Eray S Aydil

List of Publications by Year
in descending order

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211 papers	15,506 citations	23500 58 h-index	18075 120 g-index
214 all docs	214 docs citations	214 times ranked	16803 citing authors

#	Article	IF	Citations
1	Machine learning enhanced spectroscopic analysis: towards autonomous chemical mixture characterization for rapid process optimization. , 2022, 1, 35-44.		9
2	Plasma diagnostics and modeling of lithium-containing plasmas. Journal Physics D: Applied Physics, 2022, 55, 254001.	1.3	0
3	Chemically Induced Magnetic Dead Shells in Superparamagnetic Ni Nanoparticles Deduced from Polarized Small-Angle Neutron Scattering. ACS Applied Materials & Interfaces, 2022, 14, 33491-33504.	4.0	2
4	Physical vapor deposition of the halide perovskite CsBi2Br7. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	0.9	3
5	Efficient near-infrared emission from lead-free ytterbium-doped cesium bismuth halide perovskites. Journal of Materials Chemistry A, 2021, 9, 13026-13035.	5.2	13
6	Mitigation of the internal p-n junction in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>CoS</mml:mi><mml:mn>2</mml:mn></mm -contacted <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>FeS</mml:mi><mml:mn>2</mml:mn></mml single crystals: Accessing bulk semiconducting transport. Physical Review Materials, 2021, 5, .	0.9	4
7	Preface for the AVS Peter Mark award 40th anniversary collection. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, 031601.	0.9	1
8	Vapor deposition of CsPbBr3 thin films by evaporation of CsBr and PbBr2. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	0.9	8
9	Origin of Intraband Optical Transitions in Ag₂Se Colloidal Quantum Dots. Journal of Physical Chemistry C, 2021, 125, 17556-17564.	1.5	19
10	Formation of Stable Metal Halide Perovskite/Perovskite Heterojunctions. ACS Energy Letters, 2020, 5, 3443-3451.	8.8	35
11	Quantitative Understanding of Superparamagnetic Blocking in Thoroughly Characterized Ni Nanoparticle Assemblies. Chemistry of Materials, 2020, 32, 6494-6506.	3.2	7
12	Resolving the discrepancies in the reported optical absorption of low-dimensional non-toxic perovskites, Cs₃Bi₂Br₉ and Cs₃BiBr₆. Journal of Materials Chemistry C, 2020, 8, 10456-10463.	2.7	34
13	Sulfur Vacancy Clustering and Its Impact on Electronic Properties in Pyrite FeS₂. Chemistry of Materials, 2020, 32, 4820-4831.	3.2	21
14	Observation of an Internal pâ€"n Junction in Pyrite FeS₂ Single Crystals: Potential Origin of the Low Open Circuit Voltage in Pyrite Solar Cells. , 2020, 2, 861-868.		18
15	Plasmonic nanocomposites of zinc oxide and titanium nitride. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, 042404.	0.9	4
16	Thermal transport in ZnO nanocrystal networks synthesized by nonthermal plasma. Physical Review Materials, 2020, 4, .	0.9	4
17	Preface for the Special Topic Collection Commemorating the Career of John Coburn. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, .	0.9	0
18	Preface for the Festschrift Honoring Dr. Steve Rossnagel. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, .	0.9	0

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19	Carrier-gas assisted vapor deposition for highly tunable morphology of halide perovskite thin films. Sustainable Energy and Fuels, 2019, 3, 2447-2455.	2.5	12
20	Metal-insulator transition in a semiconductor nanocrystal network. Science Advances, 2019, 5, eaaw1462.	4.7	16
21	Lead-free double perovskites Cs₂InCuCl₆ and (CH₃NH₃)₂InCuCl₆: electronic, optical, and electrical properties. Nanoscale, 2019, 11, 11173-11182.	2.8	35
22	Transport Evidence for Sulfur Vacancies as the Origin of Unintentional n-Type Doping in Pyrite FeS₂. ACS Applied Materials & Interfaces, 2019, 11, 15552-15563.	4.0	35
