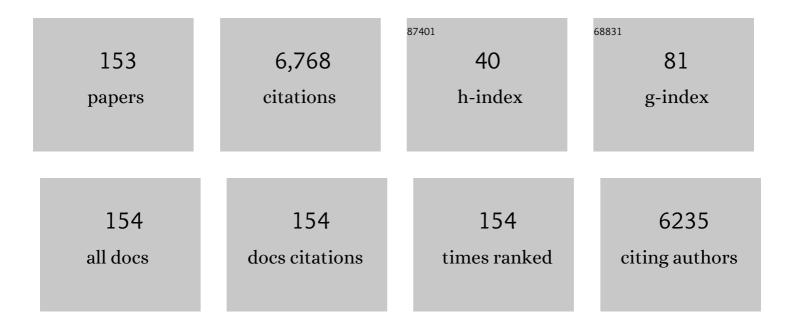
Reuben Collins

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Photovoltaics: Advanced Inorganic Materials. , 2021, , 5-16.		О
2	Synthesis and characterization of type II silicon clathrate films with low Na concentration. Applied Physics Reviews, 2021, 8, .	5.5	6
3	Electron paramagnetic resonance study of type-II silicon clathrate with low sodium guest concentration. Physical Review B, 2020, 101, .	1.1	5
4	A call to service. Applied Physics Letters, 2019, 114, .	1.5	0
5	CO-Bridged H-Cluster Intermediates in the Catalytic Mechanism of [FeFe]-Hydrogenase Cal. Journal of the American Chemical Society, 2018, 140, 7623-7628.	6.6	44
6	Investigation of the Changes in Electronic Properties of Nickel Oxide (NiO _{<i>x</i>}) Due to UV/Ozone Treatment. ACS Applied Materials & Interfaces, 2017, 9, 17201-17207.	4.0	76
7	Applied Physics Letters thanks its reviewers. Applied Physics Letters, 2017, 111, 039801.	1.5	Ο
8	Bandgap and carrier transport engineering of quantum confined mixed phase nanocrystalline/amorphous silicon. , 2016, , .		1
9	Size dependence of the bandgap of plasma synthesized silicon nanoparticles through direct introduction of sulfur hexafluoride. Applied Physics Letters, 2015, 107, 163111.	1.5	3
10	Editorial: One-year check-up. Applied Physics Letters, 2015, 107, 160401.	1.5	0
11	Molecular Design for Tuning Work Functions of Transparent Conducting Electrodes. Journal of Physical Chemistry Letters, 2015, 6, 2269-2276.	2.1	30
12	Editorial: Improvements to Applied Physics Letters to better serve the community. Applied Physics Letters, 2015, 106, 010401.	1.5	2
13	On the road toward a hot carrier solar cell. Proceedings of SPIE, 2015, , .	0.8	0
14	Editorial: Nobel Prizes honor ground-breaking innovations in applied science. Applied Physics Letters, 2014, 105, 200401.	1.5	0
15	Editorial: Building on excellence: A vision for the future. Applied Physics Letters, 2014, 105, 110401.	1.5	0
16	Quantum confinement of nanocrystals within amorphous matrices. Physical Review B, 2014, 89, .	1.1	14
17	Dual reactor deposition of quantum confined nanocrystalline silicon. , 2014, , .		2
18	Quantum confinement in mixed phase silicon thin films grown by co-deposition plasma processing. Solar Energy Materials and Solar Cells, 2014, 129, 7-12.	3.0	8

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19	Free standing silica thin films with highly ordered perpendicular nanopores. RSC Advances, 2014, 4, 7627-7633.	1.7	15
20	Conjugated Phosphonic Acid Modified Zinc Oxide Electron Transport Layers for Improved Performance in Organic Solar Cells. ACS Applied Materials & Interfaces, 2014, 6, 19229-19234.	4.0	29
21	Etch-Resistant Zn _{1–<i>x</i>} Mg _{<i>x</i>} O Alloys: An Alternative to ZnO for Carboxylic Acid Surface Modification. Journal of Physical Chemistry C, 2014, 118, 12599-12607.	1.5	8
22	Carrier Localization in Nanocrystalline Silicon. Journal of Physical Chemistry C, 2014, 118, 13417-13423.	1.5	10
23	Ultrafast Electrical Measurements of Isolated Silicon Nanowires and Nanocrystals. Journal of Physical Chemistry Letters, 2014, 5, 2050-2057.	2.1	23
24	Controlled growth of SiNPs by plasma synthesis. Solar Energy Materials and Solar Cells, 2014, 124, 1-9.	3.0	10
25	Electrical, optical and structural properties of Al-doped ZnO thin films grown on GaAs(111)B substrates by pulsed laser deposition. Thin Solid Films, 2013, 545, 124-129.	0.8	16
