Ruud E I Schropp

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429 papers	10,295 citations	47 h-index	85 g-index
463 ext. papers	11,348 ext. citations	4.3 avg, IF	6.3 L-index

#	Paper	IF	Citations
429	Light trapping in ultrathin plasmonic solar cells. *Optics Express*, **2010**, 18 Suppl 2, A237-45	3.3	494
428	Upconverter solar cells: materials and applications. *Energy and Environmental Science*, **2011**, 4, 4835	35.4	309
427	Optimized spatial correlations for broadband light trapping nanopatterns in high efficiency ultrathin film a-Si:H solar cells. *Nano Letters*, **2011**, 11, 4239-45	11.5	306
426	9.2%-efficient core-shell structured antimony selenide nanorod array solar cells. *Nature Communications*, **2019**, 10, 125	17.4	268
425	Plasmonic light trapping in thin-film Si solar cells. *Journal of Optics (United Kingdom)*, **2012**, 14, 024002	1.7	250
424	Improved red-response in thin film a-Si:H solar cells with soft-imprinted plasmonic back reflectors. *Applied Physics Letters*, **2009**, 95, 183503	3.4	225
423	Enhanced near-infrared response of a-Si:H solar cells with NaYF4:Yb3+ (18%), Er3+ (2%) upconversion phosphors. *Solar Energy Materials and Solar Cells*, **2010**, 94, 2395-2398	6.4	218
422	Optical modeling of a-Si:H solar cells with rough interfaces: Effect of back contact and interface roughness. *Journal of Applied Physics*, **2000**, 88, 6436-6443	2.5	199
421	High-efficiency humidity-stable planar perovskite solar cells based on atomic layer architecture. *Energy and Environmental Science*, **2017**, 10, 91-100	35.4	184
420	Upconversion in solar cells. *Nanoscale Research Letters*, **2013**, 8, 81	5	164
419	Amorphous and Microcrystalline Silicon Solar Cells: Modeling, Materials and Device Technology **1998**,		156
418	A cost roadmap for silicon heterojunction solar cells. *Solar Energy Materials and Solar Cells*, **2016**, 147, 295-314	6.4	155
417	Ultra-thin MoOx as cathode buffer layer for the improvement of all-inorganic CsPbIBr2 perovskite solar cells. *Nano Energy*, **2017**, 41, 75-83	17.1	153
416	Enhancing solar cell efficiency by using spectral converters. *Solar Energy Materials and Solar Cells*, **2005**, 87, 395-409	6.4	153
415	Structurally Reconstructed CsPbI2Br Perovskite for Highly Stable and Square-Centimeter All-Inorganic Perovskite Solar Cells. *Advanced Energy Materials*, **2019**, 9, 1803572	21.8	149
414	Crystalline silicon cell performance at low light intensities. *Solar Energy Materials and Solar Cells*, **2009**, 93, 1471-1481	6.4	131
413	Re-assessment of net energy production and greenhouse gas emissions avoidance after 40 years of photovoltaics development. *Nature Communications*, **2016**, 7, 13728	17.4	125

412	Device-quality polycrystalline and amorphous silicon films by hot-wire chemical vapour deposition. *The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties*, **1997**, 76, 309-321		119
411	Structural defects caused by a rough substrate and their influence on the performance of hydrogenated nano-crystalline silicon n□ solar cells. *Solar Energy Materials and Solar Cells*, **2009**, 93, 338-349	6.4	117
410	Understanding light trapping by light scattering textured back electrodes in thin film n-i-p-type silicon solar cells. *Journal of Applied Physics*, **2007**, 102, 014503	2.5	117
409	Tackling self-absorption in luminescent solar concentrators with type-II colloidal quantum dots. *Solar Energy Materials and Solar Cells*, **2013**, 111, 57-65	6.4	116
408	Towards upconversion for amorphous silicon solar cells. *Solar Energy Materials and Solar Cells*, **2010**, 94, 1919-1922	6.4	108
407	Thermodynamically Self-Healing 1D□D Hybrid Perovskite Solar Cells. *Advanced Energy Materials*, **2018**, 8, 1703421	21.8	107
406	Properties of conductive zinc oxide films for transparent electrode applications prepared by rf magnetron sputtering. *Journal of Applied Physics*, **1989**, 66, 2027-2031	2.5	100
405	Microcrystalline silicon□oxygen alloys for application in silicon solar cells and modules. *Solar Energy Materials and Solar Cells*, **2013**, 119, 134-143	6.4	98
404	Incorporation of p-type microcrystalline silicon films in amorphous silicon based solar cells in a superstrate structure. *Solar Energy Materials and Solar Cells*, **1998**, 53, 189-203	6.4	82
403	Surface textured ZnO films for thin film solar cell applications by expanding thermal plasma CVD. *Thin Solid Films*, **2001**, 392, 226-230	2.2	82
402	Nanoparticles for Luminescent Solar Concentrators - A review. *Optical Materials*, **2018**, 84, 636-645	3.3	79
401	Carrier Diffusion Lengths in Hybrid Perovskites: Processing, Composition, Aging, and Surface Passivation Effects. *Chemistry of Materials*, **2016**, 28, 5259-5263	9.6	74
400	Nanorod solar cell with an ultrathin a-Si:H absorber layer. *Applied Physics Letters*, **2011**, 98, 113111	3.4	70
399	Deposition of amorphous silicon films by hot-wire chemical vapor deposition. *Journal of Applied Physics*, **1999**, 85, 6843-6852	2.5	70
398	A new modular multichamber plasma enhanced chemical vapor deposition system. *Applied Surface Science*, **1993**, 70-71, 716-721	6.7	67
397	In situ induced core/shell stabilized hybrid perovskites via gallium(III) acetylacetonate intermediate towards highly efficient and stable solar cells. *Energy and Environmental Science*, **2018**, 11, 286-293	35.4	66
396	Amorphous silicon solar cells on natively textured ZnO grown by PECVD. *Thin Solid Films*, **2001**, 392, 315-319	2.2	64
395	Hot-Wire CVD Poly-Silicon Films for Thin Film Devices. *Materials Research Society Symposia Proceedings*, **1998**, 507, 879		62

394	Present status of micro- and polycrystalline silicon solar cells made by hot-wire chemical vapor deposition. *Thin Solid Films*, **2004**, 451-452, 455-465	2.2	60
393	Characterization of Photonic Colloidal Single Crystals by Microradian X-ray Diffraction. *Advanced Materials*, **2006**, 18, 1662-1666	24	58
392	Fabrication of thin film silicon solar cells on plastic substrate by very high frequency PECVD. *Solar Energy Materials and Solar Cells*, **2010**, 94, 1534-1541	6.4	57
391	Stable amorphous-silicon thin-film transistors. *Applied Physics Letters*, **1997**, 70, 2681-2683	3.4	57
390	Identifying parasitic current pathways in CIGS solar cells by modelling dark JV response. *Progress in Photovoltaics: Research and Applications*, **2015**, 23, 1516-1525	6.8	55
389	Self-Assembly of Monolayers of Semiconductor Nanocrystallites. *Chemistry of Materials*, **1997**, 9, 2969-2982	9.2	55
388	Photoinduced charge separation and recombination in a conjugated polymer-semiconductor nanocrystal composite. *Chemical Physics Letters*, **1998**, 290, 297-303	2.5	55
387	Photovoltaic effects in porphyrin polymer films and heterojunctions. *Journal of Applied Physics*, **1996**, 80, 3381-3389	2.5	55
386	Tailoring C for Efficient Inorganic CsPbI Br Perovskite Solar Cells and Modules. *Advanced Materials*, **2020**, 32, e1907361	24	54
385	Excellent crystalline silicon surface passivation by amorphous silicon irrespective of the technique used for chemical vapor deposition. *Applied Physics Letters*, **2011**, 98, 153514	3.4	54
384	Purely Intrinsic Poly-silicon Films for n-i-p Solar Cells. *Japanese Journal of Applied Physics*, **1997**, 36, 5436-5443	1.4	53
383	Charge Dynamics following Dye Photoinjection into a TiO2 Nanocrystalline Network. *Journal of Physical Chemistry B*, **1998**, 102, 766-769	3.4	53
382	A compact equivalent circuit for the dark current-voltage characteristics of nonideal solar cells. *Journal of Applied Physics*, **2006**, 100, 084513	2.5	47
381	Modeling improvement of spectral response of solar cells by deployment of spectral converters containing semiconductor nanocrystals. *Semiconductors*, **2004**, 38, 962-969	0.7	47
380	Fabrication Strategy for Efficient 2D/3D Perovskite Solar Cells Enabled by Diffusion Passivation and Strain Compensation. *Advanced Energy Materials*, **2020**, 10, 2002004	21.8	47
379	Amorphous Silicon Carbide/Crystalline Silicon Heterojunction Solar Cells: A Comprehensive Study of the Photocarrier Collection. *Japanese Journal of Applied Physics*, **1998**, 37, 3926-3932	1.4	46
378	Performance of heterojunction p+ microcrystalline silicon n crystalline silicon solar cells. *Journal of Applied Physics*, **1997**, 82, 6089-6095	2.5	45
377	Hydrogen microstructure in hydrogenated amorphous silicon. *Physical Review B*, **1996**, 54, 17759-17762	3.3	43

