

Bernd Knäuper

List of Publications by Year in descending order

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102
papers

4,076
citations

109321

35
h-index

128289

60
g-index

108
all docs

108
docs citations

108
times ranked

5378
citing authors

#	ARTICLE	IF	CITATIONS
1	The Structure and Dynamics of Molecular Excitons. Annual Review of Physical Chemistry, 2014, 65, 127-148.	10.8	213
2	Photochemically Driven Shape Changes of Crystalline Organic Nanorods. Journal of the American Chemical Society, 2006, 128, 15938-15939.	13.7	206
3	Organic Photomechanical Materials. ChemPhysChem, 2014, 15, 400-414.	2.1	185
4	Ephrin-As as receptors in topographic projections. Trends in Neurosciences, 2002, 25, 145-149.	8.6	182
5	How Morphology Affects Singlet Fission in Crystalline Tetracene. Journal of Physical Chemistry Letters, 2015, 6, 1841-1846.	4.6	161
6	Control of Photomechanical Crystal Twisting by Illumination Direction. Journal of the American Chemical Society, 2018, 140, 4208-4212.	13.7	154
7	Serum response factor controls neuronal circuit assembly in the hippocampus. Nature Neuroscience, 2006, 9, 195-204.	14.8	147
8	Functional versatility of transcription factors in the nervous system: the SRF paradigm. Trends in Neurosciences, 2009, 32, 432-442.	8.6	139
9	Singlet Fission: From Coherences to Kinetics. Journal of Physical Chemistry Letters, 2014, 5, 2312-2319.	4.6	123
10	Promotion of atomic hydrogen recombination as an alternative to electron trapping for the role of metals in the photocatalytic production of H ₂ . Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 7942-7947.	7.1	109
11	Fluorescence Quenching in Conjugated Polymers Blended with Reduced Graphitic Oxide. Journal of Physical Chemistry C, 2010, 114, 4153-4159.	3.1	101
12	Stripe assay to examine axonal guidance and cell migration. Nature Protocols, 2007, 2, 1216-1224.	12.0	93
13	Nanocrystal Size and Quantum Yield in the Upconversion of Green to Violet Light with CdSe and Anthracene Derivatives. Chemistry of Materials, 2015, 27, 7503-7507.	6.7	90
14	<i>Atf3</i> mutant mice show reduced axon regeneration and impaired regeneration-associated gene induction after peripheral nerve injury. Open Biology, 2016, 6, 160091.	3.6	82
15	Photoinduced Ratchet-Like Rotational Motion of Branched Molecular Crystals. Angewandte Chemie - International Edition, 2016, 55, 7073-7076.	13.8	78
16	Solid-state photochemical and photomechanical properties of molecular crystal nanorods composed of anthracene ester derivatives. Journal of Materials Chemistry, 2011, 21, 6258.	6.7	76
17	Single-molecule imaging of the transcription factor SRF reveals prolonged chromatin-binding kinetics upon cell stimulation. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 880-889.	7.1	69
18	Dependence of the solid-state photomechanical response of 4-chlorocinnamic acid on crystal shape and size. CrystEngComm, 2012, 14, 7792.	2.6	67

