

Eray S Aydil

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/6404418/eray-s-aydil-publications-by-year.pdf>

Version: 2024-04-26

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

205
papers

13,898
citations

56
h-index

114
g-index

214
ext. papers

14,725
ext. citations

5.9
avg. IF

6.71
L-index

#	Paper	IF	Citations
205	Plasma diagnostics and modeling of lithium-containing plasmas. <i>Journal Physics D: Applied Physics</i> , 2022 , 55, 254001	3	
204	Preface for the AVS Peter Mark award 40th anniversary collection. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021 , 39, 031601	2.9	0
203	Physical vapor deposition of the halide perovskite CsBi ₂ Br ₇ . <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021 , 39, 013409	2.9	2
202	Mitigation of the internal p-n junction in CoS ₂ -contacted FeS ₂ single crystals: Accessing bulk semiconducting transport. <i>Physical Review Materials</i> , 2021 , 5,	3.2	1
201	Vapor deposition of CsPbBr ₃ thin films by evaporation of CsBr and PbBr ₂ . <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021 , 39, 043415	2.9	2
200	Origin of Intraband Optical Transitions in Ag ₂ Se Colloidal Quantum Dots. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 17556-17564	3.8	3
199	Sulfur Vacancy Clustering and Its Impact on Electronic Properties in Pyrite FeS ₂ . <i>Chemistry of Materials</i> , 2020 , 32, 4820-4831	9.6	14
198	Observation of an Internal p-n Junction in Pyrite FeS ₂ Single Crystals: Potential Origin of the Low Open Circuit Voltage in Pyrite Solar Cells 2020 , 2, 861-868		5
197	Plasmonic nanocomposites of zinc oxide and titanium nitride. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2020 , 38, 042404	2.9	3
196	Thermal transport in ZnO nanocrystal networks synthesized by nonthermal plasma. <i>Physical Review Materials</i> , 2020 , 4,	3.2	2
195	Preface for the Festschrift Honoring Dr. Steve Rosnagel. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2020 , 38, 051601	2.9	
194	Preface for the Special Topic Collection Commemorating the Career of John Coburn. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2020 , 38, 061602	2.9	
193	Formation of Stable Metal Halide Perovskite/Perovskite Heterojunctions. <i>ACS Energy Letters</i> , 2020 , 5, 3443-3451	20.1	9
192	Quantitative Understanding of Superparamagnetic Blocking in Thoroughly Characterized Ni Nanoparticle Assemblies. <i>Chemistry of Materials</i> , 2020 , 32, 6494-6506	9.6	2
191	Resolving the discrepancies in the reported optical absorption of low-dimensional non-toxic perovskites, Cs ₃ Bi ₂ Br ₉ and Cs ₃ BiBr ₆ . <i>Journal of Materials Chemistry C</i> , 2020 , 8, 10456-10463	7.1	18
190	Metal-insulator transition in a semiconductor nanocrystal network. <i>Science Advances</i> , 2019 , 5, eaaw1462	14.3	10
189	Lead-free double perovskites CsInCuCl and (CH ₃ NH ₃)InCuCl: electronic, optical, and electrical properties. <i>Nanoscale</i> , 2019 , 11, 11173-11182	7.7	18

