Yutaka Ohno

List of Publications by Year
in descending order

139	1,513	394421	434195
papers	citations	19 h-index	31 g-index

141	141	141	1287
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Fabrication of Î²-Ga₂O₃/Si heterointerface and characterization of interfacial structures for high-power device applications. Japanese Journal of Applied Physics, 2022, 61, SF1001.	1.5	9
2	AlGaN/GaN/3C-SiC on diamond HEMTs with thick nitride layers prepared by bonding-first process. Applied Physics Express, 2022, 15, 041003.	2.4	3
3	Variation in atomistic structure due to annealing at diamond/silicon heterointerfaces fabricated by surface activated bonding. Japanese Journal of Applied Physics, 2022, 61, SF1006.	1.5	3
4	Direct Bonding of Diamond and Dissimilar Materials at Room Temperature. Materia Japan, 2022, 61, 334-339.	0.1	0
5	Study on electrical activity of grain boundaries in silicon through systematic control of structural parameters and characterization using a pretrained machine learning model. Journal of Applied Physics, 2022, 132, .	2.5	3
6	Fabrication of high-quality GaAs/diamond heterointerface for thermal management applications. Diamond and Related Materials, 2021, 111, 108207.	3.9	16
7	Segregation mechanism of arsenic dopants at grain boundaries in silicon. Science and Technology of Advanced Materials Methods, 2021, 1, 169-180.	1.3	3
8	Room temperature direct bonding of diamond and InGaP in atmospheric air. Functional Diamond, 2021, 1, 110-116.	3.8	13
9	Insight into segregation sites for oxygen impurities at grain boundaries in silicon. Applied Physics Express, 2021, 14, 041003.	2.4	6
10	Cracking process at lineages in Czochralski-grown 36Â°-RY LiTaO3 ingots. Journal of Crystal Growth, 2021, 570, 126228.	1.5	1
11	Fabrication of GaN/Diamond Heterointerface and Interfacial Chemical Bonding State for Highly Efficient Device Design. Advanced Materials, 2021, 33, e2104564.	21.0	41
12	Origin of recombination activity of non-coherent Î£3{111} grain boundaries with a positive deviation in the tilt angle in cast-grown silicon ingots. Applied Physics Express, 2021, 14, 011002.	2.4	7
13	Fabrication of GaN/SiC/diamond structure for efficient thermal management of power device. , 2021, , .		2
14	Structural analysis of diamond/silicon heterointerfaces fabricated by surface activated bonding at room temperature. , 2021, , .		0
15	Fabrication of diamond/Cu direct bonding interface for power device applications. Japanese Journal of Applied Physics, 2020, 59, SBBB03.	1.5	11
16	Twinning in Czochralski-Grown 36Â°-RY LiTaO3 Single Crystals. Crystals, 2020, 10, 1009.	2.2	3
17	Chemical bonding at room temperature via surface activation to fabricate low-resistance GaAs/Si heterointerfaces. Applied Surface Science, 2020, 525, 146610.	6.1	20
18	Characterization of Nanoscopic Cu/Diamond Interfaces Prepared by Surface-Activated Bonding: Implications for Thermal Management. ACS Applied Nano Materials, 2020, 3, 2455-2462.	5.0	13

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19	Generation of dislocation clusters at triple junctions of random angle grain boundaries during cast growth of silicon ingots. Applied Physics Express, 2020, 13, 105505.	2.4	8
20	Impact of focused ion beam on structural and compositional analysis of interfaces fabricated by surface activated bonding. Japanese Journal of Applied Physics, 2020, 59, SBBB05.	1.5	10
21	Direct Bonding of GaAs and Diamond for High Power Device Applications. ECS Meeting Abstracts, 2020, MA2020-02, 1634-1634.	0.0	0
22	Microscopic Picture of Direct Bonding Via Surface Activation for Low-Resistance Si/Wide-Gap Semiconductor Heterointerface. ECS Meeting Abstracts, 2020, MA2020-02, 1648-1648.	0.0	0
