

Barbaros Oezyilmaz

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.

104
papers

23,494
citations

55
h-index

107
g-index

107
ext. papers

25,475
ext. citations

10.7
avg, IF

6.67
L-index

#	Paper	IF	Citations
104	Proton and Li-Ion Permeation through Graphene with Eight-Atom-Ring Defects. <i>ACS Nano</i> , 2020 , 14, 7280-7286	16.7	27
103	Gate controlled valley polarizer in bilayer graphene. <i>Nature Communications</i> , 2020 , 11, 1202	17.4	9
102	Synthesis and properties of free-standing monolayer amorphous carbon. <i>Nature</i> , 2020 , 577, 199-203	50.4	104
101	Heteromoir[Engineering on Magnetic Bloch Transport in Twisted Graphene Superlattices. <i>Nano Letters</i> , 2020 , 20, 7572-7579	11.5	5
100	Selective Defect Formation in Hexagonal Boron Nitride. <i>Advanced Optical Materials</i> , 2019 , 7, 1900397	8.1	23
99	Gate-tunable black phosphorus spin valve with nanosecond spin lifetimes. <i>Nature Physics</i> , 2017 , 13, 888-893	8.1	91
98	Optospintronics in Graphene via Proximity Coupling. <i>ACS Nano</i> , 2017 , 11, 11678-11686	16.7	55
97	van der Waals Bonded Co/h-BN Contacts to Ultrathin Black Phosphorus Devices. <i>Nano Letters</i> , 2017 , 17, 5361-5367	11.5	37
96	Rashba Interaction and Local Magnetic Moments in a Graphene-BN Heterostructure Intercalated with Au. <i>Physical Review Letters</i> , 2016 , 117, 076603	7.4	7
95	Quantum Transport and Observation of Dyakonov-Perel Spin-Orbit Scattering in Monolayer MoS ₂ . <i>Physical Review Letters</i> , 2016 , 116, 046803	7.4	47
94	Electronic spin transport in dual-gated bilayer graphene. <i>NPG Asia Materials</i> , 2016 , 8, e274-e274	10.3	28
93	Ultrafast optical switching of infrared plasmon polaritons in high-mobility graphene. <i>Nature Photonics</i> , 2016 , 10, 244-247	33.9	252
92	Electron Doping of Ultrathin Black Phosphorus with Cu Adatoms. <i>Nano Letters</i> , 2016 , 16, 2145-51	11.5	165
91	Controlling many-body states by the electric-field effect in a two-dimensional material. <i>Nature</i> , 2016 , 529, 185-9	50.4	301
90	Phosphorene: Enhanced Photoresponse from Phosphorene-Phosphorene-Suboxide Junction Fashioned by Focused Laser Micromachining (Adv. Mater. 21/2016). <i>Advanced Materials</i> , 2016 , 28, 4164	24	3
89	Enhanced Photoresponse from Phosphorene-Phosphorene-Suboxide Junction Fashioned by Focused Laser Micromachining. <i>Advanced Materials</i> , 2016 , 28, 4090-6	24	35
88	Dynamical spin injection at a quasi-one-dimensional ferromagnet-graphene interface. <i>Applied Physics Letters</i> , 2015 , 106, 032411	3.4	12

