

Koray Aydin

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

127
papers

8,081
citations

40
h-index

89
g-index

150
ext. papers

9,321
ext. citations

6.1
avg, IF

6.36
L-index

#	Paper	IF	Citations
127	Resonance Couplings in Si@MoS Core-Shell Architectures.. <i>Small</i> , 2022 , e2200413	11	2
126	Tuning and hybridization of surface phonon polaritons in HfMoO based metamaterials.. <i>Optics Express</i> , 2022 , 30, 12788-12796	3.3	1
125	Tuning of Optical Phonons in HfMoO-VO Multilayers. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 48981-48987	9.5	4
124	Exceptional adaptable MWIR thermal emission for ordinary objects covered with thin VO ₂ film. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2021 , 262, 107500	2.1	2
123	Inverse Design and 3D Printing of a Metalens on an Optical Fiber Tip for Direct Laser Lithography. <i>Nano Letters</i> , 2021 , 21, 2422-2428	11.5	21
122	Enhanced Interaction of Optical Phonons in h-BN with Plasmonic Lattice and Cavity Modes. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 25224-25233	9.5	2
121	One-Pot Bio-Assisted Synthesis of Stable Ag ₂ AgCl System Using Jellyfish-Based Scaffold for Plasmonic Photocatalysis Applications. <i>Advanced Sustainable Systems</i> , 2021 , 5, 2100099	5.9	2
120	Compact, High-resolution Inverse-Designed On-Chip Spectrometer Based on Tailored Disorder Modes. <i>Laser and Photonics Reviews</i> , 2021 , 15, 2000556	8.3	3
119	Reconfigurable Holograms Using VO ₂ -Based Tunable Metasurface. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2021 , 27, 1-8	3.8	2
118	Highly Efficient Light Absorption of Monolayer Graphene by Quasi-Bound State in the Continuum. <i>Nanomaterials</i> , 2021 , 11,	5.4	13
117	Neural networks enabled forward and inverse design of reconfigurable metasurfaces. <i>Optics Express</i> , 2021 , 29, 27219-27227	3.3	2
116	Polarization Reflector/Color Filter at Visible Frequencies via Anisotropic HfMoO ₃ . <i>Advanced Optical Materials</i> , 2020 , 8, 2000088	8.1	20
115	Phonon-polariton assisted broadband resonant absorption in anisotropic E-phase MoO ₃ nanostructures. <i>Physical Review B</i> , 2020 , 102,	3.3	14
114	Anisotropic localized surface plasmons in borophene. <i>Optics Express</i> , 2020 , 28, 16725-16739	3.3	15
113	Effect of heating/cooling dynamics in the hysteresis loop and tunable IR emissivity of VO thin films. <i>Optics Express</i> , 2020 , 28, 39203-39215	3.3	4
112	Mie-Resonant Three-Dimensional Metacrystals. <i>Nano Letters</i> , 2020 , 20, 8096-8101	11.5	10
111	Adaptive tuning of infrared emission using VO thin films. <i>Scientific Reports</i> , 2020 , 10, 11544	4.9	13

