

# Billy J Stanbery

## List of Publications by Year in descending order

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52  
papers

1,394  
citations

759233

12  
h-index

642732

23  
g-index

53  
all docs

53  
docs citations

53  
times ranked

1900  
citing authors

#	ARTICLE	IF	CITATIONS
1	Comment on Seibert, M.K.; Rees, W.E. Through the Eye of a Needle: An Eco-Heterodox Perspective on the Renewable Energy Transition. <i>Energies</i> 2021, 14, 4508. <i>Energies</i> , 2022, 15, 971.	3.1	5
2	CIGS photovoltaics: reviewing an evolving paradigm. <i>Journal Physics D: Applied Physics</i> , 2022, 55, 173001.	2.8	17
3	The 2020 photovoltaic technologies roadmap. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 493001.	2.8	274
4	Terawatt-scale photovoltaics: Transform global energy. <i>Science</i> , 2019, 364, 836-838.	12.6	320
5	Economic viability of thin-film tandem solar modules in the United States. <i>Nature Energy</i> , 2018, 3, 387-394.	39.5	68
6	Innovation highway: Breakthrough milestones and key developments in chalcopyrite photovoltaics from a retrospective viewpoint. <i>Thin Solid Films</i> , 2017, 633, 2-12.	1.8	32
7	Photon and carrier management design for nonplanar thin-film copper indium gallium selenide photovoltaics. <i>Solar Energy Materials and Solar Cells</i> , 2017, 161, 149-156.	6.2	6
8	TLM measurements varying the intrinsic a-Si:H layer thickness in silicon heterojunction solar cells. , 2017, , .		4
9	Absorption enhancing and passivating non-planar thin-film device architectures for copper indium gallium selenide photovoltaics. , 2016, , .		0
10	Through-the-glass spectroscopic ellipsometry for simultaneous mapping of coating properties and stress in the glass. , 2015, , .		0
11	Electroluminescence intensity analysis of neutral bulk and space charge region collection effects on large-area CIGS module performance. , 2014, , .		0
12	Electroluminescence and thermal imaging of large-area Cu(In, Ga)Se<sub>2</sub> modules. , 2013, , .		1
13	Metrology and process optimization for large area monolithically integrated Cu(In,Ga)Se<sub>2</sub> modules. , 2012, , .		1
14	Using amorphous zinc-tin oxide alloys in the emitter structure of CIGS PV devices. , 2012, , .		0
15	Solution deposited precursors and rapid optical processing used in the production of CIGS solar cells. , 2011, , .		0
16	Solution-based precursors in conjunction with rapid optical processing for high-quality hybrid CIGS. <i>Proceedings of SPIE</i> , 2011, , .	0.8	0
17	Development and manufacture of reactive-transfer-printed CIGS photovoltaic modules. <i>Proceedings of SPIE</i> , 2010, , .	0.8	0
18	High-Efficiency Low-Cost Photovoltaic Modules Based on CIGS Thin Films from Solution Precursors. <i>Materials Research Society Symposia Proceedings</i> , 2010, 1247, 1.	0.1	0

