

Noriyuki Uchida

List of Publications by Year in descending order

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94
all docs

94
docs citations

94
times ranked

998
citing authors

#	ARTICLE	IF	CITATIONS
1	Thermoelectric properties of heavily boron- and phosphorus-doped silicon. Japanese Journal of Applied Physics, 2015, 54, 071301.	1.5	67
2	Stabilization mechanism of Si ₁₂ cage clusters by encapsulation of a transition-metal atom: A density-functional theory study. Physical Review B, 2006, 74, .	3.2	60
3	Phosphorus doping and hydrogen passivation of donors and defects in silicon nanowires synthesized by laser ablation. Applied Physics Letters, 2007, 90, 153117.	3.3	42
4	Tensile-Strained GeSn Metal-Oxide Semiconductor Field-Effect Transistor Devices on Si(111) Using Solid Phase Epitaxy. Applied Physics Express, 2013, 6, 101301.	2.4	40
5	Heavily doped silicon and nickel silicide nanocrystal composite films with enhanced thermoelectric efficiency. Journal of Applied Physics, 2013, 114, .	2.5	34
6	Carrier and heat transport properties of polycrystalline GeSn films on SiO ₂ . Applied Physics Letters, 2015, 107, .	3.3	33
7	Formation of hydrogenated boron clusters in an external quadrupole static attraction ion trap. Journal of Chemical Physics, 2008, 128, 124304.	3.0	24
8	Synthesis of silicon and molybdenum silicide nanocrystal composite films having low thermal conductivity. Thin Solid Films, 2013, 534, 238-241.	1.8	24
9	Phosphorus ion implantation in silicon nanocrystals embedded in SiO ₂ . Journal of Applied Physics, 2009, 105, .	2.5	23
10	Stability of Ta-encapsulating Si clusters on Si(111)-(7×7) surfaces. Journal Physics D: Applied Physics, 2003, 36, L43-L46.	2.8	21
11	Behavior of Sn atoms in GeSn thin films during thermal annealing: <i>Ex-situ</i> and <i>in-situ</i> observations. Journal of Applied Physics, 2016, 120, .	2.5	21
12	Fabrication of high- <i>k</i> /metal-gate MoS ₂ field-effect transistor by device isolation process utilizing Ar-plasma etching. Japanese Journal of Applied Physics, 2015, 54, 046502.	1.5	20
13	Synthesis of New Amorphous Semiconductors Assembled from Transition-Metal-Encapsulating Si Clusters. Applied Physics Express, 0, 1, 121502.	2.4	18
14	Synthesis and formation mechanism of hydrogenated boron clusters B ₁₂ H _n with controlled hydrogen content. Journal of Chemical Physics, 2010, 133, 074305.	3.0	17
15	Structural and Optical Properties of Amorphous and Crystalline GeSn Layers on Si. ECS Journal of Solid State Science and Technology, 2014, 3, P403-P408.	1.8	17
16	Advanced germanium layer transfer for ultra thin body on insulator structure. Applied Physics Letters, 2016, 109, .	3.3	17
17	Photonic metasurface made of array of lens-like SiGe Mie resonators formed on (100) Si substrate via dewetting. Applied Physics Express, 2017, 10, 125501.	2.4	16
18	First Experimental Observation of Channel Thickness Scaling Induced Electron Mobility Enhancement in UTB-GeOI nMOSFETs. IEEE Transactions on Electron Devices, 2017, 64, 4615-4621.	3.0	15