110	Lithography-free IR polarization converters via orthogonal in-plane phonons in WMoO_4 flakes. <i>Nature Communications</i> , 2020 , 11, 5771	17.4	19
109	Physics-Based Approach for a Neural Networks Enabled Design of All-Dielectric Metasurfaces. <i>ACS Photonics</i> , 2020 , 7, 1957-1964	6.3	15
108	Unveiling the optical parameters of vanadium dioxide in the phase transition region: a hybrid modeling approach.. <i>RSC Advances</i> , 2020 , 10, 29945-29955	3.7	5
107	Device-quality, reconfigurable metamaterials from shape-directed nanocrystal assembly. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 21052-21057	11.5	13
106	Tunable Fluorescence from Dye-Modified DNA-Assembled Plasmonic Nanocube Arrays. <i>Advanced Materials</i> , 2019 , 31, e1904448	24	16
105	Two-Photon Direct Laser Writing of Inverse-Designed Free-Form Near-Infrared Polarization Beamsplitter. <i>Advanced Optical Materials</i> , 2019 , 7, 1900513	8.1	9
104	Stimuli-Responsive DNA-Linked Nanoparticle Arrays as Programmable Surfaces. <i>Nano Letters</i> , 2019 , 19, 4535-4542	11.5	7
103	Tunable polaritonic metasurface absorbers in mid-IR based on hexagonal boron nitride and vanadium dioxide layers. <i>Journal Physics D: Applied Physics</i> , 2019 , 52, 164002	3	21
102	Thermally Tuning Infrared Light Scattering Using Planar Layered Thin Films and Space Gradient Metasurface. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2019 , 25, 1-7	3.8	8
101	Polarization dependent, plasmon-enhanced infrared transmission through gold nanoslits on monolayer black phosphorus. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2019 , 36, F109	1.7	7
100	Tunable multi-wavelength absorption in mid-IR region based on a hybrid patterned graphene-hBN structure. <i>Optics Express</i> , 2019 , 27, 23576-23584	3.3	19
99	Phase engineering and optical properties of 2D MoSe ₂ : Promise and pitfalls. <i>Materials Chemistry and Physics</i> , 2019 , 225, 219-226	4.4	6
98	Extrinsic polarization-controlled optical anisotropy in plasmon-black phosphorus coupled system. <i>Nanotechnology</i> , 2018 , 29, 285202	3.4	13
97	Optically Active 1D MoS Nanobelts. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 6799-6804	9.5	19
96	Building superlattices from individual nanoparticles via template-confined DNA-mediated assembly. <i>Science</i> , 2018 , 359, 669-672	33.3	145
95	Inverse-Designed Broadband All-Dielectric Electromagnetic Metadevices. <i>Scientific Reports</i> , 2018 , 8, 1358	4.9	40
94	DNA-Mediated Size-Selective Nanoparticle Assembly for Multiplexed Surface Encoding. <i>Nano Letters</i> , 2018 , 18, 2645-2649	11.5	27
93	Inverse-designed stretchable metalens with tunable focal distance. <i>Applied Physics Letters</i> , 2018 , 112, 091102	3.4	18

92	Biaxial hyperbolic metamaterials using anisotropic few-layer black phosphorus. <i>Optics Express</i> , 2018 , 26, 5469-5477	3.3	33
91	Dynamic infrared thin-film absorbers with tunable absorption level based on VO ₂ phase transition. <i>Optical Materials Express</i> , 2018 , 8, 2151	2.6	18
90	Chiral-Selective Plasmonic Metasurface Absorbers Operating at Visible Frequencies. <i>IEEE Photonics Technology Letters</i> , 2017 , 29, 295-298	2.2	61
89	Quantifying Plasmon-Enhanced Light Absorption in Monolayer WS ₂ Films. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 15044-15051	9.5	33
88	Identifying Excitation and Emission Rate Contributions to Plasmon-Enhanced Photoluminescence from Monolayer MoS ₂ Using a Tapered Gold Nanoantenna. <i>ACS Photonics</i> , 2017 , 4, 1602-1606	6.3	11
87	Wideband zero-index metacrystal with high transmission at visible frequencies. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2017 , 34, D13	1.7	5
86	Enhanced radiative emission from monolayer MoS ₂ films using a single plasmonic dimer nanoantenna. <i>Applied Physics Letters</i> , 2017 , 111, 031101	3.4	18
85	Inverse design of an ultra-compact broadband optical diode based on asymmetric spatial mode conversion. <i>Scientific Reports</i> , 2016 , 6, 32577	4.9	50
84	Omnidirectional and broadband absorption enhancement from trapezoidal Mie resonators in semiconductor metasurfaces. <i>Scientific Reports</i> , 2016 , 6, 31451	4.9	25
83	Time-Varying Metasurfaces Based on Graphene Microribbon Arrays. <i>ACS Photonics</i> , 2016 , 3, 2035-2039	6.3	23
82	Enhanced infrared transmission through gold nanoslit arrays via surface plasmons in continuous graphene. <i>Optics Express</i> , 2016 , 24, 27882-27889	3.3	10
81	Ultrawide Angle, Directional Spectrum Splitting with Visible-Frequency Versatile Metasurfaces. <i>Advanced Optical Materials</i> , 2016 , 4, 953-958	8.1	19
80	Inverse-designed all-dielectric waveguide bend 2016 ,		1
79	Functional metal-insulator-metal top contacts for Si-based color photodetectors. <i>Journal of Applied Physics</i> , 2016 , 120, 223102	2.5	4
78	Broadband asymmetric light transmission through tapered metallic gratings at visible frequencies. <i>Scientific Reports</i> , 2016 , 6, 39166	4.9	35
77	Narrow band absorber based on a dielectric nanodisk array on silver film. <i>Journal of Optics (United Kingdom)</i> , 2016 , 18, 075006	1.7	26
76	Lithography-free transmission filters at ultraviolet frequencies using ultra-thin aluminum films. <i>Journal of Optics (United Kingdom)</i> , 2016 , 18, 065006	1.7	9
75	Localized Surface Plasmons in Nanostructured Monolayer Black Phosphorus. <i>Nano Letters</i> , 2016 , 16, 3457-62	11.5	199