23	Intrinsic microstructure of Si/GaAs heterointerfaces fabricated by surface-activated bonding at room temperature. Japanese Journal of Applied Physics, 2018, 57, 02BA01.	1.5	15
24	Mechanical Properties of Cubicâ€BN(111) Bulk Single Crystal Evaluated by Nanoindentation. Physica Status Solidi (B): Basic Research, 2018, 255, 1700473.	1.5	6
25	Characterization of femtosecond-laser-induced periodic structures on SiC substrates. Japanese Journal of Applied Physics, 2018, 57, 025602.	1.5	13
26	Interaction of sodium atoms with stacking faults in silicon with different Fermi levels. Applied Physics Express, 2018, 11, 061303.	2.4	5
27	Insight into physical processes controlling the mechanical properties of the wurtzite group-III nitride family. Journal of Crystal Growth, 2018, 500, 23-27.	1.5	6
28	Impact of local atomic stress on oxygen segregation at tilt boundaries in silicon. Applied Physics Letters, 2017, 110, .	3.3	17
29	Nanoscopic analysis of oxygen segregation at tilt boundaries in silicon ingots using atom probe tomography combined with TEM and ab initio calculations. Journal of Microscopy, 2017, 268, 230-238.	1.8	13
30	Nanoindentation measurements of a highly oriented wurtzite-type boron nitride bulk crystal. Japanese Journal of Applied Physics, 2017, 56, 030301.	1.5	22
31	Plane-view transmission electron microscopy of Si/GaAs interfaces fabricated by surface-activated bonding at room temperature. , 2017, , .		3
32	Recombination activity of nickel, copper, and oxygen atoms segregating at grain boundaries in mono-like silicon crystals. Applied Physics Letters, 2016, 109, .	3.3	24
33	Nanoscopic mechanism of Cu precipitation at small-angle tilt boundaries in Si. Physical Review B, 2015, 91, .	3.2	18
34	Three-dimensional evaluation of gettering ability for oxygen atoms at small-angle tilt boundaries in Czochralski-grown silicon crystals. Applied Physics Letters, 2015, 106, .	3.3	14
35	Characterization of silicon ingots: Mono-like versus high-performance multicrystalline. Japanese Journal of Applied Physics, 2015, 54, 08KD10.	1.5	14
36	Elastic properties of indium nitrides grown on sapphire substrates determined by nano-indentation: In comparison with other nitrides. AIP Advances, 2015, 5, .	1.3	12

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37	First principles calculations of solution energies of dopants around stacking faults in Si crystal. Japanese Journal of Applied Physics, 2014, 53, 061302.	1.5	11
38	Constitutional supercooling in heavily As-doped Czochralski Si crystal growth. Journal of Crystal Growth, 2014, 393, 42-44.	1.5	13
39	Slip systems in wurtzite ZnO activated by Vickers indentation on <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si0011.gif" overflow="scroll"><mml:mo>{</mml:mo><mml:mn>2</mml:mn><mml:mover accent="true"><mml:mrow><mml:mn>1</mml:mn></mml:mrow><mml:mrow><mml:mo>Â¯</mml:mo></mml:mrow></mml:mover><mml:mover accent="true"><mml:mrow><mml:mn>1</mml:mn></mml:mrow><mml:mrow><mml:mo>Â¯</mml:mo></mml:mrow></mml:mover><mml:mn>0</mml:mn><mml:mo>}</mml:mo></mml:math> and <mml:math xmlns:mml="http://www.w3. Journal of Crystal Growth, 2014, 393, 119-122.	1.5	3
40	In-situ micro and near-field photo-excitation under transmission electron microscopy. Applied Surface Science, 2014, 302, 29-31.	6.1	4
41	How to best measure atomic segregation to grain boundaries by analytical transmission electron microscopy. Journal of Materials Science, 2014, 49, 3898-3908.	3.7	9
42	Microstructure of striae in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si0011.gif" overflow="scroll"><mml:mo>ã€ˆ</mml:mo><mml:mn>0</mml:mn><mml:mover accent="true"><mml:mrow><mml:mn>4</mml:mn></mml:mrow><mml:mrow><mml:mo>Â¯</mml:mo></mml:mrow></mml:mover><mml:m lithium niobate single crystal grown by Czochralski method. Journal of Crystal Growth, 2014, 393, 171-174.	1.5	3
