J Gyulai

List of Publications by Year in descending order

109 papers	2,361 citations	218677 26 h-index	243625 44 g-index
111 all docs	111 docs citations	111 times ranked	1063 citing authors

#	Article	IF	Citations
1	The "EÃ–TVÃ–Sâ€•Program in Space Research â€“ 1979-1986. Materials Science Forum, 2010, 649, 11-16.	0.3	0
2	Thirtieth Anniversary of Biannual International Conference on Ion Beam Modification of Materials, IBMM â€“ From â€œIon Implantationâ€•to â€œIon Beam Modificationâ€• Nuclear Instruments & Methods in Physics Research B, 2009, 267, 1217-1221.	1.4	1
3	Carbon Nanotubes - Towards Artificial Nose Implementation. , 2006, , .		0
4	Scanning tunneling microscopy investigation of atomic-scale carbon nanotube defects produced by Ar+ ion irradiation. Materials Science and Engineering C, 2006, 26, 1194-1197.	7.3	8
5	Ellipsometric characterization of nanocrystals in porous silicon. Applied Surface Science, 2006, 253, 200-203.	6.1	16
6	Dielectric function of disorder in high-fluence helium-implanted silicon. Nuclear Instruments & Methods in Physics Research B, 2006, 253, 192-195.	1.4	7
7	Nanoscale morphology and photoemission of arsenic implanted germanium films. Journal of Applied Physics, 2006, 99, 084304.	2.5	1
8	Optical models for cavity profiles in high-dose helium-implanted and annealed silicon measured by ellipsometry. Journal of Applied Physics, 2005, 97, 123514.	2.5	9
9	Atomically resolved STM images of carbon nanotube defects produced byAr+irradiation. Physical Review B, 2005, 72, .	3.2	68
10	Ion implantation-caused damage in SiC measured by spectroscopic ellipsometry. Thin Solid Films, 2004, 455-456, 239-243.	1.8	6
11	Depth distribution of disorder and cavities in high dose helium implanted silicon characterized by spectroscopic ellipsometry. Thin Solid Films, 2004, 455-456, 344-348.	1.8	8
12	Dose-dependence of ion implantation-caused damage in silicon measured by ellipsometry and backscattering spectrometry. Thin Solid Films, 2004, 455-456, 404-409.	1.8	17
13	Carbon nanoarchitectures containing non-hexagonal rings: â€œnecklaces of pearlsâ€• Carbon, 2004, 42, 2561-2566.	10.3	23
14	Investigation of the morphology and electrical characteristics of FeSi2 quantum dots on silicon. Applied Surface Science, 2004, 234, 60-66.	6.1	7
15	Continuous carbon nanotube production in underwater AC electric arc. Chemical Physics Letters, 2003, 372, 399-402.	2.6	76
16	Characterization of near surface region of plasma immersion ion-implanted silicon using Rutherford backscattering spectrometry, transmission electron microscopy and spectroscopic ellipsometry. Vacuum, 2003, 71, 27-31.	3.5	1
17	STM and AFM investigation of coiled carbon nanotubes produced by laser evaporation of fullerene. Materials Science and Engineering C, 2003, 23, 275-278.	7.3	17
18	STM observation of asymmetrical Y-branched carbon nanotubes and nano-knees produced by the arc discharge method. Materials Science and Engineering C, 2003, 23, 561-564.	7.3	14