74	Thermal tuning of infrared resonant absorbers based on hybrid gold-VO ₂ nanostructures. <i>Applied Physics Letters</i> , 2015 , 106, 161104	3.4	115
73	Enhanced light emission from large-area monolayer MoS ₂ using plasmonic nanodisc arrays. <i>Nano Letters</i> , 2015 , 15, 2700-4	11.5	272
72	Unidirectional Lasing from Template-Stripped Two-Dimensional Plasmonic Crystals. <i>ACS Nano</i> , 2015 , 9, 11582-8	16.7	71
71	Dynamically controlled plasmonic nano-antenna phased array utilizing vanadium dioxide [Invited]. <i>Optical Materials Express</i> , 2015 , 5, 2513	2.6	41
70	Intensity tunable infrared broadband absorbers based on VO ₂ phase transition using planar layered thin films. <i>Scientific Reports</i> , 2015 , 5, 13384	4.9	71
69	Broadband metasurfaces for anomalous transmission and spectrum splitting at visible frequencies. <i>EPJ Applied Metamaterials</i> , 2015 , 2, 2	0.8	5
68	Omnidirectional, broadband light absorption using large-area, ultrathin lossy metallic film coatings. <i>Scientific Reports</i> , 2015 , 5, 15137	4.9	103
67	Reduced near-infrared absorption using ultra-thin lossy metals in Fabry-Perot cavities. <i>Scientific Reports</i> , 2015 , 5, 8157	4.9	55
66	Strong Coupling between Plasmonic Gap Modes and Photonic Lattice Modes in DNA-Assembled Gold Nanocube Arrays. <i>Nano Letters</i> , 2015 , 15, 4699-703	11.5	115
65	Asymmetric Light Absorption and Reflection in Freestanding Nanostructured Metallic Membranes. <i>ACS Photonics</i> , 2015 , 2, 1652-1657	6.3	13
64	Visible-frequency metasurfaces for broadband anomalous reflection and high-efficiency spectrum splitting. <i>Nano Letters</i> , 2015 , 15, 1615-21	11.5	196
63	Large-Area, Lithography-Free Super Absorbers and Color Filters at Visible Frequencies Using Ultrathin Metallic Films. <i>ACS Photonics</i> , 2015 , 2, 183-188	6.3	304
62	Ultrannarrow band absorbers based on surface lattice resonances in nanostructured metal surfaces. <i>ACS Nano</i> , 2014 , 8, 8242-8	16.7	207
61	Structurally tunable resonant absorption bands in ultrathin broadband plasmonic absorbers. <i>Optics Express</i> , 2014 , 22, 19457-68	3.3	53
60	Touching Gold Nanoparticle Chain Based Plasmonic Antenna Arrays and Optical Metamaterials. <i>ACS Photonics</i> , 2014 , 1, 228-234	6.3	38
59	Retrieval of effective parameters for bianisotropic metamaterials with omega shaped metallic inclusions. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , 2012 , 10, 329-336	2.6	12
58	Compliant metamaterials for resonantly enhanced infrared absorption spectroscopy and refractive index sensing. <i>ACS Nano</i> , 2011 , 5, 8167-74	16.7	164
57	Characterization of the tunable response of highly strained compliant optical metamaterials. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2011 , 369, 3447-55 ³	3	12

