

Tobias Heil

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

64 papers	2,849 citations	28 h-index	53 g-index
66 ext. papers	3,611 ext. citations	11 avg, IF	5.69 L-index

#	Paper	IF	Citations
64	Enhanced Organic Photocatalysis in Confined Flow through a Carbon Nitride Nanotube Membrane with Conversions in the Millisecond Regime. <i>ACS Nano</i> , 2021 , 15, 6551-6561	16.7	13
63	Laser-carbonization: Peering into the formation of micro-thermally produced (N-doped)carbons. <i>Carbon</i> , 2021 , 176, 500-510	10.4	7
62	Laser-driven growth of structurally defined transition metal oxide nanocrystals on carbon nitride photoelectrodes in milliseconds. <i>Nature Communications</i> , 2021 , 12, 3224	17.4	5
61	Sustainable Cathodes for Lithium-Ion Energy Storage Devices Based on Tannic Acid toward Ecofriendly Energy Storage. <i>Advanced Sustainable Systems</i> , 2021 , 5, 2000206	5.9	8
60	All-organic Z-scheme photoreduction of CO ₂ with water as the donor of electrons and protons. <i>Applied Catalysis B: Environmental</i> , 2021 , 285, 119773	21.8	9
59	Light-driven directional ion transport for enhanced osmotic energy harvesting. <i>National Science Review</i> , 2021 , 8, nwaa231	10.8	6
58	Chemical Vapor Deposition of Highly Conjugated, Transparent Boron Carbon Nitride Thin Films. <i>Advanced Science</i> , 2021 , 8, e2101602	13.6	7
57	Ultrahigh water sorption on highly nitrogen doped carbonaceous materials derived from uric acid. <i>Journal of Colloid and Interface Science</i> , 2021 , 602, 880-888	9.3	2
56	Synthesis of carbon frameworks with N, O and S-lined pores from gallic acid and thiourea for superior CO ₂ adsorption and supercapacitors. <i>Science China Materials</i> , 2020 , 63, 748-757	7.1	14
55	A Single Cu-Center Containing Enzyme-Mimic Enabling Full Photosynthesis under CO Reduction. <i>ACS Nano</i> , 2020 , 14, 8584-8593	16.7	73
54	Synthesis of a Porous CN-Derived Framework with High Yield by Gallic Acid Cross-Linking Using Salt Melts. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 13127-13133	9.5	7
53	Shine Bright Like a Diamond: New Light on an Old Polymeric Semiconductor. <i>Advanced Materials</i> , 2020 , 32, e1908140	24	36
52	Nickel on nitrogen-doped carbon pellets for continuous-flow hydrogenation of biomass-derived compounds in water. <i>Green Chemistry</i> , 2020 , 22, 2755-2766	10	25
51	Additives Control the Stability of Amorphous Calcium Carbonate via Two Different Mechanisms: Surface Adsorption versus Bulk Incorporation. <i>Advanced Functional Materials</i> , 2020 , 30, 2000003	15.6	19
50	Continuous hydrothermal flow synthesis of blue-luminescent, excitation-independent nitrogen-doped carbon quantum dots as nanosensors. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 3270-3279	13.9	30
49	In Situ Formation of Arrays of Tungsten Single Atoms within Carbon Nitride Frameworks Fabricated by One-Step Synthesis through Monomer Complexation. <i>Chemistry of Materials</i> , 2020 , 32, 9435-9443	9.6	9
48	Guanine-Derived Porous Carbonaceous Materials: Towards C N. <i>ChemSusChem</i> , 2020 , 13, 6643-6650	8.3	9

