Toshimasa Fujisawa

List of Publications by Year
in descending order

140 papers	8,335 citations	101543 36 h-index	48315 88 g-index
141 all docs	141 docs citations	141 times ranked	4179 citing authors

#	Article	IF	Citations
1	Electron transport through double quantum dots. Reviews of Modern Physics, 2002, 75, 1-22.	45.6	1,534
2	The Kondo Effect in the Unitary Limit. Science, 2000, 289, 2105-2108.	12.6	707
3	Coherent Manipulation of Electronic States in a Double Quantum Dot. Physical Review Letters, 2003, 91, 226804.	7.8	679
4	Microwave spectroscopy of a quantum-dot molecule. Nature, 1998, 395, 873-876.	27.8	522
5	Coherent zero-state and Ï€-state in an excitonâ€“polariton condensate array. Nature, 2007, 450, 529-532.	27.8	366
6	Spontaneous Emission Spectrum in Double Quantum Dot Devices. , 1998, 282, 932-935.		361
7	Allowed and forbidden transitions in artificial hydrogen and helium atoms. Nature, 2002, 419, 278-281.	27.8	342
8	Bidirectional Counting of Single Electrons. Science, 2006, 312, 1634-1636.	12.6	323
9	Observation of Bogoliubov excitations in exciton-polariton condensates. Nature Physics, 2008, 4, 700-705.	16.7	245
10	Correlated Coherent Oscillations in Coupled Semiconductor Charge Qubits. Physical Review Letters, 2009, 103, 056802.	7.8	125
11	Gate-dependent spinâ€“orbit coupling in multielectron carbon nanotubes. Nature Physics, 2011, 7, 348-353.	16.7	122
12	Pauli-spin-blockade transport through a silicon double quantum dot. Physical Review B, 2008, 77, .	3.2	115
13	Electron counting of single-electron tunneling current. Applied Physics Letters, 2004, 84, 2343-2345.	3.3	114
14	Fractionalized wave packets from an artificial Tomonagaâ€“Luttinger liquid. Nature Nanotechnology, 2014, 9, 177-181.	31.5	107
15	Transient current spectroscopy of a quantum dot in the Coulomb blockade regime. Physical Review B, 2001, 63, .	3.2	99
16	Out-of-Equilibrium Kondo Effect in a Mesoscopic Device. Physical Review Letters, 2002, 89, 156801.	7.8	94
17	Time-dependent single-electron transport through quantum dots. Reports on Progress in Physics, 2006, 69, 759-796.	20.1	94
18	The Local-Environment-DependentDXCenters: Evidence for the Single Energy Level with a Specified Configuration. Japanese Journal of Applied Physics, 1989, 28, L891-L894.	1.5	93

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19	Fano-Kondo Interplay in a Side-Coupled Double Quantum Dot. Physical Review Letters, 2009, 103, 266806.	7.8	91
20	Bidirectional single-electron counting and the fluctuation theorem. Physical Review B, 2010, 81, .	3.2	89
21	Background charge fluctuation in a GaAs quantum dot device. Applied Physics Letters, 2004, 85, 768-770.	3.3	84
22	Observation of the Persistent Photoconductivity Due to the DX Center in GaAs under Hydrostatic Pressure. Japanese Journal of Applied Physics, 1985, 24, L893-L894.	1.5	78
23	Charge noise analysis of an AlGaAs/GaAs quantum dot using transmission-type radio-frequency single-electron transistor technique. Applied Physics Letters, 2000, 77, 543-545.	3.3	75
24	Waveform measurement of charge- and spin-density wavepackets in a chiral Tomonagaâ€“Luttinger liquid. Nature Physics, 2017, 13, 559-562.	16.7	69
25	Electromagnetic Aharonov-Bohm effect in a two-dimensional electron gas ring. Physical Review B, 2003, 67, .	3.2	68
26	Rotation and phase-shift operations for a charge qubit in a double quantum dot. Physica E: Low-Dimensional Systems and Nanostructures, 2004, 21, 1046-1052.	2.7	65
27	Edge magnetoplasmon transport in gated and ungated quantum Hall systems. Physical Review B, 2011, 84, .	3.2	65
28	A Triple Quantum Dot in a Single-Wall Carbon Nanotube. Nano Letters, 2008, 8, 1055-1060.	9.1	58
29	Voltage-controlled group velocity of edge magnetoplasmon in the quantum Hall regime. Physical Review B, 2010, 81, .	3.2	58
30	Photon assisted tunnelling in single and coupled quantum dot systems. Superlattices and Microstructures, 1997, 21, 247-254.	3.1	57
31	Nonequilibrium Transport through a Vertical Quantum Dot in the Absence of Spin-Flip Energy Relaxation. Physical Review Letters, 2002, 88, 236802.	7.8	57
32	Surface-Acoustic-Wave-Induced Transport in a Double Quantum Dot. Physical Review Letters, 2006, 96, 136807.	7.8	54
33	Electrical pulse measurement, inelastic relaxation, and non-equilibrium transport in a quantum dot. Journal of Physics Condensed Matter, 2003, 15, R1395-R1428.	1.8	47
34	Plasmon transport in graphene investigated by time-resolved electrical measurements. Nature Communications, 2013, 4, 1363.	12.8	46
35	Spatial Imaging of Two-Dimensional Electronic States in Semiconductor Quantum Wells. Physical Review Letters, 2007, 98, 136802.	7.8	42
36	Direct Evidence for the Negative-U Property of the DX Center as Studied by Hydrostatic Pressure Experiments on GaAs Simultaneously Doped with Ge and Si. Japanese Journal of Applied Physics, 1990, 29, L388-L390.	1.5	39

