

Jakob Heier

List of Publications by Year in descending order

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67
papers

2,708
citations

201674
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docs citations

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times ranked

3926
citing authors

#	ARTICLE	IF	CITATIONS
1	Two-dimensional Transition Metal Carbides and Nitrides (MXenes): Synthesis, Properties, and Electrochemical Energy Storage Applications. <i>Energy and Environmental Materials</i> , 2020, 3, 29-55.	12.8	319
2	Nanocellulose-MXene Biomimetic Aerogels with Orientation-Tunable Electromagnetic Interference Shielding Performance. <i>Advanced Science</i> , 2020, 7, 2000979.	11.2	303
3	Turning Trash into Treasure: Additive Free MXene Sediment Inks for Screen-Printed Micro-Supercapacitors. <i>Advanced Materials</i> , 2020, 32, e2000716.	21.0	241
4	Two-dimensional MXenes for lithium-sulfur batteries. <i>Informa-Materials</i> , 2020, 2, 613-638.	17.3	221
5	Towards cancer cell-specific phototoxic organometallic rhenium(V) complexes. <i>Dalton Transactions</i> , 2014, 43, 4287-4294.	3.3	147
6	Thin Diblock Copolymer Films on Chemically Heterogeneous Surfaces. <i>Macromolecules</i> , 1997, 30, 6610-6614.	4.8	116
7	Amyloid Directed Synthesis of Titanium Dioxide Nanowires and Their Applications in Hybrid Photovoltaic Devices. <i>Advanced Functional Materials</i> , 2012, 22, 3424-3428.	14.9	72
8	Transfer of a chemical substrate pattern into an island-forming diblock copolymer film. <i>Journal of Chemical Physics</i> , 1999, 111, 11101-11110.	3.0	61
9	NIR-Absorbing Heptamethine Dyes with Tailor-Made Counterions for Application in Light to Energy Conversion. <i>Organic Letters</i> , 2014, 16, 1044-1047.	4.6	59
10	Origin of the Kink in Current-Density Versus Voltage Curves and Efficiency Enhancement of Polymer-C ₆₀ Heterojunction Solar Cells. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2010, 16, 1690-1699.	2.9	57
11	Photochemical Transformations in Fullerene and Molybdenum Oxide Affect the Stability of Bilayer Organic Solar Cells. <i>Advanced Energy Materials</i> , 2015, 5, 1400734.	19.5	55
12	Poly(3-hexylthiophene)/C ₆₀ heterojunction solar cells: Implication of morphology on performance and ambipolar charge collection. <i>Solar Energy Materials and Solar Cells</i> , 2008, 92, 464-473.	6.2	51
13	Photonic light trapping in self-organized all-oxide microspheroids impacts photoelectrochemical water splitting. <i>Energy and Environmental Science</i> , 2014, 7, 2680-2688.	30.8	47
14	Improved performance of cyanine solar cells with polyaniline anodes. <i>Journal of Materials Chemistry</i> , 2010, 20, 2952.	6.7	44
15	Towards industrialization of perovskite solar cells using slot die coating. <i>Journal of Materials Chemistry C</i> , 2020, 8, 6124-6135.	5.5	44
16	Printing and coating MXenes for electrochemical energy storage devices. <i>JPhys Energy</i> , 2020, 2, 031004.	5.3	42
17	Transient Surface Roughening of Thin Films of Phase Separating Polymer Mixtures. <i>Langmuir</i> , 1996, 12, 3716-3720.	3.5	41
18	High performing doped cyanine bilayer solar cell. <i>Organic Electronics</i> , 2010, 11, 583-588.	2.6	41

