

Yasuhide Ohno

List of Publications by Year in descending order

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124
papers

2,960
citations

257450

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all docs

126
docs citations

126
times ranked

3533
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrolyte-Gated Graphene Field-Effect Transistors for Detecting pH and Protein Adsorption. Nano Letters, 2009, 9, 3318-3322.	9.1	776
2	Label-Free Biosensors Based on Aptamer-Modified Graphene Field-Effect Transistors. Journal of the American Chemical Society, 2010, 132, 18012-18013.	13.7	513
3	Chemical and biological sensing applications based on graphene field-effect transistors. Biosensors and Bioelectronics, 2010, 26, 1727-1730.	10.1	122
4	Air-stable n-type carbon nanotube field-effect transistors with Si ₃ N ₄ passivation films fabricated by catalytic chemical vapor deposition. Applied Physics Letters, 2005, 86, 113115.	3.3	91
5	Chirality selection of single-walled carbon nanotubes by laser resonance chirality selection method. Applied Physics Letters, 2004, 85, 858-860.	3.3	80
6	Selective ion sensors based on ionophore-modified graphene field-effect transistors. Sensors and Actuators B: Chemical, 2013, 187, 45-49.	7.8	76
7	Layer-by-layer growth of graphene layers on graphene substrates by chemical vapor deposition. Thin Solid Films, 2011, 519, 6447-6452.	1.8	53
8	Recent advances in functional graphene biosensors. Journal Physics D: Applied Physics, 2014, 47, 094005.	2.8	47
9	Electrical characterization of carbon nanotube field-effect transistors with SiN _x passivation films deposited by catalytic chemical vapor deposition. Applied Physics Letters, 2008, 92, 183111.	3.3	46
10	Formation of single quantum dot in single-walled carbon nanotube channel using focused-ion-beam technique. Applied Physics Letters, 2007, 90, 023103.	3.3	45
11	Horizontally Aligned Carbon Nanotubes on a Quartz Substrate for Chemical and Biological Sensing. Journal of Physical Chemistry C, 2012, 116, 19490-19495.	3.1	44
12	Peptide aptamer-modified single-walled carbon nanotube-based transistors for high-performance biosensors. Scientific Reports, 2017, 7, 17881.	3.3	42
13	Direct Electrical Detection of DNA Hybridization Based on Electrolyte-Gated Graphene Field-Effect Transistor. Japanese Journal of Applied Physics, 2013, 52, 110107.	1.5	38
14	Position-Controlled Growth of Single-Walled Carbon Nanotubes by Laser-Irradiated Chemical Vapor Deposition. Japanese Journal of Applied Physics, 2005, 44, 1581-1584.	1.5	37
15	Top gating of epitaxial (Bi ₂ Se ₃ /Sb ₂ Te ₃) ₂ Te ₃ topological insulator thin films. Applied Physics Letters, 2014, 104, .	3.3	35
16	Glycan-functionalized graphene-FETs toward selective detection of human-infectious avian influenza virus. Japanese Journal of Applied Physics, 2017, 56, 030302.	1.5	34
17	Dual-Gated Topological Insulator Thin-Film Device for Efficient Fermi-Level Tuning. ACS Nano, 2015, 9, 4050-4055.	14.6	33
18	Room-temperature-operating carbon nanotube single-hole transistors with significantly small gate and tunnel capacitances. Applied Physics Letters, 2009, 94, 053112.	3.3	30