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19	Microgravimetric immunosensor for direct detection of aerosolized influenza A virus particles. <i>Sensors and Actuators B: Chemical</i> , 2007, 126, 691-699.	7.8	64
20	Improved Solid-State Photomechanical Materials by Fluorine Substitution of 9-Anthracene Carboxylic Acid. <i>Chemistry of Materials</i> , 2014, 26, 6007-6015.	6.7	64
21	Autonomous Ultrafast Self-Healing Hydrogels by pH-Responsive Functional Nanofiber Gelators as Cell Matrices. <i>Advanced Materials</i> , 2019, 31, e1805044.	21.0	60
22	General method for the synthesis of crystalline organic nanorods using porous alumina templates. <i>Chemical Communications</i> , 2006, , 1224.	4.1	59
23	Hybrid Organic-Inorganic Photon-Powered Actuators Based on Aligned Diarylethene Nanocrystals. <i>Chemistry of Materials</i> , 2019, 31, 1016-1022.	6.7	59
24	Modeling trauma in rats: similarities to humans and potential pitfalls to consider. <i>Journal of Translational Medicine</i> , 2019, 17, 305.	4.4	51
25	Photomechanical molecular crystals and nanowire assemblies based on the [2+2] photodimerization of a phenylbutadiene derivative. <i>Journal of Materials Chemistry C</i> , 2020, 8, 5036-5044.	5.5	49
26	SRF modulates seizure occurrence, activity induced gene transcription and hippocampal circuit reorganization in the mouse pilocarpine epilepsy model. <i>Molecular Brain</i> , 2017, 10, 30.	2.6	47
27	Neuroinflammation after Traumatic Brain Injury Is Enhanced in Activating Transcription Factor 3 Mutant Mice. <i>Journal of Neurotrauma</i> , 2018, 35, 2317-2329.	3.4	47
28	Efficient Triplet-Triplet Annihilation Upconversion in an Electroluminescence Device with a Fluorescent Sensitizer and a Triplet-Diffusion Singlet-Blocking Layer. <i>Advanced Materials</i> , 2018, 30, e1804850.	21.0	47
29	The FTLD Risk Factor TMEM106B Regulates the Transport of Lysosomes at the Axon Initial Segment of Motoneurons. <i>Cell Reports</i> , 2020, 30, 3506-3519.e6.	6.4	47
30	Analysis of reaction kinetics in the photomechanical molecular crystal 9-methylanthracene using an extended Finke-Watzky model. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 31936-31945.	2.8	45
31	The multiple sclerosis drug fingolimod (FTY720) stimulates neuronal gene expression, axonal growth and regeneration. <i>Experimental Neurology</i> , 2016, 279, 243-260.	4.1	45
32	Highly branched photomechanical crystals. <i>Chemical Communications</i> , 2017, 53, 2622-2625.	4.1	45
33	Light-Powered Autonomous Flagella-Like Motion of Molecular Crystal Microwires. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 2414-2423.	13.8	42
34	Photomechanically Induced Magnetic Field Response by Controlling Molecular Orientation in 9-Methylanthracene Microcrystals. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 7080-7084.	13.8	40
35	Photopolymerization of Organic Molecular Crystal Nanorods. <i>Macromolecules</i> , 2007, 40, 9040-9044.	4.8	39
36	Exciplex-Sensitized Triplet-Triplet Annihilation in Heterojunction Organic Thin-Film. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 10963-10970.	8.0	39

