

Coskun Kocabas

List of Publications by Year in descending order

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Version: 2024-02-01

126
papers

7,255
citations

81839

39
h-index

54882

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. <i>Nature Nanotechnology</i> , 2007, 2, 230-236. | 15.6 | 985 |
| 2 | Graphene-enabled electrically switchable radar-absorbing surfaces. <i>Nature Communications</i> , 2015, 6, 6628. | 5.8 | 481 |
| 3 | Guided Growth of Large-Scale, Horizontally Aligned Arrays of Single-Walled Carbon Nanotubes and Their Use in Thin-Film Transistors. <i>Small</i> , 2005, 1, 1110-1116. | 5.2 | 353 |
| 4 | p-Channel, n-Channel Thin Film Transistors and p-n Diodes Based on Single Wall Carbon Nanotube Networks. <i>Nano Letters</i> , 2004, 4, 2031-2035. | 4.5 | 284 |
| 5 | Experimental and Theoretical Studies of Transport through Large Scale, Partially Aligned Arrays of Single-Walled Carbon Nanotubes in Thin Film Type Transistors. <i>Nano Letters</i> , 2007, 7, 1195-1202. | 4.5 | 267 |
| 6 | Graphene-Based Adaptive Thermal Camouflage. <i>Nano Letters</i> , 2018, 18, 4541-4548. | 4.5 | 252 |
| 7 | Printed Multilayer Superstructures of Aligned Single-Walled Carbon Nanotubes for Electronic Applications. <i>Nano Letters</i> , 2007, 7, 3343-3348. | 4.5 | 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. <i>Applied Physics Letters</i> , 2004, 85, 5730-5732. | 1.5 | 187 |
| 9 | Radio frequency analog electronics based on carbon nanotube transistors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 1405-1409. | 3.3 | 185 |
| 10 | Molecular Scale Buckling Mechanics in Individual Aligned Single-Wall Carbon Nanotubes on Elastomeric Substrates. <i>Nano Letters</i> , 2008, 8, 124-130. | 4.5 | 180 |
| 11 | Plasmon-polaritons on graphene-metal surface and their use in biosensors. <i>Applied Physics Letters</i> , 2012, 100, . | 1.5 | 169 |
| 12 | Broadband Optical Modulators Based on Graphene Supercapacitors. <i>Nano Letters</i> , 2013, 13, 5851-5857. | 4.5 | 162 |
| 13 | Gate capacitance coupling of single-walled carbon nanotube thin-film transistors. <i>Applied Physics Letters</i> , 2007, 90, 023516. | 1.5 | 159 |
| 14 | Synthesis of graphene on gold. <i>Applied Physics Letters</i> , 2011, 98, . | 1.5 | 145 |
| 15 | Spatially Selective Guided Growth of High-Coverage Arrays and Random Networks of Single-Walled Carbon Nanotubes and Their Integration into Electronic Devices. <i>Journal of the American Chemical Society</i> , 2006, 128, 4540-4541. | 6.6 | 143 |
| 16 | Improved Synthesis of Aligned Arrays of Single-Walled Carbon Nanotubes and Their Implementation in Thin Film Type Transistors. <i>Journal of Physical Chemistry C</i> , 2007, 111, 17879-17886. | 1.5 | 135 |
| 17 | High-Frequency Performance of Submicrometer Transistors That Use Aligned Arrays of Single-Walled Carbon Nanotubes. <i>Nano Letters</i> , 2009, 9, 1937-1943. | 4.5 | 132 |
| 18 | Alignment Controlled Growth of Single-Walled Carbon Nanotubes on Quartz Substrates. <i>Nano Letters</i> , 2009, 9, 4311-4319. | 4.5 | 125 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 19 | Electrically switchable metadevices via graphene. <i>Science Advances</i> , 2018, 4, eaao1749. | 4.7 | 117 |
| 20 | Synthesis of Large Area Graphene for High Performance in Flexible Optoelectronic Devices. <i>Scientific Reports</i> , 2015, 5, 16744. | 1.6 | 107 |
| 21 | Graphene-Enabled Adaptive Infrared Textiles. <i>Nano Letters</i> , 2020, 20, 5346-5352. | 4.5 | 98 |
| 22 | Multispectral graphene-based electro-optical surfaces with reversible tunability from visible to microwave wavelengths. <i>Nature Photonics</i> , 2021, 15, 493-498. | 15.6 | 97 |
| 23 | Graphene based flexible electrochromic devices. <i>Scientific Reports</i> , 2014, 4, 6484. | 1.6 | 92 |
| 24 | Printed thin-film transistors and complementary logic gates that use polymer-coated single-walled carbon nanotube networks. <i>Journal of Applied Physics</i> , 2005, 98, 114302. | 1.1 | 81 |
| 25 | Graphene based terahertz phase modulators. <i>2D Materials</i> , 2018, 5, 035018. | 2.0 | 81 |