#	ARTICLE	IF	CITATIONS
19	Label-Free Aptamer-Based Immunoglobulin Sensors Using Graphene Field-Effect Transistors. Japanese Journal of Applied Physics, 2011, 50, 070120.	1.5	30
20	Enhancement of weak-signal response based on stochastic resonance in carbon nanotube field-effect transistors. Journal of Applied Physics, 2010, 108, .	2.5	29
21	Label-Free Aptamer-Based Immunoglobulin Sensors Using Graphene Field-Effect Transistors. Japanese Journal of Applied Physics, 2011, 50, 070120.	1.5	28
22	High-Performance Carbon Nanotube Field-Effect Transistors with Local Electrolyte Gates. Japanese Journal of Applied Physics, 2008, 47, 2060-2063.	1.5	27
23	Immunosensors Based on Graphene Field-Effect Transistors Fabricated Using Antigen-Binding Fragment. Japanese Journal of Applied Physics, 2012, 51, 06FD08.	1.5	26
24	Noise Reduction of Carbon Nanotube Field-Effect Transistor Biosensors by Alternating Current Measurement. Japanese Journal of Applied Physics, 2009, 48, 06FJ01.	1.5	25
25	Direct Synthesis of Graphene on SiO ₂ Substrates by Transfer-Free Processes. Japanese Journal of Applied Physics, 2012, 51, 06FD12.	1.5	22
26	Characterization of reduced graphene oxide field-effect transistor and its application to biosensor. Japanese Journal of Applied Physics, 2014, 53, 05FD05.	1.5	21
27	Room-Temperature Carbon Nanotube Single-Electron Transistors Fabricated Using Defect-Induced Plasma Process. Japanese Journal of Applied Physics, 2008, 47, 2036-2039.	1.5	20
28	pH Sensor Based on Chemical-Vapor-Deposition-Synthesized Graphene Transistor Array. Japanese Journal of Applied Physics, 2013, 52, 06GK04.	1.5	20
29	Laser operation at room temperature of self-organized In _{0.1} Ga _{0.9} As/(GaAs) ₆ (AlAs) ₁ quantum wires grown on (775)B-oriented GaAs substrates by molecular beam epitaxy. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2000, 18, 1672.	1.6	19
30	Highly Sensitive Electrical Detection of Sodium Ions Based on Graphene Field-Effect Transistors. Japanese Journal of Applied Physics, 2011, 50, 06GE07.	1.5	19
31	Immunosensors Based on Graphene Field-Effect Transistors Fabricated Using Antigen-Binding Fragment. Japanese Journal of Applied Physics, 2012, 51, 06FD08.	1.5	19
32	Direct Synthesis of Graphene on SiO ₂ Substrates by Transfer-Free Processes. Japanese Journal of Applied Physics, 2012, 51, 06FD12.	1.5	19
33	Polarization control of vertical cavity surface emitting laser structure by using self-organized quantum wires grown on (775)B-oriented GaAs substrate by molecular beam epitaxy. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2004, 22, 1526.	1.6	18
34	Robust Noise Modulation of Nonlinearity in Carbon Nanotube Field-Effect Transistors. Japanese Journal of Applied Physics, 2010, 49, 02BD11.	1.5	18
35	Improved sensitivity of a graphene FET biosensor using porphyrin linkers. Japanese Journal of Applied Physics, 2018, 57, 065103.	1.5	18
36	Fabrication of new single-walled carbon nanotubes microelectrode for electrochemical sensors application. Talanta, 2012, 91, 88-94.	5.5	17

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37	Epitaxial graphene on SiC formed by the surface structure control technique. Japanese Journal of Applied Physics, 2016, 55, 06GF03.	1.5	17
38	Electric-field-induced band gap of bilayer graphene in ionic liquid. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2012, 30, .	1.2	16
39	Highly Sensitive Electrical Detection of Sodium Ions Based on Graphene Field-Effect Transistors. Japanese Journal of Applied Physics, 2011, 50, 06GE07.	1.5	16
40	Large Anisotropy of Electron Mobilities in Laterally Modulated Two-Dimensional Systems Grown on the (775)B-Oriented GaAs Substrates by Molecular Beam Epitaxy. Japanese Journal of Applied Physics, 2001, 40, L1058-L1060.	1.5	14
41	Magnetotransport in ultrashort period unidirectional lateral superlattices. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 12, 200-203.	2.7	13
42	Position-Controlled Direct Graphene Synthesis on Silicon Oxide Surfaces Using Laser Irradiation. Applied Physics Express, 2013, 6, 105101.	2.4	13
43	Improvement in Performance of Carbon Nanotube Field-Effect Transistors on Patterned SiO ₂ /Si Substrates. Journal of Electronic Materials, 2010, 39, 376-380.	2.2	12
44	Thickness Control of Graphene Overlayer via Layer-by-Layer Growth on Graphene Templates by Chemical Vapor Deposition. Japanese Journal of Applied Physics, 2011, 50, 06GE04.	1.5	12
45	Quantized characteristics in carbon nanotube-based single-hole memory with a floating nanodot gate. Applied Physics Letters, 2011, 98, .	3.3	12
46	Carrier Transport Properties of the Field Effect Transistors with Graphene Channel Prepared by Chemical Vapor Deposition. Japanese Journal of Applied Physics, 2012, 51, 06FD03.	1.5	12
47	Direct graphene synthesis on a Si/SiO ₂ substrate by a simple annealing process. Materials Research Express, 2014, 1, 025028.	1.6	12
48	Ion sensitivity of large-area epitaxial graphene film on SiC substrate. Applied Physics Letters, 2017, 111, 213103.	3.3	12
49	Carrier Transport Properties of the Field Effect Transistors with Graphene Channel Prepared by Chemical Vapor Deposition. Japanese Journal of Applied Physics, 2012, 51, 06FD03.	1.5	12
50	Single-Hole Charging and Discharging Phenomena in Carbon Nanotube Field-Effect-Transistor-Based Nonvolatile Memory. Japanese Journal of Applied Physics, 2010, 49, 06GG13.	1.5	11
51	Diameter dependence of 1/f noise in carbon nanotube field effect transistors using noise spectroscopy. Applied Surface Science, 2013, 267, 101-105.	6.1	11
52	Logic Gates Based on Carbon Nanotube Field-Effect Transistors with SiN _x Passivation Films. Japanese Journal of Applied Physics, 2010, 49, 06GG02.	1.5	10
53	External-Noise-Induced Small-Signal Detection with Solution-Gated Carbon Nanotube Transistor. Applied Physics Express, 2011, 4, 045102.	2.4	10
54	Silicon Nitride-Passivated Bottom-Up Single-Electron Transistors. Japanese Journal of Applied Physics, 2013, 52, 110101.	1.5	9