23	Quantum confinement in few layer SnS nanosheets. Nanotechnology, 2019, 30, 245705.	1.3	7
24	Synthesis of Cu₂(Zn_{1â^'x}Co_x)SnS₄ nanocrystals and formation of polycrystalline thin films from their aqueous dispersions. Journal of Materials Chemistry A, 2018, 6, 999-1008.	5.2	36
25	Computational Study of Structural and Electronic Properties of Lead-Free CsMI₃ Perovskites (M = Ge, Sn, Pb, Mg, Ca, Sr, and Ba). Journal of Physical Chemistry C, 2018, 122, 7838-7848.	1.5	62
26	Variable range hopping conduction in ZnO nanocrystal thin films. Nanotechnology, 2018, 29, 415202.	1.3	9
27	Effect of Nanocrystal Size and Carbon on Grain Growth during Annealing of Copper Zinc Tin Sulfide Nanocrystal Coatings. Chemistry of Materials, 2017, 29, 1676-1683.	3.2	31
28	Copperâ€"Zincâ€"Tinâ€"Sulfide Thin Films via Annealing of Ultrasonic Spray Deposited Nanocrystal Coatings. ACS Applied Materials & Interfaces, 2017, 9, 18865-18871.	4.0	12
29	Controlling Cu₂ZnSnS₄ (CZTS) phase in microwave solvothermal synthesis. Journal of Materials Chemistry A, 2017, 5, 23179-23189.	5.2	21
30	Functionalization of Cadmium Selenide Quantum Dots with Poly(ethylene glycol): Ligand Exchange, Surface Coverage, and Dispersion Stability. Langmuir, 2017, 33, 8239-8245.	1.6	31
31	ZnO Nanocrystal Networks Near the Insulatorâ€"Metal Transition: Tuning Contact Radius and Electron Density with Intense Pulsed Light. Nano Letters, 2017, 17, 4634-4642.	4.5	30
32	Potential resolution to the doping puzzle in iron pyrite: Carrier type determination by Hall effect and thermopower. Physical Review Materials, 2017, 1, .	0.9	27
33	Surface conduction in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>n</mml:mi></mml:math>-type pyrite<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>FeS</mml:mi><mml:mn>2</mml:mn></mml:msub></m crystals. Physical Review Materials, 2017, 1, .	0.9	27
34	Intense pulsed light annealing of copper zinc tin sulfide nanocrystal coatings. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2016, 34, 051204.	0.9	13
35	Atmospheric-pressure glow plasma synthesis of plasmonic and photoluminescent zinc oxide nanocrystals. Journal of Applied Physics, 2016, 119, 243302.	1.1	8
36	Nonthermal Plasma Synthesis of Nanocrystals: Fundamental Principles, Materials, and Applications. Chemical Reviews, 2016, 116, 11061-11127.	23.0	309

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37	Selective removal of Cu_{2â^'x}(S,Se) phases from Cu₂ZnSn(S,Se)₄ thin films. Green Chemistry, 2016, 18, 5814-5821.	4.6	27
38	Microstructure Evolution During Selenization of Cu₂ZnSnS₄ Colloidal Nanocrystal Coatings. Chemistry of Materials, 2016, 28, 1266-1276.	3.2	33
39	Formation of Copper Zinc Tin Sulfide Thin Films from Colloidal Nanocrystal Dispersions via Aerosol-Jet Printing and Compaction. ACS Applied Materials & Interfaces, 2015, 7, 11526-11535.	4.0	27
40	Nonequilibrium-Plasma-Synthesized ZnO Nanocrystals with Plasmon Resonance Tunable via Al Doping and Quantum Confinement. Nano Letters, 2015, 15, 8162-8169.	4.5	62
41	Requirements for plasma synthesis of nanocrystals at atmospheric pressures. Journal Physics D: Applied Physics, 2015, 48, 035205.	1.3	34
42	Langmuir probe measurements of electron energy probability functions in dusty plasmas. Journal Physics D: Applied Physics, 2015, 48, 105204.	1.3	44
43	Phase Stability and Stoichiometry in Thin Film Iron Pyrite: Impact on Electronic Transport Properties. ACS Applied Materials & Interfaces, 2015, 7, 14130-14139.	4.0	45
44	Self-Regulation of Cu/Sn Ratio in the Synthesis of Cu₂ZnSnS₄ Films. Chemistry of Materials, 2015, 27, 2507-2514.	3.2	49
45	Nonthermal plasma synthesis of metal sulfide nanocrystals from metalorganic vapor and elemental sulfur. Journal Physics D: Applied Physics, 2015, 48, 314004.	1.3	21
