

## Public CV

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## Employment

### Assistant Professor

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1. May 2017 → present

## Research outputs

### Metasurface-Enabled Generation of Circularly Polarized Single Photons

Kan, Y., Andersen, S. K. H., Ding, F., Kumar, S., Zhao, C. & Bozhevolnyi, S. I., 23. Apr 2020, In : *Advanced Materials*. 32, 16, 7 p., 1907832.

### Focused vortex-beam generation using gap-surface plasmon metasurfaces

Ding, F., Chen, Y. & Bozhevolnyi, S. I., 1. Feb 2020, In : *Nanophotonics*. 9, 2, p. 371-378

### Dual-band metasurfaces using multiple gap-surface plasmon resonances

Deshpande, R. A., Ding, F. & Bozhevolnyi, S., 8. Jan 2020, In : *ACS Applied Materials and Interfaces*. 12, 1, p. 1250-1256

### Multifunctional metamirrors for broadband focused vector-beam generation

Ding, F., Chen, Y., Yang, Y. & Bozhevolnyi, S. I., 1. Nov 2019, In : *Advanced Optical Materials*. 7, 22, 8 p., 1900724.

### Dynamic Metasurfaces Using Phase-Change Chalcogenides

Ding, F., Yang, Y. & Bozhevolnyi, S. I., 18. Jul 2019, In : *Advanced Optical Materials*. 7, 14, 15 p., 1801709.

### Gap-surface Plasmon Metasurfaces for Focused Structured-beams Generation

Ding, F. & Bozhevolnyi, S. I., 1. Jul 2019, *2019 Conference on Lasers and Electro-Optics, CLEO 2019 - Proceedings*. IEEE, 2 p. 8749408

### Gap-surface plasmon metasurfaces for broadband circular-to-linear polarization conversion and vector vortex beam generation

Heiden, J. T., Ding, F., Linnet, J., Yang, Y., Beermann, J. & Bozhevolnyi, S. I., 3. May 2019, In : *Advanced Optical Materials*. 7, 9, 9 p., 1801414.

**A review of unidirectional surface plasmon polariton metacouplers**

Ding, F. & Bozhevolnyi, S. I., 1. May 2019, In : I E E E Journal on Selected Topics in Quantum Electronics. 25, 3, 11 p., 4600611.

**Switchable multifunctional terahertz metasurfaces employing vanadium dioxide**

Li, X., Tang, S., Ding, F., Zhong, S., Yang, Y., Jiang, T. & Zhou, J., 1. Apr 2019, In : Scientific Reports. 9, 5454.

**High-efficiency broadband vortex beam generator based on transmissive metasurface**

Tang, S., Li, X., Pan, W., Zhou, J., Jiang, T. & Ding, F., 6. Feb 2019, In : Optics Express. 27, 4, p. 4281-4291

**Active control of anapole states by structuring the phase-change alloy Ge<sub>2</sub>Sb<sub>2</sub>Te<sub>5</sub>**

Tian, J., Luo, H., Yang, Y., Ding, F., Qu, Y., Zhao, D., Qiu, M. & Bozhevolnyi, S. I., 23. Jan 2019, In : Nature Communications. 10, 9 p., 396.

**Gap-surface Plasmon Metasurfaces for Structured Beams Generation**

Ding, F., Chen, Y., Yang, Y. & Bozhevolnyi, S. I., 2019, *2019 Photonics & Electromagnetics Research Symposium - Spring*. IEEE, p. 1276-1280

**Bifunctional gap-plasmon metasurfaces for visible light: polarization-controlled unidirectional surface plasmon excitation and beam steering at normal incidence**

Ding, F., Deshpande, R. A. & Bozhevolnyi, S. I., 31. Dec 2018, In : Light: Science & Applications. 7, 1778.

**Bifunctional Gap-Plasmon Metasurfaces for Visible Light**

Ding, F., Deshpande, R. A. & Bozhevolnyi, S. I., 31. Dec 2018, *Proceedings of the 2018 Progress in Electromagnetics Research Symposium (PIERS-Toyama)*. IEEE, p. 1265-1269 (Progress in Electromagnetics Research Symposium).

**Angle-insensitive narrowband optical absorption based on high-Q localized resonance**

Zhu, X., Fu, J., Ding, F., Jin, Y. & Wu, A., Dec 2018, In : Scientific Reports. 8, 6 p., 15240.

**Direct Characterization of Near-Field Coupling in Gap Plasmon-Based Metasurfaces**

Deshpande, R. A., Zenin, V. A., Ding, F., Mortensen, N. A. & Bozhevolnyi, S. I., 14. Sep 2018, In : Nano Letters. 18, 10, p. 6265-6270

**Special issue on "metasurfaces: Physics and applications"**

Ding, F., Genevet, P. & Bozhevolnyi, S. I., Sep 2018, In : Applied Sciences (Switzerland). 8, 10, 1727.

