

# Alireza Taghizadeh

## List of Publications by Year in descending order

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35  
papers

769  
citations

516710

16  
h-index

677142

22  
g-index

35  
all docs

35  
docs citations

35  
times ranked

801  
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent progress of the Computational 2D Materials Database (C2DB). <i>2D Materials</i> , 2021, 8, 044002.	4.4	218
2	Quasi bound states in the continuum with few unit cells of photonic crystal slab. <i>Applied Physics Letters</i> , 2017, 111, .	3.3	84
3	Electrical tuning of optically active interlayer excitons in bilayer MoS <sub>2</sub> . <i>Nature Nanotechnology</i> , 2021, 16, 888-893.	31.5	60
4	Hybrid vertical-cavity laser with lateral emission into a silicon waveguide. <i>Laser and Photonics Reviews</i> , 2015, 9, L11.	8.7	46
5	Linear and nonlinear optical response of crystals using length and velocity gauges: Effect of basis truncation. <i>Physical Review B</i> , 2017, 96, .	3.2	46
6	A library of ab initio Raman spectra for automated identification of 2D materials. <i>Nature Communications</i> , 2020, 11, 3011.	12.8	43
7	Nonlinear optical selection rules of excitons in monolayer transition metal dichalcogenides. <i>Physical Review B</i> , 2019, 99, .	3.2	33
8	Two-Dimensional Materials with Giant Optical Nonlinearities near the Theoretical Upper Limit. <i>ACS Nano</i> , 2021, 15, 7155-7167.	14.6	29
9	Hybrid grating reflector with high reflectivity and broad bandwidth. <i>Optics Express</i> , 2014, 22, 21175.	3.4	26
10	Ultracompact resonator with high quality-factor based on a hybrid grating structure. <i>Optics Express</i> , 2015, 23, 14913.	3.4	26
11	Gauge invariance of excitonic linear and nonlinear optical response. <i>Physical Review B</i> , 2018, 97, .	3.2	25
12	Vertical-cavity in-plane heterostructures: Physics and applications. <i>Applied Physics Letters</i> , 2015, 107, 181107.	3.3	22
13	Nonlinear optical response of doped monolayer and bilayer graphene: Length gauge tight-binding model. <i>Physical Review B</i> , 2018, 98, .	3.2	18
14	Hybrid grating reflectors: Origin of ultrabroad stopband. <i>Applied Physics Letters</i> , 2016, 108, 141108.	3.3	17
15	Hybrid III-V/SOI resonant cavity enhanced photodetector. <i>Optics Express</i> , 2016, 24, 16512.	3.4	17
16	Control of exceptional points in photonic crystal slabs. <i>Optics Letters</i> , 2017, 42, 2866.	3.3	17
17	Numerical Investigation of Vertical Cavity Lasers With High-Contrast Gratings Using the Fourier Modal Method. <i>Journal of Lightwave Technology</i> , 2016, 34, 4240-4251.	4.6	10
18	Plasmons in ultra-thin gold slabs with quantum spill-out: Fourier modal method, perturbative approach, and analytical model. <i>Optics Express</i> , 2019, 27, 36941.	3.4	6

#	ARTICLE	IF	CITATIONS
19	Dynamical dispersion engineering in coupled vertical cavities employing a high-contrast grating. Scientific Reports, 2017, 7, 2123.	3.3	5
20	Uniaxial strain tuning of Raman spectra of a $\text{ReS}_2$ monolayer. Physical Review B, 2022, 105, .	3.2	0
21	All-Si photodetector for telecommunication wavelength based on subwavelength grating structure and critical coupling. AIP Advances, 2017, 7, 095019.	1.3	4
22	Nonlinear excitonic spin Hall effect in monolayer transition metal dichalcogenides. 2D Materials, 2020, 7, 015003.	4.4	4
23	Comparison of different numerical methods for quality factor calculation of nano and micro photonic cavities. , 2014, , .		3
24	Toward 100 GHz direct modulation rate of antenna coupled nanoLED. , 2016, , .		3
25	Effect of In-plane Mirror Dispersion on Vertical Cavities Based on High-Contrast Grating Mirrors. , 2015, , .		2
26	Ultrabroadband hybrid III-V/SOI grating reflector for on-chip lasers. , 2016, , .		0
27	Hybrid III-V/SOI resonant cavity photodetector. , 2016, , .		0
28	Hybrid III-V on Si grating as a broadband reflector and a high-Q resonator. , 2016, , .		0
29	Reciprocal-space engineering of quasi-bound states in the continuum in photonic crystal slabs for high-Q microcavities. , 2017, , .		0
30	Hybrid Si-on-chip lasers with nano structures. , 2017, , .		0
31	Quality factor enhancement in photonic crystal slabs by manipulation of the ring of exceptional points. , 2017, , .		0
32	Compact dielectric cavities based on frozen bound states in the continuum. , 2017, , .		0
33	Efficient quality-factor estimation of a vertical cavity employing a high-contrast grating. , 2017, , .		0
34	Silicon-on-chip laser based on bound states in the continuum. , 2018, , .		0
35	Excitonic two-photon absorption in monolayer transition metal dichalcogenides: Impact of screening and trigonal warping. Physical Review B, 2021, 104, .	3.2	0