46	Metal-oxide broken-gap tunnel junction for copper indium gallium diselenide tandem solar cells. Solar Energy Materials and Solar Cells, 2015, 133, 133-142.	3.0	26
47	Sputtered metal oxide broken gap junctions for tandem solar cells. Solar Energy Materials and Solar Cells, 2015, 132, 515-522.	3.0	13
48	Substrate and temperature dependence of the formation of the Earth abundant solar absorber Cu2ZnSnS4 by ex situ sulfidation of cosputtered Cu-Zn-Sn films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2014, 32, 061203.	0.9	5
49	High electron mobility in thin films formed via supersonic impact deposition of nanocrystals synthesized in nonthermal plasmas. Nature Communications, 2014, 5, 5822.	5.8	77
50	Challenges in deposition of wide band gap copper indium aluminum gallium selenide (CIAGS) thin films for tandem solar cells. , 2014, , .		1
51	Plasmonic Interactions through Chemical Bonds of Surface Ligands on PbSe Nanocrystals. Chemistry of Materials, 2014, 26, 3328-3333.	3.2	11
52	Plasma-induced crystallization of silicon nanoparticles. Journal Physics D: Applied Physics, 2014, 47, 075202.	1.3	83
53	Plasma synthesis of stoichiometric Cu2S nanocrystals stabilized by oleylamine. Chemical Communications, 2014, 50, 8346.	2.2	18
54	Synthesis of Cu2ZnSnS4 thin films directly onto conductive substrates via selective thermolysis using microwave energy. Chemical Communications, 2014, 50, 5902.	2.2	14

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55	Alkali-metal-enhanced grain growth in Cu₂ZnSnS₄ thin films. Energy and Environmental Science, 2014, 7, 1931-1938.	15.6	124
56	Doping high-surface-area mesoporous TiO₂microspheres with carbonate for visible light hydrogen production. Energy and Environmental Science, 2014, 7, 2592.	15.6	253
57	Rapid facile synthesis of Cu₂ZnSnS₄ nanocrystals. Journal of Materials Chemistry A, 2014, 2, 10389-10395.	5.2	53
58	Microstructure Evolution and Crystal Growth in Cu₂ZnSnS₄ Thin Films Formed By Annealing Colloidal Nanocrystal Coatings. Chemistry of Materials, 2014, 26, 3191-3201.	3.2	66
59	Excited-State Dynamics in CZTS Nanocrystals. Journal of Physical Chemistry Letters, 2013, 4, 2711-2714.	2.1	14
60	Efficient continuous-flow chemical bath deposition of CdS films as buffer layers for chalcogenide-based solar cells. , 2013, , .		0
61	Effects of Water Adsorption and Surface Oxidation on the Electrical Conductivity of Silicon Nanocrystal Films. Journal of Physical Chemistry C, 2013, 117, 4211-4218.	1.5	23
62	Cu2ZnSnS4 nanocrystal dispersions in polar liquids. Chemical Communications, 2013, 49, 3549.	2.2	28
63	Crossover From Nanoscopic Intergranular Hopping to Conventional Charge Transport in Pyrite Thin Films. ACS Nano, 2013, 7, 2781-2789.	7.3	57
64	Sixty years of diversity. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2013, 31, 050401.	0.9	0
65	Tin dioxide as an alternative window layer for improving the damp-heat stability of copper indium gallium diselenide solar cells. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2012, 30, .	0.9	4
66	First principles calculation of the electronic properties and lattice dynamics of Cu2ZnSn(S1â˜xSex)4. Journal of Applied Physics, 2012, 111, .	1.1	73
67	Reactive sputter deposition of pyrite structure transition metal disulfide thin films: Microstructure, transport, and magnetism. Journal of Applied Physics, 2012, 112, .	1.1	16
68	Synthesis of single-crystalline anatase nanorods and nanoflakes on transparent conducting substrates. Chemical Communications, 2012, 48, 8565.	2.2	42
69	Getting Moore from Solar Cells. Science, 2012, 338, 625-626.	6.0	28
70	Structure and Composition of Zn_xCd_{1â€“x}S Films Synthesized through Chemical Bath Deposition. ACS Applied Materials & Interfaces, 2012, 4, 3676-3684.	4.0	35
