Coskun Kocabas

List of Publications by Year
in descending order

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126 papers	7,255 citations	81900 39 h-index	54911 84 g-index
131 all docs	131 docs citations	131 times ranked	8102 citing authors

#	Article	IF	Citations
1	High-performance electronics using dense, perfectly aligned arrays of single-walled carbon nanotubes. Nature Nanotechnology, 2007, 2, 230-236.	31.5	985
2	Graphene-enabled electrically switchable radar-absorbing surfaces. Nature Communications, 2015, 6, 6628.	12.8	481
3	Guided Growth of Large-Scale, Horizontally Aligned Arrays of Single-Walled Carbon Nanotubes and Their Use in Thin-Film Transistors. Small, 2005, 1, 1110-1116.	10.0	353
4	p-Channel, n-Channel Thin Film Transistors and pâ^'n Diodes Based on Single Wall Carbon Nanotube Networks. Nano Letters, 2004, 4, 2031-2035.	9.1	284
5	Experimental and Theoretical Studies of Transport through Large Scale, Partially Aligned Arrays of Single-Walled Carbon Nanotubes in Thin Film Type Transistors. Nano Letters, 2007, 7, 1195-1202.	9.1	267
6	Graphene-Based Adaptive Thermal Camouflage. Nano Letters, 2018, 18, 4541-4548.	9.1	252
7	Printed Multilayer Superstructures of Aligned Single-Walled Carbon Nanotubes for Electronic Applications. Nano Letters, 2007, 7, 3343-3348.	9.1	204
8	Nanotransfer printing by use of noncovalent surface forces: Applications to thin-film transistors that use single-walled carbon nanotube networks and semiconducting polymers. Applied Physics Letters, 2004, 85, 5730-5732.	3.3	187
9	Radio frequency analog electronics based on carbon nanotube transistors. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 1405-1409.	7.1	185
10	Molecular Scale Buckling Mechanics in Individual Aligned Single-Wall Carbon Nanotubes on Elastomeric Substrates. Nano Letters, 2008, 8, 124-130.	9.1	180
11	Plasmon-polaritons on graphene-metal surface and their use in biosensors. Applied Physics Letters, 2012, 100, .	3.3	169
12	Broadband Optical Modulators Based on Graphene Supercapacitors. Nano Letters, 2013, 13, 5851-5857.	9.1	162
13	Gate capacitance coupling of singled-walled carbon nanotube thin-film transistors. Applied Physics Letters, 2007, 90, 023516.	3.3	159
14	Synthesis of graphene on gold. Applied Physics Letters, 2011, 98, .	3.3	145
15	Spatially Selective Guided Growth of High-Coverage Arrays and Random Networks of Single-Walled Carbon Nanotubes and Their Integration into Electronic Devices. Journal of the American Chemical Society, 2006, 128, 4540-4541.	13.7	143
16	Improved Synthesis of Aligned Arrays of Single-Walled Carbon Nanotubes and Their Implementation in Thin Film Type Transistorsâ€. Journal of Physical Chemistry C, 2007, 111, 17879-17886.	3.1	135
17	High-Frequency Performance of Submicrometer Transistors That Use Aligned Arrays of Single-Walled Carbon Nanotubes. Nano Letters, 2009, 9, 1937-1943.	9.1	132
18	Alignment Controlled Growth of Single-Walled Carbon Nanotubes on Quartz Substrates. Nano Letters, 2009, 9, 4311-4319.	9.1	125

