Daniel Neumaier

List of Publications by Year
in descending order

100 papers	8,326 citations	136950 32 h-index	58581 82 g-index
102 all docs	102 docs citations	102 times ranked	13433 citing authors

#	Article	IF	Citations
1	Zeroâ€Bias Powerâ€Detector Circuits based on MoS₂ Fieldâ€Effect Transistors on Waferâ€Scale Flexible Substrates. Advanced Materials, 2022, 34, e2108469.	21.0	14
2	Graphene with Ni-Grid as Semitransparent Electrode for Bulk Heterojunction Solar Cells (BHJ-SCs). Polymers, 2022, 14, 1046.	4.5	3
3	Grapheneâ€Based Microwave Circuits: A Review. Advanced Materials, 2022, 34, e2108473.	21.0	25
4	Stable Al₂O₃ Encapsulation of MoS₂â€FETs Enabled by CVD Grown hâ€BN. Advanced Electronic Materials, 2022, 8, .	5.1	10
5	Stacking Polymorphism in PtSe₂ Drastically Affects Its Electromechanical Properties. Advanced Science, 2022, 9, .	11.2	4
6	Improving stability in two-dimensional transistors with amorphous gate oxides by Fermi-level tuning. Nature Electronics, 2022, 5, 356-366.	26.0	31
7	Graphene in 2D/3D Heterostructure Diodes for High Performance Electronics and Optoelectronics. Advanced Electronic Materials, 2021, 7, 2001210.	5.1	16
8	Fully Integrated 2.4-GHz Flexible Rectifier Using Chemical-Vapor-Deposition Graphene MMIC Process. IEEE Transactions on Electron Devices, 2021, 68, 1326-1333.	3.0	4
9	Study on the Adhesion Properties of Graphene and Hexagonal Boron Nitride Monolayers in Multilayered Micro-devices by Scratch Adhesion Test. Journal of Materials Engineering and Performance, 2021, 30, 5673-5681.	2.5	3
10	Low Hysteresis MoS2-FET Enabled by CVD-Grown h-BN Encapsulation. , 2021, , .		0
11	Correlating Nanocrystalline Structure with Electronic Properties in 2D Platinum Diselenide. Advanced Functional Materials, 2021, 31, 2102929.	14.9	17
12	MoS₂/graphene Lateral Heterostructure Field Effect Transistors. , 2021, , .		1
13	Plasmaâ€Enhanced Atomic Layer Deposition of Al₂O₃ on Graphene Using Monolayer hBN as Interfacial Layer. Advanced Materials Technologies, 2021, 6, 2100489.	5.8	7
14	Graphene Diodes: Graphene in 2D/3D Heterostructure Diodes for High Performance Electronics and Optoelectronics (Adv. Electron. Mater. 7/2021). Advanced Electronic Materials, 2021, 7, 2170025.	5.1	0
15	Terahertz Rectennas on Flexible Substrates Based on One-Dimensional Metalâ€“Insulatorâ€“Graphene Diodes. ACS Applied Electronic Materials, 2021, 3, 3747-3753.	4.3	11
16	Graphene-based thin-films for flexible applications inspected by high-resolution Terahertz near-field inspection. , 2021, , .		1
17	Evidence for Local Spots of Viscous Electron Flow in Graphene at Moderate Mobility. Nano Letters, 2021, 21, 9365-9373.	9.1	11
18	Oxidising and carburising catalyst conditioning for the controlled growth and transfer of large crystal monolayer hexagonal boron nitride. 2D Materials, 2020, 7, 024005.	4.4	13