| 26 | An improved lumped element nonlinear circuit model for a circular CMUT cell. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2012, 59, 1791-1799. | 1.7 | 78 |
| 27 | Rapid thermal annealing of graphene-metal contact. <i>Applied Physics Letters</i> , 2012, 101, . | 1.5 | 75 |
| 28 | Dynamic tuning of plasmon resonance in the visible using graphene. <i>Optics Letters</i> , 2016, 41, 1241. | 1.7 | 72 |
| 29 | Aligned Arrays of Single-Walled Carbon Nanotubes Generated from Random Networks by Orientationally Selective Laser Ablation. <i>Nano Letters</i> , 2004, 4, 2421-2426. | 4.5 | 67 |
| 30 | Observation of Gate-Tunable Coherent Perfect Absorption of Terahertz Radiation in Graphene. <i>ACS Photonics</i> , 2016, 3, 1531-1535. | 3.2 | 64 |
| 31 | Limits of Performance Gain of Aligned CNT Over Randomized Network: Theoretical Predictions and Experimental Validation. <i>IEEE Electron Device Letters</i> , 2007, 28, 593-595. | 2.2 | 63 |
| 32 | Tuning surface plasmon-exciton coupling via thickness dependent plasmon damping. <i>Physical Review B</i> , 2012, 86, . | 1.1 | 63 |
| 33 | Tunable Plexcitonic Nanoparticles: A Model System for Studying Plasmon-Exciton Interaction from the Weak to the Ultrastrong Coupling Regime. <i>ACS Photonics</i> , 2016, 3, 2010-2016. | 3.2 | 62 |
| 34 | Graphene-Enabled Optoelectronics on Paper. <i>ACS Photonics</i> , 2016, 3, 964-971. | 3.2 | 56 |
| 35 | Prism coupling technique investigation of elasto-optical properties of thin polymer films. <i>Journal of Applied Physics</i> , 2004, 96, 7147-7153. | 1.1 | 50 |
| 36 | Organic electrolytes for graphene-based supercapacitor: Liquid, gel or solid. <i>Materials Today Communications</i> , 2016, 7, 155-160. | 0.9 | 45 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 37 | Multifunctional Biocomposites Based on Polyhydroxyalkanoate and Graphene/Carbon Nanofiber Hybrids for Electrical and Thermal Applications. ACS Applied Polymer Materials, 2020, 2, 3525-3534. | 2.0 | 44 |
| 38 | Atomic layer deposited Al ₂ O ₃ passivation of type II InAs/GaSb superlattice photodetectors. Journal of Applied Physics, 2012, 111, . | 1.1 | 42 |
| 39 | Integrated micro ring resonator displacement sensor for scanning probe microscopies. Journal of Micromechanics and Microengineering, 2004, 14, 374-381. | 1.5 | 40 |
| 40 | Graphene-enabled electrically controlled terahertz spatial light modulators. Optics Letters, 2015, 40, 1984. | 1.7 | 40 |
| 41 | Temperature dependence of the first-order Raman scattering in GaS layered crystals. Solid State Communications, 2000, 116, 147-151. | 0.9 | 39 |
| 42 | Highly Proton Conductive Phosphoric Acid-Nonionic Surfactant Lyotropic Liquid Crystalline Mesophases and Application in Graphene Optical Modulators. ACS Nano, 2014, 8, 11007-11012. | 7.3 | 37 |
| 43 | Femtosecond pulse generation with voltage-controlled graphene saturable absorber. Optics Letters, 2014, 39, 5180. | 1.7 | 35 |
| 44 | Ultra hybrid plasmonics: strong coupling of plexcitons with plasmon polaritons. Optics Letters, 2015, 40, 3424. | 1.7 | 34 |
| 45 | In-Situ XPS Monitoring and Characterization of Electrochemically Prepared Au Nanoparticles in an Ionic Liquid. ACS Omega, 2017, 2, 478-486. | 1.6 | 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. | 3.3 | 33 |
| 47 | Gate-Tunable Photoemission from Graphene Transistors. Nano Letters, 2014, 14, 2837-2842. | 4.5 | 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. | 1.3 | 32 |
| 49 | Video-Speed Graphene Modulator Arrays for Terahertz Imaging Applications. ACS Photonics, 2020, 7, 2374-2380. | 3.2 | 31 |
| 50 | Generation of sub-20-fs pulses from a graphene mode-locked laser. Optics Express, 2017, 25, 2834. | 1.7 | 30 |
| 51 | Graphene mode-locked femtosecond Alexandrite laser. Optics Letters, 2018, 43, 3969. | 1.7 | 30 |
| 52 | A 500 MHz carbon nanotube transistor oscillator. Applied Physics Letters, 2008, 93, 123506. | 1.5 | 29 |
| 53 | Probing ultrafast energy transfer between excitons and plasmons in the ultrastrong coupling regime. Applied Physics Letters, 2014, 105, 051105. | 1.5 | 29 |
| 54 | Strong coupling between localized and propagating plasmon polaritons. Optics Letters, 2015, 40, 3177. | 1.7 | 28 |