26	Tuning zinc oxide/organic energy level alignment using mixed triethoxysilane monolayers. Journal of Materials Chemistry C, 2013, 1, 5935.	2.7	18
27	Highly efficient charge transfer in nanocrystalline Si:H solar cells. Applied Physics Letters, 2013, 102, .	1.5	29
28	Electron transfer in hydrogenated nanocrystalline silicon observed by time-resolved terahertz spectroscopy. Physical Review B, 2013, 87, .	1.1	16
29	Passivation, Separation and Characterization of Plasma Synthesized Silicon Nanoparticles. Materials Research Society Symposia Proceedings, 2013, 1493, 117-119.	0.1	Ο
30	Spiral plasmonic nanoantennas as circular polarization transmission filters. Optics Express, 2012, 20, 1308.	1.7	68
31	Synthesis and characterization of PECVD-grown, silane-terminated silicon quantum dots. , 2012, , .		2
32	Alkyl Surface Treatments of Planar Zinc Oxide in Hybrid Organic/Inorganic Solar Cells. Journal of Physical Chemistry C, 2012, 116, 8872-8880.	1.5	29
33	Optimal Size Regime for Oxidation-Resistant Silicon Quantum Dots. ACS Nano, 2012, 6, 9690-9699.	7.3	10
34	Plasmonic micropolarizers for full Stokes vector imaging. , 2012, , .		8
35	Silanization of Low-Temperature-Plasma Synthesized Silicon Quantum Dots for Production of a Tunable, Stable, Colloidal Solution. Journal of Physical Chemistry C, 2012, 116, 3979-3987.	1.5	22
36	Plasmonic Band-Pass Microfilters for LWIR Absorption Spectroscopy. International Journal of Optics, 2012, 2012, 1-9.	0.6	3

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37	Formation of ZnO Nanosheets Grown by Catalyst-Assisted Pulsed Laser Deposition. Crystal Growth and Design, 2011, 11, 5298-5304.	1.4	19
38	Tin-Catalyzed Plasma-Assisted Growth of Silicon Nanowires. Journal of Physical Chemistry C, 2011, 115, 3833-3839.	1.5	54
39	Silanization of plasma-grown silicon quantum dots for production of a tunable, stable, colloidal solution. , 2011, , .		1
40	Ultra-high extinction ratio micropolarizers using plasmonic lenses. Optics Express, 2011, 19, 18072.	1.7	16
41	Optical and electrical properties of crystalline silicon wire arrays. Proceedings of SPIE, 2011, , .	0.8	Ο
42	Grating Coupling with Hybrid Plasmonic/Dielectric Structure Efficiently Converts Light to Surface Plasmons. , 2010, , .		0
43	Hybrid plasmon/dielectric waveguide for integrated silicon-on-insulator optical elements. Optics Express, 2010, 18, 21013.	1.7	44
44	Silicon quantum dot optical properties and synthesis: Implications for photovoltaic devices. , 2010, , .		0
45	Characterization of ZnO Nanostructures Grown by Pulsed Laser Deposition. Materials Research Society Symposia Proceedings, 2009, 1174, 115.	0.1	Ο
46	Comparison of Molecular Monolayer Interface Treatments in Organic-inorganic Photovoltaic Devices. Materials Research Society Symposia Proceedings, 2009, 1154, 1.	0.1	0
47	Ultrasonically sprayed and inkjet printed thin film electrodes for organic solar cells. Thin Solid Films, 2009, 517, 2781-2786.	0.8	99
48	Ultrasonic spray deposition for production of organic solar cells. Solar Energy Materials and Solar Cells, 2009, 93, 447-453.	3.0	165
49	Direct enumeration studies of band-gap properties of AlxGayIn1â^'xâ^'yP alloys. Journal of Applied Physics, 2009, 105, 123531.	1.1	5
50	Surface Modification of ZnO Using Triethoxysilane-Based Molecules. Langmuir, 2008, 24, 13393-13398.	1.6	94
51	Metal-oxide-semiconductor-compatible ultra-long-range surface plasmon modes. Journal of Applied Physics, 2008, 103, .	1.1	7