376	Compensation of self-absorption losses in luminescent solar concentrators by increasing luminophore concentration. *Solar Energy Materials and Solar Cells*, **2017**, 167, 133-139	6.4	42
375	Comprehensive characterisation and analysis of PV module performance under real operating conditions. *Progress in Photovoltaics: Research and Applications*, **2017**, 25, 218-232	6.8	42
374	Microcrystalline n-i-p tunnel junction in a-Si:H/a-Si:H tandem cells. *Journal of Applied Physics*, **2001**, 89, 4010-4018	2.5	42
373	Amorphous Silicon, Microcrystalline Silicon, and Thin-Film Polycrystalline Silicon Solar Cells. *MRS Bulletin*, **2007**, 32, 219-224	3.2	41
372	Amorphous-silicon thin-film transistors deposited by VHF-PECVD and hot-wire CVD. *Journal of Non-Crystalline Solids*, **2002**, 299-302, 1340-1344	3.9	41
371	Life-cycle greenhouse gas emissions and energy payback time of current and prospective silicon heterojunction solar cell designs. *Progress in Photovoltaics: Research and Applications*, **2015**, 23, 1406-1428	6.8	40
370	Growth process and properties of silicon nitride deposited by hot-wire chemical vapor deposition. *Journal of Applied Physics*, **2003**, 93, 2618-2625	2.5	40
369	Water splitting with silver chloride photoanodes and amorphous silicon solar cells. *Photochemical and Photobiological Sciences*, **2004**, 3, 1017-25	4.2	40
368	Boron-doped hydrogenated microcrystalline silicon oxide (□-SiOx:H) for application in thin-film silicon solar cells. *Journal of Non-Crystalline Solids*, **2012**, 358, 1962-1965	3.9	39
367	Excellent organic/inorganic transparent thin film moisture barrier entirely made by hot wire CVD at 100 □C. *Physica Status Solidi - Rapid Research Letters*, **2012**, 6, 151-153	2.5	39
366	Significance of tunneling in p+ amorphous silicon carbide n crystalline silicon heterojunction solar cells. *Applied Physics Letters*, **1998**, 73, 2609-2611	3.4	39
365	Unambiguous determination of Fourier-transform infrared spectroscopy proportionality factors: The case of silicon nitride. *Physical Review B*, **2006**, 73,	3.3	39
364	High-efficiency □c-Si solar cells made by very high-frequency plasma-enhanced chemical vapor deposition. *Progress in Photovoltaics: Research and Applications*, **2006**, 14, 305-311	6.8	39
363	The influence of different catalyzers in hot-wire CVD for the deposition of polycrystalline silicon thin films. *Thin Solid Films*, **2001**, 395, 194-197	2.2	39
362	Instability mechanism in hydrogenated amorphous silicon thin-film transistors. *Applied Physics Letters*, **1987**, 50, 185-187	3.4	39
361	A self-consistent analysis of temperature-dependent field-effect measurements in hydrogenated amorphous silicon thin-film transistors. *Journal of Applied Physics*, **1986**, 60, 643-649	2.5	38
360	Preparation and measurement of highly efficient a-Si:H single junction solar cells and the advantages of □-SiOx:H n-layers. *Progress in Photovoltaics: Research and Applications*, **2015**, 23, 939-948	6.8	37
359	New challenges in thin film transistor (TFT) research. *Journal of Non-Crystalline Solids*, **2002**, 299-302, 1304-1310	3.9	37

358	Reduction of Tin Oxide by Hydrogen Radicals. *Journal of Physical Chemistry B*, **1998**, 102, 6219-6224	3.4	36
357	Computer-aided band gap engineering and experimental verification of amorphous silicon□ermanium solar cells. *Solar Energy Materials and Solar Cells*, **2004**, 81, 73-86	6.4	35
356	Growth mechanism of microcrystalline silicon at high pressure conditions. *Journal of Non-Crystalline Solids*, **2004**, 338-340, 56-60	3.9	35
355	Efficient and Stable Planar n-i-p SbSe Solar Cells Enabled by Oriented 1D Trigonal Selenium Structures. *Advanced Science*, **2020**, 7, 2001013	13.6	34
354	Influence on cell performance of bulk defect density in microcrystalline silicon grown by VHF PECVD. *Journal of Non-Crystalline Solids*, **2006**, 352, 1868-1871	3.9	34
353	Status of Cat-CVD (Hot-Wire CVD) research in Europe. *Thin Solid Films*, **2001**, 395, 17-24	2.2	34
352	Novel profiled thin-film polycrystalline silicon solar cells on stainless steel substrates. *IEEE Transactions on Electron Devices*, **1999**, 46, 2069-2071	2.9	34
351	Industrialization of Hot Wire Chemical Vapor Deposition for thin film applications. *Thin Solid Films*, **2015**, 595, 272-283	2.2	33
350	Elongated nanostructures for radial junction solar cells. *Reports on Progress in Physics*, **2013**, 76, 106502	14.4	33
349	Transparent conducting oxide layers for thin film silicon solar cells. *Thin Solid Films*, **2010**, 518, e129-e135	2.2	33
348	Improvement in the spectral response at long wavelength of a-SiGe:H solar cells by exponential band gap design of the i-layer. *Journal of Non-Crystalline Solids*, **2002**, 299-302, 1131-1135	3.9	33
347	Increased Upconversion Response in a-Si:H Solar Cells With Broad-Band Light. *IEEE Journal of Photovoltaics*, **2013**, 3, 17-21	3.7	32
346	The influence of the filament temperature on the structure of hot-wire deposited silicon. *Thin Solid Films*, **2003**, 430, 46-49	2.2	32
345	The effect of composition on the bond structure and refractive index of silicon nitride deposited by HWCVD and PECVD. *Thin Solid Films*, **2009**, 517, 3499-3502	2.2	31
344	Frontiers in HWCVD. *Thin Solid Films*, **2009**, 517, 3415-3419	2.2	30
343	Using hot wire and initiated chemical vapor deposition for gas barrier thin film encapsulation. *Thin Solid Films*, **2015**, 575, 67-71	2.2	29
342	High quality crystalline silicon surface passivation by combined intrinsic and n-type hydrogenated amorphous silicon. *Applied Physics Letters*, **2011**, 99, 203503	3.4	28
341	Influence of Pressure and Plasma Potential on High Growth Rate Microcrystalline Silicon Grown by Very High Frequency Plasma Enhanced Chemical Vapour Deposition. *Japanese Journal of Applied Physics*, **2006**, 45, 6166-6172	1.4	28

340	Protocrystalline Silicon at High Rate from Undiluted Silane. *Materials Research Society Symposia Proceedings*, **2004**, 808, 425		28
339	Heterogeneous growth of microcrystalline silicon germanium. *Solar Energy Materials and Solar Cells* , **2002**, 74, 553-560	6.4	28
338	Temperature-dependent effects in field-effect measurements on hydrogenated amorphous silicon thin-film transistors. *The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties*, **1988**, 58, 389-410		28
337	On the quality of contacts in a-Si:H staggered electrode thin-film transistors. *IEEE Transactions on Electron Devices*, **1985**, 32, 1757-1760	2.9	28
336	Advances in solar cells made with hot wire chemical vapor deposition (HWCVD): superior films and devices at low equipment cost. *Thin Solid Films*, **2002**, 403-404, 17-25	2.2	27
335	Stability of hot-wire deposited amorphous-silicon thin-film transistors. *Applied Physics Letters*, **1996** , 69, 1062-1064	3.4	27
334	3D-printed concentrator arrays for external light trapping on thin film solar cells. *Solar Energy Materials and Solar Cells*, **2015**, 139, 19-26	6.4	26
333	Optimization of n□ protocrystalline SiGe:H thin film solar cells for application in thin film multijunction solar cells. *Journal of Non-Crystalline Solids*, **2006**, 352, 1941-1944	3.9	26
332	Thin-film transistors deposited by hot-wire chemical vapor deposition. *Thin Solid Films*, **2003**, 430, 220-225	2.2	26
331	Growth mechanism of nanocrystalline silicon at the phase transition and its application in thin film solar cells. *Journal of Crystal Growth*, **2009**, 311, 760-764	1.6	25
330	Initiated chemical vapour deposition (iCVD) of thermally stable poly-glycidyl methacrylate. *Surface and Coatings Technology*, **2007**, 201, 9422-9425	4.4	25
329	Silicon nitride at high deposition rate by Hot Wire Chemical Vapor Deposition as passivating and antireflection layer on multicrystalline silicon solar cells. *Thin Solid Films*, **2006**, 501, 51-54	2.2	25
328	Detailed structural study of low temperature mixed-phase Si films by X-TEM and ambient conductive AFM. *Journal of Non-Crystalline Solids*, **2006**, 352, 1011-1015	3.9	25
327	Low degradation and fast annealing effects of amorphous silicon multilayer processed through alternate hydrogen dilution. *Journal of Applied Physics*, **2000**, 88, 4881	2.5	25
326	Optimization of hydrogenated amorphous silicon germanium thin films and solar cells deposited by hot wire chemical vapor deposition. *Thin Solid Films*, **2015**, 595, 226-230	2.2	24
325	Comparison of surface passivation of crystalline silicon by a-Si:H with and without atomic hydrogen treatment using hot-wire chemical vapor deposition. *Thin Solid Films*, **2011**, 519, 4476-4478	2.2	24
324	Photocarrier collection in a-SiC:H/c-Si heterojunction solar cells. *Journal of Non-Crystalline Solids*, **1998**, 227-230, 1291-1294	3.9	24
323	Tandem solar cells deposited using hot-wire chemical vapor deposition. *Journal of Non-Crystalline Solids*, **2004**, 338-340, 655-658	3.9	24

