Tobias Heil

List of Publications by Citations

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	Optimizing Optical Absorption, Exciton Dissociation, and Charge Transfer of a Polymeric Carbon Nitride with Ultrahigh Solar Hydrogen Production Activity. *Angewandte Chemie - International Edition*, **2017**, 56, 13445-13449	16.4	379
63	Tailoring the Grain Boundary Chemistry of Polymeric Carbon Nitride for Enhanced Solar Hydrogen Production and CO Reduction. *Angewandte Chemie - International Edition*, **2019**, 58, 3433-3437	16.4	197
62	Single-Site Gold Catalysts on Hierarchical N-Doped Porous Noble Carbon for Enhanced Electrochemical Reduction of Nitrogen. *Small Methods*, **2018**, 2, 1800202	12.8	169
61	Designing Defective Crystalline Carbon Nitride to Enable Selective CO2 Photoreduction in the Gas Phase. *Advanced Functional Materials*, **2019**, 29, 1900093	15.6	151
60	Experimental evidence of self-limited growth of nanocrystals in glass. *Nano Letters*, **2009**, 9, 2493-6	11.5	137
59	Highly Selective CO2 Capture and Its Direct Photochemical Conversion on Ordered 2D/1D Heterojunctions. *Joule*, **2019**, 3, 2792-2805	27.8	115
58	Enhanced Electrocatalytic N Reduction via Partial Anion Substitution in Titanium Oxide-Carbon Composites. *Angewandte Chemie - International Edition*, **2019**, 58, 13101-13106	16.4	112
57	Artificial light-driven ion pump for photoelectric energy conversion. *Nature Communications*, **2019**, 10, 74	17.4	94
56	Optimizing Optical Absorption, Exciton Dissociation, and Charge Transfer of a Polymeric Carbon Nitride with Ultrahigh Solar Hydrogen Production Activity. *Angewandte Chemie*, **2017**, 129, 13630-13634	3.6	91
55	Greener synthesis of dimethyl carbonate using a novel ceria□zirconia oxide/graphene nanocomposite catalyst. *Applied Catalysis B: Environmental*, **2015**, 168-169, 353-362	21.8	89
54	Electron Deficient Monomers that Optimize Nucleation and Enhance the Photocatalytic Redox Activity of Carbon Nitrides. *Angewandte Chemie - International Edition*, **2019**, 58, 14950-14954	16.4	74
53	A Single Cu-Center Containing Enzyme-Mimic Enabling Full Photosynthesis under CO Reduction. *ACS Nano*, **2020**, 14, 8584-8593	16.7	73
52	Calixarene Assisted Rapid Synthesis of Silver-Graphene Nanocomposites with Enhanced Antibacterial Activity. *ACS Applied Materials & Interfaces*, **2016**, 8, 19038-46	9.5	68
51	Highly Stable and Conductive Microcapsules for Enhancement of Joule Heating Performance. *ACS Nano*, **2016**, 10, 4695-703	16.7	67
50	Semi-heterogeneous Dual Nickel/Photocatalysis using Carbon Nitrides: Esterification of Carboxylic Acids with Aryl Halides. *Angewandte Chemie - International Edition*, **2019**, 58, 9575-9580	16.4	66
49	Template- and Metal-Free Synthesis of Nitrogen-Rich Nanoporous "Noble" Carbon Materials by Direct Pyrolysis of a Preorganized Hexaazatriphenylene Precursor. *Angewandte Chemie - International Edition*, **2018**, 57, 10765-10770	16.4	60
48	Photo-Driven Ion Transport for a Photodetector Based on an Asymmetric Carbon Nitride Nanotube Membrane. *Angewandte Chemie - International Edition*, **2019**, 58, 12574-12579	16.4	53