52	Silicon-compatible Ultra-long-range Surface Plasmon Modes. Materials Research Society Symposia Proceedings, 2008, 1077, 60401.	0.1	1
53	Octadecyltriethoxysilane Surface Modification of Zinc Oxide. Materials Research Society Symposia Proceedings, 2008, 1091, 1.	0.1	Ο
54	Solar Energy Conversion Toward 1 Terawatt. MRS Bulletin, 2008, 33, 355-364.	1.7	305

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55	Toward silicon-compatible modulation of plasmonic waveguides. , 2008, , .		1
56	Functionalized Zinc Oxide for Improved Organic Photovoltaic Systems. , 2008, , .		0
57	Ultra-long range surface plasmon structures for plasmonic devices. , 2007, , .		0
58	Ultra-long Range Surface Plasmon Structures for Plasmonic Devices. , 2007, , .		0
59	Advanced Inorganic Materials for Photovoltaics. MRS Bulletin, 2007, 32, 211-218.	1.7	69
60	Interference and resonant cavity effects explain enhanced transmission through subwavelength apertures in thin metal films. Optics Express, 2007, 15, 7984.	1.7	17
61	The Effect of Atmosphere and ZnO Morphology on the Performance of Hybrid Poly(3-hexylthiophene)/ZnO Nanofiber Photovoltaic Devices. Journal of Physical Chemistry C, 2007, 111, 16670-16678.	1.5	204
62	Band-Offset Engineering for Enhanced Open-Circuit Voltage in Polymer–Oxide Hybrid Solar Cells. Advanced Functional Materials, 2007, 17, 264-269.	7.8	193
63	Microcontact printing of indium metal using salt solution "ink― Thin Solid Films, 2007, 515, 6812-6816.	0.8	2
64	Theoretical study of enhanced transmission through subwavelength linear apertures flanked by periodic corrugations. , 2006, , .		2
65	Experimental study of enhanced transmission through subwavelength linear apertures flanked by periodic corrugations. , 2006, , .		2
66	Hybrid photovoltaic devices of polymer and ZnO nanofiber composites. Thin Solid Films, 2006, 496, 26-29.	0.8	494
67	Temperature-dependent dark current measurements in GaAsN heterojunction diodes. Applied Physics Letters, 2006, 88, 263502.	1.5	6
68	Method to compensate for fluctuations in optical power delivered to a near-field scanning optical microscope. Review of Scientific Instruments, 2006, 77, 046109.	0.6	0
69	Selective Nucleation and Growth of Large Grain Polycrystalline GaAs. Materials Research Society Symposia Proceedings, 2005, 870, 151.	0.1	1
70	Effects of Cu in CdSâ^•CdTe solar cells studied with patterned doping and spatially resolved luminescence. Applied Physics Letters, 2004, 85, 1529-1531.	1.5	15
71	Expanded experimental space for luminescence studies of thin film CdS/CdTe solar cells. Materials Research Society Symposia Proceedings, 2004, 836, L7.4.1.	0.1	0
72	Formation of regular arrays of submicron GaAs dots on silicon. Applied Physics Letters, 2004, 84, 5323-5325.	1.5	2

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73	Band-Edge Potentials of n-Type and p-Type GaN. Journal of the Electrochemical Society, 2003, 150, A899.	1.3	99
74	Development and Application of Electroluminescence Imaging for CdS/CdTe Characterization. Materials Research Society Symposia Proceedings, 2003, 763, 5101.	0.1	5
75	Band gaps and lattice parameters of 0.9 μm thick InxGa1â^xN films for 0⩽x⩽0.140. Journal of Applied P 2002, 91, 5190-5194.	hysics, 1.1	17
76	Spatially resolved derivative spectroscopy of vertical-cavity surface-emitting lasers using near-field scanning optical microscopy. Applied Physics Letters, 2002, 80, 929-931.	1.5	2
77	Characterization of VCSEL modal output using near-field scanning optical microscopy. , 2002, 4649, 77.		1