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|----|---|-----|-----------|
| 55 | XPS-evidence for in-situ electrochemically-generated carbene formation. <i>Electrochimica Acta</i> , 2017, 234, 37-42. | 2.6 | 28 |
| 56 | Topological engineering of terahertz light using electrically tunable exceptional point singularities. <i>Science</i> , 2022, 376, 184-188. | 6.0 | 27 |
| 57 | Temperature-dependent Raman scattering spectra of μ -GaSe layered crystal. <i>Materials Research Bulletin</i> , 2002, 37, 169-176. | 2.7 | 24 |
| 58 | Coupled Plasmonic Cavities on Moire Surfaces. <i>Plasmonics</i> , 2010, 5, 429-436. | 1.8 | 24 |
| 59 | In Situ XPS Reveals Voltage Driven Asymmetric Ion Movement of an Ionic Liquid through the Pores of a Multilayer Graphene Electrode. <i>Journal of Physical Chemistry C</i> , 2018, 122, 11883-11889. | 1.5 | 24 |
| 60 | Hybrid Graphene/Carbon Nanofiber Wax Emulsion for Paper-Based Electronics and Thermal Management. <i>Advanced Electronic Materials</i> , 2020, 6, 2000232. | 2.6 | 24 |
| 61 | Graphene as a Reversible and Spectrally Selective Fluorescence Quencher. <i>Scientific Reports</i> , 2016, 6, 33911. | 1.6 | 23 |
| 62 | Controlling phase of microwaves with active graphene surfaces. <i>Applied Physics Letters</i> , 2017, 110, . | 1.5 | 23 |
| 63 | Slowing surface plasmon polaritons on plasmonic coupled cavities by tuning grating grooves. <i>Applied Physics Letters</i> , 2010, 97, 131103. | 1.5 | 22 |
| 64 | Localization of surface plasmon polaritons in hexagonal arrays of Moiré cavities. <i>Applied Physics Letters</i> , 2011, 98, 031101. | 1.5 | 21 |
| 65 | Comparison of Back and Top Gating Schemes with Tunable Graphene Fractal Metasurfaces. <i>ACS Photonics</i> , 2016, 3, 2303-2307. | 3.2 | 21 |
| 66 | Graphene-based soft wearable antennas. <i>Applied Materials Today</i> , 2020, 20, 100727. | 2.3 | 21 |
| 67 | Broadband terahertz modulators using self-gated graphene capacitors. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2015, 32, 1861. | 0.9 | 18 |
| 68 | Investigation of high frequency performance limit of graphene field effect transistors. <i>Applied Physics Letters</i> , 2010, 97, . | 1.5 | 17 |
| 69 | Critical coupling in plasmonic resonator arrays. <i>Optics Letters</i> , 2011, 36, 2770. | 1.7 | 17 |
| 70 | Direct imaging of localized surface plasmon polaritons. <i>Optics Letters</i> , 2011, 36, 3401. | 1.7 | 17 |
| 71 | Plasmon interferometers for high-throughput sensing. <i>Optics Letters</i> , 2012, 37, 3396. | 1.7 | 17 |
| 72 | Ultra-lightweight Chemical Vapor Deposition grown multilayered graphene coatings on paper separator as interlayer in lithium-sulfur batteries. <i>Journal of Alloys and Compounds</i> , 2019, 777, 1017-1024. | 2.8 | 17 |

