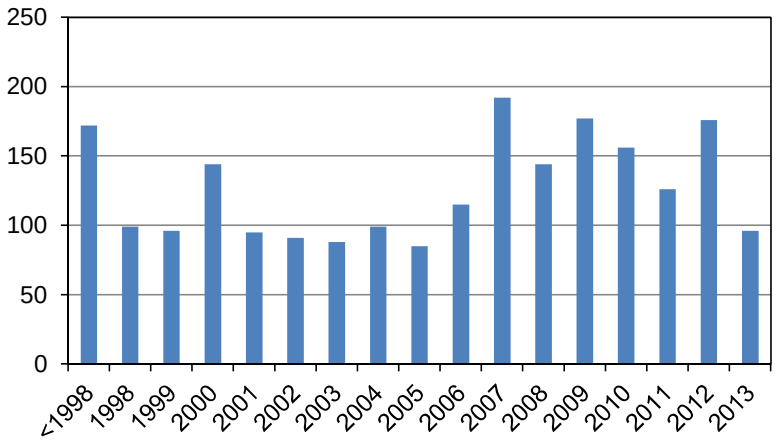
Citations (Scopus)

2013/6/29

Number of papers: 222
Number of citations: 2151
h-index: 20

Citations in each year



Paper list with more than 10 citations

Number of citations	Title	Authors	Journal	Year	Volume
91	Generating high-efficiency neutral beams by using negative ions in an inductively coupled plasma source	Samukawa S., Sakamoto K., Ichiki K.	J. Vac. Sci. Technol. A	2002	20
80	Pulse-time-modulated electron cyclotron resonance plasma discharge for highly selective, highly anisotropic, and charge-free etching	Samukawa S., Ohtake H., Mieno T.	J. Vac. Sci. Technol. A	1996	14
73	Time-modulated electron cyclotron resonance plasma discharge for controlling generation of reactive species	Samukawa S., Furuoya S.	Appl. Phys. Lett.	1993	63
70	Highly selective and highly anisotropic SiO2 etching in pulse-time modulated electron cyclotron resonance plasma	Samukawa Seiji	Jpn. J. Appl. Phys.	1994	33
68	Ultrahigh frequency versus inductively coupled chlorine plasmas: Comparisons of Cl and Cl2 concentrations and electron temperatures measured by trace rare gases optical emission spectroscopy	Malyshev M.V., Donnelly V.M., Samukawa S.	J. Appl. Phys.	1998	84
56	New ultra-high-frequency plasma source for large-scale etching processes	Samukawa Seiji, Nakagawa Yukito, Tsukada Tsutomu, Ueyama Hiroyuki, Shinohara Kibatsu	Jpn. J. Appl. Phys.	1995	34
56	Pulse-time-modulated electron cyclotron resonance plasma etching for highly selective, highly anisotropic, and notch-free polycrystalline silicon patterning	Samukawa S.	Appl. Phys. Lett.	1994	64
48	Dynamics of pulsed-power chlorine plasmas	Malyshev M.V., Donnelly V.M., Colonell J.I., Samukawa S.	J. Appl. Phys.	1999	86
48	Pulse-time-modulated electron cyclotron resonance plasma etching with low radio-frequency substrate bias	Samukawa S.	Appl. Phys. Lett.	1996	68
42	High-efficiency low energy neutral beam generation using negative ions in pulsed plasma	Samukawa S., Sakamoto K., Ichiki K.	Jpn. J. Appl. Phys.	2001	40
41	High-efficiency neutral-beam generation by combination of inductively coupled plasma and parallel plate DC bias	Samukawa S., Sakamoto K., Ichiki K.	Jpn. J. Appl. Phys.	2001	40
40	50 nm gate electrode patterning using a neutral-beam etching system	Noda S., Nishimori H., Ida T., Arikado T., Ichiki K., Ozaki T., Samukawa S.	J. Vac. Sci. Technol. A	2004	22
39	A 7-nm nanocolumn structure fabricated by using a ferritin iron-core mask and low-energy Cl neutral beams	Kubota T., Baba T., Samukawa S., Kawashima H., Uraoka Y., Fuyuki T., Yamashita I.	Appl. Phys. Lett.	2004	84
38	New radical control method for high-performance dielectric etching with nonperfluorocompound gas chemistries in ultrahigh-frequency plasma	Samukawa S., Mukai T., Tsuda K.-I.	J. Vac. Sci. Technol. A	1999	17
36	Low-temperature, uniform, and high-density plasma produced by a new ultra-high-frequency discharge with a spokewise antenna	Samukawa S., Nakagawa Y., Tsukada T., Ueyama H., Shinohara K.	Appl. Phys. Lett.	1995	67
34	Ultimate top-down etching processes for future nanoscale devices: Advanced neutral-beam etching	Samukawa S.	Jpn. J. Appl. Phys.	2006	45
31	On-wafer monitoring of vacuum-ultraviolet radiation damage in high-density plasma processes	Samukawa S., Ishikawa Y., Kumagai S., Okigawa M.	Jpn. J. Appl. Phys.	2001	40
28	Differences in radical generation due to chemical bonding of gas molecules in a high-density fluorocarbon plasma: Effects of the C=C bond in fluorocarbon gases	Samukawa S., Mukai T.	J. Vac. Sci. Technol. A	1999	17
28	Time-modulated electron cyclotron resonance plasma discharge for controlling the polymerization in SiO2 etching	Samukawa Seiji	Jpn. J. Appl. Phys.	1993	32
27	High-performance silicon dioxide etching for less than 0.1-μm-high-aspect contact holes	Samukawa S., Mukai T.	J. Vac. Sci. Technol. B	2000	18