188	Transport Evidence for Sulfur Vacancies as the Origin of Unintentional n-Type Doping in Pyrite FeS. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 15552-15563	9.5	19
187	Quantum confinement in few layer SnS nanosheets. <i>Nanotechnology</i> , 2019 , 30, 245705	3.4	7
186	Carrier-gas assisted vapor deposition for highly tunable morphology of halide perovskite thin films. <i>Sustainable Energy and Fuels</i> , 2019 , 3, 2447-2455	5.8	6
185	Synthesis of Cu ₂ (Zn _{1-x} Cox)SnS ₄ nanocrystals and formation of polycrystalline thin films from their aqueous dispersions. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 999-1008	13	24
184	Computational Study of Structural and Electronic Properties of Lead-Free CsMI ₃ Perovskites (M = Ge, Sn, Pb, Mg, Ca, Sr, and Ba). <i>Journal of Physical Chemistry C</i> , 2018 , 122, 7838-7848	3.8	45
183	Variable range hopping conduction in ZnO nanocrystal thin films. <i>Nanotechnology</i> , 2018 , 29, 415202	3.4	5
182	Effect of Nanocrystal Size and Carbon on Grain Growth during Annealing of Copper Zinc Tin Sulfide Nanocrystal Coatings. <i>Chemistry of Materials</i> , 2017 , 29, 1676-1683	9.6	26
181	Copper-Zinc-Tin-Sulfide Thin Films via Annealing of Ultrasonic Spray Deposited Nanocrystal Coatings. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 18865-18871	9.5	9
180	Controlling Cu ₂ ZnSnS ₄ (CZTS) phase in microwave solvothermal synthesis. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 23179-23189	13	14
179	Functionalization of Cadmium Selenide Quantum Dots with Poly(ethylene glycol): Ligand Exchange, Surface Coverage, and Dispersion Stability. <i>Langmuir</i> , 2017 , 33, 8239-8245	4	23
178	ZnO Nanocrystal Networks Near the Insulator-Metal Transition: Tuning Contact Radius and Electron Density with Intense Pulsed Light. <i>Nano Letters</i> , 2017 , 17, 4634-4642	11.5	25
177	Potential resolution to the doping puzzle in iron pyrite: Carrier type determination by Hall effect and thermopower. <i>Physical Review Materials</i> , 2017 , 1,	3.2	19
176	Surface conduction in n-type pyrite FeS ₂ single crystals. <i>Physical Review Materials</i> , 2017 , 1,	3.2	18
175	Nonthermal Plasma Synthesis of Nanocrystals: Fundamental Principles, Materials, and Applications. <i>Chemical Reviews</i> , 2016 , 116, 11061-127	68.1	233
174	Selective removal of Cu ₂ X(S,Se) phases from Cu ₂ ZnSn(S,Se) ₄ thin films. <i>Green Chemistry</i> , 2016 , 18, 5814-5821	5.8	24
173	Microstructure Evolution During Selenization of Cu ₂ ZnSnS ₄ Colloidal Nanocrystal Coatings. <i>Chemistry of Materials</i> , 2016 , 28, 1266-1276	9.6	29
172	Intense pulsed light annealing of copper zinc tin sulfide nanocrystal coatings. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2016 , 34, 051204	2.9	9
171	Atmospheric-pressure glow plasma synthesis of plasmonic and photoluminescent zinc oxide nanocrystals. <i>Journal of Applied Physics</i> , 2016 , 119, 243302	2.5	7

170	Langmuir probe measurements of electron energy probability functions in dusty plasmas. <i>Journal Physics D: Applied Physics</i> , 2015 , 48, 105204	3	35
169	Phase Stability and Stoichiometry in Thin Film Iron Pyrite: Impact on Electronic Transport Properties. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 14130-9	9.5	34
168	Self-Regulation of Cu/Sn Ratio in the Synthesis of Cu ₂ ZnSnS ₄ Films. <i>Chemistry of Materials</i> , 2015 , 27, 2507-2514	9.6	42
167	Nonthermal plasma synthesis of metal sulfide nanocrystals from metalorganic vapor and elemental sulfur. <i>Journal Physics D: Applied Physics</i> , 2015 , 48, 314004	3	18
166	Metal-oxide broken-gap tunnel junction for copper indium gallium diselenide tandem solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2015 , 133, 133-142	6.4	21
165	Sputtered metal oxide broken gap junctions for tandem solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2015 , 132, 515-522	6.4	13
164	Formation of Copper Zinc Tin Sulfide Thin Films from Colloidal Nanocrystal Dispersions via Aerosol-Jet Printing and Compaction. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 11526-35	9.5	25
163	Nonequilibrium-Plasma-Synthesized ZnO Nanocrystals with Plasmon Resonance Tunable via Al Doping and Quantum Confinement. <i>Nano Letters</i> , 2015 , 15, 8162-9	11.5	50
162	Requirements for plasma synthesis of nanocrystals at atmospheric pressures. <i>Journal Physics D: Applied Physics</i> , 2015 , 48, 035205	3	29
161	Plasmonic Interactions through Chemical Bonds of Surface Ligands on PbSe Nanocrystals. <i>Chemistry of Materials</i> , 2014 , 26, 3328-3333	9.6	11
160	Plasma-induced crystallization of silicon nanoparticles. <i>Journal Physics D: Applied Physics</i> , 2014 , 47, 075202		68
159	Plasma synthesis of stoichiometric Cu ₂ S nanocrystals stabilized by oleylamine. <i>Chemical Communications</i> , 2014 , 50, 8346-9	5.8	17
158	Synthesis of Cu ₂ ZnSnS ₄ thin films directly onto conductive substrates via selective thermolysis using microwave energy. <i>Chemical Communications</i> , 2014 , 50, 5902-4	5.8	13
157	Alkali-metal-enhanced grain growth in Cu ₂ ZnSnS ₄ thin films. <i>Energy and Environmental Science</i> , 2014 , 7, 1931-1938	35.4	111
156	Doping high-surface-area mesoporous TiO ₂ microspheres with carbonate for visible light hydrogen production. <i>Energy and Environmental Science</i> , 2014 , 7, 2592	35.4	232
155	Rapid facile synthesis of Cu ₂ ZnSnS ₄ nanocrystals. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 10389-10395	13	45
154	Microstructure Evolution and Crystal Growth in Cu ₂ ZnSnS ₄ Thin Films Formed By Annealing Colloidal Nanocrystal Coatings. <i>Chemistry of Materials</i> , 2014 , 26, 3191-3201	9.6	61
153	Substrate and temperature dependence of the formation of the Earth abundant solar absorber Cu ₂ ZnSnS ₄ by ex situ sulfidation of cosputtered Cu-Zn-Sn films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2014 , 32, 061203	2.9	5