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|----|--|-----|-----------|
| 73 | Multilayer Graphene Broadband Terahertz Modulators with Flexible Substrate. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2018, 39, 483-491. | 1.2 | 16 |
| 74 | Design and analysis of an integrated optical sensor for scanning force microscopies. <i>IEEE Sensors Journal</i> , 2005, 5, 411-418. | 2.4 | 15 |
| 75 | Probing molecular interactions on carbon nanotube surfaces using surface plasmon resonance sensors. <i>Applied Physics Letters</i> , 2012, 101, . | 1.5 | 15 |
| 76 | Probing Voltage Drop Variations in Graphene with Photoelectron Spectroscopy. <i>Analytical Chemistry</i> , 2013, 85, 4172-4177. | 3.2 | 15 |
| 77 | NLL-Assisted Multilayer Graphene Patterning. <i>ACS Omega</i> , 2018, 3, 1546-1554. | 1.6 | 15 |
| 78 | Graphene mode-locked multipass-cavity femtosecond Cr ⁴⁺ : forsterite laser. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2013, 30, 1270. | 0.9 | 13 |
| 79 | Graphene-gold supercapacitor as a voltage controlled saturable absorber for femtosecond pulse generation. <i>Optics Letters</i> , 2016, 41, 910. | 1.7 | 13 |
| 80 | Hybrid J-Aggregate ⁺ Graphene Phototransistor. <i>ACS Applied Nano Materials</i> , 2020, 3, 409-417. | 2.4 | 13 |
| 81 | Plexcitonic crystals: a tunable platform for light-matter interactions. <i>Optics Express</i> , 2014, 22, 21912. | 1.7 | 12 |
| 82 | Absorption enhancement of molecules in the weak plasmon ⁺ exciton coupling regime. <i>Optics Letters</i> , 2014, 39, 4994. | 1.7 | 12 |
| 83 | Graphene Nanoreactors: Photoreduction of Prussian Blue in Aqueous Solution. <i>Journal of Physical Chemistry C</i> , 2017, 121, 22225-22233. | 1.5 | 12 |
| 84 | Electrically Controlled Thermal Radiation from Reduced Graphene Oxide Membranes. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 27278-27283. | 4.0 | 12 |
| 85 | Enhanced tunability of V-shaped plasmonic structures using ionic liquid gating and graphene. <i>Carbon</i> , 2016, 108, 515-520. | 5.4 | 11 |
| 86 | Femtosecond pulse generation from a Ti ³⁺ :sapphire laser near 800 nm with voltage reconfigurable graphene saturable absorbers. <i>Optics Letters</i> , 2017, 42, 1404. | 1.7 | 11 |
| 87 | One-step codoping of reduced graphene oxide using boric and nitric acid mixture and its use in metal-free electrocatalyst. <i>Materials Letters</i> , 2015, 143, 205-208. | 1.3 | 10 |
| 88 | Lasing in a Slow Plasmon Moiré ⁺ Cavity. <i>ACS Photonics</i> , 2015, 2, 805-809. | 3.2 | 10 |
| 89 | Weighing graphene with QCM to monitor interfacial mass changes. <i>Applied Physics Letters</i> , 2016, 109, . | 1.5 | 10 |
| 90 | Graphene-Quantum Dot Hybrid Optoelectronics at Visible Wavelengths. <i>ACS Photonics</i> , 2018, 5, 2384-2390. | 3.2 | 10 |