78	Transverse magneto-optical Kerr effect: the phase change of reflected light. Journal of Magnetism and Magnetic Materials, 2002, 242-245, 964-966.	1.0	20
79	Photoelectrodeposition of patterned cobalt films on silicon substrates. Journal of Magnetism and Magnetic Materials, 2002, 242-245, 578-580.	1.0	14
80	Integral equations applied to wave propagation in two dimensions: modeling the tip of a near-field scanning optical microscope. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2001, 18, 1993.	0.8	5
81	The Influence of Stressing at Different Biases on the Electrical and Optical Properties of CdS/CdTe Solar Cells. Materials Research Society Symposia Proceedings, 2001, 668, 1.	0.1	5
82	Direct Patterning of Hydrogenated Amorphous Silicon by Near Field Scanning Optical Microscopy. Materials Research Society Symposia Proceedings, 2000, 624, 87.	0.1	0
83	Near-field scanning optical microscopy cross-sectional measurements of crystalline GaAs solar cells. Applied Physics Letters, 2000, 77, 100-102.	1.5	8
84	Evidence for grain-boundary-assisted diffusion of sulfur in polycrystalline CdS/CdTe heterojunctions. Applied Physics Letters, 1999, 75, 3503-3505.	1.5	73
85	Near-field scanning optical nanolithography using amorphous silicon photoresists. Applied Physics Letters, 1999, 74, 141-143.	1.5	59
86	Resistless Patterning of Hydrogenated Amorphous Silicon Films. Materials Research Society Symposia Proceedings, 1999, 557, 821.	0.1	0
87	Sulfur Diffusion In Polycrystalline Thin-Film CdTe Solar Cells. Materials Research Society Symposia Proceedings, 1997, 485, 203.	0.1	4
88	Porous Silicon: From Luminescence to LEDs. Physics Today, 1997, 50, 24-31.	0.3	369
89	Effect of CdCl ₂ Treatment of CdS Films on CdTe/CdS Solar Cells. Materials Research Society Symposia Proceedings, 1996, 426, 331.	0.1	9
90	The structural, optical, and electrical properties of vacuum evaporated Cu-doped ZnTe polycrystalline thin films. Journal of Electronic Materials, 1996, 25, 1422-1427.	1.0	31

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91	Fundamental properties of cuprate superconductors as probed by infrared spectroscopy. Physica C: Superconductivity and Its Applications, 1994, 235-240, 49-52.	0.6	17
92	Infrared Properties of Selected High Tc Superconductors. , 1994, , 249-263.		0
93	Porous silicon sheds a new light on OEICs. IEEE Circuits and Devices: the Magazine of Electronic and Photonic Systems, 1993, 9, 22-28.	0.8	4
94	Stability of visible luminescence from porous silicon. Applied Physics Letters, 1993, 62, 2667-2669.	1.5	36
95	Infrared study ofBa1â^'xKxBiO3from charge-density-wave insulator to superconductor. Physical Review B, 1993, 47, 996-1001.	1.1	82
96	Photoluminescence from pseudomorphically strained Si/Si 1-x Ge x multiple quantum wells grown on silicon. , 1992, , .		2
97	Raman scattering from H or O terminated porous Si. Applied Physics Letters, 1992, 60, 2279-2281.	1.5	80
98	Luminescence degradation in porous silicon. Applied Physics Letters, 1992, 60, 639-641.	1.5	461
99	Photoinduced hydrogen loss from porous silicon. Applied Physics Letters, 1992, 61, 1649-1651.	1.5	124
100	On the relationship of porous silicon and siloxene. Solid State Communications, 1992, 84, 819-822.	0.9	45
101	An Introduction to Infrared Properties of High-Tc Superconductors. Springer Series in Solid-state Sciences, 1992, , 269-282.	0.3	0
102	Optical Characteristics of Porous Silicon. Materials Research Society Symposia Proceedings, 1991, 256, 189.	0.1	14