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19	Inkjet printed mesoscopic perovskite solar cells with custom design capability. <i>Materials Advances</i> , 2020, 1, 153-160.	5.4	40
20	J-aggregation of cyanine dyes by self-assembly. <i>Colloids and Surfaces B: Biointerfaces</i> , 2009, 74, 484-491.	5.0	39
21	Synthesis, thin-film morphology, and comparative study of bulk and bilayer heterojunction organic photovoltaic devices using soluble diketopyrrolopyrrole molecules. <i>Energy and Environmental Science</i> , 2011, 4, 3617.	30.8	37
22	Strategies to improve cyanine dye multi layer organic solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2011, 19, 851-857.	8.1	36
23	Pattern formation in thin polymer films by spatially modulated electric fields. <i>Soft Matter</i> , 2009, 5, 3997.	2.7	34
24	Kinetics of Individual Block Copolymer Island Formation and Disappearance near an Absorbing Boundary. <i>Macromolecules</i> , 2000, 33, 6060-6067.	4.8	31
25	Nanoscale Structuring of Semiconducting Molecular Blend Films in the Presence of Mobile Counterions. <i>Langmuir</i> , 2008, 24, 7316-7322.	3.5	30
26	Spinodal Decomposition in a Subsurface Layer of a Polymer Blend Film. <i>Macromolecules</i> , 1999, 32, 3758-3765.	4.8	29
27	Diyne-Functionalized Fullerene Self-Assembly for Thin Film Solid-State Polymerization. <i>Macromolecules</i> , 2014, 47, 721-728.	4.8	28
28	Anisotropic Coarsening of Two-Dimensional Surface Domains in Copolymer Thin Films. <i>Macromolecules</i> , 1999, 32, 9007-9012.	4.8	27
29	Ionic Space Charge Driven Organic Photovoltaic Devices. <i>Chimia</i> , 2007, 61, 787-791.	0.6	27
30	Visible light-emitting host-guest electrochemical cells using cyanine dyes. <i>Organic Electronics</i> , 2017, 48, 77-84.	2.6	27
31	Exploiting supramolecular assemblies for filterless ultra-narrowband organic photodetectors with inkjet fabrication capability. <i>Journal of Materials Chemistry C</i> , 2019, 7, 14639-14650.	5.5	24
32	Interface morphology snapshots of vertically segregated thin films of semiconducting polymer/polystyrene blends. <i>Polymer</i> , 2007, 48, 2380-2386.	3.8	22
33	Coating Porous MXene Films with Tunable Porosity for High-Performance Solid-State Supercapacitors. <i>ChemElectroChem</i> , 2021, 8, 1911-1917.	3.4	21
34	Growth and Alignment of Thin Film Organic Single Crystals from Dewetting Patterns. <i>ACS Nano</i> , 2013, 7, 5506-5513.	14.6	20
35	(Benzimidazolin-2-ylidene)Au ⁺ Alkynyl Complexes: Syntheses, Structure, and Photophysical Properties. <i>European Journal of Inorganic Chemistry</i> , 2012, 2012, 1750-1763.	2.0	19
36	Ternary semitransparent organic solar cells with a laminated top electrode. <i>Science and Technology of Advanced Materials</i> , 2017, 18, 68-75.	6.1	19