322	Hot-wire silicon nitride for thin-film transistors. *Thin Solid Films*, **2001**, 395, 339-342	2.2	24
321	Profiled Poly-Silicon Films by Hot-Wire Chemical Vapour Deposition for Solar Cells on Cheap Metal Substrate. *Solid State Phenomena*, **1999**, 67-68, 465-470	0.4	24
320	Changes in the structural and electrical properties of vacuum post-annealed tungsten- and titanium-doped indium oxide films deposited by radio frequency magnetron sputtering. *Thin Solid Films*, **2012**, 520, 2096-2101	2.2	23
319	Thin film silicon n□p solar cells deposited by VHF PECVD at 100□C substrate temperature. *Solar Energy Materials and Solar Cells*, **2009**, 93, 680-683	6.4	23
318	Hydrogenated amorphous and polycrystalline silicon TFTs by hot-wire CVD. *Journal of Non-Crystalline Solids*, **1998**, 227-230, 1202-1206	3.9	23
317	A comparison of grain nucleation and grain growth during crystallization of HWCVD and PECVD a-Si:H films. *Thin Solid Films*, **2008**, 516, 529-532	2.2	23
316	Beneficial effects of sputtered ZnO:Al protection layer on SnO2:F for high-deposition rate hot-wire CVD p□i solar cells. *Thin Solid Films*, **2006**, 501, 47-50	2.2	23
315	The inverse Meyer□Neldel rule in thin-film transistors with intrinsic heterogeneous silicon. *Applied Physics Letters*, **1999**, 74, 1012-1014	3.4	23
314	Towards the implementation of atomic layer deposited In2O3:H in silicon heterojunction solar cells. *Solar Energy Materials and Solar Cells*, **2017**, 163, 43-50	6.4	22
313	Improving the performance of amorphous and crystalline silicon heterojunction solar cells by monitoring surface passivation. *Journal of Non-Crystalline Solids*, **2012**, 358, 2245-2248	3.9	22
312	Nanostructured thin films for multibandgap silicon triple junction solar cells. *Solar Energy Materials and Solar Cells*, **2009**, 93, 1129-1133	6.4	22
311	Controlling the quality of nanocrystalline silicon made by hot-wire chemical vapor deposition by using a reverse H2 profiling technique. *Journal of Non-Crystalline Solids*, **2008**, 354, 2087-2091	3.9	22
310	New developments in amorphous thin-film silicon solar cells. *IEEE Transactions on Electron Devices*, **1999**, 46, 2086-2092	2.9	22
309	Electrical properties of vacuum-annealed titanium-doped indium oxide films. *Applied Surface Science*, **2011**, 257, 9461-9465	6.7	21
308	Low-temperature deposition of polycrystalline silicon thin films by hot-wire CVD. *Solar Energy Materials and Solar Cells*, **1997**, 48, 269-277	6.4	21
307	Multi-crystalline Si solar cells with very fast deposited (180 nm/min) passivating hot-wire CVD silicon nitride as antireflection coating. *Progress in Photovoltaics: Research and Applications*, **2007**, 15, 563-573	6.8	21
306	Beneficial effect of a low deposition temperature of hot-wire deposited intrinsic amorphous silicon for solar cells. *Journal of Applied Physics*, **2003**, 93, 121-125	2.5	21
305	Atomic Layer Deposition Enabled Perovskite/PEDOT Solar Cells in a Regular n□p Architectural Design. *Advanced Materials Interfaces*, **2017**, 4, 1700043	4.6	20

304	Growth process conditions of tungsten oxide thin films using hot-wire chemical vapor deposition. *Materials Chemistry and Physics*, **2011**, 131, 375-386	4.4	20
303	Property control of expanding thermal plasma deposited textured zinc oxide with focus on thin film solar cell applications. *Thin Solid Films*, **2005**, 492, 298-306	2.2	20
302	Application of hot-wire chemical vapor-deposited Si:H films in thin film transistors and solar cells. *Thin Solid Films*, **2001**, 395, 320-329	2.2	20
301	Microcrystalline Silicon for Solar Cells at High Deposition Rates by Hot Wire Cvd. *Materials Research Society Symposia Proceedings*, **2002**, 715, 2631		20
300	Role of the buffer layer in the active junction in amorphous-crystalline silicon heterojunction solar cells. *Journal of Applied Physics*, **2000**, 88, 293-299	2.5	20
299	3D-printed external light trap for solar cells. *Progress in Photovoltaics: Research and Applications*, **2016**, 24, 623-633	6.8	20
298	Hot-wire chemical vapor deposition of WO3□ thin films of various oxygen contents. *Materials Chemistry and Physics*, **2013**, 140, 89-96	4.4	19
297	High-density silicon nitride deposited at low substrate temperature with high deposition rate using hot wire chemical vapour deposition. *Surface and Coatings Technology*, **2007**, 201, 9285-9288	4.4	19
296	Highly stable hydrogenated amorphous silicon germanium solar cells. *IEEE Transactions on Electron Devices*, **2002**, 49, 949-952	2.9	19
295	Incorporation of amorphous and microcrystalline silicon in n□ solar cells. *Thin Solid Films*, **2003**, 430, 216-219	2.2	19
294	Er(3+)/Yb(3+) upconverters for InGaP solar cells under concentrated broadband illumination. *Physical Chemistry Chemical Physics*, **2015**, 17, 11234-43	3.6	18
293	Plasmonic Scattering Back Reflector for Light Trapping in Flat Nano-Crystalline Silicon Solar Cells. *ACS Photonics*, **2016**, 3, 685-691	6.3	18
292	Plasmonic nano-antenna a-Si:H solar cell. *Optics Express*, **2012**, 20, 27327-36	3.3	18
291	Exploring dark current voltage characteristics of micromorph silicon tandem cells with computer simulations. *Journal of Applied Physics*, **2009**, 106, 014502	2.5	18
290	Synthesis of WO3 Nanogranular Thin Films by Hot-Wire CVD. *Chemical Vapor Deposition*, **2010**, 16, 179-184		18
289	Microcrystalline silicon for solar cells deposited at high rates by hot-wire CVD. *Thin Solid Films*, **2003**, 430, 212-215	2.2	18
288	Using computer modeling analysis in single junction a-SiGe:H p□ solar cells. *Journal of Applied Physics*, **2002**, 91, 2409-2416	2.5	18
287	Interpretation of the silicon-hydrogen stretching doublet in a-Si:H hydrogenated amorphous silicon. *Applied Physics Letters*, **1994**, 65, 204-206	3.4	18

286	Design of 4-terminal Solar Modules Combining Thin-film Wide-Bandgap Top Cells and c-Si Bottom Cells. *Energy Procedia*, **2015**, 77, 500-507	2.3	17
285	All hot wire chemical vapor deposition low substrate temperature transparent thin film moisture barrier. *Thin Solid Films*, **2013**, 532, 84-88	2.2	17
284	Polymer layers by initiated chemical vapor deposition for thin film gas barrier encapsulation. *Thin Solid Films*, **2011**, 519, 4479-4482	2.2	17
283	Nanostructured thin films for multiband-gap silicon triple junction solar cells. *Thin Solid Films*, **2008**, 516, 6818-6823	2.2	17
282	Amorphous and □icromorph□ silicon tandem cells with high open-circuit voltage. *Solar Energy Materials and Solar Cells*, **2005**, 87, 251-259	6.4	17
281	Ultrafast vibrational dynamics and stability of deuterated amorphous silicon. *Physical Review Letters*, **2002**, 89, 125504	7.4	17
280	Defect and Band Gap Engineering of Amorphous Silicon Solar Cells. *Materials Research Society Symposia Proceedings*, **1993**, 297, 797		17
279	Improving tunneling junction in amorphous silicon tandem solar cells. *Applied Physics Letters*, **1990**, 56, 1871-1873	3.4	17
278	Thin film silicon modules on plastic superstrates. *Journal of Non-Crystalline Solids*, **2008**, 354, 2381-2385	3.9	16
277	Improved stability of intrinsic nanocrystalline Si thin films deposited by hot-wire chemical vapour deposition technique. *Thin Solid Films*, **2007**, 515, 8040-8044	2.2	16
276	All hot wire CVD TFTs with high deposition rate silicon nitride (3 nm/s). *Solid-State Electronics*, **2008**, 52, 427-431	1.7	16
275	Internal structure of mixed phase hydrogenated silicon thin films made at 39□C. *Applied Physics Letters*, **2006**, 89, 051922	3.4	16
274	Mechanism of Shunting of Nanocrystalline Silicon Solar Cells Deposited on Rough Ag/ZnO Substrates. *Solid State Phenomena*, **2007**, 131-133, 27-32	0.4	16
273	Transport in tunneling recombination junctions: A combined computer simulation study. *Journal of Applied Physics*, **2004**, 96, 7289-7299	2.5	16
272	Deposition of HWCVD poly-Si films at a high growth rate. *Thin Solid Films*, **2003**, 430, 67-72	2.2	16
271	Hot-wire amorphous silicon thin-film transistors on glass. *Thin Solid Films*, **2001**, 383, 125-128	2.2	16
270	Hydrogen at compact sites in hot-wire chemical vapour deposited polycrystalline silicon films. *Journal of Non-Crystalline Solids*, **2000**, 266-269, 190-194	3.9	16
269	Response to simulated typical daily outdoor irradiation conditions of thin-film silicon-based triple-band-gap, triple-junction solar cells. *Solar Energy Materials and Solar Cells*, **2009**, 93, 691-697	6.4	15

