Arnulf JÃ¤ger-Waldau

List of Publications by Year
in descending order

100 papers	3,838 citations	126907 33 h-index	128289 60 g-index
109 all docs	109 docs citations	109 times ranked	3875 citing authors

#	Article	IF	Citations
1	Green hydrogen in Europe â€“ A regional assessment: Substituting existing production with electrolysis powered by renewables. Energy Conversion and Management, 2021, 228, 113649.	9.2	272
2	Solar photovoltaics is ready to power a sustainable future. Joule, 2021, 5, 1041-1056.	24.0	265
3	High-sensitivity quantitative Kelvin probe microscopy by noncontact ultra-high-vacuum atomic force microscopy. Applied Physics Letters, 1999, 75, 286-288.	3.3	247
4	A high-resolution geospatial assessment of the rooftop solar photovoltaic potential in the European Union. Renewable and Sustainable Energy Reviews, 2019, 114, 109309.	16.4	220
5	Photovoltaics and renewable energies in Europe. Renewable and Sustainable Energy Reviews, 2007, 11, 1414-1437.	16.4	155
6	High-resolution work function imaging of single grains of semiconductor surfaces. Applied Physics Letters, 2002, 80, 2979-2981.	3.3	145
7	Photovoltaics and wind status in the European Union after the Paris Agreement. Renewable and Sustainable Energy Reviews, 2018, 81, 2460-2471.	16.4	133
8	Snapshot of Photovoltaicsâ€”February 2020. Energies, 2020, 13, 930.	3.1	122
9	How photovoltaics can contribute to GHG emission reductions of 55% in the EU by 2030. Renewable and Sustainable Energy Reviews, 2020, 126, 109836.	16.4	114
10	The role of photovoltaics for the European Green Deal and the recovery plan. Renewable and Sustainable Energy Reviews, 2021, 144, 111017.	16.4	108
11	Assessment of floating solar photovoltaics potential in existing hydropower reservoirs in Africa. Renewable Energy, 2021, 169, 687-699.	8.9	103
12	Kelvin probe force microscopy in ultra high vacuum using amplitude modulation detection of the electrostatic forces. Applied Surface Science, 2000, 157, 263-268.	6.1	102
13	Renewable electricity in Europe. Renewable and Sustainable Energy Reviews, 2011, 15, 3703-3716.	16.4	81
14	$f In_{2}O_{3}/CdS/CuInS_{2}$ Thin-Film Solar Cell with 9.7% Efficiency. Japanese Journal of Applied Physics, 1994, 33, L1775-L1777.	1.5	79
15	Progress in chalcopyrite compound semiconductor research for photovoltaic applications and transfer of results into actual solar cell production. Solar Energy Materials and Solar Cells, 2011, 95, 1509-1517.	6.2	79
16	The potential of water infrastructure to accommodate solar PV systems in Mediterranean islands. Solar Energy, 2016, 136, 174-182.	6.1	62
17	True Cost of Solar Hydrogen. Solar Rrl, 2022, 6, 2100487.	5.8	62
18	Composition and morphology of MoSe2 thin films. Thin Solid Films, 1990, 189, 339-345.	1.8	60

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19	Energy Return on Energy Invested (ERoEI) for photovoltaic solar systems in regions of moderate insolation: A comprehensive response. Energy Policy, 2017, 102, 377-384.	8.8	59
20	Influence of KCN treatment on CuInS2 thin films. Applied Surface Science, 1996, 92, 232-236.	6.1	56
21	ZnSe thin films grown by chemical vapour deposition for application as buffer layer in CIGSS solar cells. Thin Solid Films, 2000, 361-362, 172-176.	1.8	56
22	Status of thin film solar cells in research, production and the market. Solar Energy, 2004, 77, 667-678.	6.1	56
23	Snapshot of Photovoltaicsâ€"February 2019. Energies, 2019, 12, 769.	3.1	56
24	Properties of CuInS2 thin films grown by a two-step process without H2S. Solar Energy Materials and Solar Cells, 1997, 49, 349-356.	6.2	50
25	Risk adjusted financial costs of photovoltaics. Energy Policy, 2010, 38, 3807-3819.	8.8	49
26	Progress of electricity from biomass, wind and photovoltaics in the European Union. Renewable and Sustainable Energy Reviews, 2004, 8, 157-182.	16.4	48
27	MoS₂, MoSe₂, WS₂ and WSe₂ Thin Films for Photovoltaics. Solid State Phenomena, 1994, 37-38, 479-484.	0.3	47
28	Snapshot of photovoltaics â˜' March 2021. EPJ Photovoltaics, 2021, 12, 2.	1.6	44
29	WSe2 thin films prepared by soft selenization. Thin Solid Films, 1991, 200, 157-164.	1.8	43
30	Solar Photovoltaic Electricity Generation: A Lifeline for the European Coal Regions in Transition. Sustainability, 2019, 11, 3703.	3.2	38
31	A methodology for maximizing the benefits of solar landfills on closed sites. Renewable and Sustainable Energy Reviews, 2017, 76, 1291-1300.	16.4	37
32	Snapshot of Photovoltaicsâ€"March 2017. Sustainability, 2017, 9, 783.	3.2	35
33	Snapshot of photovoltaics â˜' February 2018. EPJ Photovoltaics, 2018, 9, 6.	1.6	35
34	WS2 thin films prepared by sulphurization. Applied Surface Science, 1993, 70-71, 731-736.	6.1	33
35	MoS2 thin films prepared by sulphurization. Applied Surface Science, 1993, 65-66, 465-472.	6.1	33
36	More competition: Threat or chance for financing renewable electricity?. Energy Policy, 2008, 36, 1436-1447.	8.8	30

