Daniel Biro

List of Publications by Year
in descending order

87 papers	1,831 citations	279701 23 h-index	302012 39 g-index
88 all docs	88 docs citations	88 times ranked	1571 citing authors

#	Article	IF	Citations
1	An Artificial SEI Layer Based on an Inorganic Coordination Polymer with Selfâ€Healing Ability for Longâ€Lived Rechargeable Lithiumâ€Metal Batteries. Batteries and Supercaps, 2022, 5, .	2.4	8
2	Comparison of Aqueous- and Non-Aqueous-Based Binder Polymers and the Mixing Ratios for Zn//MnO2 Batteries with Mildly Acidic Aqueous Electrolytes. Batteries, 2021, 7, 40.	2.1	8
3	Electrolyte Study with in Operando pH Tracking Providing Insight into the Reaction Mechanism of Aqueous Acidic Zn//MnO₂ Batteries. ChemElectroChem, 2021, 8, 3553-3566.	1.7	26
4	Spruce Hard Carbon Anodes for Lithiumâ€Ion Batteries. ChemElectroChem, 2021, 8, 4750-4761.	1.7	17
5	Towards 3D-lithium ion microbatteries based on silicon/graphite blend anodes using a dispenser printing technique. RSC Advances, 2020, 10, 22440-22448.	1.7	22
6	Revealing the Local pH Value Changes of Acidic Aqueous Zinc Ion Batteries with a Manganese Dioxide Electrode during Cycling. Journal of the Electrochemical Society, 2020, 167, 020545.	1.3	83
7	Investigating the Impact of Particle Size on the Performance and Internal Resistance of Aqueous Zinc Ion Batteries with a Manganese Sesquioxide Cathode. Batteries, 2018, 4, 44.	2.1	8
8	Fast Coâ€Diffusion Process for Bifacial nâ€Type Solar Cells. Solar Rrl, 2017, 1, 1600005.	3.1	9
9	Economic feasibility of bifacial silicon solar cells. Progress in Photovoltaics: Research and Applications, 2016, 24, 800-817.	4.4	44
10	A low concentrating cell and receiver concept based on low cost silicon solar cells. AIP Conference Proceedings, 2015, , .	0.3	2
11	Allâ€screenâ€printed backâ€contact backâ€junction silicon solar cells with aluminumâ€alloyed emitter and demonstration of interconnection of pointâ€shaped metalized contacts. Progress in Photovoltaics: Research and Applications, 2015, 23, 226-237.	4.4	10
12	Dispensing Technology on the Route to an Industrial Metallization Process. Energy Procedia, 2015, 67, 138-146.	1.8	15
13	Electrical properties of the rear contact structure of MWT silicon solar cells. Solar Energy Materials and Solar Cells, 2015, 137, 293-302.	3.0	4
14	Codiffusion Sources and Barriers for the Assembly of Back-Contact Back-Junction Solar Cells. IEEE Journal of Photovoltaics, 2015, 5, 1813-1820.	1.5	6
15	Pseudo FF and Voc analysis of Cz-Si Based Low Concentrator Solar Cells. Energy Procedia, 2015, 77, 572-580.	1.8	3
16	Inkjet Technology for Crystalline Silicon Photovoltaics. Advanced Materials, 2015, 27, 599-626.	11.1	65
17	The BOSCO Solar Cell: Double-sided Collection and Bifacial Operation. Energy Procedia, 2014, 55, 416-424.	1.8	5
18	Optimizing Fine Line Dispensed Contact Grids. Energy Procedia, 2014, 55, 693-701.	1.8	13

