

Costas M Soukoulis

List of Publications by Year in descending order

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papers

7,631
citations

101543

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78
all docs

78
docs citations

78
times ranked

7732
citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental Demonstration of Dark-State Metasurface Laser with Controllable Radiative Coupling. Advanced Optical Materials, 2022, 10, .	7.3	5
2	Modelling of the Fluctuation and Coherent Dynamics in Active Metamaterial Devices. IEEE Nanotechnology Magazine, 2021, 20, 543-551.	2.0	4
3	Topological Transition Enabled by Surface Modification of Photonic Crystals. ACS Photonics, 2021, 8, 1385-1392.	6.6	5
4	Experimental Implementation of Achromatic Multiresonant Metasurface for Broadband Pulse Delay. ACS Photonics, 2021, 8, 1649-1655.	6.6	23
5	Effects of Coherent versus Incoherent Illumination and Imaging Setup on Experimental Measurements of Scattering Amplitudes in Metamaterials. ACS Photonics, 2021, 8, 1856-1862.	6.6	1
6	Dark-State-Based Low-Loss Metasurfaces with Simultaneous Electric and Magnetic Resonant Response. ACS Photonics, 2020, 7, 241-248.	6.6	3
7	Squeezing a Prism into a Surface: Emulating Bulk Optics with Achromatic Metasurfaces. Advanced Optical Materials, 2020, 8, 2000942.	7.3	17
8	Sub-picosecond photo-induced displacive phase transition in two-dimensional MoTe ₂ . Npj 2D Materials and Applications, 2020, 4, .	7.9	43
9	Toward Intelligent Metasurfaces: The Progress from Globally Tunable Metasurfaces to Software-Defined Metasurfaces with an Embedded Network of Controllers. Advanced Optical Materials, 2020, 8, 2000783.	7.3	145
10	Robustness of Optical Response for Self-Assembled Plasmonic Metamaterials with Morphological Disorder and Surface Roughness. Advanced Optical Materials, 2020, 8, 1901794.	7.3	3
11	Monolayer C_7N_6 : Room-temperature excitons with large binding energies and high thermal conductivities. Physical Review Materials, 2020, 4, .	2.4	8
12	Toroidal Multipoles in Metamaterials. , 2020, , 237-278.		2
13	Phase-Modulated Scattering Manipulation for Exterior Cloaking in Metal-Dielectric Hybrid Metamaterials. Advanced Materials, 2019, 31, e1903206.	21.0	38
14	Intelligent Metasurfaces with Continuously Tunable Local Surface Impedance for Multiple Reconfigurable Functions. Physical Review Applied, 2019, 11, .	3.8	108
15	High thermoelectric efficiency in monolayer $Pb_{1-x}Sn_x$ from 300 K to 900 K. Inorganic Chemistry Frontiers, 2019, 6, 920-928.	6.0	29
16	Nonlinearity in the Dark: Broadband Terahertz Generation with Extremely High Efficiency. Physical Review Letters, 2019, 122, 027401.	7.8	29
17	On loss compensation, amplification and lasing in metallic metamaterials. Nanomaterials and Nanotechnology, 2019, 9, 184798041881794.	3.0	7
18	Graphene Plasmonics: A Platform for 2D Optics. Advanced Optical Materials, 2019, 7, 1800537.	7.3	139