27	Charge-free etching process using positive and negative ions in pulse-time modulated electron cyclotron resonance plasma with low-frequency bias	Ohtake H., Samukawa S.	Appl. Phys. Lett.	1996	68
26	Effects of Ar dilution on the optical emission spectra of fluorocarbon ultrahigh-frequency plasmas: C4F8 vs CF4	Nakano T., Samukawa S.	J. Vac. Sci. Technol. A	1999	17
26	Time variation of plasma properties in a pulse-time-modulated electron cyclotron resonance discharge of chlorine gas	Mieno Tetsu, Samukawa Seiji	Jpn. J. Appl. Phys.	1995	34
22	Plasma-radiation-induced interface states in metal-nitride-oxide-silicon structure of charge-coupled device image sensor and their reduction using pulse-time-modulated	Okigawa M., Ishikawa Y., Samukawa S.	Jpn. J. Appl. Phys.	2003	42
21	Estimation of dissociation degree of N 2 in an inductively coupled plasma by vacuum ultraviolet emission	Nakano T., Kumagai S., Samukawa S.	J. Appl. Phys.	2002	92
21	New radical-control method for SiO2 etching with non-perfluorocompound gas chemistries	Samukawa S., Tsuda K.-I.	Jpn. J. Appl. Phys.	1998	37
21	Simulation of a pulse time-modulated bulk plasma in Cl2	Yokozawa A., Ohtake H., Samukawa S.	Jpn. J. Appl. Phys.	1996	35
20	VUV and low energy electron impact study of electronic state spectroscopy of CF3I	Mason N.J., Limao Vieira P., Eden S., Kendall P., Pathak S., Dawes A., Tennyson J., Tegeder P., Kitajima M., Okamoto M., Sunohara K., Tanaka H., Cho H., Samukawa S., Hoffmann S.V., Newnham D., Spyrou S.M.	International J. Mass Spectrometry	2003	223-224
20	Reduction of plasma induced damage in an inductively coupled plasma using pulsed source power	Samukawa S., Noguchi K., Colonell J.I., Bogart K.H.A., Malyshev M.V., Donnelly V.M.	J. Vac. Sci. Technol. B	2000	18
20	Effects of electron temperature in high-density Cl2 plasma for precise etching processes	Samukawa S., Tsukada T.	Appl. Phys. Lett.	1996	69
19	Highly selective low-damage processes using advanced neutral beams for porous low- k films	Ohtake H., Inoue N., Ozaki T., Samukawa S., Soda E., Inukai K.	J. Vac. Sci. Technol. B	2005	23
19	Reduction of ultraviolet-radiation damage in SiO2 using pulse-time-modulated plasma and its application to charge coupled 44 device image sensor processes	Okigawa M., Ishikawa Y., Samukawa S.	J. Vac. Sci. Technol. B	2003	21
19	New ultrahigh-frequency plasma discharge for overcoming the limitations of etching processes	Samukawa S., Nakano T.	J. Vac. Sci. Technol. A	1996	14
18	Accurate nano-EB lithography for 40-nm gate MOSFETs	Ochiai Y., Manako S., Samukawa S., Takeuchi K., Yamamoto T.	Microelectronic	1996	30
