Alireza Taghizadeh - DTU Orbit (22/04/2018)

Taghizadeh, Alireza
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Department of Photonics Engineering - Postdoc, Former

Publications:

**All-Si photodetector for telecommunication wavelength based on subwavelength grating structure and critical coupling**
Publication: Research - peer-review › Journal article – Annual report year: 2017

**Compact dielectric cavities based on frozen bound states in the continuum**
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

**Control of exceptional points in photonic crystal slabs**
Publication: Research - peer-review › Journal article – Annual report year: 2017

**Dynamical dispersion engineering in coupled vertical cavities employing a high-contrast grating**
Taghizadeh, A. & Chung, I-S. 2017 In : Scientific Reports. 7, 7 p., 2123
Publication: Research - peer-review › Journal article – Annual report year: 2017

**Efficient quality-factor estimation of a vertical cavity employing a high-contrast grating**
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

**Hybrid Si-on-chip Lasers with Nano Structures**
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2017

**Quality factor enhancement in photonic crystal slabs by manipulation of the ring of exceptional points**
Publication: Research - peer-review › Article in proceedings – Annual report year: 2018

**Quasi bound states in the continuum with few unit cells of photonic crystal slab**
Publication: Research - peer-review › Journal article – Annual report year: 2017

**Reciprocal-Space Engineering of Quasi-Bound States in the Continuum in Photonic Crystal Slabs for High-Q Microcavities**
Chung, I-S. & Taghizadeh, A. 2017 Proceedings of the 2017 International Conference on Transparent Optical Networks. IEEE, 3 p. 8024753
Publication: Research › Article in proceedings – Annual report year: 2018

**Vertical cavity laser**
Chung, I-S. & Taghizadeh, A. 24 Nov 2016
Publication: Research › Patent – Annual report year: 2016
Hybrid grating reflectors: Origin of ultrabroad stopband
Publication: Research - peer-review › Journal article – Annual report year: 2016

Hybrid III-V on Si grating as a broadband reflector and a high-Q resonator
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Hybrid III-V/SOI resonant cavity enhanced photodetector
Publication: Research - peer-review › Journal article – Annual report year: 2016

Hybrid III-V/SOI Resonant Cavity Photodetector
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Numerical Investigation of Vertical Cavity Lasers With High-Contrast Gratings Using the Fourier Modal Method
Taghizadeh, A., Mark, J. & Chung, I-S. 2016 In : Journal of Lightwave Technology. 34, 18, p. 4240-4251
Publication: Research - peer-review › Journal article – Annual report year: 2016

Theoretical Investigation of Subwavelength Gratings and Vertical Cavity Lasers Employing Grating Structures
Publication: Research › Ph.D. thesis – Annual report year: 2016

Toward 100 GHz direct modulation rate of antenna coupled nanoLED
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Ultrabroadband Hybrid III-V/SOI Grating Reflector for On-chip Lasers
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Vcsel structure
Chung, I-S. & Taghizadeh, A. 15 Oct 2015
Publication: Research › Patent – Annual report year: 2015

A New Compact Broadband Reflector: The Hybrid Grating
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Effect of In-plane Mirror Dispersion on Vertical Cavities Based on High-Contrast Grating Mirrors
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Hybrid III-V-on-Si Laser with Ultra-low Energy Consumption
Taghizadeh, A., Mark, J. & Chung, I-S. 2015
Publication: Research - peer-review › Poster – Annual report year: 2015
Hybrid vertical-cavity laser with lateral emission into a silicon waveguide
Publication: Research - peer-review › Journal article – Annual report year: 2015

Ultracompact resonator with high quality-factor based on a hybrid grating structure
Publication: Research - peer-review › Journal article – Annual report year: 2015

Vertical-Cavity In-plane Heterostructures: Physics and Applications
Publication: Research - peer-review › Journal article – Annual report year: 2015

Comparison of Different Numerical Methods for Quality Factor Calculation of Nano and Micro Photonic Cavities
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Hybrid grating reflector with high reflectivity and broad bandwidth
Publication: Research - peer-review › Journal article – Annual report year: 2014

Effect of External Optical Feedback for Nano-laser Structures
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Projects:

Hybrid III-V-on-Si laser with ultralow energy consumption
Taghizadeh, A., Chung, I., Mørk, J., Lavrinenko, A., Hammar, M. & Morthier, G. J. I. 01/02/2013 → 04/05/2016
Project: PhD

Activities:

Danish Opening Ceremony of the International Year of Light
Taghizadeh, A. (Participant) 22 Jan 2015 → 23 Jan 2015
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.

8th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics
Activity: Attending an event › Participating in or organising a conference