Gernot Oreski

List of Publications by Year
in descending order

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Version: 2024-02-01

70	1,676	304368	301761
papers	citations	22	39
		h-index	g-index

70	70	70	1146
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Light guidance film for bifacial photovoltaic modules. Renewable Energy, 2022, 181, 604-615.	4.3	1
2	High-performance composite with 100% bio-based carbon content produced from epoxidized linseed oil, citric acid and flax fiber reinforcement. Composites Part A: Applied Science and Manufacturing, 2022, 152, 106666.	3.8	6
3	Review of degradation and failure phenomena in photovoltaic modules. Renewable and Sustainable Energy Reviews, 2022, 159, 112160.	8.2	166
4	Influence of reflective materials, emitter intensity and foil thickness on the variability of near-infrared spectra of 2D plastic packaging materials. Waste Management, 2022, 144, 543-551.	3.7	12
5	Nanoindentation for Fast Investigation of PET Film Degradation. Jom, 2022, 74, 2287-2294.	0.9	3
6	Peeling of Flexible Laminatesâ€"Determination of Interlayer Adhesion of Backsheet Laminates Used for Photovoltaic Modules. Materials, 2022, 15, 3294.	1.3	2
7	Motivation, benefits, and challenges for new photovoltaic material & module developments. Progress in Energy, 2022, 4, 032003.	4.6	14
8	How to accelerate natural weathering of polymeric photovoltaic backsheets â€“ A comparison with standardized artificial aging. Solar Energy Materials and Solar Cells, 2022, 244, 111819.	3.0	4
9	Review of technology specific degradation in crystalline silicon, cadmium telluride, copper indium gallium selenide, dye sensitised, organic and perovskite solar cells in photovoltaic modules: Understanding how reliability improvements in mature technologies can enhance emerging technologies. Progress in Photovoltaics: Research and Applications, 2022, 30, 1365-1392.	4.4	26
10	Assessment of Epoxy Functionalized Poly(dimethylsiloxane) Vitrimers Catalyzed with Covalently Attached Amines as Reversible Adhesives. Macromolecular Materials and Engineering, 2022, 307, .	1.7	3
11	Curing of epoxidized linseed oil: Investigation of the curing reaction with different hardener types. Journal of Applied Polymer Science, 2021, 138, 50239.	1.3	15
12	Comprehensive investigation of the viscoelastic properties of PMMA by nanoindentation. Polymer Testing, 2021, 93, 106978.	2.3	19
13	Comparison of Degradation Behavior of Newly Developed Encapsulation Materials for Photovoltaic Applications under Different Artificial Ageing Tests. Polymers, 2021, 13, 271.	2.0	26
14	Photovoltaic Modules. , 2021, , .		3
15	Performance of PV modules using co-extruded backsheets based on polypropylene. Solar Energy Materials and Solar Cells, 2021, 223, 110976.	3.0	32
16	Repair of cracked polyamide backsheets. , 2021, , .		1
17	Effects of artificial ageing tests on EVA degradation: influence of microclimate and methodology approach. , 2021, , .		0
18	Repair options for PV modules with cracked backsheets. Energy Science and Engineering, 2021, 9, 1583-1595.	1.9	20