152	High electron mobility in thin films formed via supersonic impact deposition of nanocrystals synthesized in nonthermal plasmas. <i>Nature Communications</i> , 2014 , 5, 5822	17.4	67
151	Challenges in deposition of wide band gap copper indium aluminum gallium selenide (CIAGS) thin films for tandem solar cells 2014 ,		1
150	Excited-State Dynamics in CZTS Nanocrystals. <i>Journal of Physical Chemistry Letters</i> , 2013 , 4, 2711-2714	6.4	14
149	Effects of Water Adsorption and Surface Oxidation on the Electrical Conductivity of Silicon Nanocrystal Films. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 4211-4218	3.8	21
148	Cu ₂ ZnSnS ₄ nanocrystal dispersions in polar liquids. <i>Chemical Communications</i> , 2013 , 49, 3549-51	5.8	25
147	Crossover from nanoscopic intergranular hopping to conventional charge transport in pyrite thin films. <i>ACS Nano</i> , 2013 , 7, 2781-9	16.7	52
146	Improving the damp-heat stability of copper indium gallium diselenide solar cells with a semicrystalline tin dioxide overlayer. <i>Solar Energy Materials and Solar Cells</i> , 2012 , 101, 270-276	6.4	20
145	Sputter deposition of semicrystalline tin dioxide films. <i>Thin Solid Films</i> , 2012 , 520, 2554-2561	2.2	30
144	Synthesis of single-crystalline anatase nanorods and nanoflakes on transparent conducting substrates. <i>Chemical Communications</i> , 2012 , 48, 8565-7	5.8	38
143	Materials science. Getting Moore from solar cells. <i>Science</i> , 2012 , 338, 625-6	33.3	26
142	Structure and composition of Zn _x Cd _(1-x) S films synthesized through chemical bath deposition. <i>ACS Applied Materials & Interfaces</i> , 2012 , 4, 3676-84	9.5	27
141	Calculation of the lattice dynamics and Raman spectra of copper zinc tin chalcogenides and comparison to experiments. <i>Journal of Applied Physics</i> , 2012 , 111, 083707	2.5	190
140	Tin dioxide as an alternative window layer for improving the damp-heat stability of copper indium gallium diselenide solar cells. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2012 , 30, 04D101	2.9	3
139	First principles calculation of the electronic properties and lattice dynamics of Cu ₂ ZnSn(S _{1-x} Se _x) ₄ . <i>Journal of Applied Physics</i> , 2012 , 111, 123704	2.5	64
138	Reactive sputter deposition of pyrite structure transition metal disulfide thin films: Microstructure, transport, and magnetism. <i>Journal of Applied Physics</i> , 2012 , 112, 054328	2.5	15
137	Size control and quantum confinement in Cu ₂ ZnSnS ₄ nanocrystals. <i>Chemical Communications</i> , 2011 , 47, 11721-3	5.8	193
136	Imaging and phase identification of Cu ₂ ZnSnS ₄ thin films using confocal Raman spectroscopy. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2011 , 29, 051203	2.9	208
135	TiO ₂ -B/anatase core-shell heterojunction TiO ₂ -wires for photocatalysis. <i>ACS Applied Materials & Interfaces</i> , 2011 , 3, 4444-50	9.5	149