71	Calculation of the lattice dynamics and Raman spectra of copper zinc tin chalcogenides and comparison to experiments. Journal of Applied Physics, 2012, 111, .	1.1	221
72	Improving the damp-heat stability of copper indium gallium diselenide solar cells with a semicrystalline tin dioxide overlayer. Solar Energy Materials and Solar Cells, 2012, 101, 270-276.	3.0	27

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73	Sputter deposition of semicrystalline tin dioxide films. Thin Solid Films, 2012, 520, 2554-2561.	0.8	35
74	Anatase TiO2 films with reactive {001} facets on transparent conductive substrate. Chemical Communications, 2011, 47, 9507.	2.2	66
75	Wide band-gap CuIn<inf>1−X</inf>Ga<inf>X</inf>Se<inf>2</inf> based chalcopyrite absorbers for tandem cell applications. , 2011, , .		1
76	Photovoltaic manufacturing: Present status, future prospects, and research needs. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2011, 29, .	0.9	226
77	Size control and quantum confinement in Cu2ZnSnS4 nanocrystals. Chemical Communications, 2011, 47, 11721.	2.2	219
78	Imaging and phase identification of Cu2ZnSnS4 thin films using confocal Raman spectroscopy. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2011, 29, .	0.9	231
79	TiO₂â€“B/Anatase Coreâ€“Shell Heterojunction Nanowires for Photocatalysis. ACS Applied Materials & Interfaces, 2011, 3, 4444-4450.	4.0	162
80	Carbon Diffusion from Methane into Walls of Carbon Nanotube through Structurally and Compositionally Modified Iron Catalyst. Microscopy and Microanalysis, 2011, 17, 582-586.	0.2	3
81	An analysis of temperature dependent currentâ€“voltage characteristics of Cu2Oâ€“ZnO heterojunction solar cells. Thin Solid Films, 2011, 519, 6613-6619.	0.8	43
82	Layered mesoporous nanostructures for enhanced light harvesting in dye-sensitized solar cells. Journal of Renewable and Sustainable Energy, 2011, 3, 043106.	0.8	8
83	Hot-Electron Transfer from Semiconductor Nanocrystals. Science, 2010, 328, 1543-1547.	6.0	775
84	Collision of a long DNA molecule with an isolated nanowire. Electrophoresis, 2010, 31, 3675-3680.	1.3	9
85	Catalyst rotation, twisting, and bending during multiwall carbon nanotube growth. Carbon, 2010, 48, 3840-3845.	5.4	23
86	Structural and electrical properties of Cu2O thin films deposited on ZnO by metal organic chemical vapor deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2010, 28, 1338-1343.	0.9	19
87	Hydrogen etching and cutting of multiwall carbon nanotubes. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2010, 28, 1187-1194.	0.6	23
88	Oriented single-crystalline TiO₂ nanowires on titanium foil for lithium ion batteries. Journal of Materials Research, 2010, 25, 1588-1594.	1.2	34
89	Sulfurization studies of the potential thin film solar absorber Cu<inf>2</inf>ZnSnS<inf>4</inf>. , 2010, , .		1
90	Influence of Atmospheric Gases on the Electrical Properties of PbSe Quantum-Dot Films. Journal of Physical Chemistry C, 2010, 114, 9988-9996.	1.5	72

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91	Effect of hydrogen on catalyst nanoparticles in carbon nanotube growth. Journal of Applied Physics, 2010, 108, .	1.1	65
92	Orientation and Morphological Evolution of Catalyst Nanoparticles During Carbon Nanotube Growth. ACS Nano, 2010, 4, 5087-5094.	7.3	47
93	Structure optimization for a high efficiency CIGS solar cell. , 2010, , .		15
94	Analysis of diamond nanocrystal formation from multiwalled carbon nanotubes. Physical Review B, 2009, 80, .	1.1	18
95	Metallorganic Chemical Vapor Deposition of ZnO Nanowires from Zinc Acetylacetonate and Oxygen. Journal of the Electrochemical Society, 2009, 156, H52.	1.3	20