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19	Photoexcited Graphene Metasurfaces: Significantly Enhanced and Tunable Magnetic Resonances. ACS Photonics, 2018, 5, 1612-1618.	6.6	123
20	Antimatched Electromagnetic Metasurfaces for Broadband Arbitrary Phase Manipulation in Reflection. ACS Photonics, 2018, 5, 1101-1107.	6.6	36
21	1D SbSeI, SbSI, and SbSBr With High Stability and Novel Properties for Microelectronic, Optoelectronic, and Thermoelectric Applications. Advanced Theory and Simulations, 2018, 1, 1700005.	2.8	65
22	Achieving a high- Q response in metamaterials by manipulating the toroidal excitations. Physical Review A, 2018, 97, .	2.5	67
23	Chemical intuition for high thermoelectric performance in monolayer black phosphorus, $\text{1}\pm$ -arsenene and aW-antimonene. Journal of Materials Chemistry A, 2018, 6, 2018-2033.	10.3	80
24	Pairing Toroidal and Magnetic Dipole Resonances in Elliptic Dielectric Rod Metasurfaces for Reconfigurable Wavefront Manipulation in Reflection. Advanced Optical Materials, 2018, 6, 1800633.	7.3	65
25	Programmable Metasurfaces: State of the Art and Prospects. , 2018, , .		49
26	Intercell Wireless Communication in Software-defined Metasurfaces. , 2018, , .		28
27	Spin Momentumâ€“Locked Surface States in Metamaterials without Topological Transition. Laser and Photonics Reviews, 2018, 12, 1800002.	8.7	7
28	Origamiâ€“Based Reconfigurable Metamaterials for Tunable Chirality. Advanced Materials, 2017, 29, 1700412.	21.0	193
29	Photoimprinted Controllable Fano Resonance in the Terahertz Regime. ACS Photonics, 2017, 4, 1785-1789.	6.6	4
30	Temperature-Controlled Chameleonlike Cloak. Physical Review X, 2017, 7, .	8.9	21
31	Metamaterials in microwaves, optics, mechanics, thermodynamics, and transport. Journal of Optics (United Kingdom), 2017, 19, 084005.	2.2	26
32	First-principles study on the electronic, optical, and transport properties of monolayer $\text{1}\pm$ - and 1^2 -GeSe. Physical Review B, 2017, 96, .	3.2	81
33	Fullâ€“Polarization 3D Metasurface Cloak with Preserved Amplitude and Phase. Advanced Materials, 2016, 28, 6866-6871.	21.0	259
34	Broadband metasurfaces enabling arbitrarily large delay-bandwidth products. Applied Physics Letters, 2016, 108, .	3.3	17
35	A New Perspective on Plasmonics: Confinement and Propagation Length of Surface Plasmons for Different Materials and Geometries. Advanced Optical Materials, 2016, 4, 177-184.	7.3	107
36	Electrically Tunable Goosâ€“HÃ“nchen Effect with Graphene in the Terahertz Regime. Advanced Optical Materials, 2016, 4, 1824-1828.	7.3	144

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37	Metamaterial-based lossy anisotropic epsilon-near-zero medium for energy collimation. Physical Review B, 2016, 93, .	3.2	17
38	Metamaterials: Tailorable Zero-Phase Delay of Subwavelength Particles toward Miniaturized Wave Manipulation Devices (Adv. Mater. 40/2015). Advanced Materials, 2015, 27, 6304-6304.	21.0	0
39	Electric and Magnetic Response in Dielectric Dark States for Low Loss Subwavelength Optical Meta Atoms. Advanced Optical Materials, 2015, 3, 1431-1438.	7.3	45
40	Tailorable Zero-Phase Delay of Subwavelength Particles toward Miniaturized Wave Manipulation Devices. Advanced Materials, 2015, 27, 6187-6194.	21.0	31
41	Three-Dimensional Infrared Metamaterial with Asymmetric Transmission. ACS Photonics, 2015, 2, 287-294.	6.6	122
42	Tunable terahertz frequency comb generation using time-dependent graphene sheets. Physical Review B, 2015, 91, .	3.2	16
43	Interplay of Optical Force and Ray-Optic Behavior between Luneburg Lenses. ACS Photonics, 2015, 2, 1384-1390.	6.6	16
44	Large Quality Factor in Sheet Metamaterials Made from Dark Dielectric Meta-atoms. Physical Review Letters, 2014, 112, 117403.	7.8	30
45	Strong group-velocity dispersion compensation with phase-engineered sheet metamaterials. Physical Review B, 2014, 89, .	3.2	28
46	Broadband terahertz generation from metamaterials. Nature Communications, 2014, 5, 3055.	12.8	175
47	Comparison of gold- and graphene-based resonant nanostructures for terahertz metamaterials and an ultrathin graphene-based modulator. Physical Review B, 2014, 90, .	3.2	39
48	Surface plasmon polaritons and negative refraction in fishnet metamaterial. , 2014, , .		0
49	Low-loss and high- Q planar metamaterial with toroidal moment. Physical Review B, 2013, 87, .	3.2	153
50	Robust wedge demonstration to optical negative index metamaterials. Applied Physics Letters, 2013, 102, 241915.	3.3	2
51	Photonic band gap of a graphene-embedded quarter-wave stack. Physical Review B, 2013, 88, .	3.2	72
52	Switching nonlinearity in a superconductor-enhanced metamaterial. Applied Physics Letters, 2012, 100, 121906.	3.3	39
53	Effective material parameter retrieval for thin sheets: Theory and application to graphene, thin silver films, and single-layer metamaterials. Physica B: Condensed Matter, 2012, 407, 4062-4065.	2.7	64
54	Discontinuous design of negative index metamaterials based on mode hybridization. Applied Physics Letters, 2012, 101, 081913.	3.3	5