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19	Electrically switchable metadevices via graphene. Science Advances, 2018, 4, eaao1749.	10.3	117
20	Synthesis of Large Area Graphene for High Performance in Flexible Optoelectronic Devices. Scientific Reports, 2015, 5, 16744.	3.3	107
21	Graphene-Enabled Adaptive Infrared Textiles. Nano Letters, 2020, 20, 5346-5352.	9.1	98
22	Multispectral graphene-based electro-optical surfaces with reversible tunability from visible to microwave wavelengths. Nature Photonics, 2021, 15, 493-498.	31.4	97
23	Graphene based flexible electrochromic devices. Scientific Reports, 2014, 4, 6484.	3.3	92
24	Printed thin-film transistors and complementary logic gates that use polymer-coated single-walled carbon nanotube networks. Journal of Applied Physics, 2005, 98, 114302.	2.5	81
25	Graphene based terahertz phase modulators. 2D Materials, 2018, 5, 035018.	4.4	81
26	An improved lumped element nonlinear circuit model for a circular CMUT cell. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2012, 59, 1791-1799.	3.0	78
27	Rapid thermal annealing of graphene-metal contact. Applied Physics Letters, 2012, 101, .	3.3	75
28	Dynamic tuning of plasmon resonance in the visible using graphene. Optics Letters, 2016, 41, 1241.	3.3	72
29	Aligned Arrays of Single-Walled Carbon Nanotubes Generated from Random Networks by Orientationally Selective Laser Ablation. Nano Letters, 2004, 4, 2421-2426.	9.1	67
30	Observation of Gate-Tunable Coherent Perfect Absorption of Terahertz Radiation in Graphene. ACS Photonics, 2016, 3, 1531-1535.	6.6	64
31	Limits of Performance Gain of Aligned CNT Over Randomized Network: Theoretical Predictions and Experimental Validation. IEEE Electron Device Letters, 2007, 28, 593-595.	3.9	63
32	Tuning surface plasmon-exciton coupling via thickness dependent plasmon damping. Physical Review B, 2012, 86, .	3.2	63
33	Tunable Plexcitonic Nanoparticles: A Model System for Studying Plasmonâ€“Exciton Interaction from the Weak to the Ultrastrong Coupling Regime. ACS Photonics, 2016, 3, 2010-2016.	6.6	62
34	Graphene-Enabled Optoelectronics on Paper. ACS Photonics, 2016, 3, 964-971.	6.6	56
35	Prism coupling technique investigation of elasto-optical properties of thin polymer films. Journal of Applied Physics, 2004, 96, 7147-7153.	2.5	50
36	Organic electrolytes for graphene-based supercapacitor: Liquid, gel or solid. Materials Today Communications, 2016, 7, 155-160.	1.9	45

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37	Multifunctional Biocomposites Based on Polyhydroxyalkanoate and Graphene/Carbon Nanofiber Hybrids for Electrical and Thermal Applications. ACS Applied Polymer Materials, 2020, 2, 3525-3534.	4.4	44
38	Atomic layer deposited Al2O3 passivation of type II InAs/GaSb superlattice photodetectors. Journal of Applied Physics, 2012, 111, .	2.5	42
39	Integrated micro ring resonator displacement sensor for scanning probe microscopies. Journal of Micromechanics and Microengineering, 2004, 14, 374-381.	2.6	40
40	Graphene-enabled electrically controlled terahertz spatial light modulators. Optics Letters, 2015, 40, 1984.	3.3	40
41	Temperature dependence of the first-order Raman scattering in GaS layered crystals. Solid State Communications, 2000, 116, 147-151.	1.9	39
42	Highly Proton Conductive Phosphoric Acidâ€“Nonionic Surfactant Lyotropic Liquid Crystalline Mesophases and Application in Graphene Optical Modulators. ACS Nano, 2014, 8, 11007-11012.	14.6	37
43	Femtosecond pulse generation with voltage-controlled graphene saturable absorber. Optics Letters, 2014, 39, 5180.	3.3	35
44	Ultra hybrid plasmonics: strong coupling of plexcitons with plasmon polaritons. Optics Letters, 2015, 40, 3424.	3.3	34
45	In-Situ XPS Monitoring and Characterization of Electrochemically Prepared Au Nanoparticles in an Ionic Liquid. ACS Omega, 2017, 2, 478-486.	3.5	34
46	Aligned carbon nanotubes as polarization-sensitive, molecular near-field detectors. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 2495-2499.	7.1	33
47	Gate-Tunable Photoemission from Graphene Transistors. Nano Letters, 2014, 14, 2837-2842.	9.1	32
48	XPS enables visualization of electrode potential screening in an ionic liquid medium with temporal- and lateral-resolution. Physical Chemistry Chemical Physics, 2016, 18, 28434-28440.	2.8	32
49	Video-Speed Graphene Modulator Arrays for Terahertz Imaging Applications. ACS Photonics, 2020, 7, 2374-2380.	6.6	31
50	Generation of sub-20-fs pulses from a graphene mode-locked laser. Optics Express, 2017, 25, 2834.	3.4	30
51	Graphene mode-locked femtosecond Alexandrite laser. Optics Letters, 2018, 43, 3969.	3.3	30
52	A 500 MHz carbon nanotube transistor oscillator. Applied Physics Letters, 2008, 93, 123506.	3.3	29
53	Probing ultrafast energy transfer between excitons and plasmons in the ultrastrong coupling regime. Applied Physics Letters, 2014, 105, 051105.	3.3	29
54	Strong coupling between localized and propagating plasmon polaritons. Optics Letters, 2015, 40, 3177.	3.3	28