43	Mono-Like Silicon Growth Using Functional Grain Boundaries to Limit Area of Multicrystalline Grains. IEEE Journal of Photovoltaics, 2014, 4, 84-87.	2.5	48
44	Czochralski growth of heavily indium-doped Si crystals and co-doping effects of group-IV elements. Journal of Crystal Growth, 2014, 393, 45-48.	1.5	3
45	Czochralski growth of heavily tin-doped Si crystals. Journal of Crystal Growth, 2014, 395, 94-97.	1.5	2
46	Optical and electrical properties of dislocations in plastically deformed GaN. Journal of Crystal Growth, 2014, 403, 72-76.	1.5	19
47	Interstitial oxygen behavior for thermal double donor formation in germanium: Infrared absorption studies. Journal of Applied Physics, 2013, 113, 073501.	2.5	5
48	Vacancy-type defects introduced by plastic deformation of GaN studied using monoenergetic positron beams. Journal of Applied Physics, 2013, 114, .	2.5	8
49	Control of Grain Boundary Propagation in Mono-Like Si: Utilization of Functional Grain Boundaries. Applied Physics Express, 2013, 6, 025505.	2.4	50
50	Three-dimensional evaluation of gettering ability of Î£3{111} grain boundaries in silicon by atom probe tomography combined with transmission electron microscopy. Applied Physics Letters, 2013, 103, .	3.3	28
51	Effective Detection Method for Misoriented Grains in Nonpolar GaN Layers and Future Prospect. Materia Japan, 2013, 52, 273-277.	0.1	0
52	In-situtransmission electron microscopy of partial-dislocation glide in 4H-SiC under electron radiation. Applied Physics Letters, 2012, 101, 042102.	3.3	23
53	Dislocation structure in AlN films induced by in situ transmission electron microscope nanoindentation. Journal of Applied Physics, 2012, 112, 093526.	2.5	14
54	Growth of Heavily Indium Doped Si Crystals by Co-Doping of Neutral Impurity Carbon or Germanium. Key Engineering Materials, 2012, 508, 220-223.	0.4	2

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55	Formation and Evolution of Misoriented Grains in <i>a</i>-Plane Oriented Gallium Nitride Layers. Materials Transactions, 2012, 53, 1881-1884.	1.2	1
56	Development of an Apparatus forIn-situNear-Field Photoexcitation in a Transmission Electron Microscope. Applied Physics Express, 2012, 5, 125204.	2.4	10
57	Oxygen in Ge crystals grown by the B2O3 encapsulated Czochralski method. Physica B: Condensed Matter, 2012, 407, 2932-2934.	2.7	5
58	Recombination activity of dislocations on (0001) introduced in wurtzite ZnO at elevated temperatures. Physica B: Condensed Matter, 2012, 407, 2886-2888.	2.7	3
59	Interaction of dopant atoms with stacking faults in silicon. Physica B: Condensed Matter, 2012, 407, 3006-3008.	2.7	8
60	Modeling of incorporation of oxygen and carbon impurities into multicrystalline silicon ingot during one-directional growth. Journal of Crystal Growth, 2012, 352, 173-176.	1.5	16
61	Optical properties of edge dislocations on (11Â¯00) prismatic planes in wurtzite ZnO introduced at elevated temperatures. Journal of Applied Physics, 2012, 111, 113514.	2.5	7
62	2â€‰MeV eâ€irradiation UHVEM study on the impact of O and Ge doping on {113}â€defect formation in Si. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 1902-1907.	1.8	5
63	Doping effects on the stability of stacking faults in silicon crystals. Thin Solid Films, 2012, 520, 3296-3299.	1.8	2
64	Behaviour of oxygen-related thermal donors in Ge crystals Czochralski-grown from the melt covered fully by B₂O₃. Journal of Physics: Conference Series, 2011, 281, 012011.	0.4	4
65	Misoriented grains with a preferential orientation in a-plane oriented GaN layers. Journal of Crystal Growth, 2011, 334, 80-83.	1.5	3