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37	Electrical Pump-and-Probe Study of Spin Singlet-Triplet Relaxation in a Quantum Dot. Physical Review Letters, 2005, 95, 056803.	7.8	39
38	Distributed-element circuit model of edge magnetoplasmon transport. Physical Review B, 2013, 88, .	3.2	37
39	Pauli spin blockade in cotunneling transport through a double quantum dot. Physical Review B, 2005, 72, .	3.2	36
40	Spin-Dependent Phase Diagram of theÎ½T=1Bilayer Electron System. Physical Review Letters, 2008, 100, 106803.	7.8	36
41	Kondo Effect in a Semiconductor Quantum Dot with a Spin-Accumulated Lead. Physical Review Letters, 2010, 104, 036804.	7.8	36
42	Distributed electrochemical capacitance evidenced in high-frequency admittance measurements on a quantum Hall device. Physical Review B, 2012, 85, .	3.2	34
43	A gate-defined silicon quantum dot molecule. Applied Physics Letters, 2008, 92, 222104.	3.3	33
44	Controlled resonant tunneling in a coupled double-quantum-dot system. Applied Physics Letters, 2007, 90, 103116.	3.3	31
45	Magnetic-Field Dependence of Tunnel Couplings in Carbon Nanotube Quantum Dots. Physical Review Letters, 2012, 108, 176802.	7.8	30
46	Controlled decoherence of a charge qubit in a double quantum dot. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2004, 22, 2035.	1.6	28
47	High-frequency manipulation of few-electron double quantum dotsâ€"toward spin qubits. Physica E: Low-Dimensional Systems and Nanostructures, 2004, 22, 518-521.	2.7	28
48	A Double Quantum Dot as an Artificial Two-Level System. Japanese Journal of Applied Physics, 2001, 40, 2100-2104.	1.5	26
49	GaAs microcavity excitonâ€polaritons in a trap. Physica Status Solidi (B): Basic Research, 2008, 245, 1076-1080.	1.5	26
50	Signatures of a Nonthermal Metastable State in Copropagating Quantum Hall Edge Channels. Physical Review Letters, 2018, 120, 197701.	7.8	26
51	DX centers in IIIâ€"V compound and alloy semiconductors as studied by hydrostatic pressure experiments. Journal of Crystal Growth, 1989, 98, 243-248.	1.5	25
52	Impedance analysis of a radio-frequency single-electron transistor. Applied Physics Letters, 2002, 81, 3257-3259.	3.3	25
53	Decoherence of nuclear spins due to dipole-dipole interactions probed by resistively detected nuclear magnetic resonance. Applied Physics Letters, 2007, 91, .	3.3	24
54	Tomonagaâ€"Luttinger-liquid nature of edge excitations in integer quantum Hall edge channels. Reviews in Physics, 2018, 3, 32-43.	8.9	24