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55	Utilizing research into electrical double layers as a basis for the development of label-free biosensors based on nanomaterial transistors. <i>Nanobiosensors in Disease Diagnosis</i> , 2015, , 1.	0.0	8
56	Carrier doping effect of humidity for single-crystal graphene on SiC. <i>Japanese Journal of Applied Physics</i> , 2017, 56, 085102.	1.5	8
57	Complementary voltage inverters with large noise margin based on carbon nanotube field-effect transistors with SiN _x top-gate insulators. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2012, 30, 03D108.	1.2	7
58	Observation of the interaction between avidin and iminobiotin using a graphene FET on a SiC substrate. <i>Japanese Journal of Applied Physics</i> , 2019, 58, SDDD02.	1.5	7
59	Suppression of protein adsorption on a graphene surface by phosphorylcholine functionalization. <i>Japanese Journal of Applied Physics</i> , 2019, 58, 055001.	1.5	7
60	Raman Scattering of Single-Walled Carbon Nanotubes Implanted with Ultra-Low-Energy Oxygen Ions. <i>Japanese Journal of Applied Physics</i> , 2005, 44, 1615-1620.	1.5	7
61	Cobalt Nano Particle Size Dependence of Noise Modulations in Relation to Nonlinearity. <i>E-Journal of Surface Science and Nanotechnology</i> , 2010, 8, 115-120.	0.4	7
62	Robust Noise Characteristics in Carbon Nanotube Transistors Based on Stochastic Resonance and Their Summing Networks. <i>Japanese Journal of Applied Physics</i> , 2011, 50, 06GE03.	1.5	7
63	Transition between Particle Nature and Wave Nature in Single-Walled Carbon Nanotube Device. <i>Japanese Journal of Applied Physics</i> , 2009, 48, 015005.	1.5	6
64	Development of Nano-Carbon Biosensors Using Glycan for Host Range Detection of Influenza Virus. <i>Condensed Matter</i> , 2016, 1, 7.	1.8	6
65	Dynamical thermodiffusion model of graphene synthesis on polymer films by laser irradiation and application to strain sensors. <i>Japanese Journal of Applied Physics</i> , 2017, 56, 075102.	1.5	6
66	High characteristic temperature ($T_{\text{sub 0}}=243$ K) of stacked InGaAs quantum wire lasers grown on (775)B GaAs substrates by molecular beam epitaxy. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2002, 20, 1270.	1.6	5
67	Graphene field-effect transistors for label-free biological sensors. , 2010, , .		5
68	Raman Scattering of Single-Walled Carbon Nanotubes in Early Growth Stages Using Laser-Irradiated Chemical Vapor Deposition. <i>Japanese Journal of Applied Physics</i> , 2010, 49, 06GJ03.	1.5	5
69	Gate voltage control of stochastic resonance in carbon nanotube field effect transistors. , 2011, , .		5
70	Robust Noise Characteristics in Carbon Nanotube Transistors Based on Stochastic Resonance and Their Summing Networks. <i>Japanese Journal of Applied Physics</i> , 2011, 50, 06GE03.	1.5	5
71	Carbon Nanowall Field Effect Transistors Using a Self-Aligned Growth Process. <i>E-Journal of Surface Science and Nanotechnology</i> , 2014, 12, 225-229.	0.4	5
72	Floating-gated memory based on carbon nanotube field-effect transistors with Si floating dots. <i>Japanese Journal of Applied Physics</i> , 2014, 53, 04EN07.	1.5	5

