Nobuyoshi Koshida

List of Publications by Year
in descending order

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90 papers	2,325 citations	218677 26 h-index	223800 46 g-index
90 all docs	90 docs citations	90 times ranked	1154 citing authors

#	Article	IF	Citations
1	Visible electroluminescence from porous silicon. Applied Physics Letters, 1992, 60, 347-349.	3.3	671
2	Oxideâ€free blue photoluminescence from photochemically etched porous silicon. Applied Physics Letters, 1996, 69, 3779-3781.	3.3	133
3	Mechanism of a remarkable enhancement in the light emission from nanocrystalline porous silicon annealed in high-pressure water vapor. Journal of Applied Physics, 2005, 98, 123509.	2.5	77
4	Controlled electroluminescence spectra of porous silicon diodes with a vertical optical cavity. Applied Physics Letters, 1996, 69, 2956-2958.	3.3	59
5	Generation of ballistic electrons in nanocrystalline porous silicon layers and its application to a solid-state planar luminescent device. Applied Physics Letters, 2002, 81, 2472-2474.	3.3	59
6	Developmental Social Environment Imprints Female Preference for Male Song in Mice. PLoS ONE, 2014, 9, e87186.	2.5	59
7	Mutual mother-infant recognition in mice: The role of pup ultrasonic vocalizations. Behavioural Brain Research, 2017, 325, 138-146.	2.2	58
8	Photoâ€assisted tuning of luminescence from porous silicon. Journal of Applied Physics, 1993, 74, 6365-6367.	2.5	57
9	Mechanism of the visible electroluminescence from metal/porous silicon/n-Si devices. Journal of Applied Physics, 1997, 81, 1407-1412.	2.5	57
10	Postâ€anodization filtered illumination of porous silicon in HF solutions: An effective method to improve luminescence properties. Applied Physics Letters, 1994, 65, 1656-1658.	3.3	42
11	Development of massively parallel electron beam direct write lithography using active-matrix nanocrystalline-silicon electron emitter arrays. Microsystems and Nanoengineering, 2015, 1, .	7.0	41
12	Photoelectronic properties of porous silicon. Journal of Applied Physics, 1994, 76, 1986-1988.	2.5	40
13	Electrical quenching of photoluminescence from porous silicon. Applied Physics Letters, 1993, 62, 3177-3179.	3.3	39
14	Light-emissive nonvolatile memory effects in porous silicon diodes. Applied Physics Letters, 1999, 74, 93-95.	3.3	35
15	Activation of blue emission from oxidized porous silicon by annealing in water vapor. Journal of Applied Physics, 1998, 83, 1776-1778.	2.5	34
16	Theory of quasiballistic transport through nanocrystalline silicon dots. Applied Physics Letters, 2011, 98, .	3.3	34
17	Fabrication and fundamental properties of an edgeâ€emitting device with stepâ€index porous silicon waveguide. Applied Physics Letters, 1996, 68, 2999-3000.	3.3	33
18	Ballistic electron emission from quantum-sized nanosilicon diode and its applications. Current Opinion in Solid State and Materials Science, 2011, 15, 183-187.	11.5	32