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55	Time-resolved charge fractionalization in inhomogeneous Luttinger liquids. Physical Review B, 2014, 89, .	3.2	23
56	Multiple Photon Assisted Tunneling between Two Coupled Quantum Dots. Japanese Journal of Applied Physics, 1997, 36, 4000-4003.	1.5	21
57	Bidirectional Current Drag Induced by Two-Electron Cotunneling in Coupled Double Quantum Dots. Applied Physics Express, 0, 2, 081101.	2.4	21
58	Resonant tunneling properties of single electron transistors with a novel doubleâ€gate geometry. Applied Physics Letters, 1996, 68, 526-528.	3.3	20
59	Multiple two-qubit operations for a coupled semiconductor charge qubit. Physica E: Low-Dimensional Systems and Nanostructures, 2011, 43, 730-734.	2.7	20
60	Gate-Dependent Orbital Magnetic Moments in Carbon Nanotubes. Physical Review Letters, 2011, 107, 186802.	7.8	20
61	Shot-Noise Evidence of Fractional Quasiparticle Creation in a Local Fractional Quantum Hall State. Physical Review Letters, 2015, 114, 056802.	7.8	20
62	Spectroscopic study on hot-electron transport in a quantum Hall edge channel. Physical Review B, 2019, 99, .	3.2	19
63	Inelastic tunneling in a double quantum dot coupled to a bosonic environment. Physica E: Low-Dimensional Systems and Nanostructures, 2000, 7, 413-419.	2.7	18
64	AlGaAs/InGaAs/GaAs single electron transistors fabricated by Ga focused ion beam implantation. Applied Physics Letters, 1994, 64, 2250-2252.	3.3	17
65	Microwave spectroscopy of a double quantum dot in the low- and high-power regime. Physica B: Condensed Matter, 1999, 272, 31-35.	2.7	17
66	Intrinsic Gap and Exciton Condensation in theÎ½T=1Bilayer System. Physical Review Letters, 2010, 104, 056802.	7.8	17
67	Energy relaxation process in a quantum dot studied by DC current and pulse-excited current measurements. Physica B: Condensed Matter, 2001, 298, 573-579.	2.7	16
68	Direct Measurement of the Binding Energy and Bohr Radius of a Single Hydrogenic Defect in a Semiconductor Quantum Well. Physical Review Letters, 2008, 100, 056806.	7.8	16
69	Cross-correlation measurement of quantum shot noise using homemade transimpedance amplifiers. Review of Scientific Instruments, 2014, 85, 054704.	1.3	15
70	Long-lived binary tunneling spectrum in the quantum Hall Tomonaga-Luttinger liquid. Physical Review B, 2016, 93, .	3.2	15
71	Charge equilibration in integer and fractional quantum Hall edge channels in a generalized Hall-bar device. Physical Review B, 2019, 99, .	3.2	15
72	Metastable Behavior of the DX Center in Si-Doped GaAs. Japanese Journal of Applied Physics, 1988, 27, L2373-L2375.	1.5	14

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73	Enhanced electron-phonon coupling for a semiconductor charge qubit in a surface phonon cavity. Scientific Reports, 2015, 5, 15176.	3.3	14
74	Elastic and inelastic single electron tunneling in coupled two dot system. Microelectronic Engineering, 1999, 47, 101-105.	2.4	13
75	Charge fractionalization in artificial Tomonaga-Luttinger liquids with controlled interaction strength. Physical Review B, 2017, 96, .	3.2	13
76	Mechanism of Electron Accumulation Layer Formation at the MBE-grown InAs(111)A Surface. Hyomen Kagaku, 2008, 29, 747-757.	0.0	13
77	Quantized charge fractionalization at quantum Hall Y junctions in the disorder dominated regime. Nature Communications, 2021, 12, 131.	12.8	12
78	Electric Field Induced Nuclear Spin Resonance Mediated by Oscillating Electron Spin Domains in GaAs-Based Semiconductors. Physical Review Letters, 2008, 101, 137602.	7.8	11
79	Wide-band capacitance measurement on a semiconductor double quantum dot for studying tunneling dynamics. Applied Physics Letters, 2010, 96, 032104.	3.3	11
80	Subâ€¼m wide channels with surface potential compensated by focused Si ion beam implantation. Applied Physics Letters, 1993, 63, 51-53.	3.3	10
81	Plasmon transport and its guiding in graphene. New Journal of Physics, 2014, 16, 063055.	2.9	10
82	Electrons and holes in a 40 nm thick silicon slab at cryogenic temperatures. Applied Physics Letters, 2009, 94, 142104.	3.3	9
83	Impact of Valley Polarization on the Resistivity in Two Dimensions. Physical Review Letters, 2011, 106, 196403.	7.8	8
84	Transmission Type RF Single Electron Transistor Operation of a Semiconductor Quantum Dot. Japanese Journal of Applied Physics, 2000, 39, 2338-2340.	1.5	7
85	Imaging the percolation of localized states in a multisubband two-dimensional electronic system subject to a disorder potential. Physical Review B, 2007, 76, .	3.2	7
86	Nonequilibrium Charge Dynamics of Tomonagaâ€“Luttinger Liquids in Quantum Hall Edge Channels. Annalen Der Physik, 2022, 534, .	2.4	7
87	Transport Properties of Modulation-Doped Structures Grown by Molecular Beam Epitaxy after Focused Ion Beam Implantation. Japanese Journal of Applied Physics, 1994, 33, 771-774.	1.5	6
88	Spin-dependent energy relaxation inside a quantum dot. Physica B: Condensed Matter, 2002, 314, 224-229.	2.7	6
89	Investigation of spin state in a quantum dot by using strongly asymmetric tunnel barriers. Physica Status Solidi (B): Basic Research, 2003, 238, 262-265.	1.5	6
90	Spin-dependent tunneling rates for electrostatically defined GaAs quantum dots. Physical Review B, 2014, 90, .	3.2	6