17	Damage mechanism in low-dielectric (low- k) films during plasma processes	Jinnai B., Nozawa T., Samukawa S.	J. Vac. Sci. Technol. B	2008	26
17	Surface reactions during etching of organic low- k films by plasmas of N2 and H2	Ishikawa K., Yamaoka Y., Nakamura M., Yamazaki Y., Yamasaki S., Ishikawa Y., Samukawa S.	J. Appl. Phys.	2006	99
17	Control of nitrogen depth profile in ultrathin oxynitride films formed by pulse-time-modulated nitrogen beams	Samukawa S., Minemura Y., Fukuda S.	J. Vac. Sci. Technol. A	2004	22
16	The 2012 plasma roadmap	Samukawa S., Hori M., Rauf S., Tachibana K., Bruggeman P., Kroesen G., Whitehead J.C., Murphy A.B., Gutsol A.F., Starikovskaia S., Kortshagen U., Boeuf J.-P., Sommerer T.J., Kushner M.J.,	J. Phys. D: Appl. Phys.	2012	45
16	Low-energy electron impact elastic and inelastic scattering from CF3I	Kitajima M., Okamoto M., Sunohara K., Tanaka H., Cho H., Samukawa S., Eden S., Mason N.J.	J. Phys. B	2002	35
16	Effects of rare gas dilution for control of dissociation, ionization, and radical density in fluorocarbon ultrahigh-frequency plasmas	Samukawa S., Nakano T.	J. Vac. Sci. Technol. A	1999	17
15	Expression of heme oxygenase-1 in human leukemic cells and its regulation by transcriptional repressor Bach1	Miyazaki T., Kirino Y., Takeno M., Samukawa S., Hama M., Tanaka M., Yamaji S., Ueda A., Tomita N., Fujita H., Ishigatsubo Y.	Cancer Science	2010	101
15	Charging and Coulomb staircase effects in silicon nanodisk structures fabricated by defect-free Cl neutral beam etching process	Kubota T., Hashimoto T., Ishikawa Y., Samukawa S., Miura A., Uraoka Y., Fuyuki T., Takeguchi M., Nishioka K., Yamashita I.	Appl. Phys. Lett.	2006	89
15	Highly crystalline 5H-polytype of sp3-bonded boron nitride prepared by plasma-packets-assisted pulsed-laser deposition: An ultraviolet light emitter at 225 nm	Komatsu S., Kurashima K., Kanda H., Okada K., Mitomo M., Moriyoshi Y., Shimuzu Y., Shiratani M., Nakano T., Samukawa S.	Appl. Phys. Lett.	2002	81
15	Effects of low-molecular-weight radicals for reduction of microloading in high-aspect contact-hole etching	Samukawa S., Mukai T.	Thin Solid Films	2000	374
15	Plasma diagnostics and low-temperature deposition of microcrystalline silicon films in ultrahigh-frequency silane plasma	Sumiya S., Mizutani Y., Yoshida R., Hori M., Goto T., Ito M., Tsukada T., Samukawa S.	J. Appl. Phys.	2000	88
15	New gas chemistries for high-performance and chargeless dielectric etching	Samukawa S., Mukai T., Noguchi K.	Materials Science in Semiconductor	1999	2
15	Ion and neutral temperatures in a novel ultrahigh-frequency discharge plasma	Nakano T., Ohtake H., Samukawa S.	Jpn. J. Appl. Phys.	1996	35