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19	Significant photoinduced refractive index change observed in porous silicon Fabryâ€“PÃ©rot resonators. Applied Physics Letters, 2000, 76, 1990-1992.	3.3	31
20	Precisely tuned emission from porous silicon vertical optical cavity in the visible region. Journal of Applied Physics, 1996, 80, 4841-4844.	2.5	30
21	Fabrication and characteristics of three-dimensionally buried porous silicon optical waveguides. Journal of Applied Physics, 1999, 86, 5274-5278.	2.5	30
22	Efficient and ballistic cold electron emission from porous polycrystalline silicon diodes with a porosity multilayer structure. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2001, 19, 64.	1.6	29
23	Long-lived blue phosphorescence of oxidized and annealed nanocrystalline silicon. Applied Physics Letters, 2009, 94, .	3.3	29
24	Application of ion implantation for doping of polyacetylene films. Applied Physics Letters, 1984, 45, 436-437.	3.3	27
25	Energy distribution of output electrons from a microchannel plate. Review of Scientific Instruments, 1985, 56, 1329-1331.	1.3	27
26	Reproduction of mouse-pup ultrasonic vocalizations by nanocrystalline silicon thermoacoustic emitter. Applied Physics Letters, 2006, 88, 043902.	3.3	27
27	Control of structure and optical anisotropy in porous Si by magneticâ€field assisted anodization. Applied Physics Letters, 1996, 69, 3206-3208.	3.3	26
28	Characterization Studies of pâ€Type Porous Si and Its Photoelectrochemical Activation. Journal of the Electrochemical Society, 1991, 138, 837-841.	2.9	24
29	Correlation between nanostructure and electron emission characteristics of a ballistic electron surface-emitting device. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2004, 22, 1372.	1.6	24
30	Female mice exhibit both sexual and social partner preferences for vocalizing males. Integrative Zoology, 2018, 13, 735-744.	2.6	23
31	Photointercalation effect of thin WO3films. Applied Physics Letters, 1990, 57, 1324-1325.	3.3	22
32	Ballistic transport mode detected by picosecond time-of-flight measurements for nanocrystalline porous silicon layer. Applied Physics Letters, 2005, 86, 022102.	3.3	22
33	Visible Electro- and Photoluminescence from Porous Silicon and its Related Optoelectronic Properties. Materials Research Society Symposia Proceedings, 1991, 256, 219.	0.1	21
34	Characteristics of thermally induced acoustic emission from nanoporous silicon device under full digital operation. Applied Physics Letters, 2013, 102, .	3.3	21
35	Paramagnetic center in porous silicon: A dangling bond withC3vsymmetry. Applied Physics Letters, 1993, 63, 961-963.	3.3	20
36	Characteristics of Surface-Emitting Cold Cathode Based on Porous Polysilicon. Materials Research Society Symposia Proceedings, 1998, 509, 187.	0.1	19

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37	Improved quasiballistic electron emission from a nanocrystalline Si cold cathode with a monolayer-graphene surface electrode. Applied Physics Letters, 2018, 112, 133102.	3.3	19
38	Characteristics of nanosilicon ballistic cold cathode in aqueous solutions as an active electrode. Journal of Vacuum Science & Technology B, 2008, 26, 716-719.	1.3	18
39	Annealing effects on the operation stability of ballistic electron emission from electrochemically oxidized nanocrystalline silicon diodes. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2004, 22, 1784.	1.6	17
40	Thin Cu Film Deposition by Operation of Nanosilicon Ballistic Electron Emitter in Solution. Electrochemical and Solid-State Letters, 2010, 13, D73.	2.2	17
41	Reduction in surface recombination and enhancement of light emission in silicon photonic crystals treated by high-pressure water-vapor annealing. Applied Physics Letters, 2010, 97, 121111.	3.3	16
42	Effects of electrode structure on output electron energy distribution of microchannel plates. Review of Scientific Instruments, 1986, 57, 354-358.	1.3	15
43	Specific spectral features in electron emission from nanocrystalline silicon quasi-ballistic cold cathode detected by an angle-resolved high resolution analyzer. Journal of Vacuum Science & Technology B, 2008, 26, 1782.	1.3	14
44	Optoelectronic Characterizations of Porous Silicon. Materials Research Society Symposia Proceedings, 1992, 283, 337.	0.1	13
45	Photointercalation characteristics of thin WO3films. Journal of Applied Physics, 1992, 71, 398-402.	2.5	12
46	Phased array operation of nanocrystalline porous silicon ultrasonic emitters. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 3298-3302.	0.8	12
47	New operation mode of a microchannel plate for the detection of lowâ€energy positive ions. Review of Scientific Instruments, 1983, 54, 62-64.	1.3	11
48	Photoluminescence decay dynamics of ion-irradiated porous silicon: Evidence for the absence of carrier migration. Applied Physics Letters, 1998, 73, 2334-2336.	3.3	10
49	28.4: Matrix Flatâ€Panel Application of Ballistic Electron Surfaceâ€Emitting Display. Digest of Technical Papers SID International Symposium, 2000, 31, 428-431.	0.3	10
50	Magnetic interactions between metal nanostructures within porous silicon. Nanoscale Research Letters, 2014, 9, 412.	5.7	10
51	Emerging Functions of Nanostructured Porous Siliconâ€”With a Focus on the Emissive Properties of Photons, Electrons, and Ultrasound. Frontiers in Chemistry, 2019, 7, 273.	3.6	10
52	Electrical properties of ionâ€implanted polyacetylene films. Journal of Applied Physics, 1987, 61, 5487-5488.	2.5	9
53	Determining Ultrasonic Vocalization Preferences in Mice using a Two-choice Playback Test. Journal of Visualized Experiments, 2015, , .	0.3	9
54	Liquid-phase deposition of thin Si and Ge films based on ballistic hot electron incidence. Materials Science in Semiconductor Processing, 2017, 70, 44-49.	4.0	8

