Sang Jeen Hong

List of Publications by Year
in descending order

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55	476	840776 11	752698 20
papers	citations	h-index	g-index

56	56	56	252
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Neural network modeling of reactive ion etching using optical emission spectroscopy data. IEEE Transactions on Semiconductor Manufacturing, 2003, 16, 598-608.	1.7	74
2	Fault Detection and Classification in Plasma Etch Equipment for Semiconductor Manufacturing e-Diagnostics. IEEE Transactions on Semiconductor Manufacturing, 2012, 25, 83-93.	1.7	67
3	Neural Network-Based Real-Time Malfunction Diagnosis of Reactive Ion Etching Using In Situ Metrology Data. IEEE Transactions on Semiconductor Manufacturing, 2004, 17, 408-421.	1.7	42
4	Neural-Network-Based Sensor Fusion of Optical Emission and Mass Spectroscopy Data for Real-Time Fault Detection in Reactive Ion Etching. IEEE Transactions on Industrial Electronics, 2005, 52, 1063-1072.	7.9	35
5	Fault Diagnosis in Semiconductor Etch Equipment Using Bayesian Networks. Journal of Semiconductor Technology and Science, 2014, 14, 252-261.	0.4	20
6	Artificial Immune System for Fault Detection and Classification of Semiconductor Equipment. Electronics (Switzerland), 2021, 10, 944.	3.1	17
7	Use of Plasma Information in Machine-Learning-Based Fault Detection and Classification for Advanced Equipment Control. IEEE Transactions on Semiconductor Manufacturing, 2021, 34, 408-419.	1.7	16
8	In-Situ Monitoring of Multiple Oxide/Nitride Dielectric Stack PECVD Deposition Process. Transactions on Electrical and Electronic Materials, 2018, 19, 21-26.	1.9	13
9	Machine learning-based virtual metrology on film thickness in amorphous carbon layer deposition process. Measurement: Sensors, 2021, 16, 100046.	1.7	12
10	Surface Analysis of Chamber Coating Materials Exposed to CF4/O2 Plasma. Coatings, 2021, 11, 105.	2.6	12
11	Virtual Metrology for Etch Profile in Silicon Trench Etching With SFâ,†/Oâ,,/Ar Plasma. IEEE Transactions on Semiconductor Manufacturing, 2022, 35, 128-136.	1.7	11
12	Endpoint Detection in Low Open Area TSV Fabrication Using Optical Emission Spectroscopy. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2014, 4, 1251-1260.	2.5	10
13	Use of Optical Emission Spectroscopy Data for Fault Detection of Mass Flow Controller in Plasma Etch Equipment. Electronics (Switzerland), 2022, 11, 253.	3.1	10
14	Spectroscopic Analysis of Film Stress Mechanism in PECVD Silicon Nitride. Transactions on Electrical and Electronic Materials, 2018, 19, 1-6.	1.9	9
15	An<i> in situ</i> monitoring method for PECVD process equipment condition. Plasma Science and Technology, 2019, 21, 064003.	1.5	9
16	Machine Learning-Based Process-Level Fault Detection and Part-Level Fault Classification in Semiconductor Etch Equipment. IEEE Transactions on Semiconductor Manufacturing, 2022, 35, 174-185.	1.7	9
17	Surface Analysis of Amorphous Carbon Thin Film for Etch Hard Mask. Journal of Nanoscience and Nanotechnology, 2021, 21, 2032-2038.	0.9	8
18	On-Wafer Temperature Monitoring Sensor for Condition Monitoring of Repaired Electrostatic Chuck. Electronics (Switzerland), 2022, 11, 880.	3.1	8