96	Heteroepitaxial growth of Cu2O thin film on ZnO by metal organic chemical vapor deposition. Journal of Crystal Growth, 2009, 311, 4188-4192.	0.7	96
97	First-principles theoretical analysis of pure and hydrogenated crystalline carbon phases and nanostructures. Chemical Physics Letters, 2009, 474, 168-174.	1.2	11
98	Solar Cells Based on Junctions between Colloidal PbSe Nanocrystals and Thin ZnO Films. ACS Nano, 2009, 3, 3638-3648.	7.3	250
99	Electron transport and recombination in dye-sensitized solar cells made from single-crystal rutile TiO2 nanowires. Physical Chemistry Chemical Physics, 2009, 11, 9648.	1.3	92
100	Transport Limited Growth of Zinc Oxide Nanowires. Crystal Growth and Design, 2009, 9, 2783-2789.	1.4	58
101	Nanowire-quantum-dot solar cells and the influence of nanowire length on the charge collection efficiency. Applied Physics Letters, 2009, 95, .	1.5	92
102	Strong Electronic Coupling in Two-Dimensional Assemblies of Colloidal PbSe Quantum Dots. ACS Nano, 2009, 3, 1532-1538.	7.3	109
103	Growth of Oriented Single-Crystalline Rutile TiO₂ Nanorods on Transparent Conducting Substrates for Dye-Sensitized Solar Cells. Journal of the American Chemical Society, 2009, 131, 3985-3990.	6.6	2,243
104	Valence Band Alignment at Cadmium Selenide Quantum Dot and Zinc Oxide (101Ì…0) Interfaces. Journal of Physical Chemistry C, 2008, 112, 8419-8423.	1.5	102
105	Electron Dynamics at the ZnO (101Ì…0) Surface. Journal of Physical Chemistry C, 2008, 112, 14682-14692.	1.5	38
106	Oriented single crystalline titanium dioxide nanowires. Nanotechnology, 2008, 19, 505604.	1.3	138
107	Growth mechanism of titanium dioxide nanowires for dye-sensitized solar cells. Nanotechnology, 2008, 19, 095604.	1.3	94
108	Electron transport and recombination in polycrystalline TiO2 nanowire dye-sensitized solar cells. Applied Physics Letters, 2007, 91, 123116.	1.5	112

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109	Deposition of nanocrystalline silicon films at room temperature. Journal of Applied Physics, 2007, 102, 043305.	1.1	22
110	Photosensitization of ZnO Nanowires with CdSe Quantum Dots for Photovoltaic Devices. Nano Letters, 2007, 7, 1793-1798.	4.5	935
111	Hydrogen-induced crystallization of amorphous Si thin films. II. Mechanisms and energetics of hydrogen insertion into Siâ€"Si bonds. Journal of Applied Physics, 2006, 100, 053515.	1.1	29
112	Hydrogen-induced crystallization of amorphous silicon thin films. I. Simulation and analysis of film postgrowth treatment with H2 plasmas. Journal of Applied Physics, 2006, 100, 053514.	1.1	38
113	Dye-sensitized solar cells based on semiconductor morphologies with ZnO nanowires. Solar Energy Materials and Solar Cells, 2006, 90, 607-622.	3.0	344
114	Synthesis and characterization of ZnO nanowires and their integration into dye-sensitized solar cells. Nanotechnology, 2006, 17, S304-S312.	1.3	408
115	In situmeasurement of the ion incidence angle dependence of the ion-enhanced etching yield in plasma reactors. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2006, 24, 2176-2186.	0.9	11
116	Feature scale model of Si etching in SF6âˆ•O2âˆ•HBr plasma and comparison with experiments. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2006, 24, 350-361.	0.9	21
117	Atomic-scale analysis of fundamental mechanisms of surface valley filling during plasma deposition of amorphous silicon thin films. Surface Science, 2005, 574, 123-143.	0.8	11
118	Interaction of SiH3 radicals with deuterated (hydrogenated) amorphous silicon surfaces. Surface Science, 2005, 598, 35-44.	0.8	20
119	Temperature dependence of precursorâ€"surface interactions in plasma deposition of silicon thin films. Chemical Physics Letters, 2005, 414, 61-65.	1.2	16
120	Epitaxial growth of ZnO nanowires on a- and c-plane sapphire. Journal of Crystal Growth, 2005, 274, 407-411.	0.7	91
