Atsushi Masuda

List of Publications by Citations

217 papers	2,960 citations	29 h-index	40 g-index
231 ext. papers	3,348 ext. citations	2.5 avg, IF	5.18 L-index

#	Paper	IF	Citations
217	Direct detection of H atoms in the catalytic chemical vapor deposition of the SiH4/H2 system. *Journal of Applied Physics*, **2002**, 91, 1650-1656	2.5	140
216	Identification of Si and SiH in catalytic chemical vapor deposition of SiH4 by laser induced fluorescence spectroscopy. *Journal of Applied Physics*, **2000**, 88, 5437-5443	2.5	83
215	Air-stable n-type carbon nanotube field-effect transistors with Si3N4 passivation films fabricated by catalytic chemical vapor deposition. *Applied Physics Letters*, **2005**, 86, 113115	3.4	80
214	Potential-induced degradation in photovoltaic modules based on n-type single crystalline Si solar cells. *Solar Energy Materials and Solar Cells*, **2015**, 140, 361-365	6.4	62
213	Low-temperature crystallization of amorphous silicon using atomic hydrogen generated by catalytic reaction on heated tungsten. *Applied Physics Letters*, **1999**, 74, 2143-2145	3.4	62
212	Annual degradation rates of recent crystalline silicon photovoltaic modules. *Progress in Photovoltaics: Research and Applications*, **2017**, 25, 953-967	6.8	54
211	Radical Species Formed by the Catalytic Decomposition of NH3on Heated W Surfaces. *Japanese Journal of Applied Physics*, **2003**, 42, 5315-5321	1.4	53
210	Changes in structure and nature of defects by annealing of fluorinated amorphous carbon thin films with low dielectric constant. *Applied Physics Letters*, **1998**, 72, 2704-2706	3.4	53
209	Identification and gas phase kinetics of radical species in Cat-CVD processes of SiH4. *Thin Solid Films*, **2001**, 395, 47-50	2.2	47
208	Effect of sputtering with hydrogen dilution on fluorine concentration of low hydrogen content fluorinated amorphous carbon thin films with low dielectric constant. *Journal of Applied Physics*, **1999**, 86, 2468-2472	2.5	46
207	Highly OrientedPb(Zr,Ti)O3Thin Films Prepared by Pulsed Laser Ablation on GaAs and Si Substrates with MgO Buffer Layer. *Japanese Journal of Applied Physics*, **1995**, 34, 5154-5157	1.4	45
206	Potential-induced degradation of Cu(In,Ga)Se2photovoltaic modules. *Japanese Journal of Applied Physics*, **2015**, 54, 08KC13	1.4	44
205	Crystalline Si photovoltaic modules based on TiO2-coated cover glass against potential-induced degradation. *RSC Advances*, **2014**, 4, 44291-44295	3.7	43
204	Orientation of MgO Thin Films on Si(100) and GaAs(100) Prepared by Electron-Beam Evaporation. *Japanese Journal of Applied Physics*, **1994**, 33, L793-L796	1.4	43
203	Transport mechanism of deposition precursors in catalytic chemical vapor deposition studied using a reactor tube. *Journal of Non-Crystalline Solids*, **2000**, 266-269, 100-104	3.9	39
202	Changes in the current density–voltage and external quantum efficiency characteristics of n-type single-crystalline silicon photovoltaic modules with a rear-side emitter undergoing potential-induced degradation. *Solar Energy Materials and Solar Cells*, **2016**, 151, 113-119	6.4	38
201	Deposition chemistry in the Cat-CVD processes of the SiH4/NH3 system. *Thin Solid Films*, **2003**, 430, 24-27	2.2	35

200	Preparation and crystallographic characterizations of highly oriented Pb(Zr0.52Ti0.48)O3 films and MgO buffer layers on (100)GaAs and (100)Si by pulsed laser ablation. *Journal of Crystal Growth*, **1996**, 158, 84-88	1.6	34
199	Cat-CVD (hot-wire CVD): how different from PECVD in preparing amorphous silicon. *Journal of Non-Crystalline Solids*, **2004**, 338-340, 19-26	3.9	33