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55	Terahertz chiral metamaterials with giant and dynamically tunable optical activity. Physical Review B, 2012, 86, .	3.2	221
56	Scattering matrix of the boundary of a nonlocal metamaterial. Physical Review B, 2012, 86, .	3.2	9
57	3D Photonic Nanostructures via Diffusion-Assisted Direct fs Laser Writing. Advances in OptoElectronics, 2012, 2012, 1-6.	0.6	7
58	A comparison of graphene, superconductors and metals as conductors for metamaterials and plasmonics. Nature Photonics, 2012, 6, 259-264.	31.4	349
59	Optical metamaterials with different metals. Physical Review B, 2012, 85, .	3.2	31
60	Surface plasmon driven electric and magnetic resonators for metamaterials. Physical Review B, 2011, 83, .	3.2	24
61	Retarded long-range interaction in split-ring-resonator square arrays. Physical Review B, 2011, 84, .	3.2	56
62	Past achievements and future challenges in the development of three-dimensional photonic metamaterials. Nature Photonics, 2011, 5, 523-530.	31.4	1,464
63	Optical Metamaterialsâ€™ More Bulky and Less Lossy. Science, 2010, 330, 1633-1634.	12.6	227
64	Microstructure effects for Casimir forces in chiral metamaterials. Physical Review B, 2010, 82, .	3.2	29
65	Reducing ohmic losses in metamaterials by geometric tailoring. Physical Review B, 2009, 80, .	3.2	84
66	Wide-angle and polarization-independent chiral metamaterial absorber. Physical Review B, 2009, 80, .	3.2	225
67	Negative refractive index due to chirality. Physical Review B, 2009, 79, .	3.2	359
68	Optical anisotropic metamaterials: Negative refraction and focusing. Physical Review B, 2009, 79, .	3.2	159
69	Negative refractive index response of weakly and strongly coupled optical metamaterials. Physical Review B, 2009, 80, .	3.2	89
70	Nonplanar chiral metamaterials with negative index. Applied Physics Letters, 2009, 94, .	3.3	134
71	Metamaterials for microwaves and optics. , 2008, , .		0
72	Left-Handed Materials in Microwave and Infrared Frequencies. , 2007, , .		0

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73	PHYSICS: Negative Refractive Index at Optical Wavelengths. Science, 2007, 315, 47-49.	12.6	882
74	Negative index materials using simple short wire pairs. Physical Review B, 2006, 73, .	3.2	372
75	Ministop bands in single-defect photonic crystal waveguides. Physical Review E, 2001, 64, 055603.	2.1	21
76	Parametric localized modes in quadratic nonlinear photonic structures. Physical Review E, 2000, 63, 016615.	2.1	49
77	Historical Perspective and Review of Fundamental Principles in Modeling Three-Dimensional Periodic Structures with Emphasis on Volumetric EBGs. , 0, , 211-238.		1