Dongdong Li

List of Publications by Year
in descending order

129 papers	5,990 citations	66336 42 h-index	79691 73 g-index
132 all docs	132 docs citations	132 times ranked	8468 citing authors

#	Article	IF	Citations
1	New-generation integrated devices based on dye-sensitized and perovskite solar cells. Energy and Environmental Science, 2018, 11, 476-526.	30.8	364
2	Highly Efficient Flexible Perovskite Solar Cells with Antireflection and Self-Cleaning Nanostructures. ACS Nano, 2015, 9, 10287-10295.	14.6	335
3	High-performance and renewable supercapacitors based on TiO2 nanotube array electrodes treated by an electrochemical doping approach. Electrochimica Acta, 2014, 116, 129-136.	5.2	252
4	Impacts of alkaline on the defects property and crystallization kinetics in perovskite solar cells. Nature Communications, 2019, 10, 1112.	12.8	185
5	Slippery for scaling resistance in membrane distillation: A novel porous micropillared superhydrophobic surface. Water Research, 2019, 155, 152-161.	11.3	183
6	Integrated Photoâ€supercapacitor Based on Biâ€polar TiO₂ Nanotube Arrays with Selective Oneâ€Side Plasmaâ€Assisted Hydrogenation. Advanced Functional Materials, 2014, 24, 1840-1846.	14.9	163
7	Light Management with Nanostructures for Optoelectronic Devices. Journal of Physical Chemistry Letters, 2014, 5, 1479-1495.	4.6	147
8	Conductometric chemical sensor based on individual CuO nanowires. Nanotechnology, 2010, 21, 485502.	2.6	139
9	Facile Method to Enhance the Adhesion of TiO₂ Nanotube Arrays to Ti Substrate. ACS Applied Materials & Interfaces, 2014, 6, 8001-8005.	8.0	138
10	Phase-Separation-Induced PVDF/Graphene Coating on Fabrics toward Flexible Piezoelectric Sensors. ACS Applied Materials & Interfaces, 2018, 10, 30732-30740.	8.0	138
11	Enhanced supercapacitance in anodic TiO₂nanotube films by hydrogen plasma treatment. Nanotechnology, 2013, 24, 455401.	2.6	127
12	Electrochemically hydrogenated TiO2 nanotubes with improved photoelectrochemical water splitting performance. Nanoscale Research Letters, 2013, 8, 391.	5.7	123
13	Effects on Electronic Properties of Molecule Adsorption on CuO Surfaces and Nanowires. Journal of Physical Chemistry C, 2010, 114, 17120-17126.	3.1	115
14	Enhanced Photoelectrochemical Water Splitting Performance of Anodic TiO₂ Nanotube Arrays by Surface Passivation. ACS Applied Materials & Interfaces, 2014, 6, 17053-17058.	8.0	107
15	Formation of Anodic Aluminum Oxide with Serrated Nanochannels. Nano Letters, 2010, 10, 2766-2771.	9.1	106
16	Flexible photovoltaic technologies. Journal of Materials Chemistry C, 2014, 2, 1233.	5.5	106
17	BiVO4 nanocrystals with controllable oxygen vacancies induced by Zn-doping coupled with graphene quantum dots for enhanced photoelectrochemical water splitting. Chemical Engineering Journal, 2019, 372, 399-407.	12.7	102
18	Templateâ€based Synthesis and Magnetic Properties of Cobalt Nanotube Arrays. Advanced Materials, 2008, 20, 4575-4578.	21.0	92

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19	Theoretical derivation of anodizing current and comparison between fitted curves and measured curves under different conditions. Nanotechnology, 2015, 26, 145603.	2.6	83
20	Inverted Nanocone-Based Thin Film Photovoltaics with Omnidirectionally Enhanced Performance. ACS Nano, 2014, 8, 6484-6490.	14.6	80
21	Performance enhancement of thin-film amorphous silicon solar cells with low cost nanodent plasmonic substrates. Energy and Environmental Science, 2013, 6, 2965.	30.8	77
22	Boosting Charge Separation and Transfer by Plasmon-Enhanced MoS₂/BiVO₄ pâ€“n Heterojunction Composite for Efficient Photoelectrochemical Water Splitting. ACS Sustainable Chemistry and Engineering, 2018, 6, 6378-6387.	6.7	77