#	ARTICLE	IF	CITATIONS
19	Ultrathin GeSn p-channel MOSFETs grown directly on Si(111) substrate using solid phase epitaxy. Japanese Journal of Applied Physics, 2015, 54, 04DA07.	1.5	14
20	Characterization of Effective Mobility and Its Degradation Mechanism in MoS ₂ MOSFETs. IEEE Nanotechnology Magazine, 2016, 15, 651-656.	2.0	14
21	Impact-energy dependence of hydrogenated Si cluster deposition on Si(111) (7Å–7). Physical Review B, 2000, 61, 7219-7222.	3.2	13
22	Scanning tunnelling spectroscopy of atomic clusters deposited on oxidized silicon surfaces: induced surface dipole and resonant electron injection. Journal of Physics Condensed Matter, 2003, 15, S3065-S3081.	1.8	13
23	Impurity doping in silicon nanowires synthesized by laser ablation. Applied Physics A: Materials Science and Processing, 2008, 93, 589-592.	2.3	11
24	Fermi-level depinning and contact resistance reduction in metal/n-Ge junctions by insertion of W-encapsulating Si cluster films. Applied Physics Letters, 2014, 104, .	3.3	11
25	Raman microscopy and infrared optical properties of SiGe Mie resonators formed on SiO ₂ via Ge condensation and solid state dewetting. Nanotechnology, 2020, 31, 195602.	2.6	11
26	New semiconducting silicides assembled from transition-metal-encapsulating Si clusters. Thin Solid Films, 2011, 519, 8456-8460.	1.8	10
27	Carrier and heat transport properties of poly-crystalline GeSn films for thin-film transistor applications. Journal of Applied Physics, 2019, 126, .	2.5	10
28	Carrier Transport Properties of p-Type Silicon/Metal Silicide Nanocrystal Composite Films. Journal of Electronic Materials, 2015, 44, 2074-2079.	2.2	9
29	Phase control of sputter-grown large-area MoTe ₂ films by preferential sublimation of Te: amorphous, 1T and 2H phases. Journal of Materials Chemistry C, 2022, 10, 10627-10635.	5.5	9
30	Structure determination of W-capsulated Si cage clusters by x-ray absorption fine structure spectra. Journal Physics D: Applied Physics, 2009, 42, 015412.	2.8	8
31	Energy barrier of structure transition from icosahedral B ₁₂ H ₆ ⁺ to planar B ₁₂ H ₅ ⁺ and B ₁₂ H ₄ ⁺ clusters. Journal of Physics: Conference Series, 2009, 176, 012030.	0.4	8
32	Electron Excitation Memory Induced by Light Irradiation of Hydrogenated Si Nanocrystals Embedded in SiO ₂ . Japanese Journal of Applied Physics, 2013, 52, 115201.	1.5	8
33	Si-rich W silicide films composed of W-atom-encapsulated Si clusters deposited using gas-phase reactions of WF ₆ with SiH ₄ . Journal of Chemical Physics, 2016, 144, 084703.	3.0	8
34	A simple efficient method of nanofilm-on-bulk-substrate thermal conductivity measurement using Raman thermometry. International Journal of Heat and Mass Transfer, 2018, 123, 137-142.	4.8	8
35	Nanoscale characterization of photonic metasurface made of lens-like SiGe Mie-resonators formed on Si (100) substrate. Journal of Applied Physics, 2019, 126, 123102.	2.5	8
36	Physical Mechanisms of Mobility Enhancement in Ultrathin Body GeOI pMOSFETs Fabricated by HETero-Layer-Lift-Off Technology. IEEE Transactions on Electron Devices, 2019, 66, 1182-1188.	3.0	8