268	Deposition of device quality silicon nitride with ultra high deposition rate (>7 nm/s) using hot-wire CVD. *Thin Solid Films*, **2008**, 516, 533-536	2.2	15
267	Spatially resolved photoconductive properties of profiled polycrystalline silicon thin films. *Journal of Applied Physics*, **2002**, 91, 5671-5676	2.5	15
266	Utilization of geometric light trapping in thin film silicon solar cells: simulations and experiments. *Progress in Photovoltaics: Research and Applications*, **2014**, 22, 540-547	6.8	14
265	A combined experimental and computer simulation study of HWCVD nip microcrystalline silicon solar cells. *Thin Solid Films*, **2006**, 501, 291-294	2.2	14
264	Hot-wire chemical vapor-deposited microcrystalline silicon in single and tandem nip solar cells. *Journal of Non-Crystalline Solids*, **2006**, 352, 1933-1936	3.9	14
263	Thin p++ -Si layers for use as back surface field in p-type silicon heterojunction solar cells. *Journal of Non-Crystalline Solids*, **2006**, 352, 1872-1875	3.9	14
262	Understanding shunting behavior in hot-wire-deposited amorphous silicon solar cells. *Applied Physics Letters*, **2003**, 82, 287-289	3.4	14
261	High energy-barrier for defect creation in thin-film transistors based on hot-wire amorphous silicon. *Applied Physics Letters*, **1999**, 75, 3674-3676	3.4	14
260	Formation and Photoluminescence of Cauliflower Silicon Nanoparticles. *Journal of Physical Chemistry C*, **2015**, 119, 11042-11047	3.8	13
259	Fabrication and characterization of nanorod solar cells with an ultrathin a-Si:H absorber layer. *Journal of Non-Crystalline Solids*, **2012**, 358, 2209-2213	3.9	13
258	. *IEEE Transactions on Electron Devices*, **2011**, 58, 2014-2021	2.9	13
257	Relaxation processes of the GeH stretch modes in hydrogenated amorphous germanium. *Physical Review B*, **2006**, 73,	3.3	13
256	Metastability of hot-wire amorphous-silicon thin-film transistors. *Journal of Non-Crystalline Solids*, **2000**, 266-269, 464-468	3.9	13
255	1D/3D Alloying Induced Phase Transition in Light Absorbers for Highly Efficient Sb2Se3 Solar Cells. *Solar Rrl*, **2020**, 4, 2000054	7.1	12
254	Limited influence of grain boundary defects in hot-wire CVD polysilicon films on solar cell performance. *Journal of Non-Crystalline Solids*, **1998**, 227-230, 1277-1281	3.9	12
253	Sensitivity of the dark spectral response of thin film silicon based tandem solar cells on the defective regions in the intrinsic layers. *Journal of Non-Crystalline Solids*, **2006**, 352, 1876-1879	3.9	12
252	Amorphous silicon deposited by hot-wire CVD for application in dual junction solar cells. *Thin Solid Films*, **2002**, 403-404, 135-138	2.2	12
251	Poly-silicon films with low impurity concentration made by hot wire chemical vapour deposition. *Solar Energy Materials and Solar Cells*, **2001**, 65, 541-547	6.4	12

250	Stability of amorphous silicon materials incorporated in solar cells and intrinsic layer profiling for enhanced stabilized performance. *Journal of Non-Crystalline Solids*, **1993**, 164-166, 709-712	3.9	12
249	Hydrogen Dilution of Silane: Correlation Between the Structure and Optical Band Gap in Gd a-Si:H Films. *Materials Research Society Symposia Proceedings*, **1990**, 192, 645		12
248	Amorphous silicon solar cells on nano-imprinted commodity paper without sacrificing efficiency. *Physica Status Solidi - Rapid Research Letters*, **2015**, 9, 622-626	2.5	11
247	Low temperature silicon nitride by hot wire chemical vapour deposition for the use in impermeable thin film encapsulation on flexible substrates. *Journal of Nanoscience and Nanotechnology*, **2011**, 11, 8202-5	1.3	11
246	Formation of isolated carbon nanofibers with hot-wire CVD using nanosphere lithography as catalyst patterning technique. *Thin Solid Films*, **2009**, 517, 3566-3569	2.2	11
245	Microcrystalline n- and p-layers at the tunnel junction of a-Si:H/a-Si:H tandem cells. *Journal of Non-Crystalline Solids*, **1998**, 227-230, 1282-1286	3.9	11
244	Low temperature (Thin Solid Films, **2008**, 516, 751-754	2.2	11
243	Improvement of [illegible]-Si:H n[illegible] cell efficiency with an i-layer made by hot-wire CVD by reverse H2-profiling. *Thin Solid Films*, **2008**, 516, 755-757	2.2	11
242	The photofield effect in a-Si: H thin film MOS transistors Theory and measurement. *The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties*, **1985**, 52, 59-70		11
241	Crystallographic Orientation Control of 1D Sb2Se3 Nanorod Arrays for Photovoltaic Application by In Situ Back-Contact Engineering. *Solar Rrl*, **2020**, 4, 2000294	7.1	11
240	Inorganic halide perovskite materials and solar cells. *APL Materials*, **2019**, 7, 120702	5.7	11
239	Double-layered Ag[illegible]Al back reflector on stainless steel substrate for a-Si:H thin film solar cells. *Solar Energy Materials and Solar Cells*, **2016**, 145, 368-374	6.4	10
238	Fabrication of SnS quantum dots for solar-cell applications: Issues of capping and doping. *Physica Status Solidi (B): Basic Research*, **2014**, 251, 1309-1321	1.3	10
237	Synthesis and conductivity mapping of SnS quantum dots for photovoltaic applications. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **2013**, 178, 656-659	3.1	10
236	Gas phase considerations for the growth of device quality nanocrystalline silicon at high rate. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **2009**, 159-160, 38-43	3.1	10
235	Reversibility of silicidation of Ta filaments in HWCVD of thin film silicon. *Thin Solid Films*, **2009**, 517, 3431-3434	2.2	10
234	Application of Hot Wire Deposited Intrinsic Poly-Silicon Films in N-I-P cells and TFTS. *Materials Research Society Symposia Proceedings*, **1997**, 467, 445		10
233	Improvement of the efficiency of triple junction n[illegible] solar cells with hot-wire CVD proto- and microcrystalline silicon absorber layers. *Thin Solid Films*, **2008**, 516, 736-739	2.2	10

232	Tandem and triple junction silicon thin film solar cells with intrinsic layers prepared by hot-wire CVD. *Thin Solid Films*, **2006**, 501, 256-259	2.2	10
231	Errors introduced in a-Si:H-based solar cell modeling when dangling bonds are approximated by decoupled states. *Thin Solid Films*, **2002**, 422, 211-219	2.2	10
230	The Use of Seed Layers in Hot Wire Chemical Vapor Deposition of Microcrystalline Silicon Films. *Materials Research Society Symposia Proceedings*, **2002**, 715, 1651		10
229	Electrical Transport Mechanisms in p+a-SiC:H/n c-Si Heterojunctions: dark J-V-T Characteristics. *Materials Research Society Symposia Proceedings*, **1996**, 420, 239		10
228	Further study of the determination of the density of gap states by thermally stimulated conductivity. *Journal of Non-Crystalline Solids*, **1991**, 137-138, 355-358	3.9	10
227	Reversible dangling-bond generation in amorphous silicon thin-film transistors. *Journal of Non-Crystalline Solids*, **1987**, 97-98, 1339-1342	3.9	10
226	**2019**,		10
225	Geospatial analysis of the energy yield and environmental footprint of different photovoltaic module technologies. *Solar Energy*, **2017**, 155, 1339-1353	6.8	9
224	Hetero- and homogeneous three-dimensional hierarchical tungsten oxide nanostructures by hot-wire chemical vapor deposition. *Thin Solid Films*, **2015**, 575, 76-83	2.2	9
223	Conductivity mapping of nanoparticles by torsional resonance tunneling atomic force microscopy. *Applied Physics Letters*, **2012**, 101, 083107	3.4	9
222	Compensation of decreased ion energy by increased hydrogen dilution in plasma deposition of thin film silicon solar cells at low substrate temperatures. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **2009**, 159-160, 53-56	3.1	9
221	Epitaxial thickening by hot wire chemical vapor deposition of polycrystalline silicon seed layers on glass. *Thin Solid Films*, **2006**, 501, 335-337	2.2	9
220	Clustered defects in hot wire chemical vapor deposited poly-silicon films. *Journal of Non-Crystalline Solids*, **2000**, 266-269, 548-552	3.9	9
219	Transistors with a Profiled Active Layer Made by Hot-Wire Cvd. *Materials Research Society Symposia Proceedings*, **1998**, 507, 31		9
218	Effect of Interface Roughness on Light Scattering and Optical Properties of a-Si:H Solar Cells. *Materials Research Society Symposia Proceedings*, **1999**, 557, 725		9
217	Purely Intrinsic Poly-Silicon Films by Hot Wire Chemical Vapor Deposition. *Materials Research Society Symposia Proceedings*, **1996**, 452, 977		9
216	The determination of characteristic parameters by the temperature dependent field-effect in a-Si:H thin film transistors. *Journal of Non-Crystalline Solids*, **1985**, 77-78, 511-514	3.9	9
215	High Temperature n- and p-type Doped Microcrystalline Silicon Layers Grown by VHF PECVD Layer-by-Layer Deposition. *Materials Research Society Symposia Proceedings*, **2003**, 762, 681		9