134	Carbon diffusion from methane into walls of carbon nanotube through structurally and compositionally modified iron catalyst. <i>Microscopy and Microanalysis</i> , 2011 , 17, 582-6	0.5	3
133	Anatase TiO ₂ films with reactive {001} facets on transparent conductive substrate. <i>Chemical Communications</i> , 2011 , 47, 9507-9	5.8	62
132	Wide band-gap CuIn _{1-x} Ga _x Se ₂ based chalcopyrite absorbers for tandem cell applications 2011 ,		1
131	Photovoltaic manufacturing: Present status, future prospects, and research needs. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2011 , 29, 030801	2.9	192
130	An analysis of temperature dependent current-voltage characteristics of Cu ₂ O/ZnO heterojunction solar cells. <i>Thin Solid Films</i> , 2011 , 519, 6613-6619	2.2	35
129	Layered mesoporous nanostructures for enhanced light harvesting in dye-sensitized solar cells. <i>Journal of Renewable and Sustainable Energy</i> , 2011 , 3, 043106	2.5	5
128	Structural and electrical properties of Cu ₂ O thin films deposited on ZnO by metal organic chemical vapor deposition. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2010 , 28, 1338-1343	2.9	18
127	Hydrogen etching and cutting of multiwall carbon nanotubes. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2010 , 28, 1187-1194	1.3	21
126	Oriented single-crystalline TiO ₂ nanowires on titanium foil for lithium ion batteries. <i>Journal of Materials Research</i> , 2010 , 25, 1588-1594	2.5	30
125	Sulfurization studies of the potential thin film solar absorber Cu ₂ ZnSnS ₄ 2010 ,		1
124	Influence of Atmospheric Gases on the Electrical Properties of PbSe Quantum-Dot Films. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 9988-9996	3.8	69
123	Effect of hydrogen on catalyst nanoparticles in carbon nanotube growth. <i>Journal of Applied Physics</i> , 2010 , 108, 053303	2.5	60
122	Orientation and morphological evolution of catalyst nanoparticles during carbon nanotube growth. <i>ACS Nano</i> , 2010 , 4, 5087-94	16.7	47
121	Structure optimization for a high efficiency CIGS solar cell 2010 ,		13
120	Hot-electron transfer from semiconductor nanocrystals. <i>Science</i> , 2010 , 328, 1543-7	33.3	703
119	Collision of a long DNA molecule with an isolated nanowire. <i>Electrophoresis</i> , 2010 , 31, 3675-80	3.6	9
118	Catalyst rotation, twisting, and bending during multiwall carbon nanotube growth. <i>Carbon</i> , 2010 , 48, 3840-3845	10.4	22
117	Analysis of diamond nanocrystal formation from multiwalled carbon nanotubes. <i>Physical Review B</i> , 2009 , 80,	3.3	17

116	Metallorganic Chemical Vapor Deposition of ZnO Nanowires from Zinc Acetylacetonate and Oxygen. <i>Journal of the Electrochemical Society</i> , 2009 , 156, H52	3.9	20
115	Heteroepitaxial growth of Cu ₂ O thin film on ZnO by metal organic chemical vapor deposition. <i>Journal of Crystal Growth</i> , 2009 , 311, 4188-4192	1.6	83
114	First-principles theoretical analysis of pure and hydrogenated crystalline carbon phases and nanostructures. <i>Chemical Physics Letters</i> , 2009 , 474, 168-174	2.5	10
113	Solar cells based on junctions between colloidal PbSe nanocrystals and thin ZnO films. <i>ACS Nano</i> , 2009 , 3, 3638-48	16.7	235
112	Electron transport and recombination in dye-sensitized solar cells made from single-crystal rutile TiO ₂ nanowires. <i>Physical Chemistry Chemical Physics</i> , 2009 , 11, 9648-52	3.6	88
111	Transport Limited Growth of Zinc Oxide Nanowires. <i>Crystal Growth and Design</i> , 2009 , 9, 2783-2789	3.5	51
110	Nanowire-quantum-dot solar cells and the influence of nanowire length on the charge collection efficiency. <i>Applied Physics Letters</i> , 2009 , 95, 193103	3.4	85
109	Strong electronic coupling in two-dimensional assemblies of colloidal PbSe quantum dots. <i>ACS Nano</i> , 2009 , 3, 1532-8	16.7	104
108	Growth of oriented single-crystalline rutile TiO ₂ nanorods on transparent conducting substrates for dye-sensitized solar cells. <i>Journal of the American Chemical Society</i> , 2009 , 131, 3985-90	16.4	2070
107	Electron Dynamics at the ZnO (101 0) Surface. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 14682-14692	3.8	34
106	Oriented single crystalline titanium dioxide nanowires. <i>Nanotechnology</i> , 2008 , 19, 505604	3.4	129
105	Growth mechanism of titanium dioxide nanowires for dye-sensitized solar cells. <i>Nanotechnology</i> , 2008 , 19, 095604	3.4	88
104	Valence Band Alignment at Cadmium Selenide Quantum Dot and Zinc Oxide (101 0) Interfaces. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 8419-8423	3.8	95
103	Electron transport and recombination in polycrystalline TiO ₂ nanowire dye-sensitized solar cells. <i>Applied Physics Letters</i> , 2007 , 91, 123116	3.4	110
102	Deposition of nanocrystalline silicon films at room temperature. <i>Journal of Applied Physics</i> , 2007 , 102, 043305	2.5	19
101	Photosensitization of ZnO nanowires with CdSe quantum dots for photovoltaic devices. <i>Nano Letters</i> , 2007 , 7, 1793-8	11.5	880
100	In situ measurement of the ion incidence angle dependence of the ion-enhanced etching yield in plasma reactors. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2006 , 24, 2176-2186	2.9	10
99	Feature scale model of Si etching in SF ₆ /D ₂ /Br plasma and comparison with experiments. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2006 , 24, 350-361	2.9	20