23	SnO2@Si coreâ€“shell nanowire arrays on carbon cloth as a flexible anode for Li ion batteries. Journal of Materials Chemistry A, 2013, 1, 13433.	10.3	76
24	Applications of Tunable TiO₂ Nanotubes as Nanotemplate and Photovoltaic Device. Chemistry of Materials, 2010, 22, 5707-5711.	6.7	74
25	Understanding the Enhancement Mechanisms of Surface Plasmonâ€Mediated Photoelectrochemical Electrodes: A Case Study on Au Nanoparticle Decorated TiO₂ Nanotubes. Advanced Materials Interfaces, 2015, 2, 1500169.	3.7	73
26	Forming Process of Anodic TiO₂Nanotubes under a Preformed Compact Surface Layer. Journal of the Electrochemical Society, 2014, 161, E135-E141.	2.9	72
27	Prototype of a scalable coreâ€“shell Cu2O/TiO2 solar cell. Chemical Physics Letters, 2011, 501, 446-450.	2.6	71
28	Roll-to-roll fabrication of large scale and regular arrays of three-dimensional nanospikes for high efficiency and flexible photovoltaics. Scientific Reports, 2014, 4, 4243.	3.3	71
29	Photoelectrochemical water splitting strongly enhanced in fast-grown ZnO nanotree and nanocluster structures. Journal of Materials Chemistry A, 2016, 4, 10203-10211.	10.3	67
30	High performance thin film solar cells on plastic substrates with nanostructure-enhanced flexibility. Nano Energy, 2016, 22, 539-547.	16.0	66
31	Tungsten based anisotropic metamaterial as an ultra-broadband absorber. Optical Materials Express, 2017, 7, 606.	3.0	65
32	Dual-Layer Nanostructured Flexible Thin-Film Amorphous Silicon Solar Cells with Enhanced Light Harvesting and Photoelectric Conversion Efficiency. ACS Applied Materials & Interfaces, 2016, 8, 10929-10936.	8.0	57
33	Threeâ€Dimensional Structural Engineering for Energyâ€Storage Devices: From Microscope to Macroscope. ChemElectroChem, 2014, 1, 975-1002.	3.4	53
34	Efficient and Flexible Thin Film Amorphous Silicon Solar Cells on Nanotextured Polymer Substrate Using Solâ€“gel Based Nanoimprinting Method. Advanced Functional Materials, 2017, 27, 1604720.	14.9	53
35	3D periodic multiscale TiO₂architecture: a platform decorated with graphene quantum dots for enhanced photoelectrochemical water splitting. Nanotechnology, 2016, 27, 115401.	2.6	52
36	Weak Localization and Electronâ^'Electron Interactions in Indium-Doped ZnO Nanowires. Nano Letters, 2009, 9, 3991-3995.	9.1	50

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37	Fabrication and supercapacitive performance of long anodic TiO 2 nanotube arrays using constant current anodization. Electrochemistry Communications, 2016, 68, 23-27.	4.7	50
38	Light Propagation in Flexible Thin-Film Amorphous Silicon Solar Cells with Nanotextured Metal Back Reflectors. ACS Applied Materials & Interfaces, 2020, 12, 26184-26192.	8.0	49
39	Quantitative relationship between nanotube length and anodizing current during constant current anodization. Electrochimica Acta, 2015, 180, 147-154.	5.2	48
40	Enhancement of power conversion efficiency of dye sensitized solar cells by modifying mesoporous TiO2 photoanode with Al-doped TiO2 layer. Journal of Photochemistry and Photobiology A: Chemistry, 2016, 319-320, 62-69.	3.9	45
41	The study on oxygen bubbles of anodic alumina based on high purity aluminum. Materials Letters, 2005, 59, 3160-3163.	2.6	43
42	Large scale, flexible and three-dimensional quasi-ordered aluminum nanospikes for thin film photovoltaics with omnidirectional light trapping and optimized electrical design. Energy and Environmental Science, 2014, 7, 3611-3616.	30.8	43
43	Broad-band three dimensional nanocave ZnO thin film photodetectors enhanced by Au surface plasmon resonance. Nanoscale, 2016, 8, 8924-8930.	5.6	43