121	Etching of high aspect ratio features in Si using SF6âˆ•O2âˆ•HBr and SF6âˆ•O2âˆ•Cl2 plasma. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2005, 23, 1592-1597.	0.9	13
122	Visualizing the evolution of surface morphology and surface bond strain during plasma deposition of amorphous silicon thin films. IEEE Transactions on Plasma Science, 2005, 33, 228-229.	0.6	1
123	Feature-scale model of Si etching in SF6âˆ•O2 plasma and comparison with experiments. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2005, 23, 1430-1439.	0.9	33
124	Surface Smoothening Mechanism of Amorphous Silicon Thin Films. Physical Review Letters, 2005, 95, 216102.	2.9	24
125	Feature-scale model of Si etching in SF6 plasma and comparison with experiments. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2005, 23, 99-113.	0.9	41
126	The Role of SiH3 Diffusion in Determining the Surface Smoothness of Plasma-Deposited Amorphous Si Thin Films: An Atomic-Scale Analysis. Materials Research Society Symposia Proceedings, 2005, 862, 321.	0.1	0

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127	Infrared detection of hydrogen-generated free carriers in polycrystalline ZnO thin films. Journal of Applied Physics, 2005, 97, 043522.	1.1	45
128	Nanowire-based dye-sensitized solar cells. Applied Physics Letters, 2005, 86, 053114.	1.5	969
129	Hydrogen in Siâ€"Si bond center and platelet-like defect configurations in amorphous hydrogenated silicon. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2004, 22, 2719.	1.6	20
130	Surface Processes during Growth of Hydrogenated Amorphous Silicon. Materials Research Society Symposia Proceedings, 2004, 808, 311.	0.1	1
131	Atomistic calculation of the SiH3 surface reactivity during plasma deposition of amorphous silicon thin films. Surface Science, 2004, 572, L339-L347.	0.8	26
132	Growth and characterization of hydrogenated amorphous silicon thin films from SiH2 radical precursor: Atomic-scale analysis. Journal of Applied Physics, 2004, 95, 1792-1805.	1.1	21
133	Measurement of absolute radical densities in a plasma using modulated-beam line-of-sight threshold ionization mass spectrometry. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2004, 22, 71-81.	0.9	55
134	Etching of high aspect ratio structures in Si using SF[sub 6]/O[sub 2] plasma. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2004, 22, 606.	0.9	79
135	Surface hydride composition of plasma deposited hydrogenated amorphous silicon: in situ infrared study of ion flux and temperature dependence. Surface Science, 2003, 530, 1-16.	0.8	50
136	Mechanism and energetics of dimerization of SiH2 radicals on H-terminated Si()-(2Ã—1) surfaces. Surface Science, 2003, 540, L623-L630.	0.8	6
137	Growth mechanism and characterization of zinc oxide hexagonal columns. Applied Physics Letters, 2003, 83, 3797-3799.	1.5	114
138	Experimental and theoretical study of two-dimensional ion flux uniformity at the wafer plane in inductively coupled plasmas. IEEE Transactions on Plasma Science, 2003, 31, 614-627.	0.6	6
139	Spatial and temporal variation of ion flux in the presence of an instability in inductively coupled SF6plasmas. Plasma Sources Science and Technology, 2003, 12, 148-151.	1.3	8
140	Relation between the ion flux, gas phase composition, and wall conditions in chlorine plasma etching of silicon. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2003, 21, 589-595.	0.9	32
141	Absolute densities of N and excited N2 in a N2 plasma. Applied Physics Letters, 2003, 83, 4918-4920.	1.5	70
142	Effects of Chamber Wall Conditions on Cl Concentration and Si Etch Rate Uniformity in Plasma Etching Reactors. Journal of the Electrochemical Society, 2003, 150, G418.	1.3	38