#	ARTICLE	IF	CITATIONS
19	Solution-deposited CIGS thin films for ultra-low-cost photovoltaics. , 2010, , .		2
20	Field assisted simultaneous synthesis and transfer FASST <sup>&amp;#x00AE;</sup> method used in conjunction with liquid precursors to produce CIGS solar cells. , 2010, , .		1
21	Copper Indium Gallium Selenide photovoltaic modules manufactured by reactive transfer. , 2010, , .		2
22	Atmospheric pressure synthesis of $\text{In}_2\text{Se}_3$ , $\text{Cu}_2\text{Se}$ , and $\text{CuInSe}_2$ without external selenization from solution precursors. Journal of Materials Research, 2009, 24, 1375-1387.	2.6	9
23	Rapid reactive transfer printing of CIGS photovoltaics. , 2009, , .		1
24	Low cost copper indium gallium selenide by the FASST <sup>&amp;#x00AE;</sup> process. Conference Record of the IEEE Photovoltaic Specialists Conference, 2008, , .	0.0	1
25	Nanoengineered CIGS thin films for low cost photovoltaics. Proceedings of SPIE, 2008, , .	0.8	0
26	Comparison of device performance and measured transport parameters in widely-varying $\text{Cu}(\text{In,Ga})(\text{Se,S})$ solar cells. Progress in Photovoltaics: Research and Applications, 2006, 14, 25-43.	8.1	70
27	Chemical fluctuation-induced nanodomains in $\text{Cu}(\text{In,Ga})\text{Se}_2$ films. Applied Physics Letters, 2005, 87, 121904.	3.3	61
28	Lattice dynamics of $\text{CuAu}$ -ordered $\text{CuInSe}_2$ . Physical Review B, 2003, 68, .	3.2	31
29	Copper Indium Selenides and Related Materials for Photovoltaic Devices. Critical Reviews in Solid State and Materials Sciences, 2002, 27, 73-117.	12.3	289
30	Epitaxial growth and characterization of $\text{CuInSe}_2$ crystallographic polytypes. Journal of Applied Physics, 2002, 91, 3598-3604.	2.5	56
31	Structure Investigations of Several In-rich $(\text{Cu}_2\text{Se})_x(\text{In}_2\text{Se}_3)_{1-x}$ Compositions: From Local Structure to Long Range Order. Materials Research Society Symposia Proceedings, 2001, 668, 1.	0.1	2
32	Study of Cd-free buffer layers using $\text{In}_x(\text{OH,S})_y$ on CIGS solar cells. Solar Energy Materials and Solar Cells, 2001, 69, 131-137.	6.2	32
33	Long and Short Range Ordering of $\text{CuInSe}_2$ . Japanese Journal of Applied Physics, 2000, 39, 411.	1.5	5
34	Growth and characterization of CdS buffer layers by CBD and MOCVD. , 1999, , .		0
35	Novel Multilayer Process for $\text{CuInSe}_2$ Thin Film Formation by Rapid Thermal Processing. Materials Research Society Symposia Proceedings, 1997, 485, 163.	0.1	2
36	Reaction engineering and precursor film deposition for CIS synthesis. AIP Conference Proceedings, 1997, , .	0.4	7

#	ARTICLE	IF	CITATIONS
37	Thermodynamic assessment of the Cu-In-Se system and application to thin film photovoltaics. , 1996, , .		9
38	Effects of buffer layer processing on CIGS excess carrier lifetime: application of dual-beam optical modulation to process analysis [of solar cells]. , 1996, , .		3
39	Lightweight tandem GaAs/CuInSe/sub 2/ solar cells. IEEE Transactions on Electron Devices, 1990, 37, 438-442.	3.0	7
40	Lightweight (AlGaAs)GaAs/CuInSe/sub 2/ tandem junction solar cells for space applications. IEEE Aerospace and Electronic Systems Magazine, 1989, 4, 23-32.	1.3	1
41	High efficiency GaAs/CuInSe/sub 2/ tandem junction solar cells. , 1988, , .		8
42	Electron and proton radiation effects on GaAs and CuInSe/sub 2/ thin film solar cells. , 1988, , .		16
43	Silicon nitride anti-reflection coatings for CdS/CuInSe <sub>2</sub> thin film solar cells by electron beam assisted chemical vapor deposition. Solar Cells, 1985, 14, 289-291.	0.6	5
44	Porphyrin thin film cells in ultrahigh vacuum: the requirement of water and oxygen for photovoltaic response. The Journal of Physical Chemistry, 1985, 89, 4950-4956.	2.9	19
45	High-efficiency GaAs/CuInSe/sub 2/ and AlGaAs/CuInSe/sub 2/ thin-film tandem solar cells. , 0, , .		10
46	Voltage-matched, two-terminal, GaAs (AlGaAs)/CuInSe/sub 2/ tandem solar cells. , 0, , .		2
47	Thin film CuInGaSe/sub 2/ cell development. , 0, , .		7
48	Investigation of buffer layer process on CIGS solar cells by dual beam optical modulation technique. , 0, , .		1
49	XPS studies of sodium compound formation and surface segregation in CIGS thin films [solar cells]. , 0, , .		2
50	Role of sodium in the control of defect structures in CIS [solar cells]. , 0, , .		4
51	Cuprous selenide defect equilibria and homogeneity range determined by coulometric titration. , 0, , .		0
52	The intra-absorber junction (IAJ) model for the device physics of copper indium selenide-based photovoltaics. , 0, , .		1