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37	The Transcription Factor Serum Response Factor Stimulates Axon Regeneration through Cytoplasmic Localization and Cofilin Interaction. <i>Journal of Neuroscience</i> , 2013, 33, 18836-18848.	3.6	35
38	Serum response factor modulates neuron survival during peripheral axon injury. <i>Journal of Neuroinflammation</i> , 2012, 9, 78.	7.2	31
39	The molecular tweezer CLRO1 inhibits Ebola and Zika virus infection. <i>Antiviral Research</i> , 2018, 152, 26-35.	4.1	31
40	STAT6 mediates the effect of ethanol on neuroinflammatory response in TBI. <i>Brain, Behavior, and Immunity</i> , 2019, 81, 228-246.	4.1	31
41	Analysis of nuclear actin by overexpression of wild-type and actin mutant proteins. <i>Histochemistry and Cell Biology</i> , 2014, 141, 123-135.	1.7	30
42	Excitonic processes in molecular crystalline materials. <i>MRS Bulletin</i> , 2013, 38, 65-71.	3.5	29
43	Crystal structure of the meta-stable intermediate in the photomechanical, crystal-to-crystal reaction of 9-tert-butyl anthracene ester. <i>CrystEngComm</i> , 2016, 18, 7319-7329.	2.6	29
44	Water-Dispersible Polydopamine-Coated Nanofibers for Stimulation of Neuronal Growth and Adhesion. <i>Advanced Healthcare Materials</i> , 2018, 7, e1701485.	7.6	29
45	Ephrin-A5 Suppresses Neurotrophin Evoked Neuronal Motility, ERK Activation and Gene Expression. <i>PLoS ONE</i> , 2011, 6, e26089.	2.5	28
46	Photoinduced Deadhesion of a Polymer Film Using a Photochromic Donor-Acceptor Stenhouse Adduct. <i>Macromolecules</i> , 2019, 52, 6311-6317.	4.8	27
47	Light-Powered Autonomous Flagella-Like Motion of Molecular Crystal Microwires. <i>Angewandte Chemie</i> , 2021, 133, 2444-2453.	2.0	26
48	Photoinduced Ratchet-Like Rotational Motion of Branched Molecular Crystals. <i>Angewandte Chemie</i> , 2016, 128, 7189-7192.	2.0	25
49	Neuroprotective effect of acute ethanol intoxication in TBI is associated to the hierarchical modulation of early transcriptional responses. <i>Experimental Neurology</i> , 2018, 302, 34-45.	4.1	22
50	Crystal-to-Gel Transformation Stimulated by a Solid-State E ⁺ Z Photoisomerization. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 15429-15434.	13.8	22
51	Time dependent correlations of entangled states with nondegenerate branches and possible experimental realization using singlet fission. <i>Journal of Chemical Physics</i> , 2019, 151, 124503.	3.0	22
52	Formation of Cocrystal Nanorods by Solid-State Reaction of Tetracyanobenzene in 9-Methylanthracene Molecular Crystal Nanorods. <i>Crystal Growth and Design</i> , 2009, 9, 1780-1785.	3.0	21
53	Characterization of a P-type photomechanical molecular crystal based on the E ⁺ Z photoisomerization of 9-divinylanthracene malonitrile. <i>Journal of Materials Chemistry C</i> , 2016, 4, 8245-8252.	5.5	21
54	Correlating Reaction Dynamics and Size Change during the Photomechanical Transformation of 9-Methylanthracene Single Crystals. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	21