87	IR Sensing: Exploiting the IR Transparency of Graphene for Fast Pyroelectric Infrared Detection (Advanced Optical Materials 1/2015). <i>Advanced Optical Materials</i> , 2015 , 3, 33-33	8.1	
86	Surface transfer doping induced effective modulation on ambipolar characteristics of few-layer black phosphorus. <i>Nature Communications</i> , 2015 , 6, 6485	17.4	285
85	A wafer-scale graphene and ferroelectric multilayer for flexible and fast-switched modulation applications. <i>Nanoscale</i> , 2015 , 7, 14730-7	7.7	22
84	Colossal Ultraviolet Photoresponsivity of Few-Layer Black Phosphorus. <i>ACS Nano</i> , 2015 , 9, 8070-7	16.7	175
83	Tuning and Persistent Switching of Graphene Plasmons on a Ferroelectric Substrate. <i>Nano Letters</i> , 2015 , 15, 4859-64	11.5	27
82	Creating a Stable Oxide at the Surface of Black Phosphorus. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 14557-62	9.5	258
81	Air-stable transport in graphene-contacted, fully encapsulated ultrathin black phosphorus-based field-effect transistors. <i>ACS Nano</i> , 2015 , 9, 4138-45	16.7	393
80	Transport properties of ultrathin black phosphorus on hexagonal boron nitride. <i>Applied Physics Letters</i> , 2015 , 106, 083505	3.4	77
79	Large Frequency Change with Thickness in Interlayer Breathing Mode--Significant Interlayer Interactions in Few Layer Black Phosphorus. <i>Nano Letters</i> , 2015 , 15, 3931-8	11.5	85
78	Transport properties of pristine few-layer black phosphorus by van der Waals passivation in an inert atmosphere. <i>Nature Communications</i> , 2015 , 6, 6647	17.4	394
77	Polymer-Enriched 3D Graphene Foams for Biomedical Applications. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 8275-83	9.5	61
76	Plasmons in graphene moiré superlattices. <i>Nature Materials</i> , 2015 , 14, 1217-22	27	108
75	Quantum Transport Detected by Strong Proximity Interaction at a Graphene-WS ₂ van der Waals Interface. <i>Nano Letters</i> , 2015 , 15, 5682-8	11.5	16
74	Spontaneous and specific myogenic differentiation of human mesenchymal stem cells on polyethylene glycol-linked multi-walled carbon nanotube films for skeletal muscle engineering. <i>Nanoscale</i> , 2015 , 7, 18239-49	7.7	25
73	Bandgap Engineering of Phosphorene by Laser Oxidation toward Functional 2D Materials. <i>ACS Nano</i> , 2015 , 9, 10411-21	16.7	102
72	Direct dry transfer of chemical vapor deposition graphene to polymeric substrates. <i>Carbon</i> , 2015 , 83, 224-231	10.4	69
71	Van der Waals force: a dominant factor for reactivity of graphene. <i>Nano Letters</i> , 2015 , 15, 319-25	11.5	49
70	Exploiting the IR Transparency of Graphene for Fast Pyroelectric Infrared Detection. <i>Advanced Optical Materials</i> , 2015 , 3, 34-38	8.1	31

69	'Bubble-free' electrochemical delamination of CVD graphene films. <i>Small</i> , 2015 , 11, 189-94	11	73
68	Anomalous spectral features of a neutral bilayer graphene. <i>Scientific Reports</i> , 2015 , 5, 10025	4.9	6
67	Enhanced spin-orbit coupling in dilute fluorinated graphene. <i>2D Materials</i> , 2015 , 2, 044009	5.9	44
66	Conductance oscillations induced by ballistic snake states in a graphene heterojunction. <i>Nature Communications</i> , 2015 , 6, 6093	17.4	66
65	Charge transport in ion-gated mono-, bi-, and trilayer MoS ₂ field effect transistors. <i>Scientific Reports</i> , 2014 , 4, 7293	4.9	52
64	Unconventional transport through graphene on SrTiO ₃ —a plausible effect of SrTiO ₃ phase-transitions. <i>Scientific Reports</i> , 2014 , 4, 6173	4.9	22
63	Nanometer thick elastic graphene engine. <i>Nano Letters</i> , 2014 , 14, 2677-80	11.5	27
62	Electric field effect in ultrathin black phosphorus. <i>Applied Physics Letters</i> , 2014 , 104, 103106	3.4	1026
61	Electronic transport in graphene-based heterostructures. <i>Applied Physics Letters</i> , 2014 , 104, 183504	3.4	58
60	Length-dependent thermal conductivity in suspended single-layer graphene. <i>Nature Communications</i> , 2014 , 5, 3689	17.4	603
59	Scattering theory of spin-orbit active adatoms on graphene. <i>Physical Review B</i> , 2014 , 90,	3.3	38
58	Giant spin Hall effect in graphene grown by chemical vapour deposition. <i>Nature Communications</i> , 2014 , 5, 4748	17.4	143
57	Ultrathin organic solar cells with graphene doped by ferroelectric polarization. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 3299-304	9.5	79
56	Spin-orbit proximity effect in graphene. <i>Nature Communications</i> , 2014 , 5, 4875	17.4	321
55	Large thermoelectricity via variable range hopping in chemical vapor deposition grown single-layer MoS ₂ . <i>Nano Letters</i> , 2014 , 14, 2730-4	11.5	171
54	Transport properties of monolayer MoS ₂ grown by chemical vapor deposition. <i>Nano Letters</i> , 2014 , 14, 1909-13	11.5	376
53	Tuning optical conductivity of large-scale CVD graphene by strain engineering. <i>Advanced Materials</i> , 2014 , 26, 1081-6	24	74
52	Scrolling graphene into nanofluidic channels. <i>Lab on A Chip</i> , 2013 , 13, 2874-8	7.2	51

