Petr Cigler

List of Publications by Year
in descending order

85 papers	3,976 citations	101496 36 h-index	123376 61 g-index
93 all docs	93 docs citations	93 times ranked	4569 citing authors

#	Article	IF	Citations
1	Metastable Brominated Nanodiamond Surface Enables Room Temperature and Catalysis-Free Amine Chemistry. Journal of Physical Chemistry Letters, 2022, 13, 1147-1158.	2.1	3
2	Optically coupled gold nanostructures: plasmon enhanced luminescence from gold nanorod-nanocluster hybrids. Nanoscale, 2022, 14, 3166-3178.	2.8	8
3	Visualization of Sentinel Lymph Nodes with Mannosylated Fluorescent Nanodiamonds. Advanced Functional Materials, 2022, 32, .	7.8	16
4	Quantum Sensing of Free Radicals in Primary Human Dendritic Cells. Nano Letters, 2022, 22, 1818-1825.	4.5	42
5	Nanodiamonds as traps for fibroblast growth factors: Parameters influencing the interaction. Carbon, 2022, 195, 372-386.	5.4	10
6	Friction-directed self-assembly of Janus lithographic microgels into anisotropic 2D structures. Journal of Materials Chemistry B, 2021, 9, 4718-4725.	2.9	6
7	Reversible photo- and thermal-effects on the luminescence of gold nanoclusters: implications for nanothermometry. Physical Chemistry Chemical Physics, 2021, 23, 11954-11960.	1.3	7
8	Harnessing subcellular-resolved organ distribution of cationic copolymer-functionalized fluorescent nanodiamonds for optimal delivery of active siRNA to a xenografted tumor in mice. Nanoscale, 2021, 13, 9280-9292.	2.8	13
9	Toward Quantitative Bio-sensing with Nitrogenâ€“Vacancy Center in Diamond. ACS Sensors, 2021, 6, 2077-2107.	4.0	84
10	Lipid Nanoparticles for Broadâ€Spectrum Nucleic Acid Delivery. Advanced Functional Materials, 2021, 31, 2101391.	7.8	13
11	Inverse heavy-atom effect in near infrared photoluminescent gold nanoclusters. Nanoscale, 2021, 13, 10462-10467.	2.8	6
12	Nanoscale Dynamic Readout of a Chemical Redox Process Using Radicals Coupled with Nitrogen-Vacancy Centers in Nanodiamonds. ACS Nano, 2020, 14, 12938-12950.	7.3	66
13	Formation of gadoliniumâ€“ferritin from clinical magnetic resonance contrast agents. Nanoscale Advances, 2020, 2, 5567-5571.	2.2	7
14	Simultaneous label-free live imaging of cell nucleus and luminescent nanodiamonds. Scientific Reports, 2020, 10, 9791.	1.6	12
15	Synthesis of Near-Infrared Emitting Gold Nanoclusters for Biological Applications. Journal of Visualized Experiments, 2020, , .	0.2	0
16	The Protein Corona Does Not Influence Receptor-Mediated Targeting of Virus-like Particles. Bioconjugate Chemistry, 2020, 31, 1575-1585.	1.8	20
17	Arbitrarily-shaped microgels composed of chemically unmodified biopolymers. Biomaterials Science, 2020, 8, 3044-3051.	2.6	3
18	Not All Fluorescent Nanodiamonds Are Created Equal: A Comparative Study. Particle and Particle Systems Characterization, 2019, 36, 1900009.	1.2	56