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73	Graphene-FET-based gas sensor properties depending on substrate surface conditions. Japanese Journal of Applied Physics, 2015, 54, 06FF11.	1.5	5
74	Carbon nanotube single-electron transistors with single-electron charge storages. Japanese Journal of Applied Physics, 2015, 54, 06FF05.	1.5	5
75	Graphene device array using transfer-free patterned growth on insulator for an electrolyte-gated sensor. Thin Solid Films, 2016, 612, 87-90.	1.8	5
76	Fabrication of hydrophilic graphene film by molecular functionalization. Physica Status Solidi (B): Basic Research, 2017, 254, 1600524.	1.5	5
77	Stacking effect of self-organized In _{0.15} Ga _{0.85} As quantum wires grown on (775)B-oriented GaAs substrates by molecular beam epitaxy. Journal of Crystal Growth, 2001, 227-228, 970-974.	1.5	4
78	Aligned Single-Walled Carbon Nanotube Arrays on Patterned SiO ₂ /Si Substrates. Japanese Journal of Applied Physics, 2010, 49, 06GK01.	1.5	4
79	Gate voltage dependence of 1/f noise in carbon nanotubes with the different metal contacts. , 2013, , .		4
80	Raman spectral mapping of self-aligned carbon nanowalls. Japanese Journal of Applied Physics, 2014, 53, 05FD10.	1.5	4
81	Blackbody-like infrared radiation in stacked graphene Pâ€N junction diode. Japanese Journal of Applied Physics, 2021, 60, SCCD01.	1.5	4
82	Room-Temperature Coulomb Oscillations of Carbon Nanotube Field-Effect Transistors with Oxidized Insulators. Japanese Journal of Applied Physics, 2008, 47, 2056-2059.	1.5	3
83	Electrical Detection of Negatively Charged Proteins Using n-Type Carbon Nanotube Field-Effect Transistor Biosensors. Japanese Journal of Applied Physics, 2010, 49, 02BD10.	1.5	3
84	Fabrication of high-performance voltage inverters based on carbon nanotube field-effect transistors. , 2010, , .		3
85	Schottky barrier control gate-type carbon nanotube field-effect transistor biosensors. Journal of Applied Physics, 2012, 111, 034506.	2.5	3
86	Graphene Biosensor. , 2015, , 91-103.		3
87	Top-gated graphene field-effect transistors by low-temperature synthesized SiN _x insulator on SiC substrates. Japanese Journal of Applied Physics, 2016, 55, 06GF09.	1.5	3
88	Effects of low temperature buffer on carbon nano wallâ€™s growth. Materials Today Communications, 2018, 17, 94-99.	1.9	3
89	Vertically stacked graphene tunnel junction with structured water barrier. Japanese Journal of Applied Physics, 2019, 58, SDDE01.	1.5	3
90	Improved uniformity of self-organized In _{0.53} Ga _{0.47} As/In _{0.52} Al _{0.48} As quantum wires grown on (775)B-oriented InP substrate by molecular beam epitaxy. Journal of Crystal Growth, 2003, 251, 269-275.	1.5	2