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19	Grapheneâ€“Quantum Dot Hybrid Photodetectors with Low Dark-Current Readout. ACS Nano, 2020, 14, 11897-11905.	14.6	39
20	Does carrier velocity saturation help to enhance f_{max} in graphene field-effect transistors?. Nanoscale Advances, 2020, 2, 4179-4186.	4.6	4
21	Analogue two-dimensional semiconductor electronics. Nature Electronics, 2020, 3, 486-491.	26.0	74
22	Electrostatic Detection of Shubnikovâ€“de Haas Oscillations in Bilayer Graphene by Coulomb Resonances in Gateâ€Defined Quantum Dots. Physica Status Solidi (B): Basic Research, 2020, 257, 2000333.	1.5	8
23	Effects of Self-Heating on ${f}_{ext{T}}$ and ${f}_{ext{max}}$ Performance of Graphene Field-Effect Transistors. IEEE Transactions on Electron Devices, 2020, 67, 1277-1284.	3.0	7
24	The Dependence of the High-Frequency Performance of Graphene Field-Effect Transistors on Channel Transport Properties. IEEE Journal of the Electron Devices Society, 2020, 8, 457-464.	2.1	14
25	Highly Responsive Flexible Photodetectors Based on MOVPE Grown Uniform Few-Layer MoS₂. ACS Photonics, 2020, 7, 1388-1395.	6.6	60
26	Large-Signal Model of the Metalâ€“Insulatorâ€“Graphene Diode Targeting RF Applications. IEEE Electron Device Letters, 2019, 40, 1005-1008.	3.9	6
27	X-Band MMIC Balanced Frequency Doubler based on Graphene Diodes. , 2019, , .		7
28	Flexible One-Dimensional Metalâ€“Insulatorâ€“Graphene Diode. ACS Applied Electronic Materials, 2019, 1, 945-950.	4.3	26
29	Status of steady-state magnetic diagnostic for ITER and outlook for possible materials of Hall sensors for DEMO. Fusion Engineering and Design, 2019, 146, 2397-2400.	1.9	16
30	Integrating graphene into semiconductor fabrication lines. Nature Materials, 2019, 18, 525-529.	27.5	127
31	Concept for a 16-QAM RF Transmitter on Flexible Substrate using a Graphene Technology. , 2019, , .		1
32	Graphene-Diode-Based Frequency Conversion Mixers for High-Frequency Applications. , 2019, , .		1
33	Gate-tunable graphene-based Hall sensors on flexible substrates with increased sensitivity. Scientific Reports, 2019, 9, 18059.	3.3	23
34	Graphene Field-Effect Transistors With High Extrinsic <inline-formula> <tex-math notation="LaTeX">${f}_{T}$</tex-math> </inline-formula> and <inline-formula> <tex-math notation="LaTeX">${f}_{mathrm{max}}$</tex-math> </inline-formula>. IEEE Electron Device Letters, 2019, 40, 131-134.	3.9	35
35	Probing the mechanical properties of vertically-stacked ultrathin graphene/Al₂O₃ heterostructures. Nanotechnology, 2019, 30, 185703.	2.6	9
36	Zero-Bias 50-dB Dynamic Range Linear-in-dB V-Band Power Detector Based on CVD Graphene Diode on Glass. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 2018-2024.	4.6	18