#	Article	IF	Citations
19	Low temperature induced physical aging effects of backsheet materials. , 2021, , .		3
20	Morphological characterization of semi-crystalline POM using nanoindentation. International Journal of Polymer Analysis and Characterization, 2021, 26, 692-706.	0.9	7
21	Nanoindentation Reveals Crosslinking Behavior of Solar Encapsulantsâ€"The Methodological Advantages over Bulk Methods. Polymers, 2021, 13, 3328.	2.0	2
22	Increased reliability of modified polyolefin backsheet over commonly used polyester backsheets for crystalline PV modules. Journal of Applied Polymer Science, 2020, 137, 48899.	1.3	23
23	High-performance thermoset with 100 % bio-based carbon content. Polymer Degradation and Stability, 2020, 181, 109284.	2.7	15
24	Properties and degradation behaviour of polyolefin encapsulants for photovoltaic modules. Progress in Photovoltaics: Research and Applications, 2020, 28, 1277-1288.	4.4	61
25	Effect of Backsheet Properties on PV Encapsulant Degradation during Combined Accelerated Aging Tests. Sustainability, 2020, 12, 5208.	1.6	19
26	A Dual-Transport Model of Moisture Diffusion in PV Encapsulants for Finite-Element Simulations. IEEE Journal of Photovoltaics, 2020, 10, 94-102.	1.5	9
27	Degradation Processes and Mechanisms of Encapsulants. , 2019, , 135-152.		10
28	Influence of surface roughness and surface moisture of plastics on sensor-based sorting in the near infrared range. Waste Management and Research, 2019, 37, 843-850.	2.2	28
29	Error analysis of aged modules with cracked polyamide backsheets. Solar Energy Materials and Solar Cells, 2019, 203, 110194.	3.0	59
30	Development of a big data bank for PV monitoring data, analysis and simulation in COST Action â€˜PEARL PVâ€™. , 2019, , .		2
31	Relation between degradation of polymeric components in crystalline silicon PV module and climatic conditions: A literature review. Solar Energy Materials and Solar Cells, 2019, 192, 123-133.	3.0	160
32	The Influence of the EVA Film Aging on the Degradation Behavior of PV Modules Under High Voltage Bias in Wet Conditions Followed by Electroluminescence. IEEE Journal of Photovoltaics, 2019, 9, 259-265.	1.5	7
33	Optical and thermal properties of PVB encapsulant polymer functionalized by down-shift technique with new synthetized quantum dots for photovoltaic application. , 2019, , .		1
34	In situ durability of EVA polymer encapsulant with optical analysis techniques for photovoltaic conversion applications. , 2019, , .		0
35	Impurity detection in polymer parts for the semiconductor manufacturing industry. TM Technisches Messen, 2018, 85, 700-712.	0.3	0
36	Training the Next Generation of PV Reliability Experts (Photovoltaic Life Time Forecast and Evaluation) â€“ The Marie Sklodowska-Curie Actions (MSCA) Project SOLAR-TRAIN. , 2018, , .		0

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37	Introducing â€˜PEARL-PVâ€™: Performance and Reliability of Photovoltaic Systems: Evaluations of Large-Scale Monitoring Data. , 2018, , .		3
38	Optical and Thermal Analysis of PVB Encapsulant Polymer Functionalized with Luminescent Organic Dye as Emerging Material for Photovoltaic Application. , 2018, , .		0
39	Optical and thermal analysis of PVB encapsulant polymer functionalized with luminescent organic dyes. , 2018, , .		1
40	Crosslinking and postâ€crosslinking of ethylene vinyl acetate in photovoltaic modules. Journal of Applied Polymer Science, 2017, 134, .	1.3	43
41	Detection and identification of foreign bodies in polymer parts for use in semiconductor manufacturing. , 2017, , .		0
42	Applicability of technical biopolymers as absorber materials in solar thermal collectors. Solar Energy, 2017, 153, 276-288.	2.9	7
43	Comparison of different microclimate effects on the aging behavior of encapsulation materials used in photovoltaic modules. Polymer Degradation and Stability, 2017, 138, 182-191.	2.7	50
44	Non-destructive monitoring of ethylene vinyl acetate crosslinking in PV-modules by luminescence spectroscopy. Journal of Polymer Research, 2017, 24, 1.	1.2	8
45	UV-mediated thiol-ene click reactions for the synthesis of drug-loadable and degradable gels based on copoly(2-oxazoline)s. European Polymer Journal, 2017, 88, 701-712.	2.6	28
46	Optimum Chip-Tape Adhesion for Reliable Pickup Process. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2017, 7, 2057-2065.	1.4	2
47	Challenges in the industrial production of CZTS monograin solar cells. , 2017, , .		2
48	Acetic acid permeation through photovoltaic backsheets: Influence of the composition on the permeation rate. Polymer Testing, 2017, 60, 374-380.	2.3	30
49	In-line determination of the degree of crosslinking of ethylene vinyl acetate in PV modules by Raman spectroscopy. Solar Energy Materials and Solar Cells, 2016, 152, 10-20.	3.0	23
50	Correlation study of damp heat and pressure cooker testing on backsheets. Journal of Applied Polymer Science, 2016, 133, .	1.3	14
51	Degradation of photovoltaic backsheets: Comparison of the aging induced changes on module and component level. Journal of Applied Polymer Science, 2015, 132, .	1.3	38
52	Thermal expansion behavior of solar cell encapsulation materials. Polymer Testing, 2015, 44, 160-167.	2.3	23
53	Method to characterize the damping behavior of thin passively constrained layer laminates using dynamic mechanical analysis (DMA) in shear mode. Polymer Testing, 2015, 42, 215-224.	2.3	14
54	Correlation of the loss in photovoltaic module performance with the ageing behaviour of the backsheets used. Progress in Photovoltaics: Research and Applications, 2015, 23, 1501-1515.	4.4	53