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91	Floating-bridge structure of graphene with ionic-liquid gate. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2013, 10, 1604-1607.	0.8	2
92	Enhancement of Electron-Phonon Interaction by Band-Gap Opening in Bilayer Graphene. <i>Journal of the Physical Society of Japan</i> , 2014, 83, 034703.	1.6	2
93	Detection Kondo effect in graphene quantum dots. , 2016, , .		2
94	Charge-independent protein adsorption characteristics of epitaxial graphene field-effect transistor on SiC substrate. <i>Journal of Applied Physics</i> , 2021, 130, .	2.5	2
95	Far-infrared emission from graphene on SiC by current injection. <i>Japanese Journal of Applied Physics</i> , 2022, 61, SD1019.	1.5	2
96	Thermal desorption of structured water layer on epitaxial graphene. <i>AIP Advances</i> , 2021, 11, 125012.	1.3	2
97	Suppression of exchange enhancement of spin gap in quantum Hall systems by ultra-short period lateral superlattice. <i>Journal of Physics and Chemistry of Solids</i> , 2002, 63, 1297-1300.	4.0	1
98	Laser-Resonance Chirality Selection in Single-Walled Carbon Nanotubes. <i>AIP Conference Proceedings</i> , 2005, , .	0.4	1
99	Improving faint-signal sensitivity of electrolyte-gated carbon nanotube field-effect transistors using external noise. , 2010, , .		1
100	Graphene field-effect transistors for label-free chemical and biological sensors. <i>Proceedings of SPIE</i> , 2011, , .	0.8	1
101	Noise spectroscopy of self-aligned carbon nanowalls. , 2015, , .		1
102	Zero-bias conductance anomaly in graphene dots. <i>Japanese Journal of Applied Physics</i> , 2017, 56, 06GE07.	1.5	1
103	Universal Conductance Fluctuation Due to Development of Weak Localization in Monolayer Graphene. <i>Physica Status Solidi (B): Basic Research</i> , 2019, 256, 1800515.	1.5	1
104	High Stability of Epitaxial Graphene on a SiC Substrate. <i>Physica Status Solidi (B): Basic Research</i> , 2020, 257, 1900357.	1.5	1
105	Carbon Nanotube-Based Floating Gate Memories with High-kDielectrics. <i>Japanese Journal of Applied Physics</i> , 2012, 51, 06FD11.	1.5	1
106	Graphene/AlGaN Schottky barrier photodiodes and its application for array devices. <i>Japanese Journal of Applied Physics</i> , 2022, 61, SD1013.	1.5	1
107	Transport Properties of Charge Carriers in Single-Walled Carbon Nanotubes by Flash-Photolysis Time-Resolved Microwave Conductivity Technique. <i>AIP Conference Proceedings</i> , 2005, , .	0.4	0
108	Temperature Scaling Anomalies in Quantum Hall Plateau Transitions with Ultra-Short Period Lateral Superlattice. <i>AIP Conference Proceedings</i> , 2006, , .	0.4	0

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109	Single charge detection using single-walled carbon nanotube single-hole transistor. , 2007, , .		0
110	Electronic states of single-walled carbon nanotubes with substitutional impurities. AIP Conference Proceedings, 2007, , .	0.4	0
111	Suppression of current fluctuations in carbon nanotube field-effect transistors by applying alternating current. , 2008, , .		0
112	High-Performance Carbon Nanotube Field-Effect Transistors Using Low-Energy Ion Implantation. , 2008, , .		0
113	Single-electron memory based on floating-gated carbon nanotube field-effect transistors. , 2010, , .		0
114	Carbon Nanotube-Based Floating Gate Memories with High- κ Dielectrics. Japanese Journal of Applied Physics, 2012, 51, 06FD11.	1.5	0
115	Detection of Protein by Reduced Graphene Oxide Field-Effect Transistor. Materials Research Society Symposia Proceedings, 2014, 1586, j1.	0.1	0
116	Lab-on-a-Graphene: Functionalized Graphene Transistors and Their Application for Biosensing. , 2017, , 79-90.		0
117	Effective binding of sugar chains to influenza virus on the surface by bovine serum albumin localization. Japanese Journal of Applied Physics, 2019, 58, SIID03.	1.5	0
118	QUANTUM TRANSPORT IN TWO-DIMENSIONAL ELECTRON GAS IN ULTRA-SHORT PERIOD LATERAL SUPERLATTICES. , 2002, , .		0
119	Graphene Direct Growth on Si/SiO ₂ Substrates. , 2015, , 29-35.		0
120	Aligned Single-Walled Carbon Nanotube Growth on Patterned SiO ₂ /Si Substrates. , 2015, , 131-141.		0
121	Stochastic Resonance Effect on Carbon Nanotube Field-Effect Transistors. , 2015, , 165-177.		0
122	Graphene Laser Irradiation CVD Growth. , 2015, , 21-27.		0
123	Effects of the plasma process for self-aligned nano-carbon field-effect transistors. , 2017, , .		0
124	Far-infrared emission from graphene on SiC by current injection. Japanese Journal of Applied Physics, 0, , .	1.5	0