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19	Ellipsometric characterization of damage profiles using an advanced optical model. Journal of Applied Physics, 2003, 93, 1987-1990.	2.5	28
20	Ellipsometric study of the polysilicon/thin oxide/single-crystalline silicon structure and its change upon annealing. Journal of Applied Physics, 2002, 92, 2374-2377.	2.5	10
21	From straight carbon nanotubes to Y-branched and coiled carbon nanotubes. Diamond and Related Materials, 2002, 11, 1081-1085.	3.9	29
22	Non-destructive characterization of strontium bismuth tantalate films. Materials Science in Semiconductor Processing, 2002, 5, 141-145.	4.0	1
23	Room temperature growth of single-wall coiled carbon nanotubes and Y-branches. Materials Science and Engineering C, 2002, 19, 3-7.	7.3	31
24	Arc-grown Y-branched carbon nanotubes observed by scanning tunneling microscopy (STM). Chemical Physics Letters, 2002, 365, 338-342.	2.6	26
25	A model for the hillock formation on graphite surfaces by 246MeV Kr+ ions. Ultramicroscopy, 2001, 86, 31-38.	1.9	6
26	In situ measurement of the crystallization of amorphous silicon in a vertical furnace using spectroscopic ellipsometry. Thin Solid Films, 2001, 383, 235-240.	1.8	6
27	SCTS:. Materials Science in Semiconductor Processing, 2001, 4, 89-91.	4.0	14
28	In situ spectroscopic ellipsometry for the characterization of polysilicon formation inside a vertical furnace. Thin Solid Films, 2000, 364, 150-155.	1.8	4
29	Y-branching of single walled carbon nanotubes. Applied Physics A: Materials Science and Processing, 2000, 70, 481-483.	2.3	79
30	Ellipsometric study of polycrystalline silicon films prepared by low-pressure chemical vapor deposition. Journal of Applied Physics, 2000, 87, 1734-1742.	2.5	54
31	Selective nucleation and growth of carbon nanotubes at the CoSi2/Si interface. Applied Physics Letters, 2000, 76, 706-708.	3.3	9
32	He-vacancy interactions in Si and their influence on bubble formation and evolution. Physical Review B, 2000, 61, 937-945.	3.2	91
33	Defects caused by high-energy ion beams, as measured by scanning probe methods. Micron, 1999, 30, 245-254.	2.2	5
34	Scanning probe method investigation of carbon nanotubes produced by high energy ion irradiation of graphite. Carbon, 1999, 37, 739-744.	10.3	5
35	AFM and STM investigation of carbon nanotubes produced by high energy ion irradiation of graphite. Nuclear Instruments & Methods in Physics Research B, 1999, 147, 142-147.	1.4	15
36	Comparative study of ion implantation caused damage depth profiles in polycrystalline and single crystalline silicon studied by spectroscopic ellipsometry and Rutherford backscattering spectrometry. Nuclear Instruments & Methods in Physics Research B, 1999, 147, 84-89.	1.4	14

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37	Carbon nanotubes produced by high energy (E>100 MeV), heavy ion irradiation of graphite. Nuclear Instruments & Methods in Physics Research B, 1999, 148, 1102-1105.	1.4	14
38	Scanning tunnelling microscopy (STM) imaging of carbon nanotubes. Carbon, 1998, 36, 689-696.	10.3	54
39	Ion implantation-caused damage depth profiles in single-crystalline silicon studied by Spectroscopic Ellipsometry and Rutherford Backscattering Spectrometry. Vacuum, 1998, 50, 293-297.	3.5	8
40	Surface disorder production during plasma immersion implantation. Thin Solid Films, 1998, 313-314, 254-258.	1.8	1
41	Comparative study of polysilicon-on-oxide using spectroscopic ellipsometry, atomic force microscopy, and transmission electron microscopy. Thin Solid Films, 1998, 313-314, 259-263.	1.8	34
42	Comparative study of surface roughness measured on polysilicon using spectroscopic ellipsometry and atomic force microscopy. Thin Solid Films, 1998, 315, 186-191.	1.8	89
43	Formation of epitaxial HoSi2 layer on Si(100). Thin Solid Films, 1998, 318, 168-171.	1.8	0
44	Scanning probe microscopy investigation of nanometer structures produced by irradiation with 200 MeV ions. Vacuum, 1998, 50, 263-272.	3.5	14
45	Charge Carrier Lifetime Modificaiton in Silicon by High Energy H⁺, He⁺ Ion Implantation. Materials Science Forum, 1997, 248-249, 101-106.	0.3	2
46	Chapter 1 Ellipsometric Analysis. Semiconductors and Semimetals, 1997, , 1-37.	0.7	4
47	STM and AFM investigations of surface structures following swift heavy ion irradiation. Journal of Nuclear Materials, 1997, 251, 139-144.	2.7	3
48	New method based on atomic force microscopy for in-depth characterization of damage in Si irradiated with 209 MeV Kr. Nuclear Instruments & Methods in Physics Research B, 1997, 122, 559-562.	1.4	3
49	Comparison of damage produced by 209 MeV Kr irradiation in muscovite mica, graphite and silicon. Nuclear Instruments & Methods in Physics Research B, 1997, 122, 476-480.	1.4	13
50	In-depth damage distribution by scanning probe methods in targets irradiated with 200 MeV ions. Nuclear Instruments & Methods in Physics Research B, 1997, 127-128, 32-37.	1.4	5
51	STM and AFM observations of damage produced by swift Ne and Kr ions in graphite. Radiation Measurements, 1997, 28, 65-70.	1.4	5
52	Surface disorder production during plasma immersion implantation and high energy ion implantation. Nuclear Instruments & Methods in Physics Research B, 1996, 118, 728-732.	1.4	4
53	Atomic scale investigation of surface modification induced by 215 MeV Ne irradiation on graphite. Nuclear Instruments & Methods in Physics Research B, 1996, 112, 270-274.	1.4	14
54	Use of atomic-force microscopy and of a parallel irradiation geometry for in-depth characterization of damage produced by swift Kr ions in silicon. Physical Review B, 1996, 54, 11853-11856.	3.2	23