44	Derivation of a Mathematical Model for the Growth of Anodic TiO₂Nanotubes under Constant Current Conditions. Journal of the Electrochemical Society, 2017, 164, E187-E193.	2.9	43
45	Electropolymerization of Aniline onto Anodic WO₃ Film: An Approach to Extend Polyaniline Electroactivity Beyond pH 7. Journal of Physical Chemistry C, 2014, 118, 27449-27458.	3.1	42
46	The effect of anions on the electrochemical properties of polyaniline for supercapacitors. Physical Chemistry Chemical Physics, 2017, 19, 14030-14041.	2.8	40
47	Self-Assembly of Periodic Serrated Nanostructures. Chemistry of Materials, 2009, 21, 253-258.	6.7	38
48	Flexible Dye-Sensitized Solar Cell Based on Vertical ZnO Nanowire Arrays. Nanoscale Research Letters, 2011, 6, 38.	5.7	38
49	Fabrication of ZnO nanotubes with ultrathin wall by electrodeposition method. Materials Letters, 2008, 62, 3114-3116.	2.6	37
50	Valence Band Edge Shifts and Charge-transfer Dynamics in Li-Doped NiO Based p-type DSSCs. Electrochimica Acta, 2016, 188, 309-316.	5.2	37
51	Flexible Asymmetric Supercapacitors Based on Nitrogenâ€Doped Graphene Hydrogels with Embedded Nickel Hydroxide Nanoplates. ChemSusChem, 2017, 10, 2301-2308.	6.8	37
52	Antireflective and self-cleaning glass with robust moth-eye surface nanostructures for photovoltaic utilization. Materials Research Bulletin, 2019, 109, 183-189.	5.2	36
53	A simple route for decorating TiO2 nanoparticle over ZnO aggregates dye-sensitized solar cell. Chemical Engineering Journal, 2013, 229, 190-196.	12.7	35
54	Morphology Defects Guided Pore Initiation during the Formation of Porous Anodic Alumina. ACS Applied Materials & Interfaces, 2014, 6, 2285-2291.	8.0	34

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55	Interfacial Behavior and Stability Analysis of pâ€Type Crystalline Silicon Solar Cells Based on Holeâ€Selective MoO_X/Metal Contacts. Solar Rrl, 2019, 3, 1900274.	5.8	34
56	Fabrication and Formation Mechanism of Triple-Layered TiO2Nanotubes. Journal of the Electrochemical Society, 2013, 160, E125-E129.	2.9	33
57	Growth of anodic TiO2 nanotubes in mixed electrolytes and novel method to extend nanotube diameter. Electrochimica Acta, 2015, 160, 33-42.	5.2	31
58	Performance optimization of flexible a-Si:H solar cells with nanotextured plasmonic substrate by tuning the thickness of oxide spacer layer. Nano Energy, 2015, 11, 78-87.	16.0	31
59	Stable MoO_Xâ€Based Heterocontacts for pâ€Type Crystalline Silicon Solar Cells Achieving 20% Efficiency. Advanced Functional Materials, 2020, 30, 2004367.	14.9	31
60	Plasmonic Pd Nanoparticle- and Plasmonic Pd Nanorod-Decorated BiVO4 Electrodes with Enhanced Photoelectrochemical Water Splitting Efficiency Across Visible-NIR Region. Nanoscale Research Letters, 2016, 11, 283.	5.7	30
61	Microstructured superhydrophobic anti-reflection films for performance improvement of photovoltaic devices. Materials Research Bulletin, 2017, 91, 208-213.	5.2	30
62	Progress and Future Prospects of Wideâ€Bandgap Metalâ€Compoundâ€Based Passivating Contacts for Silicon Solar Cells. Advanced Materials, 2022, 34, e2200344.	21.0	30
63	Highâ€Performance and Omnidirectional Thinâ€Film Amorphous Silicon Solar Cell Modules Achieved by 3D Geometry Design. Advanced Materials, 2015, 27, 6747-6752.	21.0	29
64	Bilayer MoO_X/CrO_X Passivating Contact Targeting Highly Stable Silicon Heterojunction Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 36778-36786.	8.0	28
65	Waferâ€Scale Highly Ordered Anodic Aluminum Oxide by Soft Nanoimprinting Lithography for Optoelectronics Light Management. Advanced Materials Interfaces, 2017, 4, 1601116.	3.7	27