198	NH3-Plasma-Nitridation Process of (100) GaAs Surface Observed by Angle-Dependent X-Ray Photoelectron Spectroscopy. *Japanese Journal of Applied Physics*, **1995**, 34, 1075-1079	1.4	33
197	Systematic study on photoresist removal using hydrogen atoms generated on heated catalyzer. *Thin Solid Films*, **2006**, 501, 326-328	2.2	31
196	Present status and future feasibility for industrial implementation of Cat-CVD (Hot-Wire CVD) technology. *Thin Solid Films*, **2006**, 501, 58-60	2.2	31
195	Recent progress of Cat-CVD research in Japan□bridging between the first and second Cat-CVD conferences. *Thin Solid Films*, **2003**, 430, 7-14	2.2	31
194	Catalytic Chemical Sputtering: A Novel Method for Obtaining Large-Grain Polycrystalline Silicon. *Japanese Journal of Applied Physics*, **2001**, 40, L289-L291	1.4	31
193	Novel lighter weight crystalline silicon photovoltaic module using acrylic-film as a cover sheet. *Japanese Journal of Applied Physics*, **2014**, 53, 092302	1.4	30
192	Structural and electrical properties of yttria-stabilized zirconia films with controlled Y content heteroepitaxially grown on Si by reactive sputtering. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **1998**, 54, 79-83	3.1	30
191	Relationship between cross-linking conditions of ethylene vinyl acetate and potential induced degradation for crystalline silicon photovoltaic modules. *Japanese Journal of Applied Physics*, **2015**, 54, 08KG01	1.4	29
190	Investigation on antireflection coating for high resistance to potential-induced degradation. *Japanese Journal of Applied Physics*, **2014**, 53, 03CE01	1.4	29
189	Preparation of fluorinated amorphous carbon thin films. *Journal of Non-Crystalline Solids*, **1998**, 227-230, 641-644	3.9	29
188	Crystalline Si photovoltaic modules functionalized by a thin polyethylene film against potential and damp-heat-induced degradation. *RSC Advances*, **2015**, 5, 15017-15023	3.7	28
187	Various applications of silicon nitride by catalytic chemical vapor deposition for coating, passivation and insulating films. *Thin Solid Films*, **2006**, 501, 149-153	2.2	28
186	Degradation by acetic acid for crystalline Si photovoltaic modules. *Japanese Journal of Applied Physics*, **2015**, 54, 04DR04	1.4	27
185	Microscopic aspects of potential-induced degradation phenomena and their recovery processes for p-type crystalline Si photovoltaic modules. *Current Applied Physics*, **2016**, 16, 1659-1665	2.6	27
184	Reduction in the short-circuit current density of silicon heterojunction photovoltaic modules subjected to potential-induced degradation tests. *Solar Energy Materials and Solar Cells*, **2017**, 161, 439-443	6.4	26
183	Development of Cat-CVD apparatus for 1-m-size large-area deposition. *Thin Solid Films*, **2003**, 430, 58-62	2.2	25

182	Quantification of Gas-Phase H-Atom Number Density by Tungsten Phosphate Glass. *Japanese Journal of Applied Physics*, **2005**, 44, 732-735	1.4	25
181	Influence of surface structure of n-type single-crystalline Si solar cells on potential-induced degradation. *Solar Energy Materials and Solar Cells*, **2017**, 166, 132-139	6.4	24
180	Field testing of thermoplastic encapsulants in high-temperature installations. *Energy Science and Engineering*, **2015**, 3, 565-580	3.4	23
179	Influence of Buffer Layers on Lead Magnesium Niobate Titanate Thin Films Prepared by Pulsed Laser Ablation. *Japanese Journal of Applied Physics*, **1996**, 35, 4750-4754	1.4	23
178	Fabrication of Pb(Zr,Ti)O3/MgO/GaN/GaAs structure for optoelectronic device applications. *Journal of Crystal Growth*, **1998**, 189-190, 227-230	1.6	23