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55	Anomalous surface damage production during high energy implantation analyzed by ellipsometry and RBS. , 1996, , 797-801.		5
56	Atomic scale investigation of surface modification induced by 215 MeV Ne irradiation on graphite. , 1996, , 270-274.		0
57	Scanning-tunneling-microscope investigation of a 215-MeV Ne-irradiated graphite surface. Physical Review B, 1995, 52, 2047-2053.	3.2	26
58	Comparative investigation of damage induced by diatomic and monoatomic ion implantation in silicon. Nuclear Instruments & Methods in Physics Research B, 1994, 85, 524-527.	1.4	10
59	Ion-implantation-caused special damage profiles determined by spectroscopic ellipsometry in crystalline and in relaxed (annealed) amorphous silicon. Thin Solid Films, 1993, 233, 117-121.	1.8	9
60	Shallow, titaniumâ€silicidedp+njunction formation by triple germanium amorphization. Applied Physics Letters, 1992, 60, 1214-1216.	3.3	13
61	Nondestructive determination of damage depth profiles in ionâ€implanted semiconductors by multipleâ€angleâ€ofâ€incidence singleâ€wavelength ellipsometry using different optical models. Journal of Applied Physics, 1992, 72, 2197-2201.	2.5	41
62	Oxidation of Gd thin films on Si substrates via grain boundaries. Surface and Interface Analysis, 1992, 19, 469-472.	1.8	13
63	Comparative study of the effect of annealing of nitrogen-implanted silicon-on-insulator structures by spectroscopic ellipsometry, cross-sectional transmission electron microscopy and Rutherford backscattering spectroscopy. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1992, 12, 177-184.	3.5	8
64	Nondestructive determination of damage depth profiles in ion-implanted semiconductors by multiple-angle-of-incidence single-wavelength ellipsometry. Nuclear Instruments & Methods in Physics Research B, 1991, 55, 257-260.	1.4	12
65	Epitaxy of GdSiâ‰Š1.7on ã€ˆ111ã€‰Si by solid phase reaction. Applied Physics Letters, 1991, 58, 249-250.	3.3	21
66	Effect of oxygen on the formation of end-of-range disorder in implantation amorphized silicon. Journal of Materials Research, 1991, 6, 1695-1700.	2.6	8
67	Damage annealing behavior in diatomic phosphorus ion implanted silicon. Radiation Effects and Defects in Solids, 1990, 115, 183-192.	1.2	11
68	Nondestructive characterization of nitrogenâ€implanted siliconâ€onâ€insulator structures by spectroscopic ellipsometry. Journal of Applied Physics, 1989, 66, 5052-5057.	2.5	23
69	Non-destructive characterization of nitrogen-implanted silicon-on-insulator structures by spectroscopic ellipsometry. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1989, 2, 131-137.	3.5	11
70	RF plasma modification of heavily destroyed ion implanted subsurface silicon layers. Physica Status Solidi A, 1989, 115, 75-80.	1.7	4
71	Thicknessâ€dependent formation of Gdâ€silicide compounds. Journal of Applied Physics, 1988, 64, 6746-6749.	2.5	35
72	Epitaxy of orthorhombic gadolinium disilicide on ã€ˆ100ã€‰ silicon. Applied Physics Letters, 1987, 51, 2144-2145	3.3	20