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55	Surfactant-Enhanced Photoisomerization and Photomechanical Response in Molecular Crystal Nanowires. <i>Langmuir</i> , 2018, 34, 1627-1634.	3.5	19
56	Sequence-Optimized Peptide Nanofibers as Growth Stimulators for Regeneration of Peripheral Neurons. <i>Advanced Functional Materials</i> , 2019, 29, 1809112.	14.9	19
57	Excited-State Dynamics of Diindenoperylene in Liquid Solution and in Solid Films. <i>Journal of Physical Chemistry C</i> , 2015, 119, 12856-12864.	3.1	18
58	Functional and Molecular Characterization of a Novel Traumatic Peripheral Nerve-Muscle Injury Model. <i>NeuroMolecular Medicine</i> , 2017, 19, 357-374.	3.4	18
59	Using light intensity to control reaction kinetics and reversibility in photomechanical crystals. <i>Chemical Science</i> , 2020, 11, 9852-9862.	7.4	18
60	Lipid metabolism adaptations are reduced in human compared to murine Schwann cells following injury. <i>Nature Communications</i> , 2020, 11, 2123.	12.8	18
61	Molecular Crystal Microcapsules: Formation of Sealed Hollow Chambers via Surfactant-Mediated Growth. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 23035-23039.	13.8	17
62	Photomechanically Induced Magnetic Field Response by Controlling Molecular Orientation in 9-Methylanthracene Microcrystals. <i>Angewandte Chemie</i> , 2018, 130, 7198-7202.	2.0	16
63	Reversible Adhesion Switching Using Spiropyran Photoisomerization in a High Glass Transition Temperature Polymer. <i>Macromolecules</i> , 2021, 54, 9319-9326.	4.8	15
64	Using a Streak Camera to Resolve the Motion of Molecular Excited States with Picosecond Time Resolution and 150 nm Spatial Resolution. <i>Journal of Physical Chemistry C</i> , 2007, 111, 12483-12489.	3.1	14
65	CNS axon regeneration inhibitors stimulate an immediate early gene response via MAP kinase-SRF signaling. <i>Molecular Brain</i> , 2014, 7, 86.	2.6	14
66	Photon Upconversion in Crystalline Rubrene: Resonant Enhancement by an Interband State. <i>Journal of Physical Chemistry C</i> , 2018, 122, 17632-17642.	3.1	14
67	Protection of Molecular Microcrystals by Encapsulation under Single-Layer Graphene. <i>ACS Omega</i> , 2018, 3, 8129-8134.	3.5	14
68	Effects of solvent and micellar encapsulation on the photostability of avobenzone. <i>Photochemical and Photobiological Sciences</i> , 2020, 19, 390-398.	2.9	14
69	Effect of halogen substitution on energies and dynamics of reversible photomechanical crystals based on 9-anthracenecarboxylic acid. <i>CrystEngComm</i> , 2021, 23, 5931-5943.	2.6	14
70	Serum Response Factor (SRF) Ablation Interferes with Acute Stress-Associated Immediate and Long-Term Coping Mechanisms. <i>Molecular Neurobiology</i> , 2017, 54, 8242-8262.	4.0	12
71	Effects of Template and Molecular Nanostructure on the Performance of Organic-Inorganic Photomechanical Actuator Membranes. <i>Advanced Functional Materials</i> , 2020, 30, 1902396.	14.9	12
72	Shaping Organic Microcrystals Using Focused Ion Beam Milling. <i>Crystal Growth and Design</i> , 2020, 20, 1583-1589.	3.0	12

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73	Interference of neuronal activity-mediated gene expression through serum response factor deletion enhances mortality and hyperactivity after traumatic brain injury. <i>FASEB Journal</i> , 2020, 34, 3855-3873.	0.5	10
74	Serum response factor mediated gene activity in physiological and pathological processes of neuronal motility. <i>Frontiers in Molecular Neuroscience</i> , 2011, 4, 49.	2.9	9
75	Neuronal expression of the transcription factor serum response factor modulates myelination in a mouse multiple sclerosis model. <i>Glia</i> , 2015, 63, 958-976.	4.9	9
76	Ligand Binding to Distinct Sites on Nanocrystals Affecting Energy and Charge Transfer. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 1709-1713.	4.6	9
77	Crystal-to-Gel Transformation Stimulated by a Solid-State E ⁺ Z Photoisomerization. <i>Angewandte Chemie</i> , 2019, 131, 15575-15580.	2.0	9
78	Symmetry Breaking and Photomechanical Behavior of Photochromic Organic Crystals. <i>Symmetry</i> , 2020, 12, 1478.	2.2	9
79	Synthesis and Photophysical Properties of Soluble N-doped Rubicenes via Ruthenium-catalyzed Transfer Hydrogenative Benzannulation. <i>Chemistry - A European Journal</i> , 2021, 27, 4898-4902.	3.3	9
80	P-108: Positive Aging Mechanisms for High-efficiency Blue Quantum Dot Light-emitting Diodes. <i>Digest of Technical Papers SID International Symposium</i> , 2018, 49, 1622-1624.	0.3	8
81	Chemical Tuning of Exciton versus Charge-Transfer Excited States in Conformationally Restricted Arylene Cages. <i>Journal of the American Chemical Society</i> , 2021, 143, 18548-18558.	13.7	8
82	Indirect visualization of endogenous nuclear actin by correlative light and electron microscopy (CLEM) using an actin-directed chromobody. <i>Histochemistry and Cell Biology</i> , 2019, 152, 133-143.	1.7	7
83	Molecular Crystal Microcapsules: Formation of Sealed Hollow Chambers via Surfactant-mediated Growth. <i>Angewandte Chemie</i> , 2020, 132, 23235-23239.	2.0	7
84	Proteomic analysis of SRF associated transcription complexes identified TFIIH as modulator of SRF function in neurons. <i>European Journal of Cell Biology</i> , 2016, 95, 42-56.	3.6	6
85	Correlating Reaction Dynamics and Size Change during the Photomechanical Transformation of 9-methylanthracene Single Crystals. <i>Angewandte Chemie</i> , 2022, 134, e202114089.	2.0	6
86	Using Small Molecule Absorbers to Create a Photothermal Wax Motor. <i>Small</i> , 2022, 18, e2105356.	10.0	6
87	Motoneuron-Specific PTEN Deletion in Mice Induces Neuronal Hypertrophy and Also Regeneration after Facial Nerve Injury. <i>Journal of Neuroscience</i> , 2022, 42, 2474-2491.	3.6	6
88	Three-Dimensional In vivo Magnetic Resonance Imaging (MRI) of Mouse Facial Nerve Regeneration. <i>Frontiers in Neurology</i> , 2019, 10, 310.	2.4	4
89	Thickness-Dependent Exciton Dynamics in Thermally Evaporated Rubrene Thin Films. <i>Journal of Physical Chemistry C</i> , 2020, 124, 25729-25737.	3.1	4
90	Interference with SRF expression in skeletal muscles reduces peripheral nerve regeneration in mice. <i>Scientific Reports</i> , 2020, 10, 5281.	3.3	4

