Rita Rizzoli

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/3452304/publications.pdf

Version: 2024-02-01

85 papers	1,422 citations	394421 19 h-index	361022 35 g-index
86 all docs	86 docs citations	86 times ranked	2121 citing authors

#	Article	IF	Citations
1	Charge transport in grapheneâ€“polythiophene blends as studied by Kelvin Probe Force Microscopy and transistor characterization. Journal of Materials Chemistry, 2011, 21, 2924.	6.7	127
2	Optimization of ITO layers for applications in a-Si/c-Si heterojunction solar cells. Thin Solid Films, 2003, 425, 185-192.	1.8	85
3	An optimized texturing process for silicon solar cell substrates using TMAH. Solar Energy Materials and Solar Cells, 2005, 87, 725-732.	6.2	84
4	The nature of electrically inactive antimony in silicon. Journal of Applied Physics, 1986, 59, 1908-1917.	2.5	79
5	Optical, structural and electrical properties of device-quality hydrogenated amorphous silicon-nitrogen films deposited by plasma-enhanced chemical vapour deposition. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1998, 77, 925-944.	0.6	75
6	Contamination-free graphene by chemical vapor deposition in quartz furnaces. Scientific Reports, 2017, 7, 9927.	3.3	70
7	Parametrization of optical properties of indiumâ€“tinâ€“oxide thin films by spectroscopic ellipsometry: Substrate interfacial reactivity. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2002, 20, 37-42.	2.1	65
8	Amorphous Silicon Carbide/Crystalline Silicon Heterojunction Solar Cells: A Comprehensive Study of the Photocarrier Collection. Japanese Journal of Applied Physics, 1998, 37, 3926-3932.	1.5	59
9	Optoelectronic properties, structure and composition of a-SiC:H films grown in undiluted and H2 diluted silane-methane plasma. Journal of Applied Physics, 1997, 81, 7973-7980.	2.5	53
10	Carbon-Cap for Ohmic Contacts on Ion-Implanted 4Hâ€“SiC. Electrochemical and Solid-State Letters, 2010, 13, H432.	2.2	48
11	Anatomy of Î¼c-Si thin films by plasma enhanced chemical vapor deposition: An investigation by spectroscopic ellipsometry. Journal of Applied Physics, 2000, 88, 2408-2414.	2.5	40
12	Graphene as transparent front contact for dye sensitized solar cells. Solar Energy Materials and Solar Cells, 2015, 135, 99-105.	6.2	40
13	Wide band-gap silicon-carbon alloys deposited by very high frequency plasma enhanced chemical vapor deposition. Journal of Applied Physics, 2004, 96, 3987-3997.	2.5	36
14	The influence of hydrogen dilution on the optoelectronic and structural properties of hydrogenated amorphous silicon carbide films. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1994, 69, 377-386.	0.6	35
15	Photocarrier collection in a-SiC:H/c-Si heterojunction solar cells. Journal of Non-Crystalline Solids, 1998, 227-230, 1291-1294.	3.1	26
16	Homojunction and heterojunction silicon solar cells deposited by low temperatureâ€“high frequency plasma enhanced chemical vapour deposition. Thin Solid Films, 2002, 405, 248-255.	1.8	25
17	Silicon Heterojunction Solar Cell: A New Buffer Layer Concept With Low-Temperature Epitaxial Silicon. IEEE Transactions on Electron Devices, 2004, 51, 1818-1824.	3.0	25
18	Enhancement of electrical and thermal conductivity of Su-8 photocrosslinked coatings containing graphene. Progress in Organic Coatings, 2015, 86, 143-146.	3.9	25