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55	XPS-evidence for in-situ electrochemically-generated carbene formation. Electrochimica Acta, 2017, 234, 37-42.	5.2	28
56	Topological engineering of terahertz light using electrically tunable exceptional point singularities. Science, 2022, 376, 184-188.	12.6	27
57	Temperature-dependent Raman scattering spectra of Îµ-GaSe layered crystal. Materials Research Bulletin, 2002, 37, 169-176.	5.2	24
58	Coupled Plasmonic Cavities on Moire Surfaces. Plasmonics, 2010, 5, 429-436.	3.4	24
59	In Situ XPS Reveals Voltage Driven Asymmetric Ion Movement of an Ionic Liquid through the Pores of a Multilayer Graphene Electrode. Journal of Physical Chemistry C, 2018, 122, 11883-11889.	3.1	24
60	Hybrid Graphene/Carbon Nanofiber Wax Emulsion for Paperâ€Based Electronics and Thermal Management. Advanced Electronic Materials, 2020, 6, 2000232.	5.1	24
61	Graphene as a Reversible and Spectrally Selective Fluorescence Quencher. Scientific Reports, 2016, 6, 33911.	3.3	23
62	Controlling phase of microwaves with active graphene surfaces. Applied Physics Letters, 2017, 110, .	3.3	23
63	Slowing surface plasmon polaritons on plasmonic coupled cavities by tuning grating grooves. Applied Physics Letters, 2010, 97, 131103.	3.3	22
64	Localization of surface plasmon polaritons in hexagonal arrays of MoirÃ© cavities. Applied Physics Letters, 2011, 98, 031101.	3.3	21
65	Comparison of Back and Top Gating Schemes with Tunable Graphene Fractal Metasurfaces. ACS Photonics, 2016, 3, 2303-2307.	6.6	21
66	Graphene-based soft wearable antennas. Applied Materials Today, 2020, 20, 100727.	4.3	21
67	Broadband terahertz modulators using self-gated graphene capacitors. Journal of the Optical Society of America B: Optical Physics, 2015, 32, 1861.	2.1	18
68	Investigation of high frequency performance limit of graphene field effect transistors. Applied Physics Letters, 2010, 97, .	3.3	17
69	Critical coupling in plasmonic resonator arrays. Optics Letters, 2011, 36, 2770.	3.3	17
70	Direct imaging of localized surface plasmon polaritons. Optics Letters, 2011, 36, 3401.	3.3	17
71	Plasmon interferometers for high-throughput sensing. Optics Letters, 2012, 37, 3396.	3.3	17
72	Ultra-lightweight Chemical Vapor Deposition grown multilayered graphene coatings on paper separator as interlayer in lithium-sulfur batteries. Journal of Alloys and Compounds, 2019, 777, 1017-1024.	5.5	17