47	Boron Carbon Nitride Thin Films: From Disordered to Ordered Conjugated Ternary Materials. <i>Journal of the American Chemical Society</i> , 2020 , 142, 20883-20891	16.4	26
46	Laser-Induced Carbonization of Natural Organic Precursors for Flexible Electronics. <i>Advanced Electronic Materials</i> , 2020 , 6, 2000463	6.4	14
45	Visible-light induced emulsion photopolymerization with carbon nitride as a stabilizer and photoinitiator. <i>Polymer Chemistry</i> , 2019 , 10, 5315-5323	4.9	33
44	Dispersed nano-MOFs via a stimuli-responsive biohybrid-system with enhanced photocatalytic performance. <i>Materials Horizons</i> , 2019 , 6, 802-809	14.4	15
43	Patching laser-reduced graphene oxide with carbon nanodots. <i>Nanoscale</i> , 2019 , 11, 12712-12719	7.7	12
42	Semi-heterogene duale Nickel-/Photokatalyse mit Kohlenstoffnitriden: Veresterung von Carbonsäuren mit Arylhalogeniden. <i>Angewandte Chemie</i> , 2019 , 131, 9676-9681	3.6	11
41	Semi-heterogeneous Dual Nickel/Photocatalysis using Carbon Nitrides: Esterification of Carboxylic Acids with Aryl Halides. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 9575-9580	16.4	66
40	Strong metal oxide-support interactions in carbon/hematite nanohybrids activate novel energy storage modes for ionic liquid-based supercapacitors. <i>Energy Storage Materials</i> , 2019 , 20, 188-195	19.4	20
39	Designing Defective Crystalline Carbon Nitride to Enable Selective CO ₂ Photoreduction in the Gas Phase. <i>Advanced Functional Materials</i> , 2019 , 29, 1900093	15.6	151
38	Electron Deficient Monomers that Optimize Nucleation and Enhance the Photocatalytic Redox Activity of Carbon Nitrides. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 14950-14954	16.4	74
37	Photo-Driven Ion Transport for a Photodetector Based on an Asymmetric Carbon Nitride Nanotube Membrane. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 12574-12579	16.4	53
36	Photo-Driven Ion Transport for a Photodetector Based on an Asymmetric Carbon Nitride Nanotube Membrane. <i>Angewandte Chemie</i> , 2019 , 131, 12704-12709	3.6	5
35	Enhanced Electrocatalytic N ₂ Reduction via Partial Anion Substitution in Titanium Oxide-Carbon Composites. <i>Angewandte Chemie</i> , 2019 , 131, 13235-13240	3.6	13
34	Partially delocalized charge in Fe-doped NiCo ₂ S ₄ nanosheet-based porous carbon-composites for high-voltage supercapacitors. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 19342-19347	13	34
33	Enhanced Electrocatalytic N Reduction via Partial Anion Substitution in Titanium Oxide-Carbon Composites. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 13101-13106	16.4	112
32	Highly Selective CO ₂ Capture and Its Direct Photochemical Conversion on Ordered 2D/1D Heterojunctions. <i>Joule</i> , 2019 , 3, 2792-2805	27.8	115
31	Electron Deficient Monomers that Optimize Nucleation and Enhance the Photocatalytic Redox Activity of Carbon Nitrides. <i>Angewandte Chemie</i> , 2019 , 131, 15092-15096	3.6	12
30	Tailoring the Grain Boundary Chemistry of Polymeric Carbon Nitride for Enhanced Solar Hydrogen Production and CO Reduction. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 3433-3437	16.4	197