#	Article	IF	Citations
19	Spectral behavior of solar cells based on the â€˜â€˜junction near local defect layerâ€™â€™ design. Applied Physics Letters, 1993, 63, 785-787.	3.3	20
20	ITO-Free Organic Light-Emitting Transistors with Graphene Gate Electrode. ACS Photonics, 2014, 1, 1082-1088.	6.6	20
21	Very high frequency hydrogen plasma treatment of growing surfaces: a study of the p-type amorphous to microcrystalline silicon transition. Journal of Non-Crystalline Solids, 2000, 266-269, 624-629.	3.1	18
22	Open circuit voltage in homojunction and heterojunction silicon solar cells grown by VHF-PECVD. Journal of Non-Crystalline Solids, 2002, 299-302, 1203-1207.	3.1	18
23	Graphene as transparent conducting layer for high temperature thin film device applications. Solar Energy Materials and Solar Cells, 2015, 138, 35-40.	6.2	18
24	Effects of Ni catalystâ€“substrate interaction on carbon nanotubes growth by CVD. Physica E: Low-Dimensional Systems and Nanostructures, 2007, 37, 21-25.	2.7	17
25	Modulation of charge transport properties of reduced graphene oxide by submonolayer physisorption of an organic dye. Organic Electronics, 2013, 14, 1787-1792.	2.6	17
26	Efficient light-trapping with quasi-periodic uniaxial nanowrinkles for thin-film silicon solar cells. Nano Energy, 2017, 35, 341-349.	16.0	16
27	Silicon heterojunction solar cells with p nanocrystalline thin emitter on monocrystalline substrate. Thin Solid Films, 2004, 451-452, 350-354.	1.8	15
28	An investigation on the formation of suprathermal electrons in aB-min ECR machine and a novel method for their damping. Plasma Sources Science and Technology, 2013, 22, 065006.	3.1	15
29	Plasma-enhanced chemical vapour deposition of microcrystalline silicon: On the dynamics of the amorphous-microcrystalline interface by optical methods. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2000, 80, 459-473.	0.6	13
30	Ultrathin Î¼c-Si films deposited by PECVD. Thin Solid Films, 2001, 383, 7-10.	1.8	13
31	Grapheneâ€“Epoxy Flexible Transparent Capacitor Obtained By Grapheneâ€“Polymer Transfer and UVâ€Induced Bonding. Macromolecular Rapid Communications, 2014, 35, 355-359.	3.9	13
32	Large area fabrication of self-standing nanoporous graphene-on-PMMA substrate. Materials Letters, 2016, 184, 47-51.	2.6	12
33	Growth of carbon nanotubes by Fe-catalyzed chemical vapor processes on silicon-based substrates. Physica E: Low-Dimensional Systems and Nanostructures, 2007, 37, 11-15.	2.7	10
34	Honeycomb arrays of carbon nanotubes in alumina templates for field emission based devices and electron sources. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 1469-1476.	2.7	10
35	Novel back-reflector architecture with nanoparticle based buried light-scattering microstructures for improved solar cell performance. Nanoscale, 2016, 8, 12035-12046.	5.6	10
36	Electrical and structural characterization of BF2+ self-annealed implantation. Nuclear Instruments & Methods in Physics Research B, 1987, 19-20, 466-469.	1.4	9