66	Impurity effects on the generation and velocity of dislocations in Ge. Journal of Applied Physics, 2011, 109, .	2.5	21
67	Oxygen doped Ge crystals Czochralski-grown from the B2O3-fully-covered melt. Microelectronic Engineering, 2011, 88, 496-498.	2.4	3
68	Optical properties of fresh dislocations in GaN. Journal of Crystal Growth, 2011, 318, 415-417.	1.5	10
69	Electrical Breakdown of Individual Si Nanochains and Silicide Nanochains. Journal of Nanoscience and Nanotechnology, 2010, 10, 6655-6658.	0.9	2
70	Interaction of dopant atoms with stacking faults in silicon crystals. Journal of Applied Physics, 2010, 108, .	2.5	23
71	In situTransmission Electron Microscopy Observation of the Graphitization of Silicon Carbide Nanowires Induced by Joule Heating. Applied Physics Express, 2010, 3, 055001.	2.4	7
72	Cellular structures in Czochralski-grown SiGe bulk crystal. Journal of Crystal Growth, 2010, 312, 1065-1068.	1.5	18

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73	Czochralski-growth of germanium crystals containing high concentrations of oxygen impurities. Journal of Crystal Growth, 2010, 312, 2783-2787.	1.5	20
74	Equilibrium segregation coefficient and solid solubility of B in Czochralski Ge crystal growth. Thin Solid Films, 2010, 518, 2409-2412.	1.8	5
75	Structural Elements of Ultrashallow Thermal Donors Formed in Silicon Crystals. Japanese Journal of Applied Physics, 2010, 49, 050203.	1.5	0
76	In-situ analysis of optoelectronic properties of twin boundaries in AlGaAs by polarized cathodoluminescence spectroscopy in a TEM. Journal of Electron Microscopy, 2010, 59, S141-S147.	0.9	7
77	Interaction of phosphorus with dislocations in heavily phosphorus doped silicon. Applied Physics Letters, 2009, 95, 091915.	3.3	14
78	Reduction of grown-in dislocation density in Ge Czochralski-grown from the B2O3-partially-covered melt. Journal of Crystal Growth, 2009, 311, 4615-4618.	1.5	15
79	In situ analysis of optoelectronic properties of dislocations in ZnO in TEM observations. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 1904-1911.	1.8	16
80	Behavior of dislocations due to thermal shock and critical shear stress of Si in Czochralski crystal growth. Physica B: Condensed Matter, 2009, 404, 4612-4615.	2.7	1
81	Recent knowledge of strength and dislocation mobility in wide band-gap semiconductors. Physica B: Condensed Matter, 2009, 404, 4999-5001.	2.7	18
82	Transformation of a SiC nanowire into a carbon nanotube. Nanoscale, 2009, 1, 344.	5.6	23
83	Converting an insulating silicon nanochain to a conducting carbon nanotube by electrical breakdown. Nanotechnology, 2009, 20, 335602.	2.6	13
84	Optical Response of Dislocations in w-ZnO Revealed by In-situ Optical Spectroscopy in a TEM(Opto-TEM). Materia Japan, 2009, 48, 625-625.	0.1	0
85	Formation of multiple nanoscale twin boundaries that emit intense light in indirect-gap AlGaAs epilayers. Applied Surface Science, 2008, 254, 7633-7637.	6.1	3
86	Atomistic structure of Si atoms agglomerated nearby a stacking fault in a commercial GaAs:Si. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 2944-2946.	0.8	1
87	Segregation of boron in germanium crystal. Journal of Crystal Growth, 2008, 311, 59-61.	1.5	10
88	Optical properties of dislocations in wurtzite ZnO single crystals introduced at elevated temperatures. Journal of Applied Physics, 2008, 104, .	2.5	32
89	Light emission due to dislocations in wurtzite ZnO bulk single crystals freshly introduced by plastic deformation. Applied Physics Letters, 2008, 92, 011922.	3.3	18
90	High-temperature strength and dislocation mobility in the wide band-gap ZnO: Comparison with various semiconductors. Journal of Applied Physics, 2008, 103, 093502.	2.5	21