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73	Multilayer Graphene Broadband Terahertz Modulators with Flexible Substrate. Journal of Infrared, Millimeter, and Terahertz Waves, 2018, 39, 483-491.	2.2	16
74	Design and analysis of an integrated optical sensor for scanning force microscopies. IEEE Sensors Journal, 2005, 5, 411-418.	4.7	15
75	Probing molecular interactions on carbon nanotube surfaces using surface plasmon resonance sensors. Applied Physics Letters, 2012, 101, .	3.3	15
76	Probing Voltage Drop Variations in Graphene with Photoelectron Spectroscopy. Analytical Chemistry, 2013, 85, 4172-4177.	6.5	15
77	NLL-Assisted Multilayer Graphene Patterning. ACS Omega, 2018, 3, 1546-1554.	3.5	15
78	Graphene mode-locked multipass-cavity femtosecond Cr^4+: forsterite laser. Journal of the Optical Society of America B: Optical Physics, 2013, 30, 1270.	2.1	13
79	Graphene-gold supercapacitor as a voltage controlled saturable absorber for femtosecond pulse generation. Optics Letters, 2016, 41, 910.	3.3	13
80	Hybrid J-Aggregateâ€“Graphene Phototransistor. ACS Applied Nano Materials, 2020, 3, 409-417.	5.0	13
81	Plexcitonic crystals: a tunable platform for light-matter interactions. Optics Express, 2014, 22, 21912.	3.4	12
82	Absorption enhancement of molecules in the weak plasmonâ€“exciton coupling regime. Optics Letters, 2014, 39, 4994.	3.3	12
83	Graphene Nanoreactors: Photoreduction of Prussian Blue in Aqueous Solution. Journal of Physical Chemistry C, 2017, 121, 22225-22233.	3.1	12
84	Electrically Controlled Thermal Radiation from Reduced Graphene Oxide Membranes. ACS Applied Materials & Interfaces, 2021, 13, 27278-27283.	8.0	12
85	Enhanced tunability of V-shaped plasmonic structures using ionic liquid gating and graphene. Carbon, 2016, 108, 515-520.	10.3	11
86	Femtosecond pulse generation from a Ti^3+:sapphire laser near 800â€‰â€‰nm with voltage reconfigurable graphene saturable absorbers. Optics Letters, 2017, 42, 1404.	3.3	11
87	One-step codoping of reduced graphene oxide using boric and nitric acid mixture and its use in metal-free electrocatalyst. Materials Letters, 2015, 143, 205-208.	2.6	10
88	Lasing in a Slow Plasmon MoirÃ© Cavity. ACS Photonics, 2015, 2, 805-809.	6.6	10
89	Weighing graphene with QCM to monitor interfacial mass changes. Applied Physics Letters, 2016, 109, .	3.3	10
90	Graphene-Quantum Dot Hybrid Optoelectronics at Visible Wavelengths. ACS Photonics, 2018, 5, 2384-2390.	6.6	10