98	Hydrogen-induced crystallization of amorphous Si thin films. II. Mechanisms and energetics of hydrogen insertion into SiSi bonds. <i>Journal of Applied Physics</i> , 2006 , 100, 053515	2.5	29
97	Hydrogen-induced crystallization of amorphous silicon thin films. I. Simulation and analysis of film postgrowth treatment with H ₂ plasmas. <i>Journal of Applied Physics</i> , 2006 , 100, 053514	2.5	35
96	Dye-sensitized solar cells based on semiconductor morphologies with ZnO nanowires. <i>Solar Energy Materials and Solar Cells</i> , 2006 , 90, 607-622	6.4	317
95	Synthesis and characterization of ZnO nanowires and their integration into dye-sensitized solar cells. <i>Nanotechnology</i> , 2006 , 17, S304-S312	3.4	373
94	Infrared detection of hydrogen-generated free carriers in polycrystalline ZnO thin films. <i>Journal of Applied Physics</i> , 2005 , 97, 043522	2.5	44
93	Nanowire-based dye-sensitized solar cells. <i>Applied Physics Letters</i> , 2005 , 86, 053114	3.4	905
92	Atomic-scale analysis of fundamental mechanisms of surface valley filling during plasma deposition of amorphous silicon thin films. <i>Surface Science</i> , 2005 , 574, 123-143	1.8	11
91	Interaction of SiH ₃ radicals with deuterated (hydrogenated) amorphous silicon surfaces. <i>Surface Science</i> , 2005 , 598, 35-44	1.8	17
90	Temperature dependence of precursor-surface interactions in plasma deposition of silicon thin films. <i>Chemical Physics Letters</i> , 2005 , 414, 61-65	2.5	16
89	Epitaxial growth of ZnO nanowires on a- and c-plane sapphire. <i>Journal of Crystal Growth</i> , 2005 , 274, 407-411	4.6	83
88	Etching of high aspect ratio features in Si using SF ₆ /HBr and SF ₆ /Cl ₂ plasma. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2005 , 23, 1592-1597	2.9	12
87	. <i>IEEE Transactions on Plasma Science</i> , 2005 , 33, 228-229	1.3	1
86	Feature-scale model of Si etching in SF ₆ /Cl ₂ plasma and comparison with experiments. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2005 , 23, 1430-1439	2.9	26
85	Surface smoothing mechanism of amorphous silicon thin films. <i>Physical Review Letters</i> , 2005 , 95, 216102	4.2	24
84	Feature-scale model of Si etching in SF ₆ plasma and comparison with experiments. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2005 , 23, 99-113	2.9	36
83	The Role of SiH ₃ Diffusion in Determining the Surface Smoothness of Plasma-Deposited Amorphous Si Thin Films: An Atomic-Scale Analysis. <i>Materials Research Society Symposia Proceedings</i> , 2005 , 862, 321		
82	Hydrogen in SiSi bond center and platelet-like defect configurations in amorphous hydrogenated silicon. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2004 , 22, 2719		17
81	Surface Processes during Growth of Hydrogenated Amorphous Silicon. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 808, 311		1