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37	Graphene integrated circuits: new prospects towards receiver realisation. Nanoscale, 2018, 10, 93-99.	5.6	20
38	Low-frequency Noise Characterization of Graphene FET THz Detectors. , 2018, , .		2
39	Graphene Photodetector Integrated on a Photonic Crystal Defect Waveguide. ACS Photonics, 2018, 5, 4758-4763.	6.6	73
40	Graphene-based integrated photonics for next-generation datacom and telecom. Nature Reviews Materials, 2018, 3, 392-414.	48.7	286
41	All CVD Boron Nitride Encapsulated Graphene FETs With CMOS Compatible Metal Edge Contacts. IEEE Transactions on Electron Devices, 2018, 65, 4129-4134.	3.0	27
42	Record high bandwidth integrated graphene photodetectors for communication beyond 180 Gb/s. , 2018, , .		27
43	Metalâ€“Insulatorâ€“Graphene Diode Mixer Based on CVD Graphene-on-Glass. IEEE Electron Device Letters, 2018, 39, 1104-1107.	3.9	18
44	Gate-Defined Electronâ€“Hole Double Dots in Bilayer Graphene. Nano Letters, 2018, 18, 4785-4790.	9.1	48
45	6â€“12 GHz MMIC Double-Balanced Upconversion Mixer based on Graphene Diode. , 2018, , .		9
46	0.15 mm², DC-70GHz, Graphene-Based Power Detector with Improved Sensitivity and Dynamic Range. , 2018, , .		7
47	Identifying suitable substrates for high-quality graphene-based heterostructures. 2D Materials, 2017, 4, 025030.	4.4	83
48	Graphene photodetectors with a bandwidthâ€‰â€‰>76 GHz fabricated in a 6â€³ wafer process line. Journal Physics D: Applied Physics, 2017, 50, 124004.	2.8	58
49	Towards the Predicted High Performance of Waveguide Integrated Electro-Refractive Phase Modulators Based on Graphene. IEEE Photonics Journal, 2017, 9, 1-7.	2.0	15
50	Carrier Dynamics in Graphene: Ultrafast Manyâ€Particle Phenomena. Annalen Der Physik, 2017, 529, 1700038.	2.4	26
51	Low Resistive Edge Contacts to CVDâ€Grown Graphene Using a CMOS Compatible Metal. Annalen Der Physik, 2017, 529, 1600410.	2.4	29
52	High performance metalâ€“insulatorâ€“graphene diodes for radio frequency power detection application. Nanoscale, 2017, 9, 11944-11950.	5.6	37
53	Zero-bias, 50 dB dynamic range, V-band power detector based on CVD graphene-on-glass. , 2017, , .		5
54	Millimeter-wave graphene-based varactor for flexible electronics. , 2017, , .		4

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55	Program FFlexCom â€" High frequency flexible bendable electronics for wireless communication systems. , 2017, , .		12
56	Graphene based on-chip variable optical attenuator operating at 855 nm wavelength. Optics Express, 2017, 25, 31660.	3.4	8
57	The integration of graphene into microelectronic devices. Beilstein Journal of Nanotechnology, 2017, 8, 1056-1064.	2.8	32
58	Electrically Tunable Optical Nonlinearity of Graphene-covered SiN waveguides. , 2017, , .		0
59	Complex effective index in graphene-silicon waveguides. Optics Express, 2016, 24, 29984.	3.4	32
60	Encapsulated grapheneâ€based Hall sensors on foil with increased sensitivity. Physica Status Solidi (B): Basic Research, 2016, 253, 2316-2320.	1.5	21
61	Contact-free high-resolution conductivity mapping of large-area graphene covered with an ion gel top-gate. , 2016, , .		1
62	Controlled Generation of a pâ€"n Junction in a Waveguide Integrated Graphene Photodetector. Nano Letters, 2016, 16, 7107-7112.	9.1	166
63	Infrared transparent graphene heater for silicon photonic integrated circuits. Optics Express, 2016, 24, 7871.	3.4	44
64	Apparent rippling with honeycomb symmetry and tunable periodicity observed by scanning tunneling microscopy on suspended graphene. Physical Review B, 2016, 94, .	3.2	2
65	Flexible Hall sensors based on graphene. Nanoscale, 2016, 8, 7683-7687.	5.6	61
66	On the origin of contact resistances in graphene devices fabricated by optical lithography. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	17
67	Nanosecond spin lifetimes in bottom-up fabricated bilayer graphene spin-valves with atomic layer deposited Al2O3 spin injection and detection barriers. Physica Status Solidi (B): Basic Research, 2015, 252, 2395-2400.	1.5	5
68	A physics-based model of gate-tunable metalâ€"graphene contact resistance benchmarked against experimental data. 2D Materials, 2015, 2, 025006.	4.4	30
69	Graphene-based MMIC process development and RF passives design. , 2015, , .		1
70	Highly air stable passivation of graphene based field effect devices. Nanoscale, 2015, 7, 3558-3564.	5.6	120
71	Experimental verification of electro-refractive phase modulation in graphene. Scientific Reports, 2015, 5, 10967.	3.3	83
72	High frequency graphene transistors: can a beauty become a cash cow?. 2D Materials, 2015, 2, 030203.	4.4	5