14	Optical absorption characteristic of highly ordered and dense two-dimensional array of silicon nanodiscs	Huang C.-H., Wang X.-Y., Igarashi M., Murayama A., Okada Y., Yamashita I., Samukawa S.	Nanotechnology	2011	22
14	Generation and extinction characteristics of negative ions in pulse-time-modulated electron cyclotron resonance chlorine plasma	Mieno T., Samukawa S.	Plasma Sources Sci. Technol.	1997	6
14	Polymerization for highly selective SiO2 plasma etching	Samukawa Seiji, Furuoya Shuichi	Jpn. J. Appl. Phys.	1993	32
14	Extremely high-selective electron cyclotron resonance plasma etching for phosphorus-doped polycrystalline silicon	Samukawa S., Suzuki Y., Sasaki M.	Appl. Phys. Lett.	1990	57
14	Damage caused by stored charge during ECR plasma etching	Samukawa Seiji	Jpn. J. Appl. Phys.	1990	29
13	Reduction effect of line edge roughness on time-dependent dielectric breakdown lifetime of Cu/low-k interconnects by using CF3I etching	Soda E., Oda N., Ito S., Kondo S., Saito S., Samukawa S.	J. Vac. Sci. Technol. B	2009	27
13	Ultraviolet-induced damage in fluorocarbon plasma and its reduction by pulse-time-modulated plasma in charge coupled device image sensor wafer processes	Okigawa M., Ishikawa Y., Ichihashi Y., Samukawa S.	J. Vac. Sci. Technol. B	2004	22
13	Mitigation of accumulated electric charge by deposited fluorocarbon film during SiO2 etching	Shimmura T., Suzuki Y., Soda S., Samukawa S., Koyanagi M., Hane K.	J. Vac. Sci. Technol. A	2004	22
13	Ultrathin oxynitride films formed by using pulse-time-modulated nitrogen beams	Samukawa S., Minemura Y., Fukuda S.	Jpn. J. Appl. Phys.	2003	42
13	Enhancement of reactivity in Au etching by pulse-time-modulated Cl2 plasma	Ohtake H., Samukawa S., Oikawa H., Nashimoto Y.	Jpn. J. Appl. Phys.	1998	37
12	Low-damage low- k etching with an environmentally friendly C F3 i plasma	Soda E., Kondo S., Saito S., Ichihashi Y., Sato A., Ohtake H., Samukawa S.	J. Vac. Sci. Technol. A	2008	26
12	High-performance and damage-free magnetic film etching using pulse-time-modulated Cl2 plasma	Mukai T., Hada H., Tahara S., Yoda H., Samukawa S.	Jpn. J. Appl. Phys.	2006	45
11	Coulomb-staircase observed in silicon-nanodisk structures fabricated by low-energy chlorine neutral beams	Kubota T., Hashimoto T., Takeguchi M., Nishioka K., Uraoka Y., Fuyuki T., Yamashita I., Samukawa S.	J. Appl. Phys.	2007	101
11	Fabrication of FinFETs by damage-free neutral-beam etching technology	Endo K., Noda S., Masahara M., Kubota T., Ozaki T., Samukawa S., Liu Y., Ishii K., Ishikawa Y., Sugimata E., Matsukawa T., Takashima H., Yamauchi H., Suzuki E.	IEEE Trans. Electron Devices	2006	53
11	Reduction of plasma-induced damage in SiO2 films during pulse-time-modulated plasma irradiation	Ishikawa Y., Okigawa M., Samukawa S., Yamasaki S.	J. Vac. Sci. Technol. B	2005	23
11	In vacuo measurements of dangling bonds created during Ar-diluted fluorocarbon plasma etching of silicon dioxide films	Ishikawa K., Okigawa M., Ishikawa Y., Samukawa S., Yamasaki S.	Appl. Phys. Lett.	2005	86
11	Dependence of electron energy distributions on discharge pressure in ultrahigh-frequency and inductive-coupled Cl2 plasmas	Samukawa S., Tsukada T.	Jpn. J. Appl. Phys.	1997	36
11	Essential points for precise etching processes in pulse-time-modulated ultrahigh-frequency plasma	Samukawa S., Tsukada T.	J. Vac. Sci. Technol. A	1997	15
10	Control of optical bandgap energy and optical absorption coefficient by geometric parameters in sub-10nm silicon-nanodisc array structure	Budiman M.F., Hu W., Igarashi M., Tsukamoto R., Isoda T., Itoh K.M., Yamashita I., Murayama A., Okada Y., Samukawa S.	Nanotechnology	2012	23
10	Study of neutral-beam etching conditions for the fabrication of 7-nm-diameter nanocolumn structures using ferritin iron-core masks	Kubota T., Baba T., Kawashima H., Uraoka Y., Fuyuki T., Yamashita I., Samukawa S.	J. Vac. Sci. Technol. B	2005	23
10	Charging-damage-free and precise dielectric etching in pulsed C2F4/CF3I plasma	Ohtake H., Samukawa S.	J. Vac. Sci. Technol. B	2002	20
10	Effects of discharge frequency on plasma characteristics and etching characteristics in high density cl<2 plasma: comparison of ultrahigh-frequency plasma and radio-frequency plasma	Samukawa S., Akashi H.	IEEE Trans. Plasma Sci.	1998	26