66	Phaseâ€Transitionâ€Induced VO₂ Thin Film IR Photodetector and Threshold Switching Selector for Optical Neural Network Applications. Advanced Electronic Materials, 2021, 7, 2001254.	5.1	27
67	Anisotropic performance of a superhydrophobic polyvinyl difluoride membrane with corrugated pattern in direct contact membrane distillation. Desalination, 2020, 481, 114363.	8.2	26
68	Interfacial Engineering of Cu₂O Passivating Contact for Efficient Crystalline Silicon Solar Cells with an Al₂O₃ Passivation Layer. ACS Applied Materials & Interfaces, 2021, 13, 28415-28423.	8.0	25
69	Coupled optical and electrical modeling of thin-film amorphous silicon solar cells based on nanodent plasmonic substrates. Nano Energy, 2014, 8, 141-149.	16.0	24
70	Efficient suppression of nanograss during porous anodic TiO 2 nanotubes growth. Applied Surface Science, 2014, 314, 505-509.	6.1	24
71	Influence of interface properties on charge density, band edge shifts and kinetics of the photoelectrochemical process in p-type NiO photocathodes. RSC Advances, 2015, 5, 71778-71784.	3.6	24
72	Molecular-scale interface engineering of metal nanoparticles for plasmon-enhanced dye sensitized solar cells. Dalton Transactions, 2013, 42, 5330.	3.3	23

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73	Structural Engineering for High Energy and Voltage Output Supercapacitors. Chemistry - A European Journal, 2013, 19, 6451-6458.	3.3	22
74	Flexible broadband plasmonic absorber on moth-eye substrate. Materials Today Energy, 2017, 5, 181-186.	4.7	22
75	Flexible Symmetric Supercapacitors Based on TiO$_2$ and Carbon Nanotubes. IEEE Nanotechnology Magazine, 2011, 10, 706-709.	2.0	21
76	Spatially controllable plasmon enhanced water splitting photocurrent in Au/TiO₂â€“Fe₂O₃cocatalyst system. RSC Advances, 2014, 4, 45710-45714.	3.6	18
77	Effects of acetyl acetone-typed co-adsorbents on the interface charge recombination in dye-sensitized solar cell photoanodes. Electrochimica Acta, 2015, 154, 190-196.	5.2	18
78	Fast fabrication of TiO 2 hard stamps for nanoimprint lithography. Materials Research Bulletin, 2017, 90, 253-259.	5.2	18
79	The rapidly reversible processes of activation and deactivation in amorphous silicon heterojunction solar cell under extensive light soaking. Journal of Materials Science: Materials in Electronics, 2021, 32, 4045-4052.	2.2	17
80	Heterostructure Silicon Solar Cells with Enhanced Power Conversion Efficiency Based on Si_x/Ni³⁺ Self-Doped NiO_x Passivating Contact. ACS Omega, 2022, 7, 16494-16501.	3.5	17
81	Oneâ€Step Formation of Low Workâ€Function, Transparent and Conductive MgF_xO_y Electron Extraction for Silicon Solar Cells. Advanced Science, 2022, 9, .	11.2	17
82	High electro-catalytic counter electrode based on three-dimensional conductive grid for dye-sensitized solar cell. Chemical Engineering Journal, 2014, 255, 424-430.	12.7	16
83	The effect of Ni(CH3COO)2 post-treatment on the charge dynamics in p-type NiO dye-sensitized solar cells. Journal of Materials Science, 2015, 50, 6668-6676.	3.7	16
84	Improved V₂O_X Passivating Contact for pâ€Type Crystalline Silicon Solar Cells by Oxygen Vacancy Modulation with a SiO_X Tunnel Layer. Advanced Materials Interfaces, 2021, 8, 2100989.	3.7	16
85	NiOx/MoOx bilayer as an efficient hole-selective contact in crystalline silicon solar cells. Cell Reports Physical Science, 2021, 2, 100684.	5.6	16
86	Simulation and Separation of Anodizing Current-Time Curves, Morphology Evolution of TiO2Nanotubes Anodized at Various Temperatures. Journal of the Electrochemical Society, 2014, 161, H891-H895.	2.9	15