177	Effects of atomic hydrogen in gas phase on a-Si:H and poly-Si growth by catalytic CVD. *Journal of Non-Crystalline Solids*, **2002**, 299-302, 9-13	3.9	23
176	Causes of Degradation Identified by the Extended Thermal Cycling Test on Commercially Available Crystalline Silicon Photovoltaic Modules. *IEEE Journal of Photovoltaics*, **2017**, 7, 1511-1518	3.7	21
175	A concentrator module of spherical Si solar cell. *Solar Energy Materials and Solar Cells*, **2007**, 91, 1805-1810	6.4	21
174	Cat-CVD SiN passivation films for OLEDs and packaging. *Thin Solid Films*, **2008**, 516, 553-557	2.2	21
173	Progression of rapid potential-induced degradation of n-type single-crystalline silicon photovoltaic modules. *Applied Physics Express*, **2016**, 9, 112301	2.4	20
172	Highly moisture-resistive silicon nitride films prepared by catalytic chemical vapor deposition and application to gallium arsenide field-effect transistors. *Vacuum*, **2004**, 74, 525-529	3.7	20
171	Technique for the production, preservation, and transportation of H atoms in metal chambers for processings. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2005**, 23, 1728-1731	2.9	20
170	A single-phase brookite TiO2 nanoparticle bridge enhances the stability of perovskite solar cells. *Sustainable Energy and Fuels*, **2020**, 4, 2009-2017	5.8	19
169	Interface control of Pb(ZrxTi1 □x)O3 thin film on silicon substrate with heteroepitaxial YSZ buffer layer. *Applied Surface Science*, **1997**, 117-118, 429-433	6.7	19
168	H2 dilution effect in the Cat-CVD processes of the SiH4/NH3 system. *Thin Solid Films*, **2006**, 501, 31-34	2.2	19
167	Highly Moisture-Resistive SiNxFilms Prepared by Catalytic Chemical Vapor Deposition. *Japanese Journal of Applied Physics*, **2004**, 43, L1362-L1364	1.4	19
166	Comprehensive study of potential-induced degradation in silicon heterojunction photovoltaic cell modules. *Progress in Photovoltaics: Research and Applications*, **2018**, 26, 697-708	6.8	18
165	Defect Reduction in Polycrystalline Silicon Thin Films by Heat Treatment with High-Pressure H2O Vapor. *Japanese Journal of Applied Physics*, **2007**, 46, 1286-1289	1.4	18

164	High performance amorphous-silicon thin film transistors prepared by catalytic chemical vapor deposition with high deposition rate. *Thin Solid Films*, **2001**, 395, 330-334	2.2	18
163	Spectroscopic Study on N2O-Plasma Oxidation of Hydrogenated Amorphous Silicon and Behavior of Nitrogen. *Japanese Journal of Applied Physics*, **1993**, 32, 2794-2802	1.4	18
162	Multistage performance deterioration in n-type crystalline silicon photovoltaic modules undergoing potential-induced degradation. *Microelectronics Reliability*, **2018**, 84, 127-133	1.2	17
161	Grain Enlargement of Polycrystalline Silicon by Multipulse Excimer Laser Annealing: Role of Hydrogen. *Japanese Journal of Applied Physics*, **2006**, 45, 2726-2730	1.4	17
160	Seeding method with silicon powder for the formation of silicon spheres in the drop method. *Journal of Applied Physics*, **2007**, 101, 093505	2.5	17
159	Relationship between Photodarkening and Light-Induced ESR in Amorphous Ge-S Films Alloyed with Lead. *Japanese Journal of Applied Physics*, **1991**, 30, L1075-L1078	1.4	17
158	Mechanism of Stoichiometric Deposition of Volatile Elements in Multimetal-Oxide Films Prepared by Pulsed Laser Ablation. *Japanese Journal of Applied Physics*, **1996**, 35, L237-L240	1.4	16
157	CAT-CVD Process and its Application to Preparation of Si-Based Thin Films. *Materials Research Society Symposia Proceedings*, **1999**, 557, 67		16