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19	Inhibitorâ€“Polymer Conjugates as a Versatile Tool for Detection and Visualization of Cancer-Associated Carbonic Anhydrase Isoforms. ACS Omega, 2019, 4, 6746-6756.	1.6	10
20	Diamond nano-optode for fluorescent measurements of pH and temperature. Nanoscale, 2019, 11, 18537-18542.	2.8	22
21	Inhibitorâ€“GCPII Interaction: Selective and Robust System for Targeting Cancer Cells with Structurally Diverse Nanoparticles. Molecular Pharmaceutics, 2018, 15, 2932-2945.	2.3	25
22	Gold nanoclusters with bright near-infrared photoluminescence. Nanoscale, 2018, 10, 3792-3798.	2.8	113
23	Chemical modification of diamond surface by a donorâ€“acceptor organic chromophore (P1): Optimization of surface chemistry and electronic properties of diamond. Applied Materials Today, 2018, 12, 153-162.	2.3	11
24	Extremely rapid isotropic irradiation of nanoparticles with ions generated in situ by a nuclear reaction. Nature Communications, 2018, 9, 4467.	5.8	18
25	Supported Lipid Bilayers on Fluorescent Nanodiamonds: A Structurally Defined and Versatile Coating for Bioapplications. Advanced Functional Materials, 2018, 28, 1803406.	7.8	19
26	Nanodiamonds as â€œartificial proteinsâ€: Regulation of a cell signalling system using low nanomolar solutions of inorganic nanocrystals. Biomaterials, 2018, 176, 106-121.	5.7	27
27	Proton-Gradient-Driven Oriented Motion of Nanodiamonds Grafted to Graphene by Dynamic Covalent Bonds. ACS Nano, 2018, 12, 7141-7147.	7.3	17
28	Coating nanodiamonds with biocompatible shells for applications in biology and medicine. Current Opinion in Solid State and Materials Science, 2017, 21, 43-53.	5.6	104
29	Targeting Glioma Cancer Cells with Fluorescent Nanodiamonds via Integrin Receptors. Methods in Pharmacology and Toxicology, 2017, , 169-189.	0.1	2
30	Nanodiamonds embedded in shells. , 2017, , 339-363.		2
31	Optical imaging of localized chemical events using programmable diamond quantum nanosensors. Nature Communications, 2017, 8, 14701.	5.8	135
32	Retargeting Polyomavirus-Like Particles to Cancer Cells by Chemical Modification of Capsid Surface. Bioconjugate Chemistry, 2017, 28, 307-313.	1.8	10
33	Anchored but not internalized: shape dependent endocytosis of nanodiamond. Scientific Reports, 2017, 7, 46462.	1.6	31
34	Photoluminescent Carbon Nanostructures. Chemistry of Materials, 2016, 28, 4085-4128.	3.2	186
35	Imaging of transfection and intracellular release of intact, non-labeled DNA using fluorescent nanodiamonds. Nanoscale, 2016, 8, 12002-12012.	2.8	61
36	Benchtop Fluorination of Fluorescent Nanodiamonds on a Preparative Scale: Toward Unusually Hydrophilic Bright Particles. Advanced Functional Materials, 2016, 26, 4134-4142.	7.8	36