#	Article	IF	Citations
37	Directly patterned TiO2 nanostructures for efficient light harvesting in thin film solar cells. Journal Physics D: Applied Physics, 2015, 48, 365101.	2.8	9
38	Optimization of relevant deposition parameters for high quality a-SiC:H films. Solar Energy Materials and Solar Cells, 1995, 37, 315-321.	6.2	8
39	Application of nanotechnologies in high energy physics. Nuclear Physics, Section B, Proceedings Supplements, 2003, 125, 164-168.	0.4	8
40	Enhanced Performance of Grapheneâ€“Epoxy Flexible Capacitors by Means of Ceramic Fillers. Macromolecular Chemistry and Physics, 2015, 216, 707-713.	2.2	8
41	Mechanical and electrical characterization of CVD-grown graphene transferred on chalcogenide Ge2Sb2Te5 layers. Carbon, 2018, 132, 141-151.	10.3	8
42	Anomalous distribution of As during implantation in silicon under selfâ€annealing conditions. Journal of Applied Physics, 1989, 66, 2940-2946.	2.5	7
43	Compositional, optoelectronic and structural properties of amorphous silicon-nitrogen alloys deposited by plasma enhanced chemical vapor deposition. Journal of Non-Crystalline Solids, 1996, 198-200, 596-600.	3.1	7
44	a-SiN:H multilayer versus bulk structure: a real improvement of radiative efficiency?. Journal of Non-Crystalline Solids, 2000, 266-269, 1062-1066.	3.1	7
45	Defect Distribution and Bonding Structure in High Band Gap a-Si_{1â^'x}C_x:H Films Deposited in H₂ Dilution. Materials Research Society Symposia Proceedings, 1994, 336, 517.	0.1	6
46	Laser induced crystallization of hydrogenated amorphous silicon-carbon alloys. Journal of Applied Physics, 2004, 96, 3998-4005.	2.5	6
47	Rapid fabrication and trimming of nanostructured backside reflectors for enhanced optical absorption in a-Si:H solar cells. Applied Physics A: Materials Science and Processing, 2015, 120, 417-425.	2.3	6
48	Boron and phosphorus doping of a-SiC:H thin films by means of ion implantation. Thin Solid Films, 1995, 265, 113-118.	1.8	5
49	Study of a-Si:H / c-Si Heterojunctions for PV Applications. Materials Research Society Symposia Proceedings, 1996, 420, 45.	0.1	5
50	Influence of Front Contact Material on Silicon Heterojunction Solar Cell Performance. Materials Research Society Symposia Proceedings, 1997, 467, 807.	0.1	5
51	Photoluminescence and electroluminescence properties of a-Si1â^'xNx:H based superlattice structures. Journal of Non-Crystalline Solids, 1998, 227-230, 1127-1131.	3.1	5
52	Silicon heterojunction solar cells with microcrystalline emitter. Journal of Non-Crystalline Solids, 2004, 338-340, 706-709.	3.1	5
53	Modification of anisotropic plasma diffusion via auxiliary electrons emitted by a carbon nanotubes-based electron gun in an electron cyclotron resonance ion source. Review of Scientific Instruments, 2012, 83, 02A343.	1.3	5
54	Effect of Hydrogen Plasma Treatments at very High Frequency on p-Type Amorphous and Microcrystalline Silicon Films. Materials Research Society Symposia Proceedings, 1998, 536, 517.	0.1	5

#	Article	IF	Citations
55	Doping of amorphous silicon by potassium ion implantation. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1993, 67, 131-142.	0.6	4
56	Amorphous carbon deposited by pulsed laser ablation as material for cold cathode flat emitters. Applied Surface Science, 2002, 186, 423-428.	6.1	4
57	a-Si:H based two-dimensional photonic crystals. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 16, 539-543.	2.7	4
58	Field emission properties of carbon nanotube arrays grown in porous anodic alumina. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 2164-2169.	0.8	4
59	High density electron emission source based on carbon nanotubes for industrial applications. Diamond and Related Materials, 2009, 18, 963-966.	3.9	4
60	Decomposition kinetics of supersaturated solid solutions in ion implanted silicon. Nuclear Instruments & Methods in Physics Research, 1983, 209-210, 645-650.	0.9	3
61	A novel position detector based on nanotechnologies: the NanoChanT project. Nuclear Physics, Section B, Proceedings Supplements, 2006, 150, 140-143.	0.4	3
62	The conductance of monoatomic As and Ag chains deposited onto silicon steps evaluated using a simplified scattering approach. Modelling and Simulation in Materials Science and Engineering, 2006, 14, 923-931.	2.0	3
63	Hydrocarbon molecules deposited onto monolayer steps onto Si(1â€‰0â€‰0): a study of adsorption and conductance. Modelling and Simulation in Materials Science and Engineering, 2007, 15, 523-533.	2.0	3
64	Injection of auxiliary electrons for increasing the plasma density in highly charged and high intensity ion sources. Review of Scientific Instruments, 2016, 87, 02A740.	1.3	2
65	Combining light-harvesting with detachability in high-efficiency thin-film silicon solar cells. Nanoscale, 2017, 9, 7169-7178.	5.6	2
66	Nanomolded buried light-scattering (BLiS) back-reflectors using dielectric nanoparticles for light harvesting in thin-film silicon solar cells. EPJ Photovoltaics, 2020, 11, 2.	1.6	2
67	Optimization of Optoelectronic Properties of a-SiC:H Films. Materials Research Society Symposia Proceedings, 1993, 297, 681.	0.1	1
68	Photoluminescence and Optical Characterization of a-SixN1-x:H based Multilayers Grown by PECVD. Materials Research Society Symposia Proceedings, 1997, 467, 489.	0.1	1
69	Microcrystalline silicon pâ€“iâ€“n photodetectors for telecommunications and photovoltaic applications. Journal of Non-Crystalline Solids, 2004, 338-340, 784-787.	3.1	1
70	The conductance of monoatomic As and Ag chains deposited onto silicon steps evaluated using a simplified scattering approach. Physica E: Low-Dimensional Systems and Nanostructures, 2007, 37, 292-297.	2.7	1
71	Hydrocarbon molecules deposited onto monolayer steps on Si(100): A study of adsorption and conductance. Applied Surface Science, 2007, 253, 4537-4541.	6.1	1
72	Graphene-lipids interaction: Towards the fabrication of a novel sensor for biomedical uses. , 2015, , .		1