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55	Female C57BL/6 and BALB/c mice differently use the acoustic features of male ultrasonic vocalizations for social preferences. Experimental Animals, 2020, 69, 319-325.	1.1	8
56	Energy transfer from phosphorescent blue-emitting oxidized porous silicon to rhodamine 110. Applied Physics Letters, 2010, 97, .	3.3	7
57	Optical Properties of Deuterium Terminated Porous Silicon. Materials Research Society Symposia Proceedings, 1996, 452, 449.	0.1	6
58	Ballistic Electron Surface-Emitting Cold Cathode by Porous Polycrystalline Silicon Film Formed on Glass Substrate. Materials Research Society Symposia Proceedings, 2000, 638, 1.	0.1	6
59	Avalanche multiplication of photocarriers in nanometer-sized silicon dot layers. Applied Physics Letters, 2009, 95, 063109.	3.3	6
60	Development of dry-processed silicon nanodot planar cold cathode and its electron emission properties. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2010, 28, C2B6-C2B10.	1.2	6
61	A solid-state light-emitting device based on ballistic electron excitation using an inorganic material as a fluorescent film. Physica Status Solidi A, 2003, 197, 316-320.	1.7	5
62	An LSI for Massive Parallel Electron Beam Lithography: Its Design and Evaluation. IEEJ Transactions on Sensors and Micromachines, 2015, 135, 374-381.	0.1	4
63	Gain characteristics of a microchannel plate operated in the reflection mode for lowâ€energy positive ions. Review of Scientific Instruments, 1984, 55, 783-785.	1.3	3
64	Title is missing!. Journal of Porous Materials, 2000, 7, 73-76.	2.6	3
65	14.1: Invited Paper: Fabrication of Ballistic Electron Surface-Emitting Display on Glass Substrate. Digest of Technical Papers SID International Symposium, 2001, 32, 188.	0.3	3
66	Functional Device Applications of Nanosilicon. Key Engineering Materials, 0, 470, 20-26.	0.4	3
67	Development of MEMS pierce-type nanocrystalline Si electron-emitter array for massively parallel electron beam direct writing. , 2014, , .		3
68	Deposition of thin Si and Ge films by ballistic hot electron reduction in a solution-dripping mode and its application to the growth of thin SiGe films. Japanese Journal of Applied Physics, 2015, 54, 04DH11.	1.5	3
69	Mechanism of Liquid-Phase Reductive Thin-Film Deposition under Quasiballistic Electron Incidence. ECS Journal of Solid State Science and Technology, 2018, 7, Q222-Q227.	1.8	3
70	Fabrication of Pierce-Type Nanocrystalline Si Electron-Emitter Array for Massively Parallel Electron Beam Lithography. IEEJ Transactions on Sensors and Micromachines, 2014, 134, 146-153.	0.1	3
71	Gain of a Microchannel Plate for Low-Energy Positive Ions. Shinku/Journal of the Vacuum Society of Japan, 1983, 26, 671-676.	0.2	3
72	Dynamic Aurora PLD with Si and porous Si to prepare ZnFe₂O₄ Thin films for liquefied petroleum gas sensing. Journal of the Ceramic Society of Japan, 2020, 128, 457-463.	1.1	2