87	Fabrication of large diameter TiO 2 nanotubes for improved photoelectrochemical performance. Materials Research Bulletin, 2014, 60, 348-352.	5.2	15
88	UV photodetectors based on 3D periodic Au-decorated nanocone ZnO films. Nanotechnology, 2016, 27, 365303.	2.6	15
89	Recent progress of metal-halide perovskite-based tandem solar cells. Materials Chemistry Frontiers, 2021, 5, 4538-4564.	5.9	15
90	Highâ€performance holeâ€selective <scp>V₂O_X</scp>/<scp>SiO_X</scp>/<scp>NiO_X</scp> contact for crystalline silicon solar cells. EcoMat, 2022, 4, .	11.9	15

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91	Temperature-dependent photoconductance of heavily doped ZnO nanowires. Nano Research, 2011, 4, 1110-1116.	10.4	14
92	Electrodeposition of polyaniline in long TiO2 nanotube arrays for high-areal capacitance supercapacitor electrodes. Journal of Solid State Electrochemistry, 2017, 21, 2349-2354.	2.5	14
93	Boosting electrocatalytic activities of plasmonic metallic nanostructures by tuning the kinetic pre-exponential factor. Journal of Catalysis, 2017, 354, 160-168.	6.2	14
94	Post-annealing Effect on Optical and Electronic Properties of Thermally Evaporated MoOX Thin Films as Hole-Selective Contacts for p-Si Solar Cells. Nanoscale Research Letters, 2021, 16, 87.	5.7	14
95	Investigation on highly ordered porous anodic alumina membranes formed by high electric field anodization. Materials Chemistry and Physics, 2008, 111, 168-171.	4.0	13
96	Inverted nanotaper-based Ag film for optical absorption and SERS applications. Journal of Alloys and Compounds, 2015, 632, 634-638.	5.5	13
97	Effect of water content on ionic current, electronic current, and nanotube morphology in Ti anodizing process. Journal of Solid State Electrochemistry, 2015, 19, 1403-1409.	2.5	13
98	Scalable Production of Mechanically Robust Antireflection Film for Omnidirectional Enhanced Flexible Thin Film Solar Cells. Advanced Science, 2017, 4, 1700079.	11.2	13
99	High-Performance Dye-Sensitized Solar Cells Based on Colloidâ€“Solution Deposition Planarized Fluorine-Doped Tin Oxide Substrates. ACS Applied Materials & Interfaces, 2018, 10, 15697-15703.	8.0	13
100	Quantum transport in indium nitride nanowires. Physical Review B, 2011, 83, .	3.2	12
101	Fabrication and magnetic behavior of chemical deposited Niâ€“P nanowire and nanotube arrays. Physica E: Low-Dimensional Systems and Nanostructures, 2009, 41, 349-352.	2.7	11
102	Determination of the field strength and realization of the high-field anodization of aluminum. Physical Chemistry Chemical Physics, 2017, 19, 21696-21706.	2.8	11
103	Interfacial Behavior and Stability Analysis of pâ€Type Crystalline Silicon Solar Cells Based on Holeâ€Selective MoO_X/Metal Contacts. Solar Rrl, 2019, 3, 1970105.	5.8	11
104	Numerical study of mono-crystalline silicon solar cells with passivated emitter and rear contact configuration for the efficiency beyond 24% based on mass production technology. Journal of Semiconductors, 2020, 41, 062701.	3.7	11
105	Piezoelectric PZT thick films on LaNiO₃buffered stainless steel foils for flexible device applications. Journal Physics D: Applied Physics, 2009, 42, 025504.	2.8	10
106	Magnetic force microscopy observation of undercooled Fe₈₁Ga₁₉magnetostrictive alloys. Journal Physics D: Applied Physics, 2008, 41, 205405.	2.8	9
107	Enhanced CMOS image sensor by flexible 3D nanocone anti-reflection film. Science Bulletin, 2017, 62, 130-135.	9.0	9
108	Thermoelectric properties of all-inorganic perovskite CsSnBr3: A combined experimental and theoretical study. Chemical Physics Letters, 2020, 754, 137637.	2.6	9