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91	Negative and positive cross-correlations of current noises in quantum Hall edge channels at bulk filling factor $u =1$. Journal of Physics Condensed Matter, 2017, 29, 225302.	1.8	6
92	Two-electron double quantum dot coupled to coherent photon and phonon fields. Physical Review B, 2017, 96, .	3.2	6
93	Ballistic hot-electron transport in a quantum Hall edge channel defined by a double gate. Applied Physics Letters, 2019, 115, .	3.3	6
94	Coherent Charge Oscillation in a Semiconductor Double Quantum Dot. IEEE Nanotechnology Magazine, 2004, 3, 300-303.	2.0	5
95	An edge-magnetoplasmon Mach-Zehnder interferometer. Applied Physics Letters, 2015, 107, 143101.	3.3	5
96	Nanostructure fabrication and the science using focused ion beams. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1994, 12, 3755.	1.6	4
97	Zeeman splitting in single-electron transport through a few-electron quantum dot. Physical Review B, 2007, 76, .	3.2	4
98	Voltage-pulse-induced electromigration. Nanotechnology, 2008, 19, 145709.	2.6	4
99	Many-body excitations in the tunneling current spectra of a few-electron quantum dot. Physical Review B, 2008, 77, .	3.2	4
100	Correlation Measurement of Time-Dependent Potentials in a Semiconductor Quantum Point Contact. Japanese Journal of Applied Physics, 2009, 48, 04C149.	1.5	4
101	Interferometric detection of edge magnetoplasmons in AlGaAs/GaAs heterostructures. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 381-383.	0.8	4
102	Frequency conversion of radio-frequency edge magnetoplasmons using a quantum point contact. Applied Physics Letters, 2012, 100, 233501.	3.3	4
103	Stable and unstable dynamics of Overhauser fields in a double quantum dot. Physical Review B, 2014, 89, .	3.2	4
104	Single-electron counting statistics with a finite frequency bandwidth. Japanese Journal of Applied Physics, 2014, 53, 04EJ01.	1.5	4
105	Two-step breakdown of a local Î½=1 quantum Hall state. Physical Review B, 2020, 101, .	3.2	4
106	Plasmon modes of coupled quantum Hall edge channels in the presence of disorder-induced tunneling. Physical Review B, 2021, 103, .	3.2	4
107	Time-resolved investigation of plasmon mode along interface channels in integer and fractional quantum Hall regimes. Physical Review B, 2021, 104, .	3.2	4
108	Novel Kondo anomaly in quantum dots. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2001, 84, 10-16.	3.5	3