103	Infrared properties of high Tc superconductors. Physica C: Superconductivity and Its Applications, 1991, 185-189, 57-64.	0.6	30
104	Dynamic properties of a high-Tcsuperconductor: Direct evidence for non-BCS behavior. Physical Review B, 1991, 43, 8701-8704.	1.1	66
105	Dependence of the infrared properties of single-domainYBa2Cu3O7â^'yon oxygen content. Physical Review Letters, 1991, 67, 2741-2744.	2.9	205
106	Infrared Properties: The normal State, the Energy Gap, and the Temperature Dependence of the Gap. , 1991, , 147-157.		1
107	Gel diffusion analysis of Anopheles bloodmeals from 12 malarious study villages of Orissa State, India. Journal of the American Mosquito Control Association, 1991, 7, 595-603.	0.2	5
108	Absence of strong coupling in YBa2Cu307inferred from infrared conductivity. Nature, 1990, 343, 242-243.	13.7	34

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109	Infrared conductivity in superconductors with a finite mean free path. Physical Review B, 1990, 42, 67-75.	1.1	62
110	Superconducting energy gap and normal-state conductivity of a single-domainYBa2Cu3O7crystal. Physical Review Letters, 1990, 65, 801-804.	2.9	429
111	Fieldâ€effect transistor structure based on strainâ€induced polarization charges. Journal of Applied Physics, 1990, 67, 2650-2652.	1.1	26
112	Infrared studies of the superconducting energy gap and normal-state dynamics of the high-TcsuperconductorYBa2Cu3O7. Physical Review B, 1990, 41, 11237-11259.	1.1	194
113	Infrared Studies of the Superconducting Energy Gap and Normal State Dynamics of Y1Ba2Cu3O7 and Ba0.6K0.4BiO3. MRS Bulletin, 1990, 15, 38-43.	1.7	4
114	Studies on malaria transmission in Orissa state: Part I. Development of a methodology for systematic studies. Journal of Communicable Diseases, 1990, 22, 102-15.	0.0	0
115	Superconducting energy gap and a normal-state excitation inBa0.6K0.4BiO3. Physical Review B, 1989, 40, 6862-6866.	1.1	90
116	Infrared study of anisotropy in single-crystalLa2â^'xSrxCuO4. Physical Review B, 1989, 39, 2251-2254.	1.1	93
117	Infrared evidence for gap anisotropy inYBa2Cu3O7. Physical Review Letters, 1989, 63, 422-425.	2.9	190
118	Infrared measurement of a Tl 2 Ba 2 CaCu 2 O 8â^'x film. Physica C: Superconductivity and Its Applications, 1989, 162-164, 1111-1112.	0.6	4
119	Reflectivity and conductivity ofYBa2Cu3O7. Physical Review B, 1989, 39, 6571-6574.	1.1	150
120	Infrared studies of the normal and superconducting states of Y ₁ Ba ₂ Cu ₃ O ₇ . IBM Journal of Research and Development, 1989, 33, 238-245.	3.2	7
121	Infrared Studies of Oxide Superconductors in the Normal and Superconducting States. Springer Series in Solid-state Sciences, 1989, , 289-299.	0.3	1
122	Infrared studies of high temperature superconductors. Physica C: Superconductivity and Its Applications, 1988, 153-155, 1734-1739.	0.6	27
123	Antiferromagnetic resonance inLa2â^'xCuO4â^'y. Physical Review B, 1988, 37, 5817-5819.	1.1	32
124	Superconducting energy gap ofBaPb1â^'xBixO3. Physical Review B, 1988, 38, 9284-9286.	1.1	19
125	Optical Spectroscopy of Excitons in Quantum Wells Under an Electric Field. Springer Proceedings in Physics, 1988, , 230-243.	0.1	1
126	Normal-state reflectivity and superconducting energy-gap measurement ofLa2â^'xSrxCuO4. Physical Review B, 1987, 36, 5275-5278.	1.1	65

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127	Properties of epitaxial films ofYBa2Cu3O7â^´Î´. Physical Review B, 1987, 36, 8903-8906.	1.1	102