80	Atomistic calculation of the SiH ₃ surface reactivity during plasma deposition of amorphous silicon thin films. <i>Surface Science</i> , 2004 , 572, L339-L347	1.8	24
79	Growth and characterization of hydrogenated amorphous silicon thin films from SiH ₂ radical precursor: Atomic-scale analysis. <i>Journal of Applied Physics</i> , 2004 , 95, 1792-1805	2.5	18
78	Measurement of absolute radical densities in a plasma using modulated-beam line-of-sight threshold ionization mass spectrometry. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2004 , 22, 71-81	2.9	52
77	Etching of high aspect ratio structures in Si using SF ₆ /O ₂ plasma. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2004 , 22, 606	2.9	72
76	Effects of Chamber Wall Conditions on Cl Concentration and Si Etch Rate Uniformity in Plasma Etching Reactors. <i>Journal of the Electrochemical Society</i> , 2003 , 150, G418	3.9	33
75	Growth and Characterization of ZnO Nanowires. <i>Materials Research Society Symposia Proceedings</i> , 2003 , 776, 791		1
74	Reaction Control in Amorphous Silicon Film Deposition by Hydrogen Chloride. <i>Materials Research Society Symposia Proceedings</i> , 2003 , 762, 1521		
73	Surface hydride composition of plasma deposited hydrogenated amorphous silicon: in situ infrared study of ion flux and temperature dependence. <i>Surface Science</i> , 2003 , 530, 1-16	1.8	46
72	Mechanism and energetics of dimerization of SiH ₂ radicals on H-terminated Si(-)-(2×1) surfaces. <i>Surface Science</i> , 2003 , 540, L623-L630	1.8	6
71	Growth mechanism and characterization of zinc oxide hexagonal columns. <i>Applied Physics Letters</i> , 2003 , 83, 3797-3799	3.4	106
70	Experimental and theoretical study of two-dimensional ion flux uniformity at the wafer plane in inductively coupled plasmas. <i>IEEE Transactions on Plasma Science</i> , 2003 , 31, 614-627	1.3	6
69	Spatial and temporal variation of ion flux in the presence of an instability in inductively coupled SF ₆ plasmas. <i>Plasma Sources Science and Technology</i> , 2003 , 12, 148-151	3.5	8
68	Relation between the ion flux, gas phase composition, and wall conditions in chlorine plasma etching of silicon. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2003 , 21, 589-595	2.9	31
67	Absolute densities of N and excited N ₂ in a N ₂ plasma. <i>Applied Physics Letters</i> , 2003 , 83, 4918-4920	3.4	63
66	Mechanism and activation energy barrier for H abstraction by H(D) from a-Si:H surfaces. <i>Surface Science</i> , 2002 , 515, L469-L474	1.8	27
65	Mechanism of hydrogen-induced crystallization of amorphous silicon. <i>Nature</i> , 2002 , 418, 62-5	50.4	340
64	Maintaining reproducible plasma reactor wall conditions: SF ₆ plasma cleaning of films deposited on chamber walls during Cl ₂ /O ₂ plasma etching of Si. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2002 , 20, 1195-1201	2.9	69
63	Abstraction of atomic hydrogen by atomic deuterium from an amorphous hydrogenated silicon surface. <i>Journal of Chemical Physics</i> , 2002 , 117, 10805-10816	3.9	44

62	Effect of chamber wall conditions on Cl and Cl ₂ concentrations in an inductively coupled plasma reactor. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2002 , 20, 43-52	2.9	99
61	In situ probing of surface hydrides on hydrogenated amorphous silicon using attenuated total reflection infrared spectroscopy. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2002 , 20, 781-789	2.9	28
60	Spatial and temporal variation of the ion flux impinging on the wafer surface in presence of a plasma instability. <i>IEEE Transactions on Plasma Science</i> , 2002 , 30, 120-121	1.3	4
59	An on-wafer probe array for measuring two-dimensional ion flux distributions in plasma reactors. <i>Review of Scientific Instruments</i> , 2002 , 73, 3494-3499	1.7	12
58	Atomic-scale analysis of deposition and characterization of a-Si:H thin films grown from SiH radical precursor. <i>Journal of Applied Physics</i> , 2002 , 92, 842-852	2.5	11
57	Deposition of silicon oxychloride films on chamber walls during Cl ₂ /O ₂ plasma etching of Si. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2002 , 20, 499-506	2.9	43
56	Formation and removal of composite halogenated silicon oxide and fluorocarbon films deposited on chamber walls during plasma etching of multiple film stacks. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2002 , 20, 1939		15
55	Visualizing the evolution of surface bond straining during radical-surface interactions in plasma deposition processes. <i>IEEE Transactions on Plasma Science</i> , 2002 , 30, 112-113	1.3	9
54	Two-dimensional ion flux distributions in inductively coupled plasmas: Effect of adding electronegative gases to Ar. <i>Journal of Applied Physics</i> , 2002 , 92, 6444-6450	2.5	6
53	On the growth mechanism of a-Si:H. <i>Thin Solid Films</i> , 2001 , 383, 154-160	2.2	84
52	Mechanisms and energetics of SiH ₃ adsorption on the pristine Si(001)-(2×1) surface. <i>Chemical Physics Letters</i> , 2001 , 344, 249-255	2.5	18
51	Molecular dynamics study of the interactions of small thermal and energetic silicon clusters with crystalline and amorphous silicon surfaces. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2001 , 19, 634		9
50	Evolution of structure, morphology, and reactivity of hydrogenated amorphous silicon film surfaces grown by molecular-dynamics simulation. <i>Applied Physics Letters</i> , 2001 , 78, 2685-2687	3.4	43
49	New diagnostic method for monitoring plasma reactor walls: Multiple total internal reflection Fourier transform infrared surface probe. <i>Review of Scientific Instruments</i> , 2001 , 72, 3260-3269	1.7	44
48	Stable ordering in Langmuir-Blodgett films. <i>Science</i> , 2001 , 293, 1292-5	33.3	191
47	In Situ Probing and Atomistic Simulation of a-Si:H Plasma Deposition. <i>Materials Research Society Symposia Proceedings</i> , 2001 , 664, 111		17
46	Polyethylene glycol-coated biocompatible surfaces. <i>Journal of Biomedical Materials Research Part B</i> , 2000 , 51, 343-51		460
45	Mechanism and energetics of dissociative adsorption of SiH ₃ on the hydrogen-terminated Si(001)-(2×1) surface. <i>Chemical Physics Letters</i> , 2000 , 329, 304-310	2.5	33