214	Silicon heterojunction solar cell passivation in combination with nanocrystalline silicon oxide emitters. *Physica Status Solidi (A) Applications and Materials Science*, **2016**, 213, 1932-1936	1.6	9
213	Efficient nanorod-based amorphous silicon solar cells with advanced light trapping. *Journal of Applied Physics*, **2015**, 118, 185307	2.5	8
212	Hot Wire Chemical Vapor Deposition: Recent Progress, Present State of the Art and Competitive Opportunities. *ECS Transactions*, **2009**, 25, 3-14	1	8
211	Ultrafast deposition of silicon nitride and semiconductor silicon thin films by hot wire chemical vapor deposition. *Thin Solid Films*, **2009**, 517, 3039-3042	2.2	8
210	Continuous hot-wire chemical vapor deposition on moving glass substrates. *Thin Solid Films*, **2009**, 517, 3588-3590	2.2	8
209	Hot wire CVD deposition of nanocrystalline silicon solar cells on rough substrates. *Thin Solid Films*, **2009**, 517, 3476-3480	2.2	8
208	Degradation of thin film nanocrystalline silicon solar cells with 1 MeV protons. *Energy Procedia*, **2010**, 2, 221-226	2.3	8
207	Deposition of Device Quality Amorphous Silicon by Hot-Wire CVD. *Materials Research Society Symposia Proceedings*, **1997**, 467, 645		8
206	Thin Film Transistors with High Mobility and High Threshold Voltage Stability Made Using Hot Wire Chemical Vapor Deposition. *Japanese Journal of Applied Physics*, **2006**, 45, 4309-4312	1.4	8
205	Enhanced light-absorption and photo-sensitivity in amorphous silicon germanium/amorphous silicon multilayer. *Solar Energy Materials and Solar Cells*, **2002**, 74, 357-363	6.4	8
204	Thickness determination of thin (~20nm) microcrystalline silicon layers. *Solar Energy Materials and Solar Cells*, **2005**, 87, 445-455	6.4	8
203	Low Temperature Poly-Si Layers Deposited by Hot Wire CVD Yielding a Mobility of 4.0 cm2V−1s−1 in Top Gate Thin Film Transistors. *Materials Research Society Symposia Proceedings*, **2000**, 609, 3131		8
202	Thin-Film Transistors based on Hot-Wire Amorphous Silicon on Silicon Nitride. *Materials Research Society Symposia Proceedings*, **1999**, 557, 659		8
201	Apparent gettering of the Staebler-Wronski effect in amorphous silicon solar cells. *Solar Energy Materials and Solar Cells*, **1994**, 34, 455-463	6.4	8
200	Solubility of Hydrogen in Amorphous Silicon. *Materials Research Society Symposia Proceedings*, **1995**, 377, 419		8
199	Ultrathin tandem solar cells on nanorod morphology with 35-nm thick hydrogenated amorphous silicon germanium bottom cell absorber layer. *Solar Energy Materials and Solar Cells*, **2016**, 158, 209-213	6.4	8
198	Textured and micropillar silicon heterojunction solar cells with hot-wire deposited passivation layers. *Thin Solid Films*, **2017**, 635, 66-72	2.2	7
197	Solar Spectrum Conversion for Photovoltaics Using Nanoparticles **2012**,		7

196	The statistical shift of the chemical potential causing anomalous conductivity in hydrogenated microcrystalline silicon. *Journal of Applied Physics*, **2010**, 108, 063714	2.5	7
195	Above-CMOS a-Si and CIGS solar cells for powering autonomous microsystems **2010**,		7
194	Heat transfer model of an iCVD reactor. *Thin Solid Films*, **2009**, 517, 3555-3558	2.2	7
193	Synthesis of poly(meta-diethynyl benzene) with initiated chemical vapour deposition. *Thin Solid Films*, **2011**, 519, 4418-4420	2.2	7
192	High-Deposition-Rate a-Si:H Through VHF-CVD of Argon-Diluted Silane. *Materials Research Society Symposia Proceedings*, **1997**, 467, 459		7
191	Thin film micro- and polycrystalline silicon nip cells on stainless steel made by hot-wire chemical vapour deposition. *Thin Solid Films*, **2006**, 501, 276-279	2.2	7
190	Performance analysis of a-Si:H pin solar cells with and without a buffer layer at the p/i interface. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2004**, 1, 2298-2303		7
189	Modeling a-Si:H pin solar cells with the defect pool model. *Journal of Non-Crystalline Solids*, **2004**, 338-340, 686-689	3.9	7
188	Influence of Pressure and Plasma Potential on High Growth Rate Microcrystalline Silicon Grown by VHF PECVD. *Materials Research Society Symposia Proceedings*, **2005**, 862, 1031		7
187	Hydrogen Diffusion through Deformed Si-Si Bonds at Grain Boundaries in Hot-Wire CVD Polycrystalline Silicon Films. *Solid State Phenomena*, **2001**, 80-81, 109-114	0.4	7
186	Influence of grain environment on open circuit voltage of hot-wire chemical vapour deposited Si:H solar cells. *Journal of Non-Crystalline Solids*, **2002**, 299-302, 1184-1188	3.9	7
185	a-Si:H/poly-Si tandem cells deposited by hot-wire CVD. *Journal of Non-Crystalline Solids*, **2002**, 299-302, 1194-1197	3.9	7
184	Processes in silicon deposition by hot-wire chemical vapor deposition. *Current Opinion in Solid State and Materials Science*, **2002**, 6, 465-470	12	7
183	Effect of oxide treatment at the microcrystalline tunnel junction of a-Si:H/a-Si:H tandem cells. *Journal of Non-Crystalline Solids*, **2000**, 266-269, 1129-1133	3.9	7
182	Thin Film a-Si/poly-Si Multibandgap Tandem Solar Cells With Both Absorber Layers Deposited by Hot Wire Cvd. *Materials Research Society Symposia Proceedings*, **2001**, 664, 1561		7
181	Thin p-type Microcrystalline Silicon Film on Various Substrates. *Materials Research Society Symposia Proceedings*, **1996**, 420, 271		7
180	Observation and explanation of quantum efficiencies exceeding unity in amorphous silicon solar cells. *Solar Energy Materials and Solar Cells*, **1996**, 41-42, 537-542	6.4	7
179	Chemical sputtering by H2+ and H3+ ions during silicon deposition. *Journal of Applied Physics*, **2016**, 120, 053304	2.5	7

178	Atomic Layer Deposited ZnO: B As Transparent Conductive Oxide for Increased Short Circuit Current Density in Silicon Heterojunction Solar Cells. *Energy Procedia*, **2016**, 92, 624-632	2.3	7
177	Metastability **1998**, 99-113		7
176	Gas phase synthesis of two ensembles of silicon nanoparticles. *Journal Physics D: Applied Physics*, **2015**, 48, 375201	3	6
175	Expanding Thermal Plasma Chemical Vapour Deposition of ZnO:Al Layers for CIGS Solar Cells. *International Journal of Photoenergy*, **2014**, 2014, 1-9	2.1	6
174	Doping of oligo(phenyl acetylene) with iodine vapour. *Physica Status Solidi (A) Applications and Materials Science*, **2010**, 207, 647-650	1.6	6
173	High hydrogen dilution and low substrate temperature cause columnar growth of hydrogenated amorphous silicon. *Physica Status Solidi (A) Applications and Materials Science*, **2010**, 207, 525-529	1.6	6
172	Thin film silicon devices deposited at 100°C: A study on the structural order of the photoactive layer. *Journal of Non-Crystalline Solids*, **2008**, 354, 2652-2656	3.9	6
171	Mechanism of hydrogen interaction with the growing silicon film. *Solar Energy Materials and Solar Cells*, **2006**, 90, 3385-3393	6.4	6
170	Role of growth temperature and the presence of dopants in layer-by-layer plasma deposition of thin microcrystalline silicon (μc-Si:H) doped layers. *Journal of Applied Physics*, **2004**, 95, 8290-8297	2.5	6
169	Microwave mobility in profiled poly-Si thin films deposited on glass by hot-wire CVD. *Thin Solid Films*, **2002**, 403-404, 175-178	2.2	6
168	Investigation of scaling-up issues in hot-wire CVD of polycrystalline silicon. *Thin Solid Films*, **2003**, 427, 41-45	2.2	6
167	Towards an All-Hot-Wire TFT: Silicon Nitride and amorphous Silicon deposited by Hot-Wire Chemical Vapor Deposition. *Materials Research Society Symposia Proceedings*, **2001**, 664, 1731		6
166	Hot-Wire Deposited Amorphous Silicon Thin-Film Transistors. *Materials Research Society Symposia Proceedings*, **1996**, 420, 109		6
165	Improved material properties of amorphous silicon from silane by fluorine implantation: Application to thin-film transistors. *Journal of Applied Physics*, **1989**, 65, 3706-3711	2.5	6
164	A refined theoretical analysis of photofield-effect measurements in a-Si : H thin-film transistors. *The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties*, **1986**, 53, 431-444		6
163	Exploration of external light trapping for photovoltaic modules. *Optics Express*, **2016**, 24, A1158-75	3.3	5
162	Metallic Tungsten Nanostructures and Highly Nanostructured Thin Films by Deposition of Tungsten Oxide and Subsequent Reduction in a Single Hot-Wire CVD Process. *Chemical Vapor Deposition*, **2012**, 18, 70-75		5
161	A novel structured plastic substrate for light confinement in thin film silicon solar cells by a geometric optical effect. *Journal of Non-Crystalline Solids*, **2012**, 358, 2308-2312	3.9	5