128	Mixing between heavy-hole and light-hole excitons in GaAs/AlxGa1â^'xAs quantum wells in an electric field. Physical Review B, 1987, 36, 1531-1534.	1.1	51
129	Tunneling and infrared measurements of the energy gap in the high-critical-temperature superconductor Y-Ba-Cu-O. Physical Review B, 1987, 35, 8846-8849.	1.1	152
130	Observation of a low-energy infrared anomoly in superconductingLa1.85Sr0.15CuO4. Physical Review B, 1987, 35, 7232-7234.	1.1	49
131	VinÌfa let al.P reply. Physical Review Letters, 1987, 59, 602-602.	2.9	2
132	Superconducting energy gap and normal-state reflectivity of single crystal Y-Ba-Cu-O. Physical Review Letters, 1987, 59, 1958-1961.	2.9	251
133	Excitonic coupling in GaAs/GaAlAs quantum wells in an electric field. Physical Review Letters, 1987, 58, 832-835.	2.9	83
134	Comparative study of superconducting energy gaps in oriented films and polycrystalline bulk samples of Y-Ba-Cu-O. Physical Review Letters, 1987, 59, 704-707.	2.9	85
135	Excitonic transitions and optically excited transport in quantum wells in an electric field. Superlattices and Microstructures, 1987, 3, 291-293.	1.4	10
136	Optical spectroscopy of quantum wells under an external electric field. Superlattices and Microstructures, 1987, 3, 9-12.	1.4	14
137	Photocurrent spectroscopy of GaAs/AlxGa1â^'xAs quantum wells in an electric field. Physical Review B, 1986, 33, 4378-4381.	1.1	109
138	Photoexcited transport in GaAs/AlAs quantum wells. Applied Physics Letters, 1986, 49, 406-408.	1.5	18
139	Summary Abstract: A photocurrent spectroscopy study of GaAs/AlxGa1â^'xAs quantum wells. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1986, 4, 986.	1.6	0
140	Comparative study of the effect of an electric field on the photocurrent and photoluminescence of GaAs-GaAlAs quantum wells. Physical Review B, 1986, 33, 5939-5942.	1.1	37
141	Photovoltaic investigations of GaAs/AlAs heterostructures. Superlattices and Microstructures, 1985, 1, 417-421.	1.4	1
142	Optical investigations of electron transport through GaAs/AlAs heterostructures. Journal of Applied Physics, 1985, 58, 852-856.	1.1	2
143	Resonant tunneling in GaAs/AlAs heterostructures grown by metalorganic chemical vapor deposition. Applied Physics Letters, 1985, 46, 285-287.	1.5	61
144	Inelastic and Resonant Tunneling in GaAs/AlAs Heterostructures. , 1985, , 437-440.		0

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145	Summary Abstract: Inelastic tunneling characteristics of AlAs/GaAs heterojunction barriers. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1984, 2, 201.	1.6	0
146	Summary Abstract: Elastic and inelastic tunneling characteristics of AlAs/GaAs heterojunctions. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1984, 2, 597.	1.6	2
147	Photovoltaic investigations of GaAs/AlAs heterostructures. Applied Physics Letters, 1984, 45, 686-688.	1.5	5
148	Inelastic tunneling characteristics of AlAs/GaAs heterojunctions. Applied Physics Letters, 1984, 44, 532-534.	1.5	33
149	Electronic properties of deep levels in pâ€ŧype CdTe. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1983, 1, 1633-1636.	0.9	24
150	A DLTS study of deep levels in nâ€ŧype CdTe. Journal of Vacuum Science and Technology, 1982, 21, 191-194.	1.9	22
151	Direct write contacts for solar cells. , 0, , .		8
152	Conjugated polymer/nanostructured oxide semiconductor composite photovoltaic devices. , 0, , .		0
153	Direct solar energy conversion with photovoltaic devices. , 0, , 216-237.		1