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37	Efficiency and stability of spectral sensitization of boron-doped-diamond electrodes through covalent anchoring of a donorâ€"acceptor organic chromophore (P1). Physical Chemistry Chemical Physics, 2016, 18, 16444-16450.	1.3	21
38	Stealth Amphiphiles: Self-Assembly of Polyhedral Boron Clusters. Langmuir, 2016, 32, 6713-6722.	1.6	69
39	Nanodiamonds: Behavior in Biological Systems and Emerging Bioapplications. Springer Series in Biomaterials Science and Engineering, 2016, , 319-361.	0.7	5
40	Mass production of fluorescent nanodiamonds with a narrow emission intensity distribution. Carbon, 2016, 96, 812-818.	5.4	37
41	Plasmonic Nanodiamonds: Targeted Coreâ€"Shell Type Nanoparticles for Cancer Cell Thermoablation. Advanced Healthcare Materials, 2015, 4, 460-468.	3.9	39
42	Triggering HIV polyprotein processing by light using rapid photodegradation of a tight-binding protease inhibitor. Nature Communications, 2015, 6, 6461.	5.8	25
43	Charge-sensitive fluorescent nanosensors created from nanodiamonds. Nanoscale, 2015, 7, 12307-12311.	2.8	37
44	Visible-light sensitization of boron-doped nanocrystalline diamond through non-covalent surface modification. Physical Chemistry Chemical Physics, 2015, 17, 1165-1172.	1.3	22
45	Carboraneâ€"Î²-cyclodextrin complexes as a supramolecular connector for bioactive surfaces. Journal of Materials Chemistry B, 2015, 3, 539-545.	2.9	47
46	Designing the nanobiointerface of fluorescent nanodiamonds: highly selective targeting of glioma cancer cells. Nanoscale, 2015, 7, 415-420.	2.8	87
47	Carborane-Based Carbonic Anhydrase Inhibitors: Insight into CAII/CAIX Specificity from a High-Resolution Crystal Structure, Modeling, and Quantum Chemical Calculations. BioMed Research International, 2014, 2014, 1-9.	0.9	18
48	Nanodiamonds as Intracellular Probes for Imaging in Biology and Medicine. Fundamental Biomedical Technologies, 2014, , 363-401.	0.2	16
49	Fluorescent Nanodiamonds Embedded in Biocompatible Translucent Shells. Small, 2014, 10, 1106-1115.	5.2	88
50	Fluorescent Nanodiamonds with Bioorthogonally Reactive Proteinâ€Resistant Polymeric Coatings. ChemPlusChem, 2014, 79, 21-24.	1.3	53
51	Precise estimation of HPHT nanodiamond size distribution based on transmission electron microscopy image analysis. Diamond and Related Materials, 2014, 46, 21-24.	1.8	53
52	Unambiguous observation of shape effects on cellular fate of nanoparticles. Scientific Reports, 2014, 4, 4495.	1.6	227
53	On the Solubility and Lipophilicity of Metallacarborane Pharmacophores. Molecular Pharmaceutics, 2013, 10, 1751-1759.	2.3	45
54	Boosting nanodiamond fluorescence: towards development of brighter probes. Nanoscale, 2013, 5, 3208.	2.8	107

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55	Carboraneâ€Based Carbonic Anhydrase Inhibitors. Angewandte Chemie - International Edition, 2013, 52, 13760-13763.	7.2	93
56	In Vitro Transfection Mediated by Dendrigraft Poly(<scp>L</scp>â€lysines): The Effect of Structure and Molecule Size. Macromolecular Bioscience, 2013, 13, 167-176.	2.1	41
57	Structure-Aided Design of Novel Inhibitors of HIV Protease Based on a Benzodiazepine Scaffold. Journal of Medicinal Chemistry, 2012, 55, 10130-10135.	2.9	53
58	Combination of two chromophores: Synthesis and PDT application of porphyrinâ€“pentamethinium conjugate. Bioorganic and Medicinal Chemistry Letters, 2012, 22, 82-84.	1.0	16
59	Luminescence of Nanodiamond Driven by Atomic Functionalization: Towards Novel Detection Principles. Advanced Functional Materials, 2012, 22, 812-819.	7.8	131
60	Medicinal Application ofÂCarboranes. , 2011, , 41-70.		12
61	Luminescence properties of engineered nitrogen vacancy centers in a close surface proximity. Physica Status Solidi (A) Applications and Materials Science, 2011, 208, 2051-2056.	0.8	38
62	On the mechanism of charge transfer between neutral and negatively charged nitrogen-vacancy color centers in diamond. Materials Research Society Symposia Proceedings, 2011, 1282, 103.	0.1	0
63	Micelle-like nanoparticles of block copolymer poly(ethylene oxide)-block-poly(methacrylic acid) incorporating fluorescently substituted metallacarboranes designed as HIV protease inhibitor interaction probes. Journal of Colloid and Interface Science, 2010, 348, 129-136.	5.0	18
64	The fluorescence of variously terminated nanodiamond particles: Quantum chemical calculations. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 2045-2048.	0.8	11
65	DNA-controlled assembly of a NaTl lattice structure from gold nanoparticles and proteinÂnanoparticles. Nature Materials, 2010, 9, 918-922.	13.3	121
66	Interaction of Fluorescently Substituted Metallacarboranes with Cyclodextrins and Phospholipid Bilayers: Fluorescence and Light Scattering Study. Langmuir, 2010, 26, 6268-6275.	1.6	45
67	Interactions between iron and titanium metabolism in spinach: A chlorophyll fluorescence study in hydropony. Journal of Plant Physiology, 2010, 167, 1592-1597.	1.6	25
68	Elicitation of Pharmacologically Active Substances in an Intact Medical Plant. Journal of Agricultural and Food Chemistry, 2009, 57, 7907-7911.	2.4	45
69	Hydroxamic Acids As a Novel Family of Serine Racemase Inhibitors: Mechanistic Analysis Reveals Different Modes of Interaction with the Pyridoxal-5â€²-phosphate Cofactor. Journal of Medicinal Chemistry, 2009, 52, 6032-6041.	2.9	33
70	Design of HIV Protease Inhibitors Based on Inorganic Polyhedral Metallacarboranes. Journal of Medicinal Chemistry, 2009, 52, 7132-7141.	2.9	132
71	¹⁵Nï£¿¹H and ¹⁵Nâ€“¹³C couplings in ¹⁵Nâ€enriched dihydroxamic acids. Magnetic Resonance in Chemistry, 2008, 46, 748-755.	1.1	8
72	Anomalous adsorptive properties of HIV protease: Indication of two-dimensional crystallization?. Colloids and Surfaces B: Biointerfaces, 2008, 64, 145-149.	2.5	3