160	High deposition rate nanocrystalline silicon with enhanced homogeneity. *Physica Status Solidi (A) Applications and Materials Science*, **2010**, 207, 530-534	1.6	5
159	On the development of single and multijunction solar cells with hot-wire CVD deposited active layers. *Journal of Non-Crystalline Solids*, **2008**, 354, 2445-2450	3.9	5
158	Infrared transient grating measurements of the dynamics of hydrogen local mode vibrations in amorphous silicon-germanium. *Journal of Applied Physics*, **2008**, 103, 013106	2.5	5
157	Optical characterisation of a-Si:H and nc-Si:H thin films using the transmission spectrum alone. *Journal of Materials Science: Materials in Electronics*, **2007**, 18, 225-229	2.1	5
156	Post-deposition thermal annealing studies of hydrogenated microcrystalline silicon deposited at 40 °C. *Thin Solid Films*, **2007**, 515, 7495-7498	2.2	5
155	High Quality Hot-wire Microcrystalline Silicon for Efficient Single and Multijunction N-i-p Solar Cells. *Materials Research Society Symposia Proceedings*, **2006**, 910, 3		5
154	Triple Junction n-i-p Solar Cells with Hot-Wire Deposited Protocrystalline and Microcrystalline Silicon. *Materials Research Society Symposia Proceedings*, **2007**, 989, 3		5
153	Light scattering coefficients for textured SnO. *Solar Energy Materials and Solar Cells*, **2001**, 69, 69-78	6.4	5
152	Higher efficiency of n-i-p solar cells by Hot-Wire CVD at moderate temperatures. *Materials Research Society Symposia Proceedings*, **2001**, 664, 1121		5
151	Microstructural Defects of Device Quality Hot-Wire Cvd Poly-Silicon Films. *Materials Research Society Symposia Proceedings*, **1999**, 557, 573		5
150	Characterization of Textured Transparent Conductive Oxides for Thin Film Solar Cell Applications. *Materials Science Forum*, **1994**, 173-174, 331-336	0.4	5
149	Structural Defects in thin Film Amorphous Silicon Films Deposited on Textured TCO Material. *Materials Research Society Symposia Proceedings*, **1995**, 377, 597		5
148	Structural changes in a-Si:H during annealing. *Physica B: Condensed Matter*, **1991**, 170, 281-284	2.8	5
147	Decoupling high surface recombination velocity and epitaxial growth for silicon passivation layers on crystalline silicon. *Journal Physics D: Applied Physics*, **2017**, 50, 065305	3	4
146	Concepts for external light trapping and its utilization in colored and image displaying photovoltaic modules. *Progress in Photovoltaics: Research and Applications*, **2017**, 25, 553-568	6.8	4
145	Synthesis of SnS/In2S3 core–shell nanoparticles. *Chemical Physics Letters*, **2014**, 612, 306-308	2.5	4
144	Luminescent Solar Concentrators: The route to 10% efficiency **2014**,		4
143	Thin-Film Silicon PV Technology **2012**, 389-398		4

142	Exploration of parameters influencing the self-absorption losses in luminescent solar concentrators with an experimentally validated combined ray-tracing/Monte-Carlo model **2013**,		4
141	Nanoparticles for solar spectrum conversion **2010**,		4
140	Oxygenated Protocrystalline Silicon Thin Films for Wide Bandgap Solar Cells. *Materials Research Society Symposia Proceedings*, **2010**, 1245, 1		4
139	Recent advances in very high frequency plasma enhanced CVD process for the fabrication of thin film silicon solar cells. *Thin Solid Films*, **2009**, 517, 4758-4761	2.2	4
138	All Hot Wire CVD Organic/Inorganic Hybrid Barrier Layers for Thin Film Encapsulation. *Materials Research Society Symposia Proceedings*, **2012**, 1447, 19		4
137	Large-Area Thin-Film Silicon: Synergy between Displays and Solar Cells. *Japanese Journal of Applied Physics*, **2012**, 51, 03CA07	1.4	4
136	Space-Charge-Limited Currents in n-i-n Devices Incorporating Glow-Discharge and Hot-Wire Deposited a-Si:H. *Materials Research Society Symposia Proceedings*, **1997**, 467, 717		4
135	Inhomogeneities in PECVD deposited a-Si:H films induced by a spacing between substrate and substrate holder. *Solar Energy Materials and Solar Cells*, **1997**, 45, 57-63	6.4	4
134	Development of micromorph tandem solar cells on foil deposited by VHF-PECVD. *Surface and Coatings Technology*, **2007**, 201, 9330-9333	4.4	4
133	Stability of deuterated amorphous silicon solar cells. *Journal of Non-Crystalline Solids*, **2004**, 338-340, 291-294	3.9	4
132	Microcrystalline silicon growth in the presence of dopants: effect of high growth temperatures. *Journal of Non-Crystalline Solids*, **2004**, 338-340, 110-114	3.9	4
131	Si-H Vibration Only at 2000 CM-1 in Fully Polycrystalline Silicon Films Made by HWCVD. *Materials Research Society Symposia Proceedings*, **2000**, 609, 2211		4
130	Transistors With a Profiled Active Layer Made by Hot-Wire CVD. *Materials Research Society Symposia Proceedings*, **1998**, 508, 31		4
129	Deposition of Amorphous and Microcrystalline Silicon **1998**, 9-39		4
128	Effect of post-deposition treatments on the hydrogenation of hot-wire deposited amorphous silicon films **1999**, 7, 341-351		4
127	Effects of Electrode Spacing and Hydrogen Dilution on a-SiC:H and a-Si:H Layers. *Materials Research Society Symposia Proceedings*, **1993**, 297, 61		4
126	Capacitance-Voltage Characteristics of Metallic Gate/Oxide/a-Si:H MOS Structures. *Materials Research Society Symposia Proceedings*, **1986**, 70, 167		4
125	The illumination flux dependence of the photofield-effect current in amorphous silicon. *Journal of Non-Crystalline Solids*, **1987**, 90, 199-202	3.9	4

124	Multi-layered hydrogenated p-type microcrystalline silicon windows for a-Si:H thin film solar cells on opaque substrates. *International Journal of Hydrogen Energy*, **2016**, 41, 6240-6246	6.7	4
123	Benchmarking photoactive thin-film materials using a laser-induced steady-state photocarrier grating. *Progress in Photovoltaics: Research and Applications*, **2017**, 25, 605-613	6.8	3
122	Comparison of batch and in-line PECVD of a-Si:H passivation layers for silicon heterojunction solar cells. *Physica Status Solidi - Rapid Research Letters*, **2016**, 10, 725-729	2.5	3
121	Hydrogenated amorphous silicon germanium by Hot Wire CVD as an alternative for microcrystalline silicon in tandem and triple junction solar cells. *Materials Research Society Symposia Proceedings*, **2014**, 1666, 42		3
120	Plasmonic light trapping for thin film A-SI:H solar cells **2010**,		3
119	Gas phase conditions for obtaining device quality amorphous silicon at low temperature and high deposition rate. *Materials Research Society Symposia Proceedings*, **2009**, 1153, 1		3
118	Thermal annealing of protocrystalline a-Si:H. *Thin Solid Films*, **2011**, 519, 4462-4465	2.2	3
117	Optoelectronic properties of hot-wire silicon layers deposited at 100°C. *Journal of Non-Crystalline Solids*, **2008**, 354, 2248-2252	3.9	3
116	Thin film nanocrystalline silicon and nanostructured interfaces for multibandgap triple junction solar cells. *Surface and Interface Analysis*, **2008**, 40, 970-973	1.5	3
115	Modelling the light induced metastable effects in amorphous silicon. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2008**, 5, 606-608		3
114	Structural order of thin film silicon made at 100 °C. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2008**, 5, 1346-1349		3
113	Hot Wire CVD for thin film triple junction cells and for ultrafast deposition of the SiN passivation layer on polycrystalline Si solar cells. *Thin Solid Films*, **2008**, 516, 496-499	2.2	3
112	Flexible a-Si:H/nc-Si:H tandem thin film silicon solar cells on plastic substrates with i -layers made by hot-wire CVD. *Physica Status Solidi - Rapid Research Letters*, **2008**, 2, 157-159	2.5	3
111	Amorphous (Protocrystalline) and Microcrystalline Thin Film Silicon Solar Cells **2006**, 131-166		3
110	Time resolved spectroscopy of Ge-H stretching vibrations in hydrogenated amorphous germanium. *Infrared Physics and Technology*, **2006**, 49, 3-6	2.7	3
109	Thickness determination of very thin amorphous and microcrystalline silicon layers using reflection/transmission measurements. *Applied Physics Letters*, **2004**, 85, 5096-5098	3.4	3
108	Ultrafast spectroscopy of localised vibrational modes in amorphous silicon using a free electron laser. *Physica Status Solidi (B): Basic Research*, **2004**, 241, 3474-3479	1.3	3
107	Spectroscopic and kinetic ellipsometry studies of hot-wire deposited polycrystalline silicon on glass. *Thin Solid Films*, **2003**, 430, 41-45	2.2	3

