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Publications:

Advanced fabrication of hyperbolic metamaterials
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Effect of substrate on optical bound states in the continuum in 1D photonic structures
Publication: Research - peer-review › Conference article – Annual report year: 2017

Highly ordered Al-doped ZnO nano-pillar and tube structures as hyperbolic metamaterials for mid-infrared plasmonics
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2017

Highly Ordered Transparent Conductive Oxide Nanopillar Metamaterials for Mid-Infrared Plasmonics
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2017

High-Quality Ultrathin Gold Layers with an APTMS Adhesion for Optimal Performance of Surface Plasmon Polariton-Based Devices
Sukham, J., Takayama, O., Malureanu, A. & Malureanu, R. 2017 In : A C S Applied Materials and Interfaces. 9, 29, p. 25049-25056
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Large-scale high aspect ratio Al-doped ZnO nanopillars arrays as anisotropic metamaterials.
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Midinfrared Surface Waves on a High Aspect Ratio Nanotrench Platform
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Transition from Optical Bound States in the Continuum to Leaky Resonances: Role of Substrate and Roughness
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Conductive Oxides Trench Structures as Hyperbolic Metamaterials in Mid-infrared Range
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Effective medium approximation for deeply subwavelength all-dielectric multilayers: when does it break down?
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Fabrication of Al-doped ZnO high aspect ratio nanowires and trenches as active components in mid-infrared plasmonics
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Fabrication of deep-profile Al-doped ZnO one- and two-dimensional lattices as plasmonic elements
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Fabrication of high aspect ratio TiO2 and Al2O3 nanogratings by atomic layer deposition
In: Journal of Vacuum Science & Technology. A. Vacuum, Surfaces, and Films. 34, 3, 6 p., 031605
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Hyperbolic Metamaterials with Complex Geometry
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Surface waves on metal-dielectric metamaterials
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Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Deep subwavelength photonic multilayers fabricated by atomic layer deposition
Publication: Research - peer-review › Paper – Annual report year: 2015

Experimental Demonstration of Effective Medium Approximation Breakdown in Deeply Subwavelength All-Dielectric Multilayers
Publication: Research - peer-review › Journal article – Annual report year: 2015

TiO2 and Al2O3 ALD Grown Multilayers for Subwavelength Photonics
Book of Abstracts. DTU's Sustain Conference 2015. Lyngby: Technical University of Denmark (DTU),
Projects:

Dark-field hyperlens: Superresolution imaging and label-free sensing device for biological applications
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01/06/2016 → 06/09/2019
Project