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37	Strongly Red-Shifted Photoluminescence Band Induced by Molecular Twisting in Cyanine (Cy3) Dye Films. <i>Journal of Physical Chemistry C</i> , 2017, 121, 9587-9593.	3.1	19
38	Oligothiophene dendron-decorated squaraine dyes: Synthesis, thin film formation, and performance in organic solar cells. <i>Organic Electronics</i> , 2012, 13, 1204-1212.	2.6	16
39	Resonance Light Scattering in Dye-Aggregates Forming in Dewetting Droplets. <i>ACS Nano</i> , 2014, 8, 10057-10065.	14.6	16
40	Enhanced Room-Temperature Photoluminescence Quantum Yield in Morphology Controlled J-Aggregates. <i>Advanced Science</i> , 2021, 8, 1903080.	11.2	16
41	Exciton Dynamics and Effects of Structural Order in Morphology-Controlled J-Aggregate Assemblies. <i>Advanced Functional Materials</i> , 2019, 29, 1806997.	14.9	15
42	A Universal Approach for Room-Temperature Printing and Coating of 2D Materials. <i>Advanced Materials</i> , 2022, 34, e2103660.	21.0	15
43	Increasing Photovoltaic Performance of an Organic Cationic Chromophore by Anion Exchange. <i>Advanced Science</i> , 2018, 5, 1700496.	11.2	13
44	Insights into photovoltaic properties of ternary organic solar cells from phase diagrams. <i>Science and Technology of Advanced Materials</i> , 2018, 19, 669-682.	6.1	13
45	Fast Assembly of Cyanine Dyes into Aggregates onto [6,6]-Phenyl C ₆₁ -Butyric Acid Methyl Ester Surfaces from Organic Solvents. <i>Langmuir</i> , 2010, 26, 3955-3961.	3.5	12
46	The SFM/ToF-SIMS combination for advanced chemically-resolved analysis at the nanoscale. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2014, 339, 85-90.	1.4	12
47	Ultrafast charge transfer in solid-state films of pristine cyanine borate and blends with fullerene. <i>Journal of Materials Chemistry A</i> , 2015, 3, 10935-10941.	10.3	10
48	Influence of chemically p-type doped active organic semiconductor on the film thickness versus performance trend in cyanine/C ₆₀ bilayer solar cells. <i>Science and Technology of Advanced Materials</i> , 2015, 16, 035003.	6.1	10
49	Hematite nanostructuring using electrohydrodynamic lithography. <i>Applied Surface Science</i> , 2014, 305, 62-66.	6.1	8
50	Superweak Coordinating Anion as Superstrong Enhancer of Cyanine Organic Semiconductor Properties. <i>ChemPhysChem</i> , 2018, 19, 3356-3363.	2.1	7
51	Three dimensional analysis of self-structuring organic thin films using time-of-flight secondary ion mass spectrometry. <i>Thin Solid Films</i> , 2011, 519, 6183-6189.	1.8	6
52	Spatially resolved photocurrent mapping of efficient organic solar cells fabricated on a woven mesh electrode. <i>Progress in Photovoltaics: Research and Applications</i> , 2013, 21, 652-657.	8.1	6
53	Excitonic channels from bio-inspired templated supramolecular assembly of J-aggregate nanowires. <i>Nanoscale</i> , 2019, 11, 6929-6938.	5.6	6
54	Template synthesis of cyanine dye H-aggregates on nanostructured [6,6]-phenyl C ₆₁ -butyric acid methyl ester substrates. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 15714.	2.8	5

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55	Dewetting-driven hierarchical self-assembly of small semiconducting molecules. <i>Soft Matter</i> , 2012, 8, 5804.	2.7	5
56	Cyanine platelet single crystals: growth, crystal structure and optical spectra. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 29166-29173.	2.8	5
57	Combining parallel pattern generation of electrohydrodynamic lithography with serial addressing. <i>RSC Advances</i> , 2018, 8, 30932-30936.	3.6	4
58	Physical vapour deposition of cyanine salts and their first application in organic electronic devices. <i>Journal of Materials Chemistry C</i> , 2019, 7, 414-423.	5.5	4
59	Gravure printed Ag/conductive polymer electrodes and simulation of their electrical properties. <i>International Journal of Advanced Manufacturing Technology</i> , 2019, 103, 3901-3912.	3.0	4
60	Self-organised microdots formed by dewetting in a highly volatile liquid. <i>Journal of Colloid and Interface Science</i> , 2012, 378, 201-209.	9.4	3
61	The effect of solvent and electric field on the size distribution of iron oxide microdots: Exploitation of self-assembly strategies for photoelectrodes. <i>Journal of Materials Research</i> , 2011, 26, 254-261.	2.6	2
62	Unexpected Equilibrium Ionic Distribution in Cyanine/C ₆₀ Heterojunctions. <i>Advanced Materials Interfaces</i> , 2017, 4, 1600891.	3.7	2
63	Wetting reversal transition in phase-separated polymer mixtures. <i>Macromolecular Symposia</i> , 1999, 139, 77-85.	0.7	1
64	Enlarged bilayer interfaces from liquid-liquid dewetting for photovoltaic applications. , 2008, , .		1
65	Cyanine dyes in solid state organic heterojunction solar cells. , 2014, , .		1
66	Interface control in organic heterojunction photovoltaic cells by phase separation processes. <i>Proceedings of SPIE</i> , 2007, , .	0.8	0
67	Light Scattering Enhancement at the Absorption Edge in Dewetting Droplets of Cyanine Dyes. <i>Advanced Optical Materials</i> , 2017, 5, 1600903.	7.3	0