#	Article	IF	Citations
19	The BOSCO cell concept: Bifacial operation with double-sided collection. , 2014, , .		1
20	Industrially feasible all-purpose metal-wrap-through concentrator solar cells. , 2014, , .		4
21	A low concentration receiver concept for cost effective crystalline back contact cells. , 2014, , .		3
22	Reverse Bias Behavior of Diffused and Screen-Printed n-Type Cz-Si Solar Cells. IEEE Journal of Photovoltaics, 2014, 4, 1483-1490.	1.5	9
23	Codiffused Bifacial n-type Solar Cells (CoBiN). Energy Procedia, 2014, 55, 287-294.	1.8	7
24	Analytical Modeling of Industrial-Related Silicon Solar Cells. IEEE Journal of Photovoltaics, 2014, 4, 504-513.	1.5	36
25	Advanced Metallization Concepts for p-type Silicon Metal-Wrap-Through (MWT) Solar Cells. Energy Technology, 2014, 2, 34-42.	1.8	2
26	Paste Rheology Correlating With Dispensed Finger Geometry. IEEE Journal of Photovoltaics, 2014, 4, 498-503.	1.5	35
27	The BOSCO Solar Cell: Simulation and Experiment. IEEE Journal of Photovoltaics, 2014, 4, 1243-1251.	1.5	13
28	Characterization of POCl$_{3}$-Based Codiffusion Processes for Bifacial N-Type Solar Cells. IEEE Journal of Photovoltaics, 2014, 4, 827-833.	1.5	13
29	Stability of the regeneration of the boronâ€“oxygen complex in silicon solar cells during module certification. Solar Energy Materials and Solar Cells, 2014, 121, 157-162.	3.0	12
30	The BOSCO solar cell â€“ a both sides collecting and contacted structure. Physica Status Solidi - Rapid Research Letters, 2014, 8, 381-384.	1.2	8
31	Inkjet-Printing for Maskless Separation of Metal Structures for Back-Contact Silicon Solar Cells. Journal of Imaging Science and Technology, 2014, 58, 404031-404038.	0.3	0
32	Co-diffusion from solid sources for bifacial n-type solar cells. Physica Status Solidi - Rapid Research Letters, 2013, 7, 623-626.	1.2	12
33	Benefit of Selective Emitters for p-Type Silicon Solar Cells With Passivated Surfaces. IEEE Journal of Photovoltaics, 2013, 3, 621-627.	1.5	23
34	Recombination and Optical Properties of Wet Chemically Polished Thermal Oxide Passivated Si Surfaces. IEEE Journal of Photovoltaics, 2013, 3, 613-620.	1.5	9
35	The Nature of Screen Printed Front Side Silver Contacts - Results of the Project MikroSol. Energy Procedia, 2013, 43, 27-36.	1.8	33
36	Co-diffusion from APCVD BSG and POCl3 for Industrial n-type Solar Cells. Energy Procedia, 2013, 38, 305-311.	1.8	31

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37	Evaluation of Cast Mono Silicon Material for Thermal Oxide Passivated Solar Cells. Energy Procedia, 2013, 38, 611-617.	1.8	4
38	Simplified Front Surface Field Formation for Back Contacted Silicon Solar Cells. Energy Procedia, 2013, 38, 278-282.	1.8	10
39	Transfer of the HIP-MWT Solar Cell Concept to n-type Silicon. Energy Procedia, 2013, 38, 436-442.	1.8	4
40	Evaluation of Industrially Relevant Parameters for Contact Firing of Screen Printed Front Side Silver Contacts. Energy Procedia, 2013, 38, 737-744.	1.8	7
41	Stability of the regeneration of the boronâ€“oxygen complex in silicon solar cells during module integration. Solar Energy Materials and Solar Cells, 2013, 115, 189-198.	3.0	8
42	Fire-through contactsâ€"a new approach to contact the rear side of passivated silicon solar cells. Solar Energy Materials and Solar Cells, 2013, 108, 164-169.	3.0	12
43	Co-Diffused Back-Contact Back-Junction Silicon Solar Cells without Gap Regions. IEEE Journal of Photovoltaics, 2013, 3, 1236-1242.	1.5	25
44	Comparison of Analytical and Numerical Models for the Optimization of c-Si Solar Cellsâ€™ Front Metallization. IEEE Journal of Photovoltaics, 2012, 2, 588-591.	1.5	6
45	Synergistic Effects of Rear-Surface Passivation and the Metal Wrap Through Concept. IEEE Journal of Photovoltaics, 2012, 2, 109-113.	1.5	11
46	Loss analysis and efficiency potential of p-type MWTâ€“PERC solar cells. Solar Energy Materials and Solar Cells, 2012, 106, 89-94.	3.0	13
47	Aluminum Alloying in Local Contact Areas on Dielectrically Passivated Rear Surfaces of Silicon Solar Cells. IEEE Electron Device Letters, 2011, 32, 916-918.	2.2	51
48	20% Efficient Passivated Large-Area Metal Wrap Through Solar Cells on Boron-Doped Cz Silicon. IEEE Electron Device Letters, 2011, 32, 1719-1721.	2.2	30
49	19.7% Efficient All-Screen-Printed Back-Contact Back-Junction Silicon Solar Cell With Aluminum-Alloyed Emitter. IEEE Electron Device Letters, 2011, 32, 345-347.	2.2	38
50	20.1% Efficient Silicon Solar Cell With Aluminum Back Surface Field. IEEE Electron Device Letters, 2011, 32, 1101-1103.	2.2	37
51	Recombination at Metal-Emitter Interfaces of Front Contact Technologies for Highly Efficient Silicon Solar Cells. Energy Procedia, 2011, 8, 115-121.	1.8	92
52	Intrinsic effects of double side collecting silicon solar cells. Energy Procedia, 2011, 8, 160-166.	1.8	6
53	Modelling carrier recombination in highly phosphorus-doped industrial emitters. Energy Procedia, 2011, 8, 275-281.	1.8	38
54	HIP-MWT: A simplified structure for metal wrap through solar cells with passivated rear surface. Energy Procedia, 2011, 8, 498-502.	1.8	6