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91	Single-molecule tracking (SMT) and localization of SRF and MRTF transcription factors during neuronal stimulation and differentiation. <i>Open Biology</i> , 2022, 12, 210383.	3.6	4
92	Performance of Composite Glass-Diarylethene Crystal Photomechanical Actuator Membranes. <i>ACS Applied Materials & Interfaces</i> , 0, , .	8.0	4
93	Optimizing pulsed-laser ablation production of AlCl molecules for laser cooling. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 22785-22793.	2.8	3
94	Excitons: Energetics and spatiotemporal dynamics. <i>Journal of Chemical Physics</i> , 2021, 155, 200401.	3.0	3
95	Patterning Submicron Photomechanical Features into Single Diarylethene Crystals Using Electron Beam Lithography. <i>Nanoscale Horizons</i> , 0, , .	8.0	2
96	The Roles of Serum Response Factor (SRF) in Development and Function of the Brain. , 2006, , 95-111.		1
97	Photomechanical Structures Based on Porous Alumina Templates Filled with 9-Methylanthracene Nanowires. <i>Crystals</i> , 2022, 12, 808.	2.2	1
98	Time-Resolved Microscopy of Chromatin <i>In Vitro</i> and <i>In Vivo</i> . <i>Photochemistry and Photobiology</i> , 2005, 81, 548-555.	2.5	0
99	Zytoskelett und Nukleus: Die Rolle von Aktin als Modulator der neuronalen Genexpression. <i>E-Neuroforum</i> , 2011, 17, 4-11.	0.1	0
100	Neuronal gene transcription modulates demyelination and remyelination in a mouse model of multiple sclerosis. <i>Neural Regeneration Research</i> , 2015, 10, 1401.	3.0	0
101	Innenr¼cktitelbild: Light-Powered Autonomous Flagella-Like Motion of Molecular Crystal Microwires (<i>Angew. Chem.</i> 5/2021). <i>Angewandte Chemie</i> , 2021, 133, 2739-2739.	2.0	0
102	Innenr¼cktitelbild: Correlating Reaction Dynamics and Size Change during the Photomechanical Transformation of 9-Methylanthracene Single Crystals (<i>Angew. Chem.</i> 2/2022). <i>Angewandte Chemie</i> , 2022, 134, .	2.0	0