106	Novel Amorphous Silicon Solar Cell using a Manufacturing Procedure with a Temporary Superstrate. *Materials Research Society Symposia Proceedings*, **1999**, 557, 713		3
105	Plasma Induced Changes to TCO/a-Si:H Interfaces. *Materials Research Society Symposia Proceedings*, **1996**, 420, 57		3
104	Evaluation of the Dice Method as A Tool For Amorphous Silicon Solar Cell Optimization. *Materials Research Society Symposia Proceedings*, **1992**, 258, 935		3
103	Undoped Amorphous Silicon TFTs with n-Channel OR p-Channel Device Operation for the Determination of the Gap States Distribution.. *Materials Research Society Symposia Proceedings*, **1987**, 95, 489		3
102	Very thin and stable thin-film silicon alloy triple junction solar cells by hot wire chemical vapor deposition. *Applied Physics Letters*, **2016**, 109, 093902	3.4	3
101	Microscopic studies of polycrystalline nanoparticle growth in free space. *Journal of Crystal Growth*, **2017**, 467, 137-144	1.6	2
100	Optical Response of Silver Nanoneedles on a Mirror. *Plasmonics*, **2015**, 10, 1089-1096	2.4	2
99	Ion bombardment measurements and simulations of a low temperature VHF PECVD SiH4□H2 discharge in the a-Si:H to □-Si:H transition regime. *Physica Status Solidi (A) Applications and Materials Science*, **2016**, 213, 1680-1685	1.6	2
98	Identifying parasitic current pathways in CIGS solar cells by modelling dark JV response **2014**,		2
97	Size control of gas phase grown silicon nanoparticles by varying the plasma OFF time in silane pulsed plasma. *Materials Research Society Symposia Proceedings*, **2015**, 1803, 1		2
96	Self-assembled isolated monodisperse NiO1+□nanoparticles as catalytic templates for nanomaterials synthesis. *Materials Chemistry and Physics*, **2012**, 135, 38-45	4.4	2
95	Note: Laser-cut molybdenum grids for a retarding field energy analyzer. *Review of Scientific Instruments*, **2017**, 88, 066108	1.7	2
94	Probing periodic oscillations in a silane dusty plasma in a very high-frequency plasma enhanced chemical vapor deposition process. *Canadian Journal of Physics*, **2014**, 92, 744-748	1.1	2
93	Synthesis of nanocrystalline silicon thin films using the increase of the deposition pressure in the hot-wire chemical vapour deposition technique. *South African Journal of Science*, **2010**, 105,	1.3	2
92	Photogating effect as a defect probe in hydrogenated nanocrystalline silicon solar cells. *Journal of Applied Physics*, **2010**, 108, 014509	2.5	2
91	Optimizing Quantum Dot Solar Concentrators with Thin Film Solar Cells. *Advances in Science and Technology*, **2010**, 74, 176-181	0.1	2
90	Temperature Dependence of the Ion Energy Distribution in a Hydrogen Diluted Silane VHF Plasma **2011**,		2
89	An optical analysis tool for avoiding dust formation in very-high frequency hydrogen diluted silane plasmas at low substrate temperatures. *Physics of Plasmas*, **2012**, 19, 020703	2.1	2

88	Using amorphous silicon solar cells to boost the viability of luminescent solar concentrators. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2010**, 7, NA-NA		2
87	Photoselective Metal Deposition on Amorphous Silicon p-i-n Solar Cells. *Journal of the Electrochemical Society*, **1997**, 144, L271-L272	3.9	2
86	Effects of Band Offsets on a-Sic:H/c-Si Heterojunction Solar Cell Performance. *Materials Research Society Symposia Proceedings*, **1998**, 507, 125		2
85	Flexible a-Si/□-Si tandem thin film silicon solar cells on plastic substrates with i-layers made with hot-wire CVD using the Helianthos cell transfer process. *Conference Record of the IEEE Photovoltaic Specialists Conference*, **2008**,		2
84	Silicon Nitride as Dielectric Medium Deposited at Ultra High Deposition Rate (>7 nm/s) using Hot-Wire Chemical Vapor Deposition. *Japanese Journal of Applied Physics*, **2007**, 46, 1290-1294	1.4	2
83	Shutterless deposition of phosphorous doped microcrystalline silicon by Cat-CVD. *Thin Solid Films*, **2003**, 430, 145-148	2.2	2
82	Initial Stage Hydrogen Movement and IR Absorption Proportionality Constants In Hot-Wire Deposited SiN1.2:H During High-Temperature Annealing. *Materials Research Society Symposia Proceedings*, **2005**, 862, 341		2
81	Effect of front and back contact roughness on optical properties of single junction a□i:H solar cells. *Solar Energy Materials and Solar Cells*, **2001**, 66, 353-359	6.4	2
80	Structural, Optical and Electrical Properties of Natively Textured ZnO Grown by PECVD for Thin-Film Solar Cell Applications. *Solid State Phenomena*, **2001**, 80-81, 145-150	0.4	2
79	Microwave photoconductivity, photovoltaic properties and architecture of a polymer-semiconductor nanocrystal composite. *Synthetic Metals*, **1999**, 102, 1256-1258	3.6	2
78	Novel Application of Amorphous Silicon in Electrostatic Loudspeakers. *Materials Research Society Symposia Proceedings*, **1991**, 219, 519		2
77	Recent progress in multichamber deposition of high-quality amorphous silicon solar cells on planar and compound curved substrates at GSI. *Solar Cells*, **1989**, 27, 59-68		2
76	Semi-Transparent Amorphous Silicon Solar Cells. *Materials Research Society Symposia Proceedings*, **1989**, 149, 429		2
75	Terrapin muscle afferents studied by cord dorsum potential analyses. *Comparative Biochemistry and Physiology A, Comparative Physiology*, **1985**, 81, 659-67		2
74	Interpenetrating structure for efficient Sb2Se3 nanorod array solar cells loaded with CuInSe2 QDs sensitizer. *Journal of Energy Chemistry*, **2021**, 68, 521-521	12	2
73	Gas phase grown silicon germanium nanocrystals. *Chemical Physics Letters*, **2016**, 661, 185-190	2.5	2
72	Organic Polymer Synthesis by Cat-CVD-Related Technology □nitiated CVD (iCVD) **2019**, 179-247		1
71	Amorphous and Microcrystalline Silicon Solar Cells **2014**, 85-111		1

70	p-type nc-SiOx:H emitter layer for silicon heterojunction solar cells grown by rf-PECVD. *Materials Research Society Symposia Proceedings*, **2015**, 1770, 7-12		1
69	Moisture barrier enhancement by spontaneous formation of silicon oxide interlayers in hot wire chemical vapor deposition of silicon nitride on poly(glycidyl methacrylate). *Canadian Journal of Physics*, **2014**, 92, 593-596	1.1	1
68	A calibration method for accurate prediction of amorphous to nanocrystalline transition from line intensities of optical emission spectrum. *Journal of Non-Crystalline Solids*, **2012**, 358, 1995-1999	3.9	1
67	Polymer Layers by Initiated CVD for Thin Film Gas Barrier Encapsulation **2013**, 255-289		1
66	Design and photovoltaic performance of nanorod solar cells with amorphous silicon absorber layer thickness of only 25 nm **2013**,		1
65	Cost analysis of two Silicon Heterojunction solar cell designs **2013**,		1
64	Thinner silicon-based tandem solar cell with high efficiency made by hot wire CVD. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2011**, 8, 3002-3004		1
63	Effect of ammonia on Ta filaments in the hot wire CVD process. *Thin Solid Films*, **2009**, 517, 3435-3438	2.2	1
62	Designing amorphous silicon based solar cell structure on plastic **2009**,		1
61	Electrical and Optical Properties of Indium and Aluminium Doped Zinc Oxide Films Prepared by RF Magnetron Sputtering. *Advanced Materials Research*, **2011**, 194-196, 2272-2275	0.5	1
60	Scattering, Diffraction, and Geometric Light Trapping in Thin Film Amorphous Silicon Solar Cells on Plastic Substrates. *Materials Research Society Symposia Proceedings*, **2012**, 1426, 155-160		1
59	Very Thin Micromorph Tandem Solar Cells Deposited at Low Substrate Temperature. *Materials Research Society Symposia Proceedings*, **2012**, 1426, 45-49		1
58	Employing the effective medium approximation to model the optical properties of crystallized a-Si:H obtained by MIC. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2010**, 7, NA-NA		1
57	Modeling of a-Si:H Alloy Solar Cells on Textured Substrates. *Materials Research Society Symposia Proceedings*, **1997**, 467, 671		1
56	Improved Efficiency of Single Junction Microcrystalline Silicon n-i-p Solar Cells with an i-Layer Made by Hot-Wire CVD. *Materials Research Society Symposia Proceedings*, **2007**, 989, 3		1
55	Relation between Electronic Properties and Density of Crystalline Agglomerates in Microcrystalline Silicon. *Materials Research Society Symposia Proceedings*, **2007**, 989, 1		1
54	Thin film silicon alloys with enhanced stability made by PECVD and HWCVD for multibandgap solar cells		1
53	Stable, high deposition rate, wide gap silicon for the rather thick top cells in thin film silicon multibandgap solar cells **2006**,		1