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55	Determination of the degree of ethylene vinyl acetate crosslinking via Soxhlet extraction: Gold standard or pitfall?. Solar Energy Materials and Solar Cells, 2015, 143, 494-502.	3.0	16
56	Cross-linking characterization of polymers based on their optical dispersion utilizing a white-light interferometer. Proceedings of SPIE, 2015, , .	0.8	2
57	Thermo-mechanical characterisation of fluoropolymer films for concentrated solar thermal applications. Solar Energy Materials and Solar Cells, 2014, 130, 615-622.	3.0	16
58	Characterization of the Damping Behavior of Thin Films With Dynamic Mechanic Analysis in Bending Mode. , 2014, , .		0
59	Determining the degree of crosslinking of ethylene vinyl acetate photovoltaic module encapsulantsâ€"A comparative study. Solar Energy Materials and Solar Cells, 2013, 116, 203-218.	3.0	174
60	Qualification of polymeric components for use in PV modules. Proceedings of SPIE, 2011, , .	0.8	3
61	Determination of solar optical properties of transparent polymer films using UV/vis spectroscopy. Solar Energy Materials and Solar Cells, 2010, 94, 884-891.	3.0	19
62	Accelerated indoor durability testing of polymeric photovoltaic encapsulation materials. , 2010, , .		1
63	Damp heat induced physical aging of PV encapsulation materials. , 2010, , .		13
64	Evaluation of the aging behavior of ethylene copolymer films for solar applications under accelerated weathering conditions. Solar Energy, 2009, 83, 1040-1047.	2.9	69
65	Ageing characterization of commercial ethylene copolymer greenhouse films by analytical and mechanical methods. Biosystems Engineering, 2009, 103, 489-496.	1.9	34
66	Development of Methods to Determine the Infraredâ€Optical Properties of Polymer Films. Macromolecular Symposia, 2008, 265, 124-133.	0.4	9
67	Structureâ€"infrared optical property-correlations of polar ethylene copolymer films for solar applications. Solar Energy Materials and Solar Cells, 2006, 90, 1208-1219.	3.0	6
68	Structure-Infrared Optical Property-Correlations of C,O,H-Polymers for Transparent Insulation and Greenhouse Applications. Monatshefte FÃ¼r Chemie, 2006, 137, 899-910.	0.9	3
69	Aging mechanisms of polymeric films for PV encapsulation. Solar Energy, 2005, 79, 612-617.	2.9	153
70	Delamination behaviour of multi-layer films for PV encapsulation. Solar Energy Materials and Solar Cells, 2005, 89, 139-151.	3.0	60