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109	Time Resolved Potential Measurement At Quantum Point Contacts Under Irradiation Of Surface Acoustic Burst Wave. , 2011, , .		3
110	Admittance Measurement for a Quantum Point Contact in a Multiterminal Quantum Hall Device. Japanese Journal of Applied Physics, 2011, 50, 04DJ04.	1.5	3
111	Coupling between quantum Hall edge channels on opposite sides of a Hall bar. Solid State Communications, 2018, 283, 32-36.	1.9	3
112	Surface-acoustic-wave resonators with Ti, Cr, and Au metallization on GaAs. Applied Physics Express, 2019, 12, 055001.	2.4	3
113	Single-electron charge qubit in a double quantum dot. , 2006, , 279-287.		2
114	Time-Dependent Local Potential Induced by Scanning Gate Microscopy. Japanese Journal of Applied Physics, 2009, 48, 04C148.	1.5	2
115	Exchange-Induced Spin Blockade in a Two-Electron Double Quantum Dot. Physical Review Letters, 2015, 115, 176802.	7.8	2
116	Dissipative Landauâ€“Zener transition in double quantum dot under sinusoidal potential modulation. Applied Physics Express, 2017, 10, 115201.	2.4	2
117	Generation and detection of edge magnetoplasmons in a quantum Hall system using a photoconductive switch. Japanese Journal of Applied Physics, 2018, 57, 04FK02.	1.5	2
118	Electronic energy spectroscopy of monochromatic edge magnetoplasmons in the quantum Hall regime. Journal of Physics Condensed Matter, 2018, 30, 345301.	1.8	2
119	Tunnelling and transfer between 1D and 2D electrons in adjusted quantum wells with thin barrier. Physica B: Condensed Matter, 1996, 227, 31-33.	2.7	1
120	Real-Time Observation of Charge States and Energy Relaxation in a Double Quantum Dot. Japanese Journal of Applied Physics, 2006, 45, 3629-3632.	1.5	1
121	Spatial imaging of valence band electronic structures in a GaSb/InAs quantum well. Applied Surface Science, 2008, 254, 7889-7892.	6.1	1
122	Coherence Time of Nuclear Spins in GaAs Quantum Well Probed by Submicron-Scale All-Electrical Nuclear Magnetic Resonance Device. Japanese Journal of Applied Physics, 2008, 47, 3115-3117.	1.5	1
123	Spin splitting of upper electron subbands in a SiO2/Si(100)/SiO2 quantum well with in-plane magnetic field. Applied Physics Letters, 2009, 94, 142101.	3.3	1
124	Correlation of $1/f$ Noise between Semiconductor Point Contacts with a Common Lead. Japanese Journal of Applied Physics, 2012, 51, 02BJ08.	1.5	1
125	Transient Current in the Spin Blockade Region of a Double Quantum Dot. Japanese Journal of Applied Physics, 2013, 52, 110204.	1.5	1
126	Quantum anti-dot formed with an airbridge gate in the quantum Hall regime. Applied Physics Express, 2019, 12, 065002.	2.4	1

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127	Sensitive current measurement on a quantum antidot with a Corbino-type electrode. Japanese Journal of Applied Physics, 2020, 59, SGGI03.	1.5	1
128	Admittance Measurement for a Quantum Point Contact in a Multiterminal Quantum Hall Device. Japanese Journal of Applied Physics, 2011, 50, 04DJ04.	1.5	1
129	Nonuniform heat redistribution among multiple channels in the integer quantum Hall regime. Physical Review B, 2022, 105, .	3.2	1
130	Electrical Pump and Probe Measurements of a Quantum Dot in the Coulomb Blockade Regime. Japanese Journal of Applied Physics, 2003, 42, 4804-4808.	1.5	0
131	Pauli blockade transport in the cotunneling regime through a double quantum dot. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 3766-3769.	0.8	0
132	Counting statistics of single electron transport through a double quantum dot. , 2006, , .		0
133	Bound states induced by a single donor in a semiconductor quantum well: A scanning tunneling spectroscopy study. Physica E: Low-Dimensional Systems and Nanostructures, 2008, 40, 1418-1420.	2.7	0
134	Spin-Conserved Single-Electron Transport between Zeeman Sublevels in a Few-Electron Quantum Dot. Japanese Journal of Applied Physics, 2008, 47, 3107-3110.	1.5	0
135	NEGATIVE MAGNETORESISTANCE OF A SILICON 2DEG UNDER IN-PLANE MAGNETIC FIELD DUE TO SPIN-SPLITTING OF UPPER SUBBANDS. International Journal of Modern Physics B, 2009, 23, 2938-2942.	2.0	0
136	Separately contacted monocrystalline silicon double-layer structure with an amorphous silicon dioxide barrier made by wafer bonding. Semiconductor Science and Technology, 2010, 25, 125001.	2.0	0
137	Field and Density Dependence of Edge Magnetoplasmon Transport in a Quantum Hall System. Journal of Physics: Conference Series, 2011, 334, 012032.	0.4	0
138	Characteristic Current Levels of a Double Quantum Dot in the Spin Blockade Regime. , 2015, , .		0
139	Counting Statistics of Single-Electron Transport. Lecture Notes in Physics, 2016, , 151-171.	0.7	0
140	Correlation of 1/fNoise between Semiconductor Point Contacts with a Common Lead. Japanese Journal of Applied Physics, 2012, 51, 02BJ08.	1.5	0