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91	Fabrication of Short-Range Ordered Nanoholes on Silicon Surfaces by Electron Irradiation. Japanese Journal of Applied Physics, 2007, 46, 434-439.	1.5	2
92	Intense Monochromatic Light Emission from Multiple Nanoscale Twin Boundaries in Indirect-gap AlGaAs Epilayers. Japanese Journal of Applied Physics, 2007, 46, L830-L832.	1.5	13
93	Atomistic structure of ZnSe nanowires on ZnSe(001) grown catalytically at low temperatures. AIP Conference Proceedings, 2007, , .	0.4	0
94	Mechanism of the growth of ZnSe nanowires with Fe catalysts. Solid State Communications, 2007, 141, 228-232.	1.9	6
95	Diffusion and condensation of adatoms on inhomogeneous rough surfaces. Surface Science, 2007, 601, 5103-5107.	1.9	1
96	Influence of high-magnetic-field on dislocationâ€“oxygen interaction in silicon. Physica B: Condensed Matter, 2007, 401-402, 148-150.	2.7	6
97	Atomistic structure of stacking faults in a commercial GaAs:Si wafer revealed by cross-sectional scanning tunneling microscopy. Physica B: Condensed Matter, 2007, 401-402, 230-233.	2.7	4
98	Electronic properties of nanoscale multiple twin boundaries in indirect-gap AlGaAs. Physica B: Condensed Matter, 2007, 401-402, 270-274.	2.7	2
99	Oxygen defects in langasite (La3Ga5SiO14) single crystal grown by vertical Bridgman (VB) method. Physica B: Condensed Matter, 2007, 401-402, 437-440.	2.7	17
100	Influence of seed/crystal interface shape on dislocation generation in Czochralski Si crystal growth. Physica B: Condensed Matter, 2007, 401-402, 560-563.	2.7	8
101	Control of the stacking fault areas in pseudomorphic ZnSe layers by photo-molecular beam epitaxy. Physica B: Condensed Matter, 2007, 401-402, 650-653.	2.7	7
102	Electronic properties of antiphase boundaries in CuPt-ordered GaInP alloys. Physica B: Condensed Matter, 2006, 376-377, 845-848.	2.7	2
103	Arrangement of gold nanoparticles on rough surfaces introduced by electron irradiation with high flux. Physica B: Condensed Matter, 2006, 376-377, 916-919.	2.7	3
104	Microstructure of a CuPt-Ordered GaInP Alloy Revealed by Cross-Sectional Scanning Tunneling Microscopy. Japanese Journal of Applied Physics, 2006, 45, 2357-2360.	1.5	3
105	Excavation rate of silicon surface nanoholes. Journal of Applied Physics, 2006, 99, 126107.	2.5	2
106	Growth of silicon nanowires on H-terminated Si {111} surface templates studied by transmission electron microscopy. Microscopy (Oxford, England), 2005, 54, i25-i29.	1.5	7
107	Photoinduced stress in a ZnSeâ•GaAs epilayer containing 90Â°Î± partial dislocations. Applied Physics Letters, 2005, 87, 181909.	3.3	12
108	Growth rate of silicon nanowires. Applied Physics Letters, 2005, 86, 123109.	3.3	128

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109	Polarized light emission from antiphase boundaries acting as slanting quantum wells inGaPâ•InPshort-period superlattices. Physical Review B, 2005, 72, .	3.2	9
110	Fe-catalytic growth of ZnSe nanowires on a ZnSe(001) surface at low temperatures by molecular-beam epitaxy. Applied Physics Letters, 2005, 87, 043105.	3.3	28
111	Localized energy levels associated with dislocations in ZnSe revealed by polarized CL spectroscopy under light illumination. , 2005, , 507-510.		1
112	Dynamics of Au Adatoms on Electron-Irradiated Rough Si Surfaces. Springer Proceedings in Physics, 2005, , 393-396.	0.2	0
113	Atomistic structure of spontaneously-ordered GaInP alloy revealed by cross-sectional scanning tunneling microscopy and polarized cathodoluminescence spectroscopy. , 2005, , 483-486.		0
114	Nucleation and growth processes of silicon nanowires. Materials Research Society Symposia Proceedings, 2004, 832, 353.	0.1	0
115	Analysis of growth rate of silicon nanowires. Materials Research Society Symposia Proceedings, 2004, 832, 291.	0.1	0
