Shohei Hayashi

List of Publications by Year
in descending order

27	193	1163117 8	1199594 12
papers	citations	h-index	g-index

27	27	27	116
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Influence of basal-plane dislocation structures on expansion of single Shockley-type stacking faults in forward-current degradation of 4H-SiC pâ€“iâ€“n diodes. Japanese Journal of Applied Physics, 2018, 57, 04FR07.	1.5	28
2	Structural analysis of double-layer Shockley stacking faults formed in heavily-nitrogen-doped 4H-SiC during annealing. Journal of Applied Physics, 2017, 122, .	2.5	21
3	Origin analysis of expanded stacking faults by applying forward current to 4H-SiC pâ€“iâ€“n diodes. Applied Physics Express, 2017, 10, 081201.	2.4	17
4	Formation of High Crystallinity Silicon Films by High Speed Scanning of Melting Region Formed by Atmospheric Pressure DC Arc Discharge Micro-Thermal-Plasma-Jet and Its Application to Thin Film Transistor Fabrication. Applied Physics Express, 2010, 3, 061401.	2.4	16
5	Direct observation of grain growth from molten silicon formed by micro-thermal-plasma-jet irradiation. Applied Physics Letters, 2012, 101, 172111.	3.3	16
6	Relationship between depth of basal-plane dislocations and expanded stacking faults by application of forward current to 4Hâ€“SiC p-i-n diodes. Applied Physics Express, 2019, 12, 051007.	2.4	16
7	Improvement in Characteristic Variability of TFTs Using Grain Growth Control by Micro Thermal Plasma Jet Irradiation on a-Si Strips. Journal of Display Technology, 2014, 10, 950-955.	1.2	10
8	Characterization of double Shockley-type stacking faults formed in lightly doped 4H-SiC epitaxial films. Journal of Crystal Growth, 2018, 490, 89-96.	1.5	9
9	Structural analysis of interfacial dislocations and expanded single Shockley-type stacking faults in forward-current degradation of 4H-SiC p-i-n diodes. Japanese Journal of Applied Physics, 2019, 58, 011005.	1.5	7
10	Investigation of silicon grain structure and electrical characteristics of TFTs fabricated using different crystallized silicon films by atmospheric pressure micro-thermal-plasma-jet irradiation. Japanese Journal of Applied Physics, 2014, 53, 03DG02.	1.5	6
11	Fabrication of High-Performance Thin-Film Transistors on Glass Substrate by Atmospheric Pressure Micro-Thermal-Plasma-Jet-Induced Lateral Crystallization Technique. Japanese Journal of Applied Physics, 2012, 51, 02BH05.	1.5	6
12	Leading Wave Crystallization Induced by Micro-Thermal-Plasma-Jet Irradiation of Amorphous Silicon Films. Japanese Journal of Applied Physics, 2013, 52, 05EE02.	1.5	5
13	Properties of Al Ohmic Contacts to n-type 4H-SiC Employing a Phosphorus-Doped and Crystallized Amorphous-Silicon Interlayer. Materials Science Forum, 0, 778-780, 649-652.	0.3	5
14	High-efficiency impurity activation by precise control of cooling rate during atmospheric pressure thermal plasma jet annealing of 4H-SiC wafer. Japanese Journal of Applied Physics, 2015, 54, 06GC01.	1.5	5
15	Application of Thermal Plasma Jet Irradiation to Crystallization and Gate Insulator Improvement for High-Performance Thin-Film Transistor Fabrication. Japanese Journal of Applied Physics, 2011, 50, 03CB10.	1.5	5
16	Application of Thermal Plasma Jet Irradiation to Crystallization and Gate Insulator Improvement for High-Performance Thin-Film Transistor Fabrication. Japanese Journal of Applied Physics, 2011, 50, 03CB10.	1.5	4
17	Layer Transfer and Simultaneous Crystallization Technique for Amorphous Si Films with Midair Structure Induced by Near-Infrared Semiconductor Diode Laser Irradiation and Its Application to Thin-Film Transistor Fabrication. Japanese Journal of Applied Physics, 2013, 52, 05EC01.	1.5	4
18	Characterization of stacking faults with emission wavelengths of over 500 nm formed in 4H-SiC epitaxial films. Journal of Crystal Growth, 2017, 476, 99-106.	1.5	4

#	Article	IF	Citations
19	Direct observation of ultra-rapid solid phase crystallization of amorphous silicon films irradiated by micro-thermal-plasma-jet. Materials Science in Semiconductor Processing, 2021, 121, 105357.	4.0	3
20	Fabrication of High-Performance Thin-Film Transistors on Glass Substrate by Atmospheric Pressure Micro-Thermal-Plasma-Jet-Induced Lateral Crystallization Technique. Japanese Journal of Applied Physics, 2012, 51, 02BH05.	1.5	2
21	Highly-Crystallized Ge:H Film Growth from GeH4Very High Frequency Inductively-Coupled Plasma: Crystalline Nucleation Initiated by Ni Nanodots. Japanese Journal of Applied Physics, 2013, 52, 11NA04.	1.5	1
22	Effect of Grain Growth Control by Atmospheric Micro-Thermal- Plasma-Jet Crystallization of Amorphous Silicon Strips on TFT Characteristics. ECS Transactions, 2014, 64, 23-29.	0.5	1
23	Investigations on crack generation mechanism and crack reduction by buffer layer insertion in thermal-plasma-jet crystallization of amorphous silicon films on glass substrate. Japanese Journal of Applied Physics, 2015, 54, 01AE05.	1.5	1
24	Estimation of Phosphorus-Implanted 4H-SiC Layer Recrystallization by Electron-Back-Scattering Diffraction Pattern Analysis. Materials Science Forum, 0, 821-823, 391-394.	0.3	1
25	Grain Growth Control during Micro-Thermal-Plasma-Jet Irradiation Using Amorphous Si Strips and Slit Masks. ECS Transactions, 2013, 50, 29-34.	0.5	0
26	Grain growth induced by micro-thermal-plasma-jet irradiation to narrow amorphous silicon strips. , 2014, , .		0
27	Investigation on characteristics of millisecond solid-phase crystallized silicon films annealed by atmospheric pressure DC arc discharge micro-thermal-plasma-jet and their application to bottom-gate thin film transistors fabrication. Japanese Journal of Applied Physics, 2021, 60, 105502.	1.5	0