156	Novel oxidation process of hydrogenated amorphous silicon utilizing nitrous oxide plasma. *Applied Physics Letters*, **1992**, 61, 816-818	3.4	16
155	Formation of Low-Defect-Concentration Polycrystalline Silicon Films by Thermal Plasma Jet Crystallization Technique. *Japanese Journal of Applied Physics*, **2008**, 47, 6949-6952	1.4	15
154	Mass-Spectrometric Studies of Catalytic Chemical Vapor Deposition Processes of Organic Silicon Compounds Containing Nitrogen. *Japanese Journal of Applied Physics*, **2006**, 45, 961-966	1.4	15
153	Effects of nitrogen incorporation on structural properties of fluorinated amorphous carbon films. *Journal of Non-Crystalline Solids*, **2000**, 271, 147-151	3.9	15
152	Consideration on Na diffusion and recovery phenomena in potential-induced degradation for crystalline Si photovoltaic modules. *Japanese Journal of Applied Physics*, **2016**, 55, 02BF10	1.4	14
151	Acceleration of potential-induced degradation by salt-mist preconditioning in crystalline silicon photovoltaic modules. *Japanese Journal of Applied Physics*, **2015**, 54, 08KG08	1.4	14
150	Preparation of SiNx passivation films for PZT ferroelectric capacitors at low substrate temperatures by catalytic CVD. *Thin Solid Films*, **2001**, 395, 284-287	2.2	14
149	Low-Resistivity Phosphorus-Doped Polycrystalline Silicon Thin Films Formed by Catalytic Chemical Vapor Deposition and Successive Rapid Thermal Annealing. *Japanese Journal of Applied Physics*, **2002**, 41, 501-506	1.4	14
148	Effects of UV on power degradation of photovoltaic modules in combined acceleration tests. *Japanese Journal of Applied Physics*, **2016**, 55, 052301	1.4	13
147	Localization and Characterization of a Degraded Site in Crystalline Silicon Photovoltaic Cells Exposed to Acetic Acid Vapor. *IEEE Journal of Photovoltaics*, **2018**, 8, 997-1004	3.7	13

146	Nitrogen-doping effects on electrical, optical, and structural properties in hydrogenated amorphous silicon. *Journal of Applied Physics*, **1997**, 81, 6729-6737	2.5	13
145	Anisotropic electrical conduction and reduction in dangling-bond density for polycrystalline Si films prepared by catalytic chemical vapor deposition. *Journal of Applied Physics*, **1999**, 86, 985-990	2.5	13
144	Surface cleaning and nitridation of compound semiconductors using gas-decomposition reaction in Cat-CVD method. *Thin Solid Films*, **1999**, 343-344, 528-531	2.2	13
143	Microscopic Degradation Mechanisms in Silicon Photovoltaic Module under Long-Term Environmental Exposure. *Japanese Journal of Applied Physics*, **2012**, 51, 10NF07	1.4	13
142	Rapid progression and subsequent saturation of polarization-type potential-induced degradation of n-type front-emitter crystalline-silicon photovoltaic modules. *Japanese Journal of Applied Physics* , **2018**, 57, 122301	1.4	13
141	Plasma-enhanced chemical-vapor deposition of silicon nitride film for high resistance to potential-induced degradation. *Japanese Journal of Applied Physics*, **2015**, 54, 08KD12	1.4	12
140	Microscopic Degradation Mechanisms in Silicon Photovoltaic Module under Long-Term Environmental Exposure. *Japanese Journal of Applied Physics*, **2012**, 51, 10NF07	1.4	12
139	Crystallization by excimer laser annealing for a-Si:H films with low hydrogen content prepared by Cat-CVD. *Thin Solid Films*, **2003**, 430, 296-299	2.2	12
138	High-stability hydrogenated amorphous silicon films for light-soaking prepared by catalytic CVD at high deposition rates. *Thin Solid Films*, **2001**, 395, 138-141	2.2	12
137	Proposal of catalytic chemical sputtering method and its application to prepare large grain size poly-Si. *Thin Solid Films*, **2001**, 395, 169-172	2.2	12