116	Formation of silicon/silicide/oxide nanochains and their properties studied by electron holography. Thin Solid Films, 2004, 464-465, 204-207.	1.8	8
117	Extended vacancy-type defects in silicon induced at low temperatures by electron irradiation. Philosophical Magazine, 2003, 83, 151-163.	1.6	4
118	Formation and Properties of Silicon/Silicide/Oxide Nanochains. Materials Research Society Symposia Proceedings, 2003, 789, 69.	0.1	0
119	Formation mechanism of nanocatalysts for the growth of silicon nanowires on a hydrogen-terminated Si {111} surface template. Applied Physics Letters, 2003, 82, 979-981.	3.3	19
120	Origin of a pair of stacking faults in pseudomorphic ZnSe epitaxial layers on GaAs. Applied Physics Letters, 2003, 83, 54-56.	3.3	16
121	Analysis of polarization by means of polarized cathodoluminescence spectroscopy in a TEM. Journal of Electron Microscopy, 2002, 51, 281-290.	0.9	17
122	Novel amorphization process in silicon induced by electron irradiation. Journal of Non-Crystalline Solids, 2002, 299-302, 793-797.	3.1	0
123	Observation of silicon surface nanoholes by scanning tunneling microscopy. Surface Science, 2001, 493, 547-554.	1.9	11
124	Fabrication of periodic nanohole multilayer structure on silicon surface toward photonic crystal. Physica B: Condensed Matter, 2001, 308-310, 1222-1225.	2.7	1
125	Formation of microcracks in cubic boron nitride. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 2000, 80, 747-758.	0.6	1
126	Vacancy-migration-mediated disordering in CuPt-ordered (Ga,In)P studied byin situoptical spectroscopy in a transmission electron microscope. Physical Review B, 1999, 59, 2694-2699.	3.2	12

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127	Point defect reaction in (Al)GaInP STQW lasers enhanced by laser operation. Physica B: Condensed Matter, 1999, 273-274, 1050-1053.	2.7	1
128	Mesoscopic characterization of the optical property of antiphase boundaries in CuPt-ordered GaInP2. Materials Research Society Symposia Proceedings, 1999, 588, 105.	0.1	0
129	Optical properties of Si nanowires on a Si {111} surface. Materials Research Society Symposia Proceedings, 1999, 588, 98.	0.1	4
130	Silicon nanowhiskers grown on a hydrogen-terminated silicon {111} surface. Applied Physics Letters, 1998, 73, 3700-3702.	3.3	123
131	VLS Growth of Si nanowhiskers on a H-terminated Si{111} surface. Materials Research Society Symposia Proceedings, 1998, 536, 305.	0.1	1
132	Diffusion Process of Interstitial Atoms in an Electron Irradiated InP Studied by Transmission Electron Microscopy. Japanese Journal of Applied Physics, 1997, 36, 5628-5632.	1.5	1
133	Atomic Structure of a Defect Colony in Silicon Introduced during Neutron Irradiation in the JOYO Reactor. Journal of Electron Microscopy, 1996, 45, 380-387.	0.9	3
134	Diffusion Process Of Interstitial Atoms In Inp Studied By Transmission Electron Microscopy. Materials Research Society Symposia Proceedings, 1996, 442, 435.	0.1	0
135	Clustering process of interstitial atoms in gallium phosphide studied by transmission electron microscopy. Physical Review B, 1996, 54, 4642-4649.	3.2	3
136	Study of Electron-Irradiation-Induced Defects in GaP by In-situ Optical Spectroscopy in a Transmission Electron Microscope. Journal of Electron Microscopy, 1996, 45, 73-78.	0.9	9
137	A new apparatus for in situ photoluminescence spectroscopy in a transmission electron microscope. Review of Scientific Instruments, 1995, 66, 4866-4869.	1.3	37
138	Recovery process of photochromism of H2 and H3 centres in diamond. Diamond and Related Materials, 1993, 2, 768-772.	3.9	14
139	In-Situ Analysis of Optoelectronic Properties of Semiconductor Nanostructures and Defects in Transmission Electron Microscopes. , 0, , .		1