Mar 2008

Nanoplasmonics for field enhancement and subwavelength guiding

Bozhevolnyi, S. I. (Lecturer)

25. Feb 2008

Prizes

Fyens Stiftstidende Forskerpris 2009

Bozhevolnyi, S. I. (Recipient), 27. Apr 2009

Press/Media

40 nye medlemmer optaget i ATV

Bozhevolnyi, S. I.

09/05/2019

1 Media contribution

55 danske forskere er blandt verdens mest citerede

Bozhevolnyi, S. I.

29/11/2021

1 Media contribution

AKTUELLE: Prestigefyldt bevilling til nano-forskning

Bozhevolnyi, S. I.

26/09/2013

1 item of Media coverage

Bozhevolnyi skinner Blandt Clarivates højt citerede forskere for sjette år i træk

Bozhevolnyi, S. I.

16/11/2023

1 Media contribution

Dem om os: Danskerne set med andre øjne

Bozhevolnyi, S. I.

17/09/2008

1 Media contribution

Fei Ding troede ikke sine egne øjne - 1,9 millioner kroner fra Villum Fonden

Bozhevolnyi, S. I.

20/09/2018

1 Media contribution

Førende forsker til SDU

Bozhevolnyi, S. I.

13/03/2008

1 Media contribution

Fornem hæder til "Master of Light"

Bozhevolnyi, S. I.

23/01/2019

1 Media contribution

Gennembrud for fremtidens supercomputere

Beermann, J. & Bozhevolnyi, S. I.

31/03/2017

1 item of Media coverage

Intens jagt på fremtidens solcelle

Bozhevolnyi, S. I.

02/06/2013

1 item of Media coverage

Kæmpebeløb til forsker på Syddansk Universitet

Bozhevolnyi, S. I.

27/09/2013

1 item of Media coverage

Manden der gør det umulige muligt

Bozhevolnyi, S. I.

23/01/2019

1 Media contribution

"Master of light" modtager Villum Fondens årslegat

Bozhevolnyi, S. I.

23/01/2019

1 Media contribution

Ophavsmand til na-nooptik får legat

Bozhevolnyi, S. I.

26/01/2019

1 Media contribution

POLARITONER BESTÅR AF HALVT LYS OG HALVT STOF

Bozhevolnyi, S. I.

17/06/2022

1 Media contribution

Russiskfødt nanoforsker på SDU modtager en af Danmarks største forskerpriser

Bozhevolnyi, S. I.

23/01/2019

1 Media contribution

SDU - forskere styrer lys rundt om hjørner

Bozhevolnyi, S. I. & Beermann, J.

31/03/2017

1 item of Media coverage

SDU-forskere styrer lys rundt om hjørner

Bozhevolnyi, S. I.

24/03/2017

1 item of Media coverage

SDU giver millioner til egen forskning

Bozhevolnyi, S. I., Vaupel, J. W., Stentoft, J., Albæk, E., Mai, A.-M., Andersen, L. B., Ulven, T., Finsen, B., Hallam, J., Mollenhauer, J., Krøløkke, C., Mandrup, S., Østerdal, L. P. R. & Kjelstrup-Hansen, J.

05/07/2013

1 item of Media coverage

SERGEY I. BOZHEVOLNYI

Bozhevolnyi, S. I.

25/01/2019

1 Media contribution

Søstrene Bisp er tilbage på skærmen

Bozhevolnyi, S. I.

18/02/2019

1 Media contribution

Søstrene Bisp er tilbage på skærmen - Heick, Gløsted og Lange på scenen

Bozhevolnyi, S. I.

19/02/2019

1 Media contribution

The master of light modtager Villum-pris

Bozhevolnyi, S. I.

23/01/2019

1 Media contribution

Villum Fondens årslegat på 5 mio. kroner

Bozhevolnyi, S. I.

05/02/2019

1 Media contribution

Villum Fondens årslegat på 5 mio. kroner

Bozhevolnyi, S. I.

05/02/2019

1 Media contribution

Villum Fondens årslegat på 5 mio. kroner

Bozhevolnyi, S. I.

05/02/2019

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Villum Fondens årslegat på 5 mio. kroner

Bozhevolnyi, S. I.

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Villum Fondens årslegat på 5 mio. kroner

Bozhevolnyi, S. I.

05/02/2019

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