29	Artificial light-driven ion pump for photoelectric energy conversion. <i>Nature Communications</i> , 2019 , 10, 74	17.4	94
28	Tailoring the Grain Boundary Chemistry of Polymeric Carbon Nitride for Enhanced Solar Hydrogen Production and CO ₂ Reduction. <i>Angewandte Chemie</i> , 2019 , 131, 3471-3475	3.6	44
27	Formation and Properties of Poly(Ionic Liquid)-Carbene Nanogels Containing Individually Stabilized Silver Species. <i>Chemistry - A European Journal</i> , 2018 , 24, 5754-5759	4.8	3
26	Morphogenesis of Metal-Organic Mesocrystals Mediated by Double Hydrophilic Block Copolymers. <i>Journal of the American Chemical Society</i> , 2018 , 140, 2947-2956	16.4	52
25	Greener synthesis of dimethyl carbonate using a novel tin-zirconia/graphene nanocomposite catalyst. <i>Applied Catalysis B: Environmental</i> , 2018 , 226, 451-462	21.8	31
24	Single-Site Gold Catalysts on Hierarchical N-Doped Porous Noble Carbon for Enhanced Electrochemical Reduction of Nitrogen. <i>Small Methods</i> , 2018 , 2, 1800202	12.8	169
23	Template- and Metal-Free Synthesis of Nitrogen-Rich Nanoporous "Noble" Carbon Materials by Direct Pyrolysis of a Preorganized Hexaazatriphenylene Precursor. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 10765-10770	16.4	60
22	Templat- und metallfreie Synthese stickstoffreicher, nanoporöser und fädlicher Kohlenstoffmaterialien durch direkte Kondensation eines vororganisierten Hexaazatriphenylen Vorläufers. <i>Angewandte Chemie</i> , 2018 , 130, 10926-10931	3.6	7
21	Ordered Mesoporous Carbons with High Micropore Content and Tunable Structure Prepared by Combined Hard and Salt Templating as Electrode Materials in Electric Double-Layer Capacitors. <i>Advanced Sustainable Systems</i> , 2018 , 2, 1700128	5.9	36
20	Continuous hydrothermal flow synthesis of graphene quantum dots. <i>Reaction Chemistry and Engineering</i> , 2018 , 3, 949-958	4.9	17
19	Electrostatic Stabilization of Carbon Nitride Colloids in Organic Solvents Enables Stable Dispersions and Transparent Homogeneous CN Films for Optoelectronics. <i>Journal of the American Chemical Society</i> , 2018 , 140, 17532-17537	16.4	42
18	Tandem promotion of iron catalysts by sodium-sulfur and nitrogen-doped carbon layers on carbon nanotube supports for the Fischer-Tropsch to olefins synthesis. <i>Applied Catalysis A: General</i> , 2018 , 568, 213-220	5.1	9
17	C ₂ N _x O _{1-x} framework carbons with defined microporosity and Co-doped functional pores. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 19013-19019	13	18
16	Noise reduction in CCD measurements by improving the quality of dark-reference images. <i>Microscopy (Oxford, England)</i> , 2018 , 67, i123-i132	1.3	1
15	Rapid synthesis of graphene quantum dots using a continuous hydrothermal flow synthesis approach. <i>RSC Advances</i> , 2017 , 7, 14716-14720	3.7	34
14	Selective Calixarene-Directed Synthesis of MXene Plates, Crumpled Sheets, Spheres, and Scrolls. <i>Chemistry - A European Journal</i> , 2017 , 23, 8128-8133	4.8	24
13	Hexaazatriphenylene doped carbon nitridesBiomimetic photocatalyst with superior oxidation power. <i>Applied Catalysis B: Environmental</i> , 2017 , 217, 622-628	21.8	52
12	Optimizing Optical Absorption, Exciton Dissociation, and Charge Transfer of a Polymeric Carbon Nitride with Ultrahigh Solar Hydrogen Production Activity. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 13445-13449	16.4	379

11	Optimizing Optical Absorption, Exciton Dissociation, and Charge Transfer of a Polymeric Carbon Nitride with Ultrahigh Solar Hydrogen Production Activity. <i>Angewandte Chemie</i> , 2017 , 129, 13630-13634	3.6	91
10	Calixarene Assisted Rapid Synthesis of Silver-Graphene Nanocomposites with Enhanced Antibacterial Activity. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 19038-46	9.5	68
9	Highly Stable and Conductive Microcapsules for Enhancement of Joule Heating Performance. <i>ACS Nano</i> , 2016 , 10, 4695-703	16.7	67
8	Fuzzy tungsten in a magnetron sputtering device. <i>Journal of Nuclear Materials</i> , 2016 , 480, 374-385	3.3	17
7	Greener synthesis of dimethyl carbonate using a novel ceria/zirconia oxide/graphene nanocomposite catalyst. <i>Applied Catalysis B: Environmental</i> , 2015 , 168-169, 353-362	21.8	89
6	Greener synthesis of propylene carbonate using graphene-inorganic nanocomposite catalysts. <i>Catalysis Today</i> , 2015 , 256, 347-357	5.3	27
5	Improving the reliability of the background extrapolation in transmission electron microscopy elemental maps by using three pre-edge windows. <i>Ultramicroscopy</i> , 2012 , 118, 11-6	3.1	5
4	Optimization of EFTEM image acquisition by using elastically filtered images for drift correction. <i>Ultramicroscopy</i> , 2010 , 110, 748-53	3.1	14
3	Quantitative comparison of energy-filtering transmission electron microscopy and atom probe tomography. <i>Ultramicroscopy</i> , 2009 , 109, 612-8	3.1	15
2	Experimental evidence of self-limited growth of nanocrystals in glass. <i>Nano Letters</i> , 2009 , 9, 2493-6	11.5	137
1	H ₂ and CH ₄ production from bio-alcohols using condensed poly(heptazine imide) with visible light. <i>Journal of Materials Chemistry A</i> ,	13	2