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73	Preparation and characterization of epitaxially grown yttria-stabilized zirconia thin films on porous silicon substrates for solid oxide fuel cell applications. Journal of the Ceramic Society of Japan, 2022, 130, 464-470.	1.1	2
74	Gain model for a microchannel plate operated in the reflection mode for detecting lowâ€energy positive ions. Review of Scientific Instruments, 1985, 56, 1332-1334.	1.3	1
75	Photo- and Electro-Luminescence from Deuterium Terminated Porous Silicon. Materials Research Society Symposia Proceedings, 1997, 486, 181.	0.1	1
76	Low-Temperature Deposition of Thin Si, Ge, and SiGe Films Using Reducing Activity of Ballistic Hot Electrons. ECS Transactions, 2014, 64, 405-410.	0.5	1
77	Properties of Amorphous WO3 Film as an Ion-Beam Resist. Shinku/Journal of the Vacuum Society of Japan, 1984, 27, 596-599.	0.2	1
78	Effects of Amorphous Carbon Films on the Performance of Porous Silicon Electroluminescence. Materials Research Society Symposia Proceedings, 2002, 737, 594.	0.1	0
79	Improved Optoelectronic Characteristics of Nanocrystalline Porous Silicon by High-Pressure Water Vapor Annealing. Materials Research Society Symposia Proceedings, 2004, 832, 239.	0.1	0
80	Electron-phonon Interaction in Si Quantum Dots Interconnected with Thin Oxide Layers. AIP Conference Proceedings, 2005, , .	0.4	0
81	Synthesis and Optical Properties of Silicon Oxide Nanowires. Materials Research Society Symposia Proceedings, 2006, 958, 1.	0.1	0
82	Effect of Bilayer Structure on the Long-Term Stability of Nanocrystalline Porous Silicon Ultrasonic Emitter. Japanese Journal of Applied Physics, 2007, 46, 6218-6221.	1.5	0
83	Reduced energy-angle dispersion of output electrons from a nanocrystalline Si emitter with a monolayergraphene surface electrode. , 2018, , .		0
84	Nanocrystalline Silicon and Field Emission Display Devices. Shinku/Journal of the Vacuum Society of Japan, 2006, 49, 757-762.	0.2	0
85	Properties of amorphous MoO3 film as an ion resist.. Shinku/Journal of the Vacuum Society of Japan, 1986, 29, 201-205.	0.2	0
86	Operating characteristics of a microchannel plate in the reflection mode for low-energy positive ions.. Shinku/Journal of the Vacuum Society of Japan, 1986, 29, 43-46.	0.2	0
87	Ion implantation studies of organic polymers.. Hyomen Kagaku, 1991, 12, 72-78.	0.0	0
88	Structure and Visible Luminescence of Porous Silicon.. Hyomen Kagaku, 1992, 13, 402-408.	0.0	0
89	Porous Silicon.. Hyomen Kagaku, 1993, 14, 85-89.	0.0	0
90	Review of Development and Performance Evaluation of Active-matrix Nanocrystalline Si Electron Emitter Array for Massively Parallel Electron Beam Direct-write Lithography. IEEJ Transactions on Sensors and Micromachines, 2015, 135, 221-229.	0.1	0