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|-----|--|-----|-----------|
| 91 | Graphene mode-locked Cr:LiSAF laser at 850nm. Optics Letters, 2015, 40, 4110. | 1.7 | 9 |
| 92 | Raman and X-Ray photoelectron spectroscopic studies of graphene devices for identification of doping. Applied Surface Science, 2017, 425, 1130-1137. | 3.1 | 9 |
| 93 | Fourier transform plasmon resonance spectrometer using nanoslit-nanowire pair. Applied Physics Letters, 2019, 114, . | 1.5 | 9 |
| 94 | Plasmonic band gap engineering of plasmon-exciton coupling. Optics Letters, 2014, 39, 5697. | 1.7 | 8 |
| 95 | Passivation of type II InAs/GaSb superlattice photodetectors with atomic layer deposited Al ₂ O ₃ . 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. | 1.4 | 7 |
| 97 | Chemically addressed switching measurements in graphene electrode memristive devices using in situ XPS. Faraday Discussions, 2019, 213, 231-244. | 1.6 | 7 |
| 98 | Strong Coupling of Carbon Quantum Dots in Liquid Crystals. Journal of Physical Chemistry Letters, 2022, 13, 3562-3570. | 2.1 | 7 |
| 99 | Anharmonicity of Zone-Center Optical Phonons: Raman Scattering Spectra of GaSe _{0.5} Se _{0.5} Layered Crystal. Physica Scripta, 2002, 65, 534-538. | 1.2 | 6 |
| 100 | A microfluidic based differential plasmon resonance sensor. Sensors and Actuators B: Chemical, 2011, 160, 670-676. | 4.0 | 6 |
| 101 | High frequency performance of individual and arrays of single-walled carbon nanotubes. Nanotechnology, 2012, 23, 245202. | 1.3 | 6 |
| 102 | Lyotropic Liquid-Crystalline Mesophase of Lithium Triflate-Nonionic Surfactant as Gel Electrolyte for Graphene Optical Modulator. Journal of Physical Chemistry C, 2017, 121, 11194-11200. | 1.5 | 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. | 1.3 | 4 |
| 104 | Single-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. | 0.7 | 2 |
| 107 | Large Rabi splitting of mixed plasmon-exciton states in small plasmonic moiré cavities. Optics Letters, 2020, 45, 5824. | 1.7 | 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. | 0.9 | 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. | 0.9 | 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. | 1.7 | 1 |
| 117 | Transition Metal Salt Promoted, Green, and High Yield Synthesis of Silver Nanowires for Flexible Transparent Conductive Electrodes. ChemistrySelect, 2021, 6, 12548-12554. | 0.7 | 1 |
| 118 | Integrated Optical Asymmetric Coupler Pressure Sensor. AIP Conference Proceedings, 2004, , . | 0.3 | 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 Cr ⁴⁺ :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. | 1.3 | 0 |