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73	Effect of ion beam treatment on thermal annealing of GaAs-Au layer structures. Nuclear Instruments & Methods in Physics Research B, 1987, 19-20, 767-772.	1.4	8
74	Investigation of solid phase epitaxial regrowth on ion-implanted silicon by backscattering spectrometry and ellipsometry. Nuclear Instruments & Methods in Physics Research B, 1986, 15, 422-424.	1.4	10
75	Formation of GdSi2under UHV evaporation andinsituannealing. Applied Physics Letters, 1986, 48, 437-438.	3.3	15
76	New method to measure low Schottky barriers on nâ€type silicon. Journal of Applied Physics, 1986, 59, 3537-3539.	2.5	8
77	The growth of GaSb under microgravity conditions. Journal of Crystal Growth, 1985, 71, 538-550.	1.5	22
78	Enhanced sensitivity of oxygen detection of 3.045 MeV (Î±, Î±) elastic scattering and its applications. Acta Physica Hungarica, 1985, 58, 39-55.	0.1	6
79	A technique for the production of a thin film with a linearly varying composition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1985, 3, 1903-1906.	2.1	7
80	Investigation of ion-implanted semiconductors by ellipsometry and backscattering spectrometry. Thin Solid Films, 1984, 116, 191-198.	1.8	28
81	Crystal growth of GaSb under microgravity conditions. Acta Astronautica, 1984, 11, 361-368.	3.2	7
82	Characterization of ion-implanted silicion by Rutherford backscattering spectrometry and ellipsometry. Journal of Radioanalytical and Nuclear Chemistry, 1984, 83, 75-81.	1.5	6
83	Analysis of High Dose Implanted Silicon by High Depth Resolution Rbs and Spectroscopic Ellipsometry and TEM. Materials Research Society Symposia Proceedings, 1984, 35, 523.	0.1	1
84	Characterization of ion implanted silicon by ellipsometry and channeling. Nuclear Instruments & Methods in Physics Research, 1983, 209-210, 615-620.	0.9	36
85	Electron inelastic mean free path (IMFP) in single crystal BeO by Rutherford backscattering (RBS) and Auger electron spectroscopy (AES). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1983, 1, 1021-1025.	2.1	12
86	Ionâ€induced amorphous and crystalline phase formation in Al/Ni, Al/Pd, and Al/Pt thin films. Applied Physics Letters, 1983, 42, 672-674.	3.3	203
87	Ionâ€induced reaction of Niâ€“Au bilayers both on Si and on SiO2. Journal of Applied Physics, 1983, 54, 5750-5754.	2.5	4
88	Influence of Cu as an impurity in Al/Ti and Al/W thinâ€film reactions. Applied Physics Letters, 1983, 43, 1015-1017.	3.3	71
89	Phase separation in interactions of tantalumâ€“chromium alloy on Si. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1983, 1, 452-454.	2.1	20
90	Transient Conductivity Measurements in Pulsed Ion Beam Melted Silicon. Materials Research Society Symposia Proceedings, 1983, 13, 69.	0.1	1

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91	Crystallization of Amorphous Silicon Films by Pulsed Ion Beam Annealing. Materials Research Society Symposia Proceedings, 1982, 13, 455.	0.1	0
92	An investigation of ion-bombarded silicon by ellipsometry and channeling effect. Nuclear Instruments & Methods in Physics Research, 1982, 199, 405-408.	0.9	14
93	High-dose Ge implantation into ã€ˆ100ã€‰ Si. Nuclear Instruments & Methods, 1981, 182-183, 587-590.	1.2	17
94	Ellipsometric and channelling studies on ion-implanted silicon. Nuclear Instruments & Methods, 1981, 182-183, 591-594.	1.2	12
95	Enhanced sensitivity and depth resolution of oxygen detection combining resonance scattering and tilted target methods. Nuclear Instruments & Methods, 1981, 180, 619-623.	1.2	11
96	The role of surface cleaning in the ellipsometric studies of ion-implanted silicon. Radiation Effects, 1981, 54, 251-252.	0.4	16
97	Recent development in and by rutherford backscattering studies. Acta Physica Academiae Scientiarum Hungaricae, 1980, 49, 55-66.	0.1	0
98	Diffusion measurement of implanted Sb into Si, using SiO2encapsulation. Radiation Effects, 1980, 47, 27-29.	0.4	1
99	Improvement of crystalline quality of epitaxial Si layers by ionâ€implantation techniques. Applied Physics Letters, 1979, 34, 76-78.	3.3	114
100	Improved depth resolution of channeling measurements in Rutherford backscattering by a detector tilt. Nuclear Instruments & Methods, 1978, 149, 235-237.	1.2	31
101	Investigation of dislocations by backscattering spectrometry and transmission electron microscopy. Nuclear Instruments & Methods, 1978, 149, 615-617.	1.2	31
102	Enhanced and Inhibited Oxidation of Implanted Silicon. , 1977, , 49-56.		4
103	MeV He backscattering analysis of ion-implanted Si: Drive-in diffusion and epitaxial regrowth. Thin Solid Films, 1976, 32, 303-306.	1.8	10
104	Crystal orientation dependence of residual disorder in Asâ^'implanted Si. Applied Physics Letters, 1975, 26, 292-294.	3.3	48
105	Influence of an Oxidizing Annealing Ambient on the Distribution of As, Sb, and Ga Implanted into Silicon. Journal of the Electrochemical Society, 1975, 122, 1234-1238.	2.9	27
106	Alloying Behavior of Au and Auâ€“Ge on GaAs. Journal of Applied Physics, 1971, 42, 3578-3585.	2.5	119
107	Evaluation of Silicon Nitride Layers of Various Composition by Backscattering and Channelingâ€Effect Measurements. Journal of Applied Physics, 1971, 42, 451-456.	2.5	40
108	ANALYSIS OF SILICON NITRIDE LAYERS ON SILICON BY BACKSCATTERING AND CHANNELING EFFECT MEASUREMENTS. Applied Physics Letters, 1970, 16, 232-234.	3.3	35

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109	Analysis of amorphous layers on silicon by backscattering and channeling effect measurements. Surface Science, 1970, 22, 263-276.	1.9	89