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55	Front-side Metalization By Means Of Flexographic Printing. Energy Procedia, 2011, 8, 581-586.	1.8	20
56	Investigation of Aluminum-Alloyed Local Contacts for Rear Surface-Passivated Silicon Solar Cells. IEEE Journal of Photovoltaics, 2011, 1, 22-28.	1.5	27
57	Silicon Surface Passivation by Thin Thermal Oxide/PECVD Layer Stack Systems. IEEE Journal of Photovoltaics, 2011, 1, 135-145.	1.5	67
58	Evaluating the Aluminum-Alloyed $hbox{p}^{+}$-Layer of Silicon Solar Cells by Emitter Saturation Current Density and Optical Microspectroscopy Measurements. IEEE Transactions on Electron Devices, 2011, 58, 441-447.	1.6	31
59	Large-area p-type HIP-MWT silicon solar cells with screen printed contacts exceeding 20% efficiency. Physica Status Solidi - Rapid Research Letters, 2011, 5, 286-288.	1.2	13
60	Properties of purified direct steam grown silicon thermal oxides. Solar Energy Materials and Solar Cells, 2011, 95, 2570-2575.	3.0	19
61	Microstructural and electrical properties of different-sized aluminum-alloyed contacts and their layer system on silicon surfaces. Solar Energy Materials and Solar Cells, 2011, 95, 2151-2160.	3.0	53
62	19.5% EFFICIENT SCREEN PRINTED CRYSTALLINE SILICON METAL WRAP THROUGH (MWT) SOLAR CELLS FOR CONCENTRATOR (2â€“25x) APPLICATIONS. , 2010, , .		2
63	Structuring Technology and Simulation of High Efficiency Back-Contact Back-Junction Silicon Solar Cells Under Low Concentration. , 2010, , .		3
64	Advanced screen printing technique for high definition front side metallization of crystalline silicon solar cells. Solar Energy Materials and Solar Cells, 2010, 94, 57-61.	3.0	79
65	High throughput via-metallization technique for multi-crystalline metal wrap through (MWT) silicon solar cells exceeding 16% efficiency. Solar Energy Materials and Solar Cells, 2010, 94, 51-56.	3.0	24
66	Highly efficient industrially feasible metal wrap through (MWT) silicon solar cells. Solar Energy Materials and Solar Cells, 2010, 94, 1996-2001.	3.0	10
67	Inkjet structured EWT silicon solar cells with evaporated aluminum metallization and laser-fired contacts. , 2010, , .		5
68	21.1 % efficient perc silicon solar cells on large scale by using inline sputtering for metallization. , 2010, , .		9
69	Paste development for screen printed mc-Si MWT solar cells exceeding 17% efficiency. , 2010, , .		2
70	Purified steam for industrial thermal oxidation processes. , 2010, , .		3
71	Fast and precise resistance characterisation of laser drilled and metallized vias. , 2010, , .		0
72	Towards 19% efficient industrial PERC devices using simultaneous front emitter and rear surface passivation by thermal oxidation. , 2010, , .		29

#	ARTICLE	IF	CITATIONS
73	Comprehensive analytical model for locally contacted rear surface passivated solar cells. Journal of Applied Physics, 2010, 108, .	1.1	81
74	Pilot line processing of 18.6% efficient rear surface passivated large area solar cells. , 2010, , .		3
75	The SiNTO process: Utilizing a SiN_x anti-reflection layer for emitter masking during Thermal Oxidation. , 2009, , .		6
76	Hot-melt inkjet as masking technology for back-contacted cells. , 2009, , .		13
77	Control and optimization of thermal oxidation processes for industrial solar cell fabrication. , 2009, , .		5
78	Pilot-line processing of screen-printed Cz-Si MWT solar cells exceeding 17% efficiency. , 2009, , .		6
79	All-screen-printed 120-ÂµM-thin large-area silicon solar cells applying dielectric rear passivation and laser-fired contacts reaching 18% efficiency. , 2009, , .		10
80	Thermal oxidation as a key technology for high efficiency screen printed industrial silicon solar cells. , 2009, , .		12
81	Industrially feasible multi-crystalline metal wrap through (MWT) silicon solar cells exceeding 16% efficiency. Solar Energy Materials and Solar Cells, 2009, 93, 1051-1055.	3.0	18
82	Microscopic homogeneity of emitters formed on textured silicon using in-line diffusion and phosphoric acid as the dopant source. Solar Energy Materials and Solar Cells, 2009, 93, 932-935.	3.0	13
83	Resistance analysis of wrapped through emitters. , 2008, , .		1
84	Method for determination of recombination activity of cylindric conduction channels for back-contacted solar cells. Applied Physics Letters, 2007, 91, 183512.	1.5	5
85	Fast, contactless and spatially resolved measurement of sheet resistance by an infrared method. Progress in Photovoltaics: Research and Applications, 2004, 12, 539-552.	4.4	17
86	Field-effect passivation of the SiO2Si interface. Journal of Applied Physics, 1999, 86, 683-691.	1.1	244
87	Photocured Cationic Polyoxazoline Macromonomers as Gel Polymer Electrolytes for Lithium-Ion Batteries. ACS Applied Polymer Materials, 0, , .	2.0	3