

Jakob Heier

List of Publications by Year in descending order

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Version: 2024-02-01

67
papers

2,708
citations

201575

27
h-index

182361

51
g-index

69
all docs

69
docs citations

69
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. | 7.3 | 319 |
| 2 | Nanocellulose-MXene Biomimetic Aerogels with Orientation-Tunable Electromagnetic Interference Shielding Performance. <i>Advanced Science</i> , 2020, 7, 2000979. | 5.6 | 303 |
| 3 | Turning Trash into Treasure: Additive Free MXene Sediment Inks for Screen-Printed Micro-Supercapacitors. <i>Advanced Materials</i> , 2020, 32, e2000716. | 11.1 | 241 |
| 4 | Two-dimensional MXenes for lithium-sulfur batteries. <i>Informa-Materials</i> , 2020, 2, 613-638. | 8.5 | 221 |
| 5 | Towards cancer cell-specific phototoxic organometallic rhenium complexes. <i>Dalton Transactions</i> , 2014, 43, 4287-4294. | 1.6 | 147 |
| 6 | Thin Diblock Copolymer Films on Chemically Heterogeneous Surfaces. <i>Macromolecules</i> , 1997, 30, 6610-6614. | 2.2 | 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. | 7.8 | 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. | 1.2 | 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. | 2.4 | 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. | 1.9 | 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. | 10.2 | 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. | 3.0 | 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. | 15.6 | 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. | 2.7 | 44 |
| 16 | Printing and coating MXenes for electrochemical energy storage devices. <i>JPhys Energy</i> , 2020, 2, 031004. | 2.3 | 42 |
| 17 | Transient Surface Roughening of Thin Films of Phase Separating Polymer Mixtures. <i>Langmuir</i> , 1996, 12, 3716-3720. | 1.6 | 41 |
| 18 | High performing doped cyanine bilayer solar cell. <i>Organic Electronics</i> , 2010, 11, 583-588. | 1.4 | 41 |