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37	Charge-transfer doping by fullerenes on oxidized Si surfaces. <i>Journal of Applied Physics</i> , 2007, 102, 074504.	2.5	7
38	Thermoelectric properties of gallium-doped p-type germanium. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 051301.	1.5	7
39	Scanning tunneling spectroscopy of Si ₆ H ₁₂ clusters deposited on Si(111)-(7Å-7) surfaces. <i>Surface Science</i> , 2000, 462, 85-89.	1.9	6
40	A Quadrupole Ion Trap as Low-Energy Cluster Ion Beam Source. <i>Japanese Journal of Applied Physics</i> , 2003, 42, 707-712.	1.5	6
41	Low-barrier heterojunction of epitaxial silicide composed of W-encapsulating Si clusters with n-type Si. <i>Applied Physics Letters</i> , 2012, 101, 212103.	3.3	6
42	Thermoelectric Properties of (100) Oriented Silicon and Nickel Silicide Nanocomposite Films Grown on Si on Insulator and Si on Quartz Glass Substrates. <i>Materials Transactions</i> , 2016, 57, 1076-1081.	1.2	6
43	Thermal stability of amorphous Si-rich W silicide films composed of W-atom-encapsulated Si clusters. <i>Journal of Applied Physics</i> , 2017, 121, .	2.5	6
44	Observation of Hydrogenated Silicon Clusters Si ₆ H _x with Controlled Hydrogen Content on Si (111)-(7Å-7) Surfaces. <i>Japanese Journal of Applied Physics</i> , 2003, 42, L204-L207.	1.5	5
45	Synthesis of silicon nanocrystals in aluminum-doped SiO ₂ film by laser ablation method. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2007, 38, 31-35.	2.7	5
46	Site-selective formation of Si nanocrystal in SiO ₂ by femtosecond laser irradiation and Al deoxidization effects. <i>Applied Physics Letters</i> , 2008, 92, 153112.	3.3	5
47	First principles structure modeling for amorphous Si-rich transition metal silicides. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2010, 7, NA-NA.	0.8	5
48	Thermal stability and relaxation mechanisms in compressively strained Ge _{0.94} Sn _{0.06} thin films grown by molecular beam epitaxy. <i>Journal of Applied Physics</i> , 2016, 120, .	2.5	5
49	Ultra-thin germanium-tin on insulator structure through direct bonding technique. <i>Semiconductor Science and Technology</i> , 2018, 33, 124002.	2.0	5
50	Electronic States of P Donors in Si Nanocrystals Embedded in Amorphous SiO ₂ Layer Studied by Electron Spin Resonance: Hydrogen Passivation Effects. <i>Japanese Journal of Applied Physics</i> , 2009, 48, 081201.	1.5	4
51	Synthesis and Characterization of Melt-Spun Metastable Al ₆ Ge ₅ . <i>Journal of Electronic Materials</i> , 2015, 44, 948-952.	2.2	4
52	Electrical properties of amorphous and epitaxial Si-rich silicide films composed of W-atom-encapsulated Si clusters. <i>Journal of Applied Physics</i> , 2015, 117, .	2.5	4
53	Tensile strain ultra thin body SiGe on insulator through hetero-layer transfer technique. <i>Materials Science in Semiconductor Processing</i> , 2017, 70, 123-126.	4.0	4
54	Epitaxial growth of Ge thin film on Si (001) by DC magnetron sputtering. <i>Materials Science in Semiconductor Processing</i> , 2017, 70, 3-7.	4.0	4

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55	Lateral variations of the surface electric potential and elastic stiffness of ultrathin Hf _{0.5} Zr _{0.5} O ₂ films on silicon. AIP Advances, 2021, 11, 015216.	1.3	4
56	Enhancement of Spin Pumping from CoFeB to Sb ₂ Te ₃ Layers by Crystal Orientation Control. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2100247.	2.4	4
57	Hydrogenated silicon clusters for deposition on solid surfaces. European Physical Journal D, 1999, 9, 571-573.	1.3	3
58	Local modification of electronic structure of Si (111)-7 \times 7 surfaces by forming molybdenum-encapsulating Si clusters. Applied Physics Letters, 2007, 91, 063109.	3.3	3
59	Electronic properties of W-encapsulated Si cluster film on Si (100) substrates. Journal of Applied Physics, 2012, 111, 063719.	2.5	3
60	First-Principles-Based Phonon Calculation and Raman Spectroscopy Measurement of RuGa ₂ and RuAl ₂ with High Thermoelectric Power Factors. Materials Transactions, 2016, 57, 1050-1054.	1.2	3
61	Non-equilibrium solid-phase growth of amorphous GeSn layer on Ge-on-insulator wafer induced by flash lamp annealing. Applied Physics Express, 2021, 14, 025505.	2.4	3
62	Flash lamp annealing processing to improve the performance of high-Sn content GeSn n-MOSFETs. Applied Physics Express, 2021, 14, 096501.	2.4	3
63	Amorphous HfO ₂ Te as a selector via a modified conduction mechanism by Te content control. APL Materials, 2022, 10, .	5.1	3
64	Nanofabrication using structure controlled hydrogenated Si clusters deposited on Si surfaces. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2000, 18, 3497.	1.6	2
65	Isotope Effect of Penetration of Hydrogen and Deuterium into Silicon through Si/SiO ₂ Interface. Japanese Journal of Applied Physics, 2009, 48, 091204.	1.5	2
66	Distribution of free carriers near heavily-doped epitaxial surfaces of n-type Ge(100) upon HF and HCl treatments. AIP Advances, 2015, 5, .	1.3	2
67	Gas-phase reactions of WF ₆ with SiH ₄ for deposition of WSi _n films free from powder formation. Japanese Journal of Applied Physics, 2019, 58, SBBA09.	1.5	2
68	Heat transport properties of alumina gate insulator films on Ge substrates fabricated by atomic layer deposition. Materials Science in Semiconductor Processing, 2021, 121, 105396.	4.0	2
69	Electronic modification of wet-prepared Si surfaces by a dichlorosilane reaction at elevated temperature. Applied Surface Science, 2021, 570, 151135.	6.1	2
70	Solid-phase crystallization of ultra-thin amorphous Ge layers on insulators. Japanese Journal of Applied Physics, 2022, 61, SC1086.	1.5	2
71	Effects of hydrogenation on electronic properties of P dopant near a Si surface. Japanese Journal of Applied Physics, 2015, 54, 111302.	1.5	1
72	Cluster-preforming-deposited amorphous WSi _n (n = 12) insertion film of low SBH and high diffusion barrier for direct Cu contact. , 2017, , .		1