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37	Exploiting existing dams for solar PV system installations. Progress in Photovoltaics: Research and Applications, 2016, 24, 229-239.	8.1	29
38	CVD of CuGaSe2 for thin film solar cells employing two binary sources. Thin Solid Films, 2001, 387, 63-66.	1.8	27
39	Snapshot of photovoltaics â€“ February 2022. EPJ Photovoltaics, 2022, 13, 9.	1.6	27
40	Processes for chalcopyrite-based solar cells. Thin Solid Films, 2000, 361-362, 533-539.	1.8	26
41	Impact of climatic conditions on prospects for integrated photovoltaics in electric vehicles. Renewable and Sustainable Energy Reviews, 2022, 158, 112109.	16.4	26
42	Direct Solar Energy. , 2011, , 333-400.		25
43	Renewable Energy and Climate Change. , 2011, , 161-208.		24
44	Photoluminescence and sub band gap absorption of CuGaSe2 thin films. Thin Solid Films, 2002, 403-404, 495-499.	1.8	23
45	Thin Film Photovoltaics: Markets and Industry. International Journal of Photoenergy, 2012, 2012, 1-6.	2.5	22
46	R&D roadmap for PV. Thin Solid Films, 2004, 451-452, 448-454.	1.8	21
47	European Photovoltaics in world wide comparison. Journal of Non-Crystalline Solids, 2006, 352, 1922-1927.	3.1	21
48	The Untapped Area Potential for Photovoltaic Power in the European Union. Clean Technologies, 2020, 2, 440-446.	4.2	21
49	Will Electric Vehicles Be Killed (again) or Are They the Next Mobility Killer App?. Energies, 2020, 13, 1828.	3.1	21
50	CuGa Se chalcopyrite-related thin films grown by chemical close-spaced vapor transport (CCSVT) for photovoltaic application: Surface- and bulk material properties, oxidation and surface Ge-doping. Solar Energy Materials and Solar Cells, 2011, 95, 1555-1580.	6.2	19
51	Changes in spectral response with temperature and irradiance intensity. Thin Solid Films, 2004, 451-452, 145-151.	1.8	18
52	CVD of CuGaSe2 for thin film solar cells with various transport agents. Solar Energy Materials and Solar Cells, 2001, 67, 105-112.	6.2	17
53	Structural analysis of Cu 1â^'x Ag x GaSe 2 bulk materials and thin films. Thin Solid Films, 2000, 361-362, 130-134.	1.8	16
54	Photovoltaics in Europe after the Paris Agreement. , 2018, , .		16

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55	Theoretical Model and Device Performance of CuInS2Thin Film Solar Cell. Japanese Journal of Applied Physics, 2000, 39, 126-136.	1.5	13
56	Kelvin probe force microscopy for the characterization of semiconductor surfaces in chalcopyrite solar cells. Surface Science, 2001, 482-485, 1362-1367.	1.9	13
57	A Snapshot of Global PV Markets - The Latest Survey Results on PV Markets and Policies from the IEA PVPS Programme in 2017. , 2018, , .		12
58	Self-consumption of electricity produced from PV systems in apartment buildings - Comparison of the situation in Australia, Austria, Denmark, Germany, Greece, Italy, Spain, Switzerland and the USA. , 2018, , .		12
59	Development of Highâ€Efficiency Solar Cell Modules for Photovoltaicâ€Powered Vehicles. Solar Rrl, 2022, 6, 2100429.	5.8	12
60	A New Approach to Grow Polycrystalline CuGaSe2Thin Films: Chemical Vapor Deposition with I2as Transport Agent. Japanese Journal of Applied Physics, 1998, 37, 1617-1621.	1.5	11
61	European renewable government policies versus model predictions. Energy Strategy Reviews, 2014, 2, 257-264.	7.3	11
62	Characterization of the CuGaSe₂/ZnSe Interface Using Kelvin Probe Force Microscopy. Materials Research Society Symposia Proceedings, 2001, 668, 1.	0.1	9
63	Contribution of the ZnSe/CuGaSe2 heterojunction in photovoltaic performances of chalcopyrite-based solar cells. Thin Solid Films, 2002, 403-404, 344-348.	1.8	9
64	Temperature dependence of the exciton gap in monocrystalline CuGaSe2. Journal of Physics Condensed Matter, 2003, 15, 6219-6227.	1.8	9
65	Analysis of temperature coefficients and their effect on efficiency of solar cell modules for photovoltaics-powered vehicles. Journal Physics D: Applied Physics, 2021, 54, 504002.	2.8	9
66	Ag-doped CuGaSe2 as a precursor for thin film solar cells. Journal of Crystal Growth, 1999, 198-199, 1190-1195.	1.5	8
67	Progress in Chalcopyrite Compound Semiconductor Research for Photovoltaic Applications and Transfer of Results into Actual Solar Cell Production. , 2012, , 373-395.		7
68	Investigations of atomic diffusion at CIGSSe/ZnSe interfaces with heavy ion elastic recoil detection analysis (HI-ERDA). Thin Solid Films, 2002, 403-404, 432-437.	1.8	6
69	Photovoltaics: Status and Perspectives until 2020. Green, 2011, 1, .	0.4	6
70	A Snapshot of Global PV Markets - The Latest Survey Results on PV Markets and Policies from the IEA PVPS Programme in 2018. , 2019, , .		5
71	PV Markets and Industry. , 2019, , 1-38.		5
72	Comment on Seibert, M.K.; Rees, W.E. Through the Eye of a Needle: An Eco-Heterodox Perspective on the Renewable Energy Transition. Energies 2021, 14, 4508. Energies, 2022, 15, 971.	3.1	5