52	□-Si:H n-type doped layers resistant against HWCVD i-layers deposited at high temperature and high growth rate. *Thin Solid Films*, **2006**, 501, 338-340	2.2	1
51	The Influence of the Use of Different Catalyzers in Hot-Wire CVD for the Deposition of Polycrystalline Silicon Thin Films. *Solid State Phenomena*, **2001**, 80-81, 53-58	0.4	1
50	The Inverted Meyer-Neldel Rule in the Conductance of Nanostructured Silicon Field-Effect Devices. *Materials Research Society Symposia Proceedings*, **1998**, 536, 281		1
49	Thermally enhanced quantum efficiency in hydrogenated amorphous silicon p-i-n photodiodes studied by intensity- modulated photocurrent spectroscopy. *The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties*, **1999**, 79, 291-318		1
48	Influence of crucible material and source alloy composition on thermally evaporated indium tin oxide layers. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **1999**, 17, 611-614	2.9	1
47	Efficiency Optimization Techniques for Amorphous Silicon Solar Cells. *Solid State Phenomena*, **1995**, 44-46, 853-862	0.4	1
46	Effect of Light Soaking on the Spectrally and Spatially Resolved Collection Efficiency of a-Si:H Solar Cells. *Materials Research Society Symposia Proceedings*, **1993**, 297, 625		1
45	Quantum efficiencies exceeding unity in amorphous silicon solar cells		1
44	B(Ch3)3 as P Layer Doping Gas. *Materials Research Society Symposia Proceedings*, **1990**, 192, 523		1
43	**1988**,		1
42	Nanoparticles for Solar Spectrum Conversion **2010**, 351-390		1
41	Proton NMR Hole-Burning in Hot Wire a-Si:H. *Materials Research Society Symposia Proceedings*, **2002**, 715, 2311		1
40	Hyrogenated Amorphous Silicon with High Growth Rate, Gas Utilization and Homogeneous Deposition by Amplitude Modulated Vhf-Pecvd for Solar Cell Application. *Materials Research Society Symposia Proceedings*, **2002**, 715, 661		1
39	Process Parameters for Poly-Silicon Deposition at a High Growth Rate (1-7 nm/s) by Hot-Wire Chemical Vapour Deposition. *Materials Research Society Symposia Proceedings*, **2003**, 762, 671		1
38	Large-Area Thin-Film Silicon: Synergy between Displays and Solar Cells. *Japanese Journal of Applied Physics*, **2012**, 51, 03CA07	1.4	1
37	Optical, Electronic and Structural Properties **1998**, 41-68		1
36	Technology of Solar Cells **1998**, 69-97		1
35	Present Status Of Hot Wire Chemical Vapor Deposition Technology. *Materials Research Society Symposia Proceedings*, **2003**, 762, 1311		0

34	3D-Printing for Solar Cells **2021**, 249-272	0
33	Fundamentals for Studying the Physics of Cat-CVD and Difference from PECVD **2019**, 11-39	
32	Cat-doping: A Novel Low-Temperature Impurity Doping Technology **2019**, 377-409	
31	Fundamentals for Analytical Methods for Revealing Chemical Reactions in Cat-CVD **2019**, 41-75	
30	Physics and Chemistry of Cat-CVD **2019**, 77-103	
29	Properties of Inorganic Films Prepared by Cat-CVD **2019**, 105-177	
28	Physics and Technologies for Operating Cat-CVD Apparatus **2019**, 249-291	
27	Application of Cat-CVD Technologies **2019**, 293-342	
26	Radicals Generated in Cat-CVD Apparatus and Their Application **2019**, 343-376	
25	Optimizing the parameter space for increased crystallinity of silicon nanoparticles grown in the gas phase (Phys. Status Solidi A 7⁄2016). *Physica Status Solidi (A) Applications and Materials Science*, **2016**, 213, 2008-2008	1.6
24	Optimizing the parameter space for increased crystallinity of silicon nanoparticles grown in the gas phase. *Physica Status Solidi (A) Applications and Materials Science*, **2016**, 213, 1826-1830	1.6
23	Switching CdSe quantum dot luminescence with a-Si:H. *Nanotechnology*, **2013**, 24, 315202	3.4
22	Recombination reduction at the c-Si/RCA oxide interface through Ar-H2 plasma treatment. *Applied Surface Science*, **2017**, 396, 1226-1230	6.7
21	Corrigendum to Expanding Thermal Plasma Chemical Vapour Deposition of ZnO:Al Layers for CIGS Solar Cells *International Journal of Photoenergy*, **2015**, 2015, 1-1	2.1
20	Conductivity measurement of individual SnS nanoparticles by Peak Force AFM. *Materials Research Society Symposia Proceedings*, **2013**, 1557, 1	
19	Potential of Hot Wire CVD for active matrix TFT manufacturing. *Materials Research Society Symposia Proceedings*, **2009**, 1153, 1	
18	Thin Film Silicon Solar Cells Under Moderate Concentration. *Materials Research Society Symposia Proceedings*, **2011**, 1321, 9	
17	Bonding rearrangement in amorphous silicon nitrides deposited by hot-wire chemical vapor deposition upon thermal annealing. *Journal of Non-Crystalline Solids*, **2008**, 354, 2372-2375	3.9

List of Publications

16	Light Trapping in Thin Film Silicon n-i-p Solar Cells - Gains and Losses. *Materials Research Society Symposia Proceedings*, **2008**, 1101, 1	
15	C-AFM and X-TEM. *Imaging & Microscopy*, **2008**, 10, 30-32	
14	Dielectric Properties of Ultra Dense (3 g/cm3) Silicon Nitride Deposited by Hot Wire CVD at Industrially Relevant High Deposition Rates. *Materials Research Society Symposia Proceedings*, **2007**, 989, 5	
13	Structure of mixed-phase Si films studied by C-AFM and X-TEM. *Journal of Physics: Conference Series* , **2007**, 61, 790-794	0.3
12	The similarities between amorphous silicon and germanium stretch mode dynamics. *Journal of Non-Crystalline Solids*, **2006**, 352, 1268-1271	3.9
11	Bifacial Silicon Heterojunction Solar Cell with Deposited Back Surface Field. *Materials Research Society Symposia Proceedings*, **2005**, 862, 2341	
10	Effect of deuterium on the growth process of poly-silicon film by hot-wire chemical vapour deposition. *Journal of Non-Crystalline Solids*, **2002**, 299-302, 20-24	3.9
9	Hot-Wire Deposited Amorphous Silicon Thin-Film Transistors. *Materials Research Society Symposia Proceedings*, **1996**, 424, 31	
8	The Meyer-Neldel Relation and Analysis of the Field-Effect in Amorphous Silicon. *Materials Research Society Symposia Proceedings*, **1986**, 70, 173	
7	Improved Stability of Amorphous Silicon by Post-Deposition Fluorine Implantation. *Materials Research Society Symposia Proceedings*, **1988**, 118, 237	
6	Thin-Film Silicon PV Technology **2021**,	
5	Modeling of the Band Gap Profile in the Intrinsic Layer of the a-SiGe:H Material: Application in Solar Cells. *Materials Research Society Symposia Proceedings*, **2002**, 715, 691	
4	Improved Thickness Uniformity and Optoelectronic Properties of a-Si:H Thin Films **1991**, 339-342	
3	Corrigendum #2 to Expanding Thermal Plasma Chemical Vapour Deposition of ZnO:Al Layers for CIGS Solar Cells *International Journal of Photoenergy*, **2020**, 2020, 1-1	2.1
2	Nanoepitaxy Growth of Sb 2 Se 3 Nanorod Arrays on Mixed-Oriented Transparent Conducting Oxide-Coated Glass for Efficient and Quasiomnidirectional Solar Cells. *Solar Rrl*, **2022**, 6, 2100869	7.1
1	Thin-Film Silicon PV Technology **2012**, 325-334	