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73	Ultra-sensitive Hall sensors based on graphene encapsulated in hexagonal boron nitride. Applied Physics Letters, 2015, 106, .	3.3	127
74	Science and technology roadmap for graphene, related two-dimensional crystals, and hybrid systems. Nanoscale, 2015, 7, 4598-4810.	5.6	2,452
75	Experimental demonstration of electro-refractive phase modulators based on graphene. , 2015, , .		0
76	Low Insertion Loss Graphene based Absorption Modulator on SOI Waveguide. , 2014, , .		1
77	Graphene based low insertion loss electro-absorption modulator on SOI waveguide. Optics Express, 2014, 22, 15292.	3.4	111
78	Bilayer Graphene Transistors for Analog Electronics. IEEE Transactions on Electron Devices, 2014, 61, 729-733.	3.0	38
79	50 GBit/s Photodetectors Based on Wafer-Scale Graphene for Integrated Silicon Photonic Communication Systems. ACS Photonics, 2014, 1, 781-784.	6.6	162
80	Experimental Verification of Carrier Multiplication in Graphene. Nano Letters, 2014, 14, 5371-5375.	9.1	96
81	Electronics based on two-dimensional materials. Nature Nanotechnology, 2014, 9, 768-779.	31.5	2,505
82	Interpretation of graphene mobility data by means of a semiclassical Monte Carlo transport model. Solid-State Electronics, 2013, 89, 161-166.	1.4	10
83	Origin of negative magnetoresistance of GaAs/(Ga,Mn)As core-shell nanowires. Physical Review B, 2013, 87, .	3.2	19
84	Velocity saturation in few-layer MoS2 transistor. Applied Physics Letters, 2013, 103, .	3.3	64
85	Integrated Ring Oscillators based on high-performance Graphene Inverters. Scientific Reports, 2013, 3, 2592.	3.3	32
86	Current Saturation and Voltage Gain in Bilayer Graphene Field Effect Transistors. Nano Letters, 2012, 12, 1324-1328.	9.1	111
87	Nonâ€Covalent Functionalization of Graphene Using Selfâ€Assembly of Alkaneâ€Amines. Advanced Functional Materials, 2012, 22, 717-725.	14.9	73
88	High On/Off Ratios in Bilayer Graphene Field Effect Transistors Realized by Surface Dopants. Nano Letters, 2011, 11, 2640-2643.	9.1	102
89	Electrical observation of a tunable band gap in bilayer graphene nanoribbons at room temperature. Applied Physics Letters, 2010, 96, .	3.3	64
90	Electrical transport and low-temperature scanning tunneling microscopy of microsoldered graphene. Applied Physics Letters, 2010, 96, 082114.	3.3	43

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91	All-Electrical Measurement of the Density of States in (Ga,Mn)As. Physical Review Letters, 2009, 103, 087203.	7.8	37
92	Transport through (Ga,Mn)As nanoislands: Coulomb blockade and temperature dependence of the conductance. Physical Review B, 2009, 80, .	3.2	15
93	Phase coherent transport in (Ga,Mn)As. New Journal of Physics, 2008, 10, 055016.	2.9	10
94	Ferromagnetic GaMnAs grown on (110) faced GaAs. Applied Physics Letters, 2008, 92, .	3.3	20
95	Electron-electron interaction in one- and two-dimensional ferromagnetic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mo>(</mml:mo><mml:mi>Ga</mml:mi><mml:mo>,</mml:mo><mml:mi>Mn</mml:mi><mml:mo> Physical Review B, 2008, 77, .	3.2	19
96	Quantum transport in ferromagnetic permalloy nanostructures. Physical Review B, 2008, 78, .	3.2	15
97	NeumaieretÂal.Reply:. Physical Review Letters, 2008, 101, .	7.8	4
98	Weak Localization in Ferromagnetic (Ga,Mn)As Nanostructures. Physical Review Letters, 2007, 99, 116803.	7.8	56
99	Characterization of rat and human Kupffer cells after cryopreservation. Cryobiology, 2007, 54, 164-172.	0.7	14
100	Dephasing in (Ga,Mn)As Nanowires and Rings. Physical Review Letters, 2006, 97, 056803.	7.8	41