56	ENHANCED TRANSMISSION THROUGH SUB-WAVELENGTH APERTURES BY USING METAMATERIALS 2011 , 453-477		1
55	Broadband polarization-independent resonant light absorption using ultrathin plasmonic super absorbers. <i>Nature Communications</i> , 2011 , 2, 517	17.4	1237
54	Enhanced transmission of electromagnetic waves through split-ring resonator-shaped apertures. <i>Journal of Nanophotonics</i> , 2011 , 5, 051812	1.1	5
53	Highly strained compliant optical metamaterials with large frequency tunability. <i>Nano Letters</i> , 2010 , 10, 4222-7	11.5	323
52	Symmetry breaking and strong coupling in planar optical metamaterials. <i>Optics Express</i> , 2010 , 18, 13407-13	3.7	133
51	Transmission spectra and the effective parameters for planar metamaterials with omega shaped metallic inclusions. <i>Optics Communications</i> , 2010 , 283, 2547-2551	2	5
50	Enhanced transmission through a subwavelength aperture using metamaterials. <i>Applied Physics Letters</i> , 2009 , 95, 052103	3.4	28
49	Increased cell efficiency in InGaAs thin film solar cells with dielectric and metal back reflectors 2009 ,		2
48	Frequency tunable near-infrared metamaterials based on VO ₂ phase transition. <i>Optics Express</i> , 2009 , 17, 18330-9	3.3	398
47	Determination of the effective constitutive parameters of bianisotropic metamaterials from reflection and transmission coefficients. <i>Physical Review E</i> , 2009 , 79, 026610	2.4	163
46	Split-ring-resonator-coupled enhanced transmission through a single subwavelength aperture. <i>Physical Review Letters</i> , 2009 , 102, 013904	7.4	91
45	Super-resolution imaging by one-dimensional, microwave left-handed metamaterials with an effective negative index. <i>Journal of Physics Condensed Matter</i> , 2008 , 20, 304216	1.8	12
44	A hybrid light source with integrated inorganic light-emitting diode and organic polymer distributed feedback grating. <i>Nanotechnology</i> , 2008 , 19, 195202	3.4	2
43	Negative phase advance in polarization independent, multi-layer negative-index metamaterials. <i>Optics Express</i> , 2008 , 16, 8835-44	3.3	36
42	Multi-gap individual and coupled split-ring resonator structures. <i>Optics Express</i> , 2008 , 16, 18131-44	3.3	78
41	Wide bandwidth directional beaming via waveguide ports in photonic crystals. <i>Journal Physics D: Applied Physics</i> , 2008 , 41, 155115	3	4
40	Negative refraction and imaging beyond the diffraction limit by a two-dimensional left-handed metamaterial. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , 2008 , 6, 108-115	2.6	10
39	Experimental and numerical study of omega type bianisotropic metamaterials combined with a negative permittivity medium. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , 2008 , 6, 116-121	2.6	15

38	Ferroelectric based tuneable SRR based metamaterial for microwave applications 2007 ,		2
37	Metamaterials with negative permeability and negative refractive index: experiments and simulations. <i>Journal of Optics</i> , 2007 , 9, S301-S307		41
36	Transmission characteristics of bianisotropic metamaterials based on omega shaped metallic inclusions. <i>New Journal of Physics</i> , 2007 , 9, 326-326	2.9	35
35	Equivalent-Circuit Models for the Design of Metamaterials Based on Artificial Magnetic Inclusions. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2007 , 55, 2865-2873	4.1	174
34	Capacitor-loaded split ring resonators as tunable metamaterial components. <i>Journal of Applied Physics</i> , 2007 , 101, 024911	2.5	122
33	Experimental and numerical analyses of the resonances of split ring resonators. <i>Physica Status Solidi (B): Basic Research</i> , 2007 , 244, 1197-1201	1.3	8
32	Left-handed metamaterial based superlens for subwavelength imaging of electromagnetic waves. <i>Applied Physics A: Materials Science and Processing</i> , 2007 , 87, 137-141	2.6	22
31	Negative refraction, subwavelength focusing and beam formation by photonic crystals. <i>Journal Physics D: Applied Physics</i> , 2007 , 40, 2652-2658	3	10
30	Highly directional emission from photonic crystals with a wide bandwidth. <i>Applied Physics Letters</i> , 2007 , 91, 121105	3.4	22
29	Subwavelength resolution with a negative-index metamaterial superlens. <i>Applied Physics Letters</i> , 2007 , 90, 254102	3.4	150
28	Experimental study of subwavelength focusing by left-handed metamaterials with a negative refractive index. <i>Journal of Nanophotonics</i> , 2007 , 1, 011695	1.1	1
27	Study of the field emitted by a source placed inside a two-dimensional left-handed metamaterial. <i>Optics Letters</i> , 2007 , 32, 850-2	3	1
26	Theoretical and experimental analysis of magnetic inclusions for the realization of metamaterials at different frequencies. <i>IEEE MTT-S International Microwave Symposium Digest IEEE MTT-S International Microwave Symposium</i> , 2007 ,		5
25	Experimental investigation of reflection characteristics of left-handed metamaterials in free space. <i>IET Microwaves, Antennas and Propagation</i> , 2007 , 1, 89	1.6	8
24	Verification of impedance matching at the surface of left-handed materials. <i>Microwave and Optical Technology Letters</i> , 2006 , 48, 2548-2552	1.2	5
23	Experimental demonstration of negative refraction and subwavelength imaging by left-handed composite metamaterials. <i>Materials Research Society Symposia Proceedings</i> , 2006 , 919, 6		
22	Electromagnetic wave focusing from sources inside a two-dimensional left-handed material superlens. <i>New Journal of Physics</i> , 2006 , 8, 221-221	2.9	13
21	Experimental demonstration of a left-handed metamaterial operating at 100GHz. <i>Physical Review B</i> , 2006 , 73,	3.3	78