143	Growth and Characterization of ZnO Nanowires. Materials Research Society Symposia Proceedings, 2003, 776, 791.	0.1	2
144	Reaction Control in Amorphous Silicon Film Deposition by Hydrogen Chloride. Materials Research Society Symposia Proceedings, 2003, 762, 1521.	0.1	0

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145	Maintaining reproducible plasma reactor wall conditions: SF6 plasma cleaning of films deposited on chamber walls during Cl2/O2 plasma etching of Si. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2002, 20, 1195-1201.	0.9	73
146	Abstraction of atomic hydrogen by atomic deuterium from an amorphous hydrogenated silicon surface. Journal of Chemical Physics, 2002, 117, 10805-10816.	1.2	47
147	Effect of chamber wall conditions on Cl and Cl2 concentrations in an inductively coupled plasma reactor. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2002, 20, 43-52.	0.9	107
148	In situprobing of surface hydrides on hydrogenated amorphous silicon using attenuated total reflection infrared spectroscopy. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2002, 20, 781-789.	0.9	31
149	Spatial and temporal variation of the ion flux impinging on the wafer surface in presence of a plasma instability. IEEE Transactions on Plasma Science, 2002, 30, 120-121.	0.6	4
150	An on-wafer probe array for measuring two-dimensional ion flux distributions in plasma reactors. Review of Scientific Instruments, 2002, 73, 3494-3499.	0.6	13
151	Atomic-scale analysis of deposition and characterization ofa-Si:H thin films grown from SiH radical precursor. Journal of Applied Physics, 2002, 92, 842-852.	1.1	12
152	Deposition of silicon oxychloride films on chamber walls during Cl2/O2 plasma etching of Si. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2002, 20, 499-506.	0.9	46
153	Formation and removal of composite halogenated silicon oxide and fluorocarbon films deposited on chamber walls during plasma etching of multiple film stacks. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2002, 20, 1939.	1.6	15
154	Incorporation of Cl into Hydrogenated Amorphous Silicon without Optical Band Gap Widening. Japanese Journal of Applied Physics, 2002, 41, L1357-L1359.	0.8	1
155	Visualizing the evolution of surface bond straining during radical-surface interactions in plasma deposition processes. IEEE Transactions on Plasma Science, 2002, 30, 112-113.	0.6	9
156	Two-dimensional ion flux distributions in inductively coupled plasmas: Effect of adding electronegative gases to Ar. Journal of Applied Physics, 2002, 92, 6444-6450.	1.1	6
157	Mechanism and activation energy barrier for H abstraction by H(D) from a-Si:H surfaces. Surface Science, 2002, 515, L469-L474.	0.8	27
158	Mechanism of hydrogen-induced crystallization of amorphous silicon. Nature, 2002, 418, 62-65.	13.7	379
159	Stable Ordering in Langmuir-Blodgett Films. Science, 2001, 293, 1292-1295.	6.0	200
160	In Situ Probing and Atomistic Simulation of a-Si:H Plasma Deposition. Materials Research Society Symposia Proceedings, 2001, 664, 111.	0.1	17
161	On the growth mechanism of a-Si:H. Thin Solid Films, 2001, 383, 154-160.	0.8	89
162	Mechanisms and energetics of SiH3 adsorption on the pristine Si(001)-(2Ã—1) surface. Chemical Physics Letters, 2001, 344, 249-255.	1.2	19

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163	Molecular dynamics study of the interactions of small thermal and energetic silicon clusters with crystalline and amorphous silicon surfaces. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2001, 19, 634.	1.6	9
164	Evolution of structure, morphology, and reactivity of hydrogenated amorphous silicon film surfaces grown by molecular-dynamics simulation. Applied Physics Letters, 2001, 78, 2685-2687.	1.5	47
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