44	Angle-dependent photoluminescence spectra of hydrogenated amorphous silicon thin films. <i>Applied Physics Letters</i> , 2000 , 77, 3346-3348	3.4	20
43	Abstraction of hydrogen by SiH radicals from hydrogenated amorphous silicon surfaces. <i>Surface Science</i> , 2000 , 459, L475-L481	1.8	8
42	Compact floating ion energy analyzer for measuring energy distributions of ions bombarding radio-frequency biased electrode surfaces. <i>Review of Scientific Instruments</i> , 1999 , 70, 2689-2698	1.7	57
41	Atomistic simulation study of the interactions of SiH ₃ radicals with silicon surfaces. <i>Journal of Applied Physics</i> , 1999 , 86, 2872-2888	2.5	62
40	Visualizing radical-surface interactions in plasma deposition processes: reactivity of SiH ₃ radicals with Si surfaces. <i>IEEE Transactions on Plasma Science</i> , 1999 , 27, 104-105	1.3	6
39	Theoretical study of the interactions of SiH ₂ radicals with silicon surfaces. <i>Journal of Applied Physics</i> , 1999 , 86, 5497-5508	2.5	30
38	Energy distribution of ions bombarding biased electrodes in high density plasma reactors. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1999 , 17, 506-516	2.9	73
37	Modeling of the sheath and the energy distribution of ions bombarding rf-biased substrates in high density plasma reactors and comparison to experimental measurements. <i>Journal of Applied Physics</i> , 1999 , 86, 4799-4812	2.5	119
36	Reasons for lower dielectric constant of fluorinated SiO ₂ films. <i>Journal of Applied Physics</i> , 1998 , 83, 2172-2178	2.3	63
35	Incidence angle distributions of ions bombarding grounded surfaces in high density plasma reactors. <i>Materials Science in Semiconductor Processing</i> , 1998 , 1, 75-82	4.3	23
34	Effect of H ₂ dilution on the surface composition of plasma-deposited silicon films from SiH ₄ . <i>Applied Surface Science</i> , 1998 , 133, 148-151	6.7	15
33	Abstraction of hydrogen by SiH ₃ from hydrogen-terminated Si(001)-(2x1) surfaces. <i>Surface Science</i> , 1998 , 418, L8-L13	1.8	61
32	Interactions of SiH radicals with silicon surfaces: An atomic-scale simulation study. <i>Journal of Applied Physics</i> , 1998 , 84, 3895-3911	2.5	57
31	Silicon hydride composition of plasma-deposited hydrogenated amorphous and nanocrystalline silicon films and surfaces. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1998 , 16, 3199-3210	2.9	119
30	Low temperature plasma deposition of silicon nitride from silane and nitrogen plasmas. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1998 , 16, 2794-2803	2.9	58
29	Atomistic simulation of SiH interactions with silicon surfaces during deposition from silane containing plasmas. <i>Applied Physics Letters</i> , 1998 , 72, 578-580	3.4	18
28	Modeling of SiO ₂ deposition in high density plasma reactors and comparisons of model predictions with experimental measurements. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1998 , 16, 544-563	2.9	83
27	Atomic-Scale Analysis of Plasma-Enhanced Chemical Vapor Deposition from SiH ₄ /2 Plasmas on Si Substrates. <i>Materials Research Society Symposia Proceedings</i> , 1998 , 507, 673		1