**Polarization-selective dual-wavelength gap-surface plasmon metasurfaces**

Tang, S., Ding, F., Jiang, T., Cai, T. & Xu, H., 29. Aug 2018, In : Optics Express. 26, 18, p. 23760-23769

**Plasmonic nano-Arrays for ultrasensitive bio-sensing**

Jiang, J., Wang, X., Li, S., Ding, F., Li, N., Meng, S., Li, R., Qi, J., Liu, Q. & Liu, G. L., 28. Aug 2018, In : Nanophotonics. 7, 9, p. 1517-1531

**A review of gap-surface plasmon metasurfaces: fundamentals and applications**

Ding, F., Yang, Y., Deshpande, R. A. & Bozhevolnyi, S. I., 27. Jun 2018, In : Nanophotonics. 7, 6, p. 1129-1156

**Near-field phase characterization of gradient gap plasmon-based metasurfaces**

Deshpande, R. A., Zenin, V. A., Ding, F., Mortensen, N. A. & Bozhevolnyi, S. I., May 2018, *Proceedings of SPIE Photonics Europe: Metamaterials XI*. Zayats, A. V., Boardman, A. D. & MacDonald, K. F. (eds.). SPIE - International Society for Optical Engineering, Vol. 10671. 1067129

**Vanadium Dioxide Integrated Metasurfaces with Switchable Functionalities at Terahertz Frequencies**

Ding, F., Bozhevolnyi, S. I. & Zhong, S., 27. Feb 2018, In : Advanced Optical Materials. 6, 9, 1701204.

#### **Confined growth of ZIF-8 nanocrystals with tunable structural colors**

Chang, B., Yang, Y., Jansen, H., Ding, F., Mølhave, K. & Sun, H., 2018, In : *Advanced Materials Interfaces*. 5, 9, 1701270.

#### **Gradient metasurfaces: a review of fundamentals and applications**

Ding, F., Pors, A. L. & Bozhevolnyi, S. I., 2018, In : *Reports on Progress in Physics*. 81, 2, 44 p., 026401.

#### **Metasurface-based polarimeters**

Ding, F., Chen, Y. & Bozhevolnyi, S. I., 2018, In : *Applied Sciences*. 8, 4, 594.

#### **On-chip spectropolarimetry by fingerprinting with random surface arrays of nanoparticles**

Chen, Y., Ding, F., Coello, V. & Bozhevolnyi, S. I., 2018, In : *ACS Photonics*. 5, 5, p. 1703-1710

#### **Chip-size Plasmonic Spectropolarimeters**

Ding, F., Pors, A. L., Chen, Y., Zenin, V. & Bozhevolnyi, S. I., 14. May 2017.

#### **Beam-Size-Invariant Spectropolarimeters Using Gap-Plasmon Metasurfaces**

Ding, F., Pors, A. L., Chen, Y., Zenin, V. & Bozhevolnyi, S. I., 2017, In : *ACS Photonics*. 4, 4, p. 943–949

#### **Detection of internal fields in double-metal terahertz resonators**

Mitrofanov, O., Han, Z., Ding, F., Bozhevolnyi, S. I. & Brenner, I., 2017, In : *Applied Physics Letters*. Lett. 110, 6

#### **Spectroscopy and mapping of resonant fields in terahertz plasmonic resonators**

Mitrofanov, O., Han, Z., Ding, F., Bozhevolnyi, S. I., Brenner, I. & Reno, J. L., 2017, *Quantum Sensing and Nano Electronics and Photonics XIV*. Razeghi, M. (ed.). Art.No.101110R ed. SPIE - International Society for Optical Engineering , 7 p. (Proceedings of SPIE, the International Society for Optical Engineering, Vol. 10111).

#### **Tungsten based anisotropic metamaterial as an ultra-broadband absorber**

Lin, Y., Cui, Y., Ding, F., FUNG, KIN. HUNG., Ji, T., Li, D. & Hao, Y., 2017, In : *Optical Materials Express*. 7, 2, p. 606-617

#### **Ultrabroadband super-Planckian radiative heat transfer with artificial continuum cavity states in patterned hyperbolic metamaterials**

Dai, J., Ding, F., Bozhevolnyi, S. I. & Yan, M., 2017, In : *Physical Review B*. 95, 24

#### **Broadband near-infrared metamaterial absorbers utilizing highly lossy metals**

Ding, F., Dai, J., Chen, Y., Zhu, J., Jin, Y. & Bozhevolnyi, S. I., 2016, In : *Scientific Reports*. 6, p. 39445 9 p., 39445.

#### **Large-area, lithography-free, low-cost SERS sensor with good flexibility and high performance**

Jiang, J., Xu, Z., Ameen, A., Ding, F., Lin, Y. G. & Liu, L., 2016, In : *Nanotechnology*. 27, 38, 8 p., 385205.

#### **Multilayer tungsten-alumina-based broadband light absorbers for high-temperature applications**

Chirumamilla, M., Roberts, A. S., Ding, F., Wang, D., Kjær Kristensen, P., Bozhevolnyi, S. I. & Pedersen, K., 2016, In : *Optical Materials Express*. 6, 8, p. 2704-2714

#### **Random-phase metasurfaces at optical wavelengths**

Pors, A. L., Ding, F., Chen, Y., Radko, I. & Bozhevolnyi, S. I., 2016, In : *Scientific Reports*. 6, 10 p., 28448.

## **Press/Media**

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

Fei Ding

20/09/2018

1 Media contribution

**Special Issue on "Metasurfaces: Physics and Applications"**

Fei Ding

24/09/2018

1 Media contribution