47	Hexaazatriphenylene doped carbon nitrides□Biomimetic photocatalyst with superior oxidation power. *Applied Catalysis B: Environmental*, **2017**, 217, 622-628	21.8	52
46	Morphogenesis of Metal-Organic Mesocrystals Mediated by Double Hydrophilic Block Copolymers. *Journal of the American Chemical Society*, **2018**, 140, 2947-2956	16.4	52
45	Tailoring the Grain Boundary Chemistry of Polymeric Carbon Nitride for Enhanced Solar Hydrogen Production and CO2 Reduction. *Angewandte Chemie*, **2019**, 131, 3471-3475	3.6	44
44	Electrostatic Stabilization of Carbon Nitride Colloids in Organic Solvents Enables Stable Dispersions and Transparent Homogeneous CN Films for Optoelectronics. *Journal of the American Chemical Society*, **2018**, 140, 17532-17537	16.4	42
43	Shine Bright Like a Diamond: New Light on an Old Polymeric Semiconductor. *Advanced Materials*, **2020**, 32, e1908140	24	36
42	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. *Advanced Sustainable Systems*, **2018**, 2, 1700128	5.9	36
41	Rapid synthesis of graphene quantum dots using a continuous hydrothermal flow synthesis approach. *RSC Advances*, **2017**, 7, 14716-14720	3.7	34
40	Partially delocalized charge in Fe-doped NiCo2S4 nanosheet□mesoporous carbon-composites for high-voltage supercapacitors. *Journal of Materials Chemistry A*, **2019**, 7, 19342-19347	13	34
39	Visible-light induced emulsion photopolymerization with carbon nitride as a stabilizer and photoinitiator. *Polymer Chemistry*, **2019**, 10, 5315-5323	4.9	33
38	Greener synthesis of dimethyl carbonate using a novel tin-zirconia/graphene nanocomposite catalyst. *Applied Catalysis B: Environmental*, **2018**, 226, 451-462	21.8	31
37	Continuous hydrothermal flow synthesis of blue-luminescent, excitation-independent nitrogen-doped carbon quantum dots as nanosensors. *Journal of Materials Chemistry A*, **2020**, 8, 3270-3279	13	30
36	Greener synthesis of propylene carbonate using graphene-inorganic nanocomposite catalysts. *Catalysis Today*, **2015**, 256, 347-357	5.3	27
35	Boron Carbon Nitride Thin Films: From Disordered to Ordered Conjugated Ternary Materials. *Journal of the American Chemical Society*, **2020**, 142, 20883-20891	16.4	26
34	Nickel on nitrogen-doped carbon pellets for continuous-flow hydrogenation of biomass-derived compounds in water. *Green Chemistry*, **2020**, 22, 2755-2766	10	25
33	Selective Calixarene-Directed Synthesis of MXene Plates, Crumpled Sheets, Spheres, and Scrolls. *Chemistry - A European Journal*, **2017**, 23, 8128-8133	4.8	24
32	Strong metal oxide-support interactions in carbon/hematite nanohybrids activate novel energy storage modes for ionic liquid-based supercapacitors. *Energy Storage Materials*, **2019**, 20, 188-195	19.4	20
31	Additives Control the Stability of Amorphous Calcium Carbonate via Two Different Mechanisms: Surface Adsorption versus Bulk Incorporation. *Advanced Functional Materials*, **2020**, 30, 2000003	15.6	19
30	C2NxO1□ framework carbons with defined microporosity and Co-doped functional pores. *Journal of Materials Chemistry A*, **2018**, 6, 19013-19019	13	18