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73	WS/sub 2/ thin films a new candidate for solar cells. , 0, , .		4
74	CuIn(SxSe$_{{f 1-}inmb{x}}$)$_{f 2}$ Thin Films by Sulfurization. Japanese Journal of Applied Physics, 1995, 34, 4159-4162.	1.5	4
75	EU renewables. Refocus, 2005, 6, 58-60.	0.2	4
76	Electricity produced from photovoltaic systems in apartment buildings and self-consumption : Comparison of the situation in various IEA PVPS countries. , 2019, , .		4
77	The New European Renewable Energy Directive - Opportunities and Challenges for Photovoltaics. , 2019, , .		4
78	Self-consumption of electricity produced with photovoltaic systems in apartment buildings - Update of the situation in various IEA PVPS countries. , 2020, , .		4
79	ZnSe buffer prepared by iodine-enhanced chemical vapour deposition for Cu(In,Ga)(Se,S)-based solar cells. Solar Energy Materials and Solar Cells, 2003, 75, 1-8.	6.2	3
80	Quo Vadis photovoltaics 2011. EPJ Photovoltaics, 2011, 2, 20801.	1.6	3
81	Residential Photovoltaic Electricity Generation in the European Union 2017-Opportunities and Challenges. , 2017, , .		3
82	Photovoltaics photovoltaic (PV) , Status of. , 2013, , 174-211.		3
83	Preparation of CuInS₂ Thin Films by Sequential Evaporation of In₂S₃ and CuS. Solid State Phenomena, 1999, 67-68, 367-372.	0.3	2
84	Challenges to Realise 1% Electricity from Photovoltaic Solar Systems in the European Union by 2020. , 2006, , .		2
85	Overview of the Global PV Industry. , 2012, , 161-177.		2
86	The Photovoltaic Industry. , 2013, , 565-583.		2
87	Progress in Chalcopyrite Compound Semiconductor Research for Photovoltaic Applications and Transfer of Results into Actual Solar Cell Production. , 2013, , 305-325.		2
88	Realizing solar power's potential in the European Union. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2013, 371, 20120391.	3.4	2
89	Overview of the Global PV Industry. , 2021, , .		2
90	The European Green Deal - What's in it for Photovoltaics?. , 2020, , .		2

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91	Stoichiometry and impurity concentrations in IIâ€“VI compounds measured by elastic recoil detection analysis (ERDA). Journal of Crystal Growth, 1999, 197, 571-575.	1.5	1
92	Structural Properties and Growth Mechanism of CuGaSe₂ Thin Films for Solar Cells Grown by Two-Source CVD. Solid State Phenomena, 2001, 80-81, 275-280.	0.3	1
93	The Role of Photovoltaics in the Response of the European Member States to the European Green Deal. , 2021, , .		1
94	Material research for photovoltaics - from lab to market. , 2020, , .		1
95	Recent Renewable Energy Cost and Performance Parameters. , 0, , 1001-1022.		0
96	The Photovoltaic Market. , 2013, , 549-564.		0
97	THE PHOTOVOLTAIC BUSINESS: MANUFACTURERS AND MARKETS. Series on Photoconversion of Solar Energy, 2014, , 613-662.	0.2	0
98	Photovoltaics photovoltaic (PV) , Status of. , 2012, , 7935-7972.		0
99	DIFFUSION LENGTH MEASUREMENTS OF HETEROJUNCTION THIN FILMS BY JUNCTION-EBIC. European Physical Journal Special Topics, 1991, 01, C6-131-C6-136.	0.2	0
100	Polycrystalline CuGaSe2 Thin Films Growth by CVD with I2 as Transport Agent. , 1997, , .		0