136	Dominant parameter determining dangling-bond density in hydrogenated amorphous silicon films prepared by catalytic chemical vapor deposition. *Solar Energy Materials and Solar Cells*, **2001**, 66, 259-265	6.4	12
135	Drastic Revolution in Catalytic Cvd using Catalytic Plate Instead of Hot Wire *Materials Research Society Symposia Proceedings*, **2000**, 609, 631		12
134	Ultrathin SiO2 films on Si formed by N2O-plasma oxidation technique. *Applied Surface Science*, **1994** , 81, 277-280	6.7	12
133	Sequential and combined acceleration tests for crystalline Si photovoltaic modules. *Japanese Journal of Applied Physics*, **2016**, 55, 04ES10	1.4	12
132	Performance degradation due to outdoor exposure and seasonal variation in amorphous silicon photovoltaic modules. *Thin Solid Films*, **2018**, 661, 116-121	2.2	11
131	Investigation on the crystal growth process of spherical Si single crystals by melting. *Journal of Crystal Growth*, **2009**, 311, 4116-4122	1.6	11
130	Improvement of the uniformity in electronic properties of AZO films using an rf magnetron sputtering with a mesh grid electrode. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **2008**, 148, 26-29	3.1	11
129	Effect of Atomic Hydrogen on Preparation of Highly Moisture-Resistive SiNxFilms at Low Substrate Temperatures. *Japanese Journal of Applied Physics*, **2004**, 43, L1546-L1548	1.4	11

128	Influence of atomic hydrogen on transparent conducting oxides during hydrogenated amorphous and microcrystalline Si preparation by catalytic chemical vapor deposition. *Thin Solid Films*, **2002**, 411, 166-170	2.2	11
127	Preparation of Low-Stress SiNxFilms by Catalytic Chemical Vapor Deposition at Low Temperatures. *Japanese Journal of Applied Physics*, **2005**, 44, 4098-4102	1.4	11
126	A Cat-CVD Si3N4 film study and its application to the ULSI process. *Thin Solid Films*, **2001**, 395, 275-279	2.2	11
125	Mechanism of low-temperature crystallization of amorphous silicon by atomic hydrogen anneal. *Journal of Non-Crystalline Solids*, **2000**, 266-269, 619-623	3.9	11
124	Origin of charged dangling bonds in nitrogen-doped hydrogenated amorphous silicon. *Journal of Non-Crystalline Solids*, **1996**, 198-200, 395-398	3.9	11
123	Electrical detection of gap formation underneath finger electrodes on c-Si PV cells exposed to acetic acid vapor under hygrothermal conditions **2016**,		11
122	Temperature dependence measurements and performance analyses of high-efficiency interdigitated back-contact, passivated emitter and rear cell, and silicon heterojunction photovoltaic modules. *Japanese Journal of Applied Physics*, **2018**, 57, 08RG18	1.4	11
121	Structural and electrical anisotropy and high absorption in poly-Si films prepared by catalytic chemical vapor deposition. *Journal of Non-Crystalline Solids*, **1998**, 227-230, 987-991	3.9	10
120	Catalytic decomposition of HCN on heated W surfaces to produce CN radicals. *Journal of Non-Crystalline Solids*, **2004**, 338-340, 65-69	3.9	10
119	Development of Cat-CVD apparatus a method to control wafer temperatures under thermal influence of heated catalyzer. *Thin Solid Films*, **2001**, 395, 71-74	2.2	10
118	Influence of a-Si:H deposition by catalytic CVD on transparent conducting oxides. *Thin Solid Films*, **2001**, 395, 147-151	2.2	10
117	Low-k silicon nitride film for copper interconnects process prepared by catalytic chemical vapor deposition method at low temperature. *Thin Solid Films*, **2001**, 395, 280-283	2.2	10
116	Control of Polycrystalline Silicon Structure by the Two-Step Deposition Method. *Japanese Journal of Applied Physics*, **2000**, 39, 3888-3895	1.4	10