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73	HEtero-layer-lift-off (HELLO) technology for enhanced hole mobility in UTB GeOI pMOSFETs. , 2018, , .		1
74	Germanium Layer Transfer with Low Temperature Direct Bonding and Epitaxial Lift-off Technique for Ge-based monolithic 3D integration. , 2019, , .		1
75	Amorphous Si-rich tungsten silicide with a low work function near the conduction band edge of Si. Applied Physics Express, 2020, 13, 061005.	2.4	1
76	Impact of annealing on electric and elastic properties of 10-nm Hf _{0.5} Zr _{0.5} O ₂ films prepared on Si by sputtering. Microelectronic Engineering, 2022, 258, 111770.	2.4	1
77	Scanning-tunneling-microscope-assisted assembling of hydrogen-saturated silicon clusters on Si(111)-(7Å–7) surfaces. Applied Physics Letters, 2001, 78, 3720-3722.	3.3	0
78	Carrier Doping of Silicon Nanowires Synthesized by Laser Ablation. Materials Research Society Symposia Proceedings, 2006, 963, 1.	0.1	0
79	Multipole Ion Trap as Cluster-Ion Source. Japanese Journal of Applied Physics, 2007, 46, 4312-4317.	1.5	0
80	Ab Initio Structure Characterization for the Amorphous Assembly of Si Clusters Encapsulating Transition Metal. Materials Research Society Symposia Proceedings, 2011, 1321, 307.	0.1	0
81	Ionization of decaborane with controlled hydrogen content by charge transfer from ambient gas. Materials Research Society Symposia Proceedings, 2011, 1307, 1.	0.1	0
82	First-Principles Based Phonon Calculation and Raman Spectroscopy Measurement of RuGa₂ and RuAl₂ with High Thermoelectric Power Factor. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2015, 79, 591-596.	0.4	0
83	Characterization of effective mobility by split C-V technique in MoS ₂ MOSFETs with high-k/metal gate. , 2015, , .		0
84	Structural and electrical characterization of epitaxial Ge thin films on Si(001) formed by sputtering. Japanese Journal of Applied Physics, 2017, 56, 04CB01.	1.5	0
85	Ion implantation after germanidation technique for low thermal budget Ge CMOS devices: From bulk Ge to UTB-GeOI substrate. , 2017, , .		0
86	Elastic Response of 10-nm Insulator Films Measured by Dynamic Indentation for Nano-scale Electron Device Fabrication. , 2019, , .		0
87	Backside Si passivation: Leading to high performance UTB GeOI structures for monolithic 3D integrations. , 2019, , .		0
88	Initial growth kinetics of positive and negative hydrogenated Si cluster ions under the presence of silane radicals. Japanese Journal of Applied Physics, 2019, 58, 046002.	1.5	0
89	Stability and bonding nature for icosahedral or planar cluster of hydrogenated boron or aluminum. AIP Advances, 2019, 9, .	1.3	0
90	Theoretical Study of Single Graphene-like Semiconductor Layer Made of Si and Transition Metal Atoms. , 2008, , .		0