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|----|---|------|-----------|
| 19 | Inkjet printed mesoscopic perovskite solar cells with custom design capability. <i>Materials Advances</i> , 2020, 1, 153-160. | 2.6 | 40 |
| 20 | J-aggregation of cyanine dyes by self-assembly. <i>Colloids and Surfaces B: Biointerfaces</i> , 2009, 74, 484-491. | 2.5 | 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. | 15.6 | 37 |
| 22 | Strategies to improve cyanine dye multi layer organic solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2011, 19, 851-857. | 4.4 | 36 |
| 23 | Pattern formation in thin polymer films by spatially modulated electric fields. <i>Soft Matter</i> , 2009, 5, 3997. | 1.2 | 34 |
| 24 | Kinetics of Individual Block Copolymer Island Formation and Disappearance near an Absorbing Boundary. <i>Macromolecules</i> , 2000, 33, 6060-6067. | 2.2 | 31 |
| 25 | Nanoscale Structuring of Semiconducting Molecular Blend Films in the Presence of Mobile Counterions. <i>Langmuir</i> , 2008, 24, 7316-7322. | 1.6 | 30 |
| 26 | Spinodal Decomposition in a Subsurface Layer of a Polymer Blend Film. <i>Macromolecules</i> , 1999, 32, 3758-3765. | 2.2 | 29 |
| 27 | Diyne-Functionalized Fullerene Self-Assembly for Thin Film Solid-State Polymerization. <i>Macromolecules</i> , 2014, 47, 721-728. | 2.2 | 28 |
| 28 | Anisotropic Coarsening of Two-Dimensional Surface Domains in Copolymer Thin Films. <i>Macromolecules</i> , 1999, 32, 9007-9012. | 2.2 | 27 |
| 29 | Ionic Space Charge Driven Organic Photovoltaic Devices. <i>Chimia</i> , 2007, 61, 787-791. | 0.3 | 27 |
| 30 | Visible light-emitting host-guest electrochemical cells using cyanine dyes. <i>Organic Electronics</i> , 2017, 48, 77-84. | 1.4 | 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. | 2.7 | 24 |
| 32 | Interface morphology snapshots of vertically segregated thin films of semiconducting polymer/polystyrene blends. <i>Polymer</i> , 2007, 48, 2380-2386. | 1.8 | 22 |
| 33 | Coating Porous MXene Films with Tunable Porosity for High-Performance Solid-State Supercapacitors. <i>ChemElectroChem</i> , 2021, 8, 1911-1917. | 1.7 | 21 |
| 34 | Growth and Alignment of Thin Film Organic Single Crystals from Dewetting Patterns. <i>ACS Nano</i> , 2013, 7, 5506-5513. | 7.3 | 20 |
| 35 | (Benzimidazolin-2-ylidene)Au ^I Alkynyl Complexes: Syntheses, Structure, and Photophysical Properties. <i>European Journal of Inorganic Chemistry</i> , 2012, 2012, 1750-1763. | 1.0 | 19 |
| 36 | Ternary semitransparent organic solar cells with a laminated top electrode. <i>Science and Technology of Advanced Materials</i> , 2017, 18, 68-75. | 2.8 | 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. | 1.5 | 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. | 1.4 | 16 |
| 39 | Resonance Light Scattering in Dye-Aggregates Forming in Dewetting Droplets. <i>ACS Nano</i> , 2014, 8, 10057-10065. | 7.3 | 16 |
| 40 | Enhanced Room-Temperature Photoluminescence Quantum Yield in Morphology Controlled J-Aggregates. <i>Advanced Science</i> , 2021, 8, 1903080. | 5.6 | 16 |
| 41 | Exciton Dynamics and Effects of Structural Order in Morphology-Controlled J-Aggregate Assemblies. <i>Advanced Functional Materials</i> , 2019, 29, 1806997. | 7.8 | 15 |
| 42 | A Universal Approach for Room-Temperature Printing and Coating of 2D Materials. <i>Advanced Materials</i> , 2022, 34, e2103660. | 11.1 | 15 |
| 43 | Increasing Photovoltaic Performance of an Organic Cationic Chromophore by Anion Exchange. <i>Advanced Science</i> , 2018, 5, 1700496. | 5.6 | 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. | 2.8 | 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. | 1.6 | 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. | 0.6 | 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. | 5.2 | 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. | 2.8 | 10 |
| 49 | Hematite nanostructuring using electrohydrodynamic lithography. <i>Applied Surface Science</i> , 2014, 305, 62-66. | 3.1 | 8 |
| 50 | Superweak Coordinating Anion as Superstrong Enhancer of Cyanine Organic Semiconductor Properties. <i>ChemPhysChem</i> , 2018, 19, 3356-3363. | 1.0 | 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. | 0.8 | 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. | 4.4 | 6 |
| 53 | Excitonic channels from bio-inspired templated supramolecular assembly of J-aggregate nanowires. <i>Nanoscale</i> , 2019, 11, 6929-6938. | 2.8 | 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. | 1.3 | 5 |

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|----|--|-----|-----------|
| 55 | Dewetting-driven hierarchical self-assembly of small semiconducting molecules. <i>Soft Matter</i> , 2012, 8, 5804. | 1.2 | 5 |
| 56 | Cyanine platelet single crystals: growth, crystal structure and optical spectra. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 29166-29173. | 1.3 | 5 |
| 57 | Combining parallel pattern generation of electrohydrodynamic lithography with serial addressing. <i>RSC Advances</i> , 2018, 8, 30932-30936. | 1.7 | 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. | 2.7 | 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. | 1.5 | 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. | 5.0 | 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. | 1.2 | 2 |
| 62 | Unexpected Equilibrium Ionic Distribution in Cyanine/C ₆₀ Heterojunctions. <i>Advanced Materials Interfaces</i> , 2017, 4, 1600891. | 1.9 | 2 |
| 63 | Wetting reversal transition in phase-separated polymer mixtures. <i>Macromolecular Symposia</i> , 1999, 139, 77-85. | 0.4 | 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. | 3.6 | 0 |