115	Ambient-pressure influence on droplet formation and thickness distribution in pulsed laser ablation. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **1996**, 41, 161-165	3.1	10
114	Acceleration of degradation by highly accelerated stress test and air-included highly accelerated stress test in crystalline silicon photovoltaic modules. *Japanese Journal of Applied Physics*, **2016**, 55, 022302	1.4	9
113	Potential-induced degradation of thin-film Si photovoltaic modules. *Japanese Journal of Applied Physics*, **2017**, 56, 04CS04	1.4	9
112	Study on silicon-slicing technique using plasma-etching processing. *Solar Energy Materials and Solar Cells*, **2009**, 93, 789-791	6.4	9
111	Influence of Pb incorporation on light-induced phenomena in amorphous Ge100−x−yPbxSy thin films. *Journal of Non-Crystalline Solids*, **1997**, 217, 121-135	3.9	9

110	Fabrication of amorphous carbon nitride films by hot-wire chemical vapor deposition. *Thin Solid Films*, **2001**, 395, 249-252	2.2	9
109	Light-induced ESR and disappearance of photodarkening in amorphous Ge-S films alloyed with lead. *Journal of Non-Crystalline Solids*, **1991**, 137-138, 985-988	3.9	9
108	Multi angle laser light scattering evaluation of field exposed thermoplastic photovoltaic encapsulant materials. *Energy Science and Engineering*, **2016**, 4, 40-51	3.4	9
107	Influence of sodium on the potential-induced degradation for n-type crystalline silicon photovoltaic modules. *Applied Physics Express*, **2019**, 12, 064004	2.4	8
106	Durable crystalline Si photovoltaic modules based on silicone-sheet encapsulants. *Japanese Journal of Applied Physics*, **2018**, 57, 027101	1.4	8
105	Characterization of spherical Si by photoluminescence measurement. *Journal of Applied Physics*, **2007**, 101, 103530	2.5	8
104	Moisture-Resistive Properties of SiNxFilms Prepared by Catalytic Chemical Vapor Deposition below 100□C for Flexible Organic Light-Emitting Diode Displays. *Japanese Journal of Applied Physics*, **2005**, 44, 1923-1927	1.4	8
103	Guiding principles for device-grade hydrogenated amorphous silicon films and design of catalytic chemical vapor deposition apparatus. *Thin Solid Films*, **2001**, 395, 112-115	2.2	8
102	Elucidating the mechanism of potential induced degradation delay effect by ultraviolet light irradiation for p-type crystalline silicon solar cells. *Solar Energy*, **2020**, 199, 55-62	6.8	7
101	Accurate measurement and estimation of solar cell temperature in photovoltaic module operating in real environmental conditions. *Japanese Journal of Applied Physics*, **2018**, 57, 08RG08	1.4	7
100	Detection of acid moisture in photovoltaic modules using a dual wavelength pH-sensitive fluorescent dye. *Japanese Journal of Applied Physics*, **2014**, 53, 04ER18	1.4	7
99	Improvement of the Production Yield of Spherical Si by Optimization of the Seeding Technique in the Dropping Method. *Japanese Journal of Applied Physics*, **2007**, 46, 5695-5700	1.4	7
98	High-rate deposition of SiNx films over 100 nm/min by Cat-CVD method at low temperatures below 80 □C. *Thin Solid Films*, **2006**, 501, 55-57	2.2	7
97	Recent Progress in Industrial Applications of CAT-CVD (Hot-Wire Cvd). *Materials Research Society Symposia Proceedings*, **2002**, 715, 1741		7
96	In situ chamber cleaning using atomic H in catalytic-CVD apparatus for mass production of a-Si:H solar cells. *Solar Energy Materials and Solar Cells*, **2002**, 74, 373-377	6.4	7
95	Fabrication of a-Si1□Cx:H thin films for solar cells by the Cat-CVD method using a carbon catalyzer. *Thin Solid Films*, **2003**, 430, 170-173	2.2	7