20	Negative refraction through an impedance-matched left-handed metamaterial slab. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2006 , 23, 415	1.7	23
19	Observation of Negative Refraction and Focusing in Two-Dimensional Photonic Crystals. <i>Japanese Journal of Applied Physics</i> , 2006 , 45, 6064-6070	1.4	5
18	Two-dimensional Left-handed Metamaterial with a Negative Refractive Index. <i>Journal of Physics: Conference Series</i> , 2006 , 36, 6-11	0.3	6
17	Identifying magnetic response of split-ring resonators at microwave frequencies. <i>Opto-electronics Review</i> , 2006 , 14,	2.4	23
16	Experimental analysis of true left-handed behaviour and transmission properties of composite metamaterials. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , 2005 , 3, 75-78	2.6	6
15	Investigation of magnetic resonances for different split-ring resonator parameters and designs. <i>New Journal of Physics</i> , 2005 , 7, 168-168	2.9	214
14	Focusing of electromagnetic waves by a left-handed metamaterial flat lens. <i>Optics Express</i> , 2005 , 13, 8753-9	3.3	62
13	Compact size highly directive antennas based on the SRR metamaterial medium. <i>New Journal of Physics</i> , 2005 , 7, 223-223	2.9	50
12	Observation of negative refraction and negative phase velocity in left-handed metamaterials. <i>Applied Physics Letters</i> , 2005 , 86, 124102	3.4	84
11	Spectral negative refraction and focusing analysis of a two-dimensional left-handed photonic crystal lens. <i>Physical Review B</i> , 2004 , 70,	3.3	60
10	Physics and applications of photonic nanocrystals. <i>International Journal of Nanotechnology</i> , 2004 , 1, 379	1.5	12
9	NEGATIVE REFRACTION AND SUBWAVELENGTH FOCUSING USING PHOTONIC CRYSTALS. <i>Modern Physics Letters B</i> , 2004 , 18, 1275-1291	1.6	4
8	Physics and applications of photonic crystals. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , 2004 , 2, 87-95	2.6	31
7	Effect of disorder on magnetic resonance band gap of split-ring resonator structures. <i>Optics Express</i> , 2004 , 12, 5896-901	3.3	70
6	Experimental observation of true left-handed transmission peaks in metamaterials. <i>Optics Letters</i> , 2004 , 29, 2623-5	3	138
5	Electromagnetic waves: Negative refraction by photonic crystals. <i>Nature</i> , 2003 , 423, 604-5	50.4	547
4	Subwavelength resolution in a two-dimensional photonic-crystal-based superlens. <i>Physical Review Letters</i> , 2003 , 91, 207401	7.4	276
3	Transmission and reflection properties of composite double negative metamaterials in free space. <i>IEEE Transactions on Antennas and Propagation</i> , 2003 , 51, 2592-2595	4.9	77

2 Transmission properties of composite metamaterials in free space. *Applied Physics Letters*, **2002**, 81, 1203-1205 168

1 Ultra-Thin Infrared Optical Gain Medium and Optically-Pumped Stimulated Emission in PbS Colloidal Quantum Dot LEDs. *Advanced Functional Materials*, 2200832 15.6 1