#	Article	IF	Citations
73	Local epitaxy from the silicon substrate in siliconâ€“rich SiC during Siâ€“nanocrystals formation. Thin Solid Films, 2017, 628, 54-60.	1.8	1
74	Potassium Ion Implantation Doping of the n-Layer for p-i-n Amorphous Silicon Solar Cells. , 1991, , 1072-1074.		1
75	Photoluminescence and photothermal deflection spectroscopy in potassium doped a-Si:H. Journal of Non-Crystalline Solids, 1993, 164-166, 635-638.	3.1	0
76	Boron and Phosphorus Ion Implantation In a-SixC1â^'x:H Thin Films. Materials Research Society Symposia Proceedings, 1994, 336, 571.	0.1	0
77	Plasma-enhanced chemical vapour deposition of microcrystalline silicon: on the dynamics of the amorphous-microcrystalline interface by optical methods. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2000, 80, 459-473.	0.6	0
78	Simulation with GEANT4 of a Novel Position Detector Based on Nanotechnologies. , 2006, , .		0
79	Carbon Nanotubes Grown by Catalytic CVD on Silicon Based Substrates for Electronics Applications. Materials Science Forum, 0, 539-543, 669-674.	0.3	0
80	The structural, electronic and transport properties of monatomic chains deposited onto silicon surfaces: A study at semi-empirical level. Solid State Communications, 2007, 144, 158-162.	1.9	0
81	Hydrocarbon Molecules Deposited onto Silicon Surfaces: A DFT Study of Adsorption and Conductance. Journal of Cluster Science, 2007, 18, 869-881.	3.3	0
82	Carbon-Cap for Ohmic Contacts on n-Type Ion Implanted 4H-SiC. Materials Science Forum, 0, 679-680, 504-507.	0.3	0
83	A ternaryâ€“3D analysis of the optical properties of amorphous hydrogenated siliconâ€“rich carbide. Materials Chemistry and Physics, 2019, 221, 301-310.	4.0	0
84	Powder Dissipation in PECVD for SiH₄-CH₄-H₂ Gas Mixtures. European Physical Journal Special Topics, 1995, 05, C5-1125-C5-1132.	0.2	0
85	INFLUENCE OF THE SUBSTRATE TYPES AND TREATMENTS ON CARBON NANOTUBE GROWTH BY CHEMICAL VAPOR DEPOSITION WITH NICKEL CATALYST. , 2006, , 61-62.		0