26	Detection of combinative infrared absorption bands in thin silicon dioxide films. <i>Applied Physics Letters</i> , 1997 , 70, 3269-3271	3.4	27
25	Silanol Concentration Depth Profiling during Plasma Deposition of SiO ₂ Using Multiple Internal Reflection Infrared Spectroscopy. <i>Journal of the Electrochemical Society</i> , 1997 , 144, 3963-3967	3.9	13
24	Atomic-Scale Analysis of the Reactivity of Radicals from Silane/Hydrogen Plasmas with Silicon Surfaces. <i>Materials Research Society Symposia Proceedings</i> , 1997 , 485, 107		2
23	Structure and chemical composition of fluorinated SiO ₂ films deposited using SiF ₄ /O ₂ plasmas. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1997 , 15, 2893-2904	2.9	60
22	Effect of H ₂ addition on surface reactions during CF ₄ /H ₂ plasma etching of silicon and silicon dioxide films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1997 , 15, 2508-2517	2.9	62
21	Luminescence from plasma deposited silicon films. <i>Journal of Applied Physics</i> , 1997 , 81, 2410-2417	2.5	78
20	Visible luminescence from nanocrystalline silicon films produced by plasma enhanced chemical vapor deposition. <i>Applied Physics Letters</i> , 1996 , 68, 1415-1417	3.4	42
19	Plasma and surface diagnostics during plasma-enhanced chemical vapor deposition of SiO ₂ from SiH ₄ /O ₂ /Ar discharges. <i>Thin Solid Films</i> , 1996 , 290-291, 427-434	2.2	23
18	Modeling of Heat Transport and Wafer Heating Effects during Plasma Etching. <i>Journal of the Electrochemical Society</i> , 1996 , 143, 3674-3680	3.9	17
17	Study of surface reactions during plasma enhanced chemical vapor deposition of SiO ₂ from SiH ₄ , O ₂ , and Ar plasma. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1996 , 14, 2062-2070	2.9	88
16	Investigation of low temperature SiO ₂ plasma enhanced chemical vapor deposition. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1996 , 14, 738		54
15	Investigation of SiO ₂ plasma enhanced chemical vapor deposition through tetraethoxysilane using attenuated total reflection Fourier transform infrared spectroscopy. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1995 , 13, 2355-2367	2.9	107
14	Real time in situ monitoring of surfaces during glow discharge processing: NH ₃ and H ₂ plasma passivation of GaAs. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1995 , 13, 258		18
13	Low-temperature plasma enhanced chemical vapor deposition of SiO ₂ . <i>Applied Physics Letters</i> , 1994 , 65, 3185-3187	3.4	68
12	Real-time monitoring of surface chemistry during plasma processing. <i>Pure and Applied Chemistry</i> , 1994 , 66, 1381-1388	2.1	23
11	Real-Time, In Situ Monitoring of Room-Temperature Silicon Surface Cleaning Using Hydrogen and Ammonia Plasmas. <i>Journal of the Electrochemical Society</i> , 1993 , 140, 3316-3321	3.9	40
10	Ammonia plasma passivation of GaAs in downstream microwave and radio-frequency parallel plate plasma reactors. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1993 , 11, 195		39
9	Real-time, in situ monitoring of surface reactions during plasma passivation of GaAs. <i>Applied Physics Letters</i> , 1993 , 62, 3156-3158	3.4	20

8	Multiple steady states in electron cyclotron resonance plasma reactors. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1993 , 11, 2883-2892	2.9	41
7	Control of an unstable electron cyclotron resonance plasma. <i>Applied Physics Letters</i> , 1993 , 62, 2039-2041	3.4	9
6	Electron cyclotron resonance plasma reactor for cryogenic etching. <i>Review of Scientific Instruments</i> , 1993 , 64, 3572-3584	1.7	18
5	Modeling of Plasma Etching Reactors Including Wafer Heating Effects. <i>Journal of the Electrochemical Society</i> , 1993 , 140, 1471-1481	3.9	28
4	Theoretical and Experimental Investigations of Chlorine RF Glow Discharges: II . Experimental. <i>Journal of the Electrochemical Society</i> , 1992 , 139, 1406-1412	3.9	23
3	Theoretical and Experimental Investigations of Chlorine RF Glow Discharges: I . Theoretical. <i>Journal of the Electrochemical Society</i> , 1992 , 139, 1396-1406	3.9	33
2	Multiple steady states in a radio frequency chlorine glow discharge. <i>Journal of Applied Physics</i> , 1991 , 69, 109-114	2.5	17
1	Efficient near-infrared emission from lead-free ytterbium-doped cesium bismuth halide perovskites. <i>Journal of Materials Chemistry A</i> ,	13	4