51	Spin Pumping in Permalloy/Graphene and Permalloy/Graphite Interfaces. <i>IEEE Transactions on Magnetism</i> , 2013 , 49, 3147-3150	2	9
50	Property Control of Graphene by Employing Semi-Ionic Liquid Fluorination. <i>Advanced Functional Materials</i> , 2013 , 23, 3329-3334	15.6	38
49	Colossal enhancement of spin-orbit coupling in weakly hydrogenated graphene. <i>Nature Physics</i> , 2013 , 9, 284-287	16.2	328
48	An innovative way of etching MoS ₂ : Characterization and mechanistic investigation. <i>Nano Research</i> , 2013 , 6, 200-207	10	128
47	Graphene-P(VDF-TrFE) multilayer film for flexible applications. <i>ACS Nano</i> , 2013 , 7, 3130-8	16.7	194
46	Flexible graphene-PZT ferroelectric nonvolatile memory. <i>Nanotechnology</i> , 2013 , 24, 475202	3.4	57
45	Multiple virtual tunneling of Dirac fermions in granular graphene. <i>Scientific Reports</i> , 2013 , 3, 3404	4.9	4
44	Localized insulator-conductor transformation of graphene oxide thin films via focused laser beam irradiation. <i>Applied Physics A: Materials Science and Processing</i> , 2012 , 106, 523-531	2.6	27
43	Electronic properties of nanodiamond decorated graphene. <i>ACS Nano</i> , 2012 , 6, 1018-25	16.7	43
42	Assembly of suspended graphene on carbon nanotube scaffolds with improved functionalities. <i>Nano Research</i> , 2012 , 5, 783-795	10	9
41	Quasi-periodic nanoripples in graphene grown by chemical vapor deposition and its impact on charge transport. <i>ACS Nano</i> , 2012 , 6, 1158-64	16.7	111
40	Dynamic spin injection into chemical vapor deposited graphene. <i>Applied Physics Letters</i> , 2012 , 101, 162407	3.4	37
39	Graphene-ferroelectric hybrid structure for flexible transparent electrodes. <i>ACS Nano</i> , 2012 , 6, 3935-42	16.7	156
38	Electrical measurement of non-destructively p-type doped graphene using molybdenum trioxide. <i>Applied Physics Letters</i> , 2011 , 99, 012112	3.4	35
37	Wafer-scale graphene/ferroelectric hybrid devices for low-voltage electronics. <i>Europhysics Letters</i> , 2011 , 93, 17002	1.6	67
36	Observation of long spin-relaxation times in bilayer graphene at room temperature. <i>Physical Review Letters</i> , 2011 , 107, 047206	7.4	200
35	Room temperature ferromagnetism in partially hydrogenated epitaxial graphene. <i>Applied Physics Letters</i> , 2011 , 98, 193113	3.4	115
34	Toward wafer scale fabrication of graphene based spin valve devices. <i>Nano Letters</i> , 2011 , 11, 2363-8	11.5	189