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91	Graphene mode-locked Cr:LiSAF laser at 850â€‰â€‰nm. Optics Letters, 2015, 40, 4110.	3.3	9
92	Raman and X-Ray photoelectron spectroscopic studies of graphene devices for identification of doping. Applied Surface Science, 2017, 425, 1130-1137.	6.1	9
93	Fourier transform plasmon resonance spectrometer using nanoslit-nanowire pair. Applied Physics Letters, 2019, 114, .	3.3	9
94	Plasmonic band gap engineering of plasmonâ€“exciton coupling. Optics Letters, 2014, 39, 5697.	3.3	8
95	Passivation of type II InAs/GaSb superlattice photodetectors with atomic layer deposited Al₂O₃. Proceedings of SPIE, 2012, , .	0.8	7
96	Monitoring the operation of a graphene transistor in an integrated circuit by XPS. Organic Electronics, 2016, 37, 178-182.	2.6	7
97	Chemically addressed switching measurements in graphene electrode memristive devices using in situ XPS. Faraday Discussions, 2019, 213, 231-244.	3.2	7
98	Strong Coupling of Carbon Quantum Dots in Liquid Crystals. Journal of Physical Chemistry Letters, 2022, 13, 3562-3570.	4.6	7
99	Anharmonicity of Zone-Center Optical Phonons: Raman Scattering Spectra of GaSe0.5S0.5Layered Crystal. Physica Scripta, 2002, 65, 534-538.	2.5	6
100	A microfluidic based differential plasmon resonance sensor. Sensors and Actuators B: Chemical, 2011, 160, 670-676.	7.8	6
101	High frequency performance of individual and arrays of single-walled carbon nanotubes. Nanotechnology, 2012, 23, 245202.	2.6	6
102	Lyotropic Liquid-Crystalline Mesophase of Lithium Triflateâ€“Nonionic Surfactant as Gel Electrolyte for Graphene Optical Modulator. Journal of Physical Chemistry C, 2017, 121, 11194-11200.	3.1	5
103	XPS investigation of the vacuum interface of an ionic liquid under triangular electrical excitation for slow transients. Analytical Methods, 2018, 10, 4225-4228.	2.7	4
104	Singleâ€“Walled Carbon Nanotubes for High Performance Thin Film Electronics. Integrated Circuits and Systems, 2009, , 211-246.	0.2	3
105	Femtosecond Pulse Generation with Voltage-Controlled Graphene Saturable Absorbers. , 2017, , 389-433.		2
106	Topological plasmonic waveguides in triharmonic metal gratings. Journal of Physics Condensed Matter, 2021, 33, 265003.	1.8	2
107	Large Rabi splitting of mixed plasmonâ€“exciton states in small plasmonic moirÃ© cavities. Optics Letters, 2020, 45, 5824.	3.3	2
108	Electrically unbiased driven airborne capacitive micromachined ultrasonic transducer design. , 2012, , .		1

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109	Nonlinear equivalent circuit model for circular CMUTs in uncollapsed and collapsed mode. , 2012, , .		1
110	Graphene Supercapacitor as a Voltage Controlled Saturable Absorber for Femtosecond Pulse Generation. , 2014, , .		1
111	Broadband terahertz modulators using self-gated graphene capacitors: erratum. Journal of the Optical Society of America B: Optical Physics, 2015, 32, 2548.	2.1	1
112	Synthesis of graphene on ultra-smooth copper foils for large area flexible electronics. , 2015, , .		1
113	X-ray photoelectron spectroscopy for identification of morphological defects and disorders in graphene devices. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2016, 34, 041516.	2.1	1
114	Broadband THz modulators based on multilayer graphene on PVC. , 2016, , .		1
115	Graphene-Based Optical Modulators. , 2017, , 435-456.		1
116	New practical device structure for graphen-based electrochromic devices. Optical Materials, 2021, 122, 111675.	3.6	1
117	Transition Metal Salt Promoted, Green, and Highâ€Yield Synthesis of Silver Nanowires for Flexible Transparent Conductive Electrodes. ChemistrySelect, 2021, 6, 12548-12554.	1.5	1
118	Integrated Optical Asymmetric Coupler Pressure Sensor. AIP Conference Proceedings, 2004, , .	0.4	0
119	Terahertz modulation using a bandpass filter combined with a graphene supercapacitor. , 2015, , .		0
120	Slow plasmons in grating cavities. Proceedings of SPIE, 2016, , .	0.8	0
121	Modulation Behaviors, Conductivities, and Carrier Dynamics of Single and Multilayer Graphenes. , 2019, , .		0
122	Ultrafast THz Self-action Graphene Based Modulators. , 2021, , .		0
123	Observation of Ultrafast THz Self-actions in Graphene Based Modulators. , 2021, , .		0
124	Femtosecond Pulse Generation from an Extended Cavity Cr4+:forsterite Laser using Graphene on YAG. , 2013, , .		0
125	Reversible Energy Transfer Between a Single Defect in hBN and Graphene. , 2019, , .		0
126	Preparation and Evaluation of the Polyethylene Film Deposited With a Multilayer Graphene Membrane for Tensile Properties. Applied Composite Materials, 0, , 1.	2.5	0