29	Fuzzy tungsten in a magnetron sputtering device. *Journal of Nuclear Materials*, **2016**, 480, 374-385	3.3	17
28	Continuous hydrothermal flow synthesis of graphene quantum dots. *Reaction Chemistry and Engineering*, **2018**, 3, 949-958	4.9	17
27	Dispersed nano-MOFs via a stimuli-responsive biohybrid-system with enhanced photocatalytic performance. *Materials Horizons*, **2019**, 6, 802-809	14.4	15
26	Quantitative comparison of energy-filtering transmission electron microscopy and atom probe tomography. *Ultramicroscopy*, **2009**, 109, 612-8	3.1	15
25	Synthesis of carbon frameworks with N, O and S-lined pores from gallic acid and thiourea for superior CO2 adsorption and supercapacitors. *Science China Materials*, **2020**, 63, 748-757	7.1	14
24	Optimization of EFTEM image acquisition by using elastically filtered images for drift correction. *Ultramicroscopy*, **2010**, 110, 748-53	3.1	14
23	Laser-Induced Carbonization of Natural Organic Precursors for Flexible Electronics. *Advanced Electronic Materials*, **2020**, 6, 2000463	6.4	14
22	Enhanced Electrocatalytic N2 Reduction via Partial Anion Substitution in Titanium Oxide□arbon Composites. *Angewandte Chemie*, **2019**, 131, 13235-13240	3.6	13
21	Enhanced Organic Photocatalysis in Confined Flow through a Carbon Nitride Nanotube Membrane with Conversions in the Millisecond Regime. *ACS Nano*, **2021**, 15, 6551-6561	16.7	13
20	Patching laser-reduced graphene oxide with carbon nanodots. *Nanoscale*, **2019**, 11, 12712-12719	7.7	12
19	Electron Deficient Monomers that Optimize Nucleation and Enhance the Photocatalytic Redox Activity of Carbon Nitrides. *Angewandte Chemie*, **2019**, 131, 15092-15096	3.6	12
18	Semi-heterogene duale Nickel-/Photokatalyse mit Kohlenstoffnitriden: Veresterung von Carbons□ren mit Arylhalogeniden. *Angewandte Chemie*, **2019**, 131, 9676-9681	3.6	11
17	In Situ Formation of Arrays of Tungsten Single Atoms within Carbon Nitride Frameworks Fabricated by One-Step Synthesis through Monomer Complexation. *Chemistry of Materials*, **2020**, 32, 9435-9443	9.6	9
16	Guanine-Derived Porous Carbonaceous Materials: Towards C N. *ChemSusChem*, **2020**, 13, 6643-6650	8.3	9
15	All-organic Z-scheme photoreduction of CO2 with water as the donor of electrons and protons. *Applied Catalysis B: Environmental*, **2021**, 285, 119773	21.8	9
14	Tandem promotion of iron catalysts by sodium-sulfur and nitrogen-doped carbon layers on carbon nanotube supports for the Fischer-Tropsch to olefins synthesis. *Applied Catalysis A: General*, **2018**, 568, 213-220	5.1	9
13	Sustainable Cathodes for Lithium-Ion Energy Storage Devices Based on Tannic Acid□oward Ecofriendly Energy Storage. *Advanced Sustainable Systems*, **2021**, 5, 2000206	5.9	8
12	Synthesis of a Porous CN-Derived Framework with High Yield by Gallic Acid Cross-Linking Using Salt Melts. *ACS Applied Materials & Interfaces*, **2020**, 12, 13127-13133	9.5	7

List of Publications

11	Templat- und metallfreie Synthese stickstoffreicher, nanoporöser und leitfähiger Kohlenstoffmaterialien durch direkte Kondensation eines vororganisierten Hexaazatriphenylen Vorläufers. *Angewandte Chemie*, **2018**, 130, 10926-10931	3.6	7
10	Laser-carbonization: Peering into the formation of micro-thermally produced (N-doped)carbons. *Carbon*, **2021**, 176, 500-510	10.4	7
9	Chemical Vapor Deposition of Highly Conjugated, Transparent Boron Carbon Nitride Thin Films. *Advanced Science*, **2021**, 8, e2101602	13.6	7
8	Light-driven directional ion transport for enhanced osmotic energy harvesting. *National Science Review*, **2021**, 8, nwaa231	10.8	6
7	Photo-Driven Ion Transport for a Photodetector Based on an Asymmetric Carbon Nitride Nanotube Membrane. *Angewandte Chemie*, **2019**, 131, 12704-12709	3.6	5
6	Improving the reliability of the background extrapolation in transmission electron microscopy elemental maps by using three pre-edge windows. *Ultramicroscopy*, **2012**, 118, 11-6	3.1	5
5	Laser-driven growth of structurally defined transition metal oxide nanocrystals on carbon nitride photoelectrodes in milliseconds. *Nature Communications*, **2021**, 12, 3224	17.4	5
4	Formation and Properties of Poly(Ionic Liquid)-Carbene Nanogels Containing Individually Stabilized Silver Species. *Chemistry - A European Journal*, **2018**, 24, 5754-5759	4.8	3
3	H2 and CH4 production from bio-alcohols using condensed poly(heptazine imide) with visible light. *Journal of Materials Chemistry A*,	13	2
2	Ultrahigh water sorption on highly nitrogen doped carbonaceous materials derived from uric acid. *Journal of Colloid and Interface Science*, **2021**, 602, 880-888	9.3	2
1	Noise reduction in CCD measurements by improving the quality of dark-reference images. *Microscopy (Oxford, England)*, **2018**, 67, i123-i132	1.3	1