#	ARTICLE	IF	CITATIONS
19	In-Situ Detection Method of Abnormal Plasma Discharge in Plasma-Assisted Deposition Processes. Transactions on Electrical and Electronic Materials, 2018, 19, 96-100.	1.9	7
20	Optical In-Situ Plasma Process Monitoring Technique for Detection of Abnormal Plasma Discharge. Transactions on Electrical and Electronic Materials, 2013, 14, 71-77.	1.9	7
21	Planar heating chuck to improve temperature uniformity of plasma processing equipment. Japanese Journal of Applied Physics, 2020, 59, SJJD01.	1.5	6
22	Analysis of optical emission spectroscopy data during silicon etching in SF₆/O₂/Ar plasma. Plasma Science and Technology, 2021, 23, 125501.	1.5	6
23	Deep Neural Network Modeling of Multiple Oxide/Nitride Deposited Dielectric Films for 3D-NAND Flash. Applied Science and Convergence Technology, 2020, 29, 190-194.	0.9	6
24	A comparison and analysis of genetic algorithm and particle swarm optimization using neural network models for high efficiency solar cell fabrication processes. , 2009, , .		5
25	In-situ virtual metrology for the silicon-dioxide etch rate by using optical emission spectroscopy data. Journal of the Korean Physical Society, 2014, 65, 168-175.	0.7	5
26	Industrial Internet of Things for Condition Monitoring and Diagnosis of Dry Vacuum Pumps in Atomic Layer Deposition Equipment. Electronics (Switzerland), 2022, 11, 375.	3.1	5
27	Optical in situ monitoring of plasma-enhanced atomic layer deposition process. Japanese Journal of Applied Physics, 2018, 57, 06JF05.	1.5	4
28	Dual-Frequency RF Impedance Matching Circuits for Semiconductor Plasma Etch Equipment. Electronics (Switzerland), 2021, 10, 2074.	3.1	4
29	Real-time In-situ Plasma Etch Process Monitoring for Sensor Based-Advanced Process Control. Journal of Semiconductor Technology and Science, 2011, 11, 1-5.	0.4	4
30	Virtual metrology for TSV etch depth measurement using optical emission spectroscopy. , 2015, , .		3
31	HARDWARE DESIGN FOR CRYOGENIC ETCHING EQUIPMENT. Heat Transfer Research, 2021, 52, 1-14.	1.6	3
32	In-situ process monitoring for eco-friendly chemical vapor deposition chamber cleaning. Journal of the Korean Physical Society, 2021, 79, 1027.	0.7	3
33	In situ monitoring of plasma ignition step in capacitively coupled plasma systems. Japanese Journal of Applied Physics, 2020, 59, SJJD02.	1.5	3
34	<i>In-Situ</i> Optical Monitoring of Atmospheric Pressure Plasma During Organic Surface Removal. Science of Advanced Materials, 2021, 13, 2213-2219.	0.7	3
35	Novel photodefined polymer-clad through-silicon via technology integrated with endpoint detection using optical emission spectroscopy. , 2013, , .		2
36	Quantitative Evaluation Method for Etch Sidewall Profile of Through-Silicon Vias (TSVs). ETRI Journal, 2014, 36, 617-624.	2.0	2

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37	Performance Evaluation of RF Generators with <i>In-Situ</i> Plasma Process Monitoring Sensors. Journal of Nanoscience and Nanotechnology, 2019, 19, 6499-6505.	0.9	2
38	Characterization of low-temperature SU-8 photoresist processing for MEMS applications. , 0, , .		1
39	A modular neural network for R2R diagnosis of semiconductor fabrication equipment: a reactive ion etching application. , 0, , .		1
40	RepTor: An Intelligent Hybrid Neural Network Based Recipe Generator for Semiconductor Process Modeling and Characterization. , 2009, , .		1
41	Improved current drivability with back-gate bias for elevated source and drain structured FD-SOI SiGe MOSFET. Microelectronic Engineering, 2009, 86, 2165-2169.	2.4	1
42	Endpoint detection using optical emission spectroscopy in TSV fabrication. , 2013, , .		1
43	Hands-on experience-based microelectronics manufacturing engineering education. , 2013, , .		1
44	Analysis of Optical Plasma Monitoring in Plasma-Enhanced Atomic Layer Deposition Process of Al2O3. Journal of Nanoscience and Nanotechnology, 2019, 19, 1657-1665.	0.9	1
45	IOT-based in situ condition monitoring of semiconductor fabrication equipment for e-maintenance. Journal of Quality in Maintenance Engineering, 2022, 28, 736-747.	1.7	1
46	Characterization of Silicon Nitride-Cored Silicon Photonics Waveguide Material for Optical Microring Resonator. Journal of Nanoelectronics and Optoelectronics, 2017, 12, 903-907.	0.5	1
47	Characterization of Plasma Deposited TMCTS Based Low-<i>k</i> Thin Film Deposition Process. Science of Advanced Materials, 2017, 10, 522-526.	0.7	1
48	Fabrication of Planar Heating Chuck Using Nichrome Thin Film as Heating Element for PECVD Equipment. Electronics (Switzerland), 2021, 10, 2535.	3.1	1
49	Optical Emission Spectroscopy of Thermal Ta₂O₅ in SF₆/Ar Plasma. Journal of Nanoscience and Nanotechnology, 2016, 16, 12788-12791.	0.9	1
50	Process Integration of Ion Sensitive Field Effect Transistor Bio-Sensor Array Platform. Journal of Nanoscience and Nanotechnology, 2017, 17, 8321-8325.	0.9	0
51	Surface coupling of plasma optical emission spectra with bent metal-clad waveguide. Optical and Quantum Electronics, 2019, 51, 1.	3.3	0
52	Surface Analysis of TMCTS-Based SiOC(H) Low-k Dielectrics in Post-Etch Strip of ACL Hardmask. Materials, 2021, 14, 1144.	2.9	0
53	Chemical reaction mechanism of plasma scrubber for by-product treatment in TiN-atomic layer deposition processes. Japanese Journal of Applied Physics, 0, , .	1.5	0
54	Investigation of Structure Modification of Underlying SiCOH Low-<i>k</i> Dielectrics with Subsequent Hardmask Deposition Process Conditions. Science of Advanced Materials, 2021, 13, 2185-2193.	0.7	0

#	Article	IF	Citations
55	Kinetic Mechanism of Reactive Oxygen/Nitrogen Species in Plasma-Assisted Greenhouse Gas Replacement. Science of Advanced Materials, 2021, 13, 2227-2233.	0.7	0