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109	Fabrication of porous anodic alumina membranes with ultrathick barrier layer. Materials Letters, 2008, 62, 3228-3231.	2.6	8
110	Stable Molybdenum Nitride Contact for Efficient Silicon Solar Cells. Physica Status Solidi - Rapid Research Letters, 0, , 2100159.	2.4	8
111	Enhanced electroactivity at physiological pH for polyaniline in three-dimensional titanium oxide nanotube matrix. Physical Chemistry Chemical Physics, 2014, 16, 15796.	2.8	7
112	Combined Au-plasmonic nanoparticles with mesoporous carbon material (CMK-3) for photocatalytic water splitting. Applied Physics Letters, 2015, 107, 073904.	3.3	7
113	Structural and optical studies of molybdenum oxides thin films obtained by thermal evaporation and atomic layer deposition methods for photovoltaic application. Journal of Materials Science: Materials in Electronics, 2021, 32, 3475-3486.	2.2	7
114	Surface Passivation of ITO on Heterojunction Solar Cells with Enhanced Cell Performance and Module Reliability. ECS Journal of Solid State Science and Technology, 2021, 10, 035008.	1.8	7
115	Tunable work function of molybdenum oxynitride for electron-selective contact in crystalline silicon solar cells. Applied Physics Letters, 2022, 120, .	3.3	7
116	Templated deposition of multiscale periodic metallic nanodot arrays with sub-10 nm gaps on rigid and flexible substrates. Nanotechnology, 2014, 25, 465303.	2.6	5
117	Silicon Solar Cells: Highâ€Performance and Omnidirectional Thinâ€Film Amorphous Silicon Solar Cell Modules Achieved by 3D Geometry Design (Adv. Mater. 42/2015). Advanced Materials, 2015, 27, 6768-6768.	21.0	5
118	Improved growth rate of anodized TiO2 nanotube arrays under reduced pressure field and light illumination. Science Bulletin, 2017, 62, 332-338.	9.0	5
119	High Weight-Specific Power Density of Thin-Film Amorphous Silicon Solar Cells on Graphene Papers. Nanoscale Research Letters, 2019, 14, 324.	5.7	5
120	Improved electron-collection performance of dye sensitized solar cell based on three-dimensional conductive grid. Journal of Photochemistry and Photobiology A: Chemistry, 2013, 259, 10-16.	3.9	4
121	Comparison of Energy Efficiency Between Fixed-speed and Variable-speed Wind Turbines. Energy Engineering: Journal of the Association of Energy Engineers, 2004, 101, 71-80.	0.5	3
122	Periodic molybdenum disc array for light trapping in amorphous silicon layer. AIP Advances, 2016, 6, 055305.	1.3	2
123	Thin crystalline silicon with double-sided nano-hole array fabricated by soft UV-NIL and RIE. Materials Research Express, 2017, 4, 055005.	1.6	1
124	Silicon Solar Cells: Stable MoO_Xâ€Based Heterocontacts for pâ€Type Crystalline Silicon Solar Cells Achieving 20% Efficiency (Adv. Funct. Mater. 49/2020). Advanced Functional Materials, 2020, 30, 2070325.	14.9	1
125	Substrate-free flexible thin film solar cells by graphene-mediated peel-off technology. Journal of Materials Science: Materials in Electronics, 2020, 31, 10279-10287.	2.2	1
126	Tunable wettability of metallic films with assistance of porous anodic aluminum oxide. Frontiers of Optoelectronics in China, 2010, 3, 317-320.	0.2	0

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127	Reply to Comment on â€œFlexible Asymmetric Supercapacitors Based on Nitrogenâ€Doped Graphene Hydrogels with Embedded Nickel Hydroxide Nanoplatesâ€. ChemSusChem, 2017, 10, 2312-2315.	6.8	0
128	Polarizable Highâ€Index Nanoparticles Used for Lightâ€Induced Crystalâ€Silicon Passivation and Dielectric Antenna for Highâ€Efficiency Solar Cell. Solar Rrl, 2021, 5, 2100169.	5.8	0
129	WE-C-103-03: Design of a Novel 3D Field Emission Electron Source for High Power X-Ray Tube. Medical Physics, 2013, 40, 481-481.	3.0	0