33	Controlled hydrogenation of graphene sheets and nanoribbons. <i>ACS Nano</i> , 2011 , 5, 888-96	16.7	94
32	Graphene for controlled and accelerated osteogenic differentiation of human mesenchymal stem cells. <i>ACS Nano</i> , 2011 , 5, 4670-8	16.7	724
31	Interface engineering of layer-by-layer stacked graphene anodes for high-performance organic solar cells. <i>Advanced Materials</i> , 2011 , 23, 1514-8	24	437
30	A new route to graphene layers by selective laser ablation. <i>AIP Advances</i> , 2011 , 1, 022109	1.5	47
29	Transport properties of graphene with one-dimensional charge defects. <i>Europhysics Letters</i> , 2011 , 94, 28003	1.6	45
28	Roll-to-roll production of 30-inch graphene films for transparent electrodes. <i>Nature Nanotechnology</i> , 2010 , 5, 574-8	28.7	6507
27	Dependence of quantum-Hall conductance on the edge-state equilibration position in a bipolar graphene sheet. <i>Physical Review B</i> , 2010 , 81,	3.3	24
26	Graphene transport at high carrier densities using a polymer electrolyte gate. <i>Europhysics Letters</i> , 2010 , 92, 27001	1.6	61
25	Graphene field-effect transistors with ferroelectric gating. <i>Physical Review Letters</i> , 2010 , 105, 166602	7.4	175
24	A bioelectronic platform using a graphene-lipid bilayer interface. <i>ACS Nano</i> , 2010 , 4, 7387-94	16.7	118
23	Toward high throughput interconvertible graphene-to-graphene growth and patterning. <i>ACS Nano</i> , 2010 , 4, 6146-52	16.7	100
22	Gate-controlled nonvolatile graphene-ferroelectric memory. <i>Applied Physics Letters</i> , 2009 , 94, 163505	3.4	219
21	Current saturation in zero-bandgap, top-gated graphene field-effect transistors. <i>Nature Nanotechnology</i> , 2008 , 3, 654-9	28.7	1223
20	Geometrical control of the magnetization direction in high aspect-ratio PdNi ferromagnetic nanoelectrodes. <i>Physical Review B</i> , 2008 , 78,	3.3	5
19	Brillouin scattering study of low-frequency bulk acoustic phonons in multilayer graphene. <i>Carbon</i> , 2008 , 46, 2133-2136	10.4	15
18	Electronic transport and quantum hall effect in bipolar graphene p-n-p junctions. <i>Physical Review Letters</i> , 2007 , 99, 166804	7.4	403
17	Focused-ion-beam milling based nanostencil mask fabrication for spin transfer torque studies. <i>Journal of Applied Physics</i> , 2007 , 101, 063920	2.5	5
16	Electronic transport measurements in graphene nanoribbons. <i>Physica Status Solidi (B): Basic Research</i> , 2007 , 244, 4134-4137	1.3	30

15	Energy band-gap engineering of graphene nanoribbons. <i>Physical Review Letters</i> , 2007 , 98, 206805	7.4	4124
14	Electronic transport in locally gated graphene nanoconstrictions. <i>Applied Physics Letters</i> , 2007 , 91, 192107	3.4	156
13	Current-induced switching in single ferromagnetic layer nanopillar junctions. <i>Applied Physics Letters</i> , 2006 , 88, 162506	3.4	17
12	Spin-transfer-induced magnetic excitation: The role of spin-pumping induced damping. <i>Journal of Applied Physics</i> , 2005 , 97, 10C714	2.5	8
11	Bipolar high-field excitations in Co/Cu/Co nanopillars. <i>Physical Review B</i> , 2005 , 71,	3.3	19
10	Current-induced excitations in single cobalt ferromagnetic layer nanopillars. <i>Physical Review Letters</i> , 2004 , 93, 176604	7.4	65
9	Spin-transfer-induced precessional magnetization reversal. <i>Applied Physics Letters</i> , 2004 , 84, 3897-3899	3.4	220
8	Current-induced effective magnetic fields in Co/Cu/Co nanopillars. <i>Physical Review B</i> , 2004 , 70,	3.3	58
7	Current-induced magnetization reversal in high magnetic fields in Co/Cu/Co nanopillars. <i>Physical Review Letters</i> , 2003 , 91, 067203	7.4	112
6	Spin-torque transfer in batch-fabricated spin-valve magnetic nanojunctions (invited). <i>Journal of Applied Physics</i> , 2003 , 93, 6859-6863	2.5	42
5	Growth and magnetotransport study of thin ferromagnetic CrO ₂ films. <i>Journal of Physics Condensed Matter</i> , 2002 , 14, 7-20	1.8	32
4	Charge screening in the quantum Hall regime probed by the lateral photoelectric effect. <i>Physica B: Condensed Matter</i> , 2001 , 298, 60-64	2.8	
3	Extrinsic and intrinsic magnetoresistance contributions of CrO ₂ thin films. <i>Journal of Applied Physics</i> , 2001 , 89, 7699-7701	2.5	22
2	Observation of the screening signature in the lateral photovoltage of electrons in the quantum Hall regime. <i>Physical Review B</i> , 2001 , 64,	3.3	10
1	Shape-dependent magnetization reversal processes and flux-closure configurations of microstructured epitaxial Fe(110) elements. <i>Applied Physics Letters</i> , 2001 , 79, 3648-3650	3.4	10