94	Effects of Oxygen Gas Addition and Substrate Cooling on Preparation of Amorphous Carbon Nitride Films by Magnetron Sputtering. *Japanese Journal of Applied Physics*, **1998**, 37, 4722-4725	1.4	7
93	Annealing Effect of Pb(Zr, Ti)O3Ferroelectric Capacitor in Active Ammonia Gas Cracked by Catalytic Chemical Vapor Deposition System. *Japanese Journal of Applied Physics*, **1999**, 38, 5358-5360	1.4	7

92	Measuring Method of Moisture Ingress into Photovoltaic Modules. *Japanese Journal of Applied Physics*, **2012**, 51, 10NF12	1.4	7
91	Exploring suitable damp heat and potential induced degradation test procedures for Cu(In,Ga)(S,Se) photovoltaic modules. *Japanese Journal of Applied Physics*, **2018**, 57, 08RG02	1.4	7
90	Effect of light irradiation during potential-induced degradation tests for p-type crystalline Si photovoltaic modules. *Japanese Journal of Applied Physics*, **2018**, 57, 08RG13	1.4	7
89	Effect of additives in electrode paste of p-type crystalline Si solar cells on potential-induced degradation. *Solar Energy*, **2019**, 188, 1292-1297	6.8	6
88	Similarity of potential-induced degradation in superstrate-type thin-film CdTe and Si photovoltaic modules. *Japanese Journal of Applied Physics*, **2019**, 58, SBBF07	1.4	6
87	Investigating minority-carrier lifetime in small spherical Si using microwave photoconductance decay. *Journal of Applied Physics*, **2008**, 103, 104909	2.5	6
86	Formation of highly moisture-resistive SiNx films on Si substrate by Cat-CVD at room temperature. *Thin Solid Films*, **2006**, 501, 154-156	2.2	6
85	Photo-induced volume changes in a-Si:H films prepared by Cat-CVD method. *Thin Solid Films*, **2001**, 395, 84-86	2.2	6
84	Development of a pH sensor based on a nanostructured filter adding pH-sensitive fluorescent dye for detecting acetic acid in photovoltaic modules. *Japanese Journal of Applied Physics*, **2015**, 54, 08KG07	1.4	6
83	Effect of a SiO2 film on the potential-induced degradation of n-type front-emitter crystalline Si photovoltaic modules. *Japanese Journal of Applied Physics*, **2020**, 59, SCCD02	1.4	6
82	Influence of emitter position of silicon heterojunction photovoltaic solar cell modules on their potential-induced degradation behaviors. *Solar Energy Materials and Solar Cells*, **2020**, 216, 110716	6.4	6
81	Potential-induced degradation in photovoltaic modules composed of interdigitated back contact solar cells in photovoltaic systems under actual operating conditions. *Progress in Photovoltaics: Research and Applications*, **2020**, 28, 1322-1332	6.8	6
80	Overall analysis of change in power generation with outdoor exposure of photovoltaic modules installed at AIST Kyushu Center. *Japanese Journal of Applied Physics*, **2018**, 57, 08RG04	1.4	6
79	Origin of Na causing potential-induced degradation for p-type crystalline Si photovoltaic modules. *AIP Advances*, **2018**, 8, 115311	1.5	6
78	Investigation of the power generation of organic photovoltaic modules connected to the power grid for more than three years. *Japanese Journal of Applied Physics*, **2019**, 58, 052001	1.4	5
77	Bending cyclic load test for crystalline silicon photovoltaic modules. *Japanese Journal of Applied Physics*, **2018**, 57, 02CE05	1.4	5
76	Structural and conductivity change caused by N, O and C incorporation in a-Si:H. *Journal of Non-Crystalline Solids*, **1998**, 227-230, 403-406	3.9	5
75	Epitaxial Growth of SiC on Silicon on Insulator Substrates with Ultrathin Top Si Layer by Hot-Mesh Chemical Vapor Deposition. *Japanese Journal of Applied Physics*, **2008**, 47, 569-572	1.4	5

74	What is the difference between catalytic CVD and plasma-enhanced CVD? Gas-phase kinetics and film properties. *Vacuum*, **2002**, 66, 293-297	3.7	5
73	Formation of silicon films for solar cells by the Cat-CVD method. *Thin Solid Films*, **2001**, 395, 198-201	2.2	5
72	Interfacial neutral- and charged-dangling-bond densities between hydrogenated amorphous silicon and hydrogenated amorphous silicon nitride in top nitride and bottom nitride structures. *Applied Physics Letters*, **1995**, 66, 2718-2720	3.4	5
71	Correlation between a.c. transport and electron spin resonance in amorphous Ge-S films alloyed with lead. *The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties*, **1994**, 70, 1035-1044		5
70	Effect of a silicon nitride film on the potential-induced degradation of n-type front-emitter crystalline silicon photovoltaic modules. *Japanese Journal of Applied Physics*, **2020**, 59, 104002	1.4	5
69	Early Failure Detection of Interconnection with Rapid Thermal Cycling in Photovoltaic Modules. *Japanese Journal of Applied Physics*, **2012**, 51, 10NF13	1.4	5
68	Behavior of the potential-induced degradation of photovoltaic modules fabricated using flat mono-crystalline silicon cells with different surface orientations. *Japanese Journal of Applied Physics*, **2016**, 55, 04ES14	1.4	5
67	Detection of acetic acid produced in photovoltaic modules based on tin film corrosion during damp heat test. *Japanese Journal of Applied Physics*, **2018**, 57, 08RG16	1.4	5
66	Universal explanation for degradation by charge accumulation in crystalline Si photovoltaic modules with application of high voltage. *Applied Physics Express*, **2019**, 12, 101003	2.4	4
65	Corrosion-Induced AC Impedance Elevation in Front Electrodes of Crystalline Silicon Photovoltaic Cells Within Field-Aged Photovoltaic Modules. *IEEE Journal of Photovoltaics*, **2019**, 9, 741-751	3.7	4
64	Effect of bias voltage application on potential-induced degradation for crystalline silicon photovoltaic modules. *Japanese Journal of Applied Physics*, **2018**, 57, 08RG01	1.4	4
63	Measuring Method of Moisture Ingress into Photovoltaic Modules. *Japanese Journal of Applied Physics*, **2012**, 51, 10NF12	1.4	4
62	Study on change in SIMS intensities near the interface between silicon-nitride film and silicon substrate. *Applied Surface Science*, **2004**, 231-232, 725-728	6.7	4
61	Properties of Large Grain-Size poly-Si Films by Catalytic Chemical Sputtering. *Materials Research Society Symposia Proceedings*, **2001**, 664, 451		4
60	Suppression of hexagonal GaN mixing by As4 molecular beam in cubic GaN growth on GaAs (0 0 1) substrates. *Journal of Crystal Growth*, **1999**, 201-202, 392-395	1.6	4
59	Relationship between Electrical Conductivity and Charged- Dangling-Bond Density in Nitrogen- and Phosphorus-Doped Hydrogenated Amorphous Silicon. *Japanese Journal of Applied Physics*, **1994**, 33, L1295-L1297	1.4	4
58	Influence of hygrothermal stress on potential-induced degradation for homojunction and heterojunction crystalline Si photovoltaic modules. *Japanese Journal of Applied Physics*, **2020**, 59, 076503	1.4	4
57	Potential-induced degradation of n-type crystalline Si photovoltaic modules in practical outdoor systems. *Japanese Journal of Applied Physics*, **2018**, 57, 117102	1.4	4

56	Reliability and long term durability of bifacial photovoltaic modules using transparent backsheet. *Japanese Journal of Applied Physics*, **2018**, 57, 08RG15	1.4	4
55	Guiding principle for crystalline Si photovoltaic modules with high tolerance to acetic acid. *Japanese Journal of Applied Physics*, **2018**, 57, 04FS06	1.4	4
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