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73	Aggregation Behavior of Nucleosideâ^'Boron Cluster Conjugates in Aqueous Solutions. Langmuir, 2008, 24, 2625-2630.	1.6	43
74	Inorganic Polyhedral Metallacarborane Inhibitors of HIV Protease: A New Approach to Overcoming Antiviral Resistance. Journal of Medicinal Chemistry, 2008, 51, 4839-4843.	2.9	90
75	Tetraphenylporphyrin-cobalt(III) Bis(1,2-dicarbollide) Conjugates:Â From the Solution Characteristics to Inhibition of HIV Protease. Journal of Physical Chemistry B, 2007, 111, 4539-4546.	1.2	38
76	The effect of simultaneous magnesium application on the biological effects of titanium. Plant, Soil and Environment, 2007, 53, 16-23.	1.0	11
77	Molecular Assembly of Metallacarboranes in Water:â€‰ Light Scattering and Microscopy Study. Langmuir, 2006, 22, 575-581.	1.6	106
78	Lanthanide(III) Complexes of a Mono(methylphosphonate) Analogue of H4dota: The Influence of Protonation of the Phosphonate Moiety on the TSAP/SAP Isomer Ratio and the Water Exchange Rate. Chemistry - A European Journal, 2005, 11, 2373-2384.	1.7	110
79	From nonpeptide toward noncarbon protease inhibitors: Metallacarboranes as specific and potent inhibitors of HIV protease. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 15394-15399.	3.3	279
80	Crystal Structures of Lanthanide(III) Complexes with Cyclen Derivative Bearing Three Acetate and One Methylphosphonate Pendants. Inorganic Chemistry, 2005, 44, 5591-5599.	1.9	84
81	The role of titanium in biomass production and its influence on essential elements' contents in field growing crops. Plant, Soil and Environment, 2005, 51, 19-25.	1.0	21
82	13C and1H nuclear magnetic resonance of methyl-substituted acetophenones and methyl benzoates: steric hindrance and inhibited conjugation. Magnetic Resonance in Chemistry, 2004, 42, 844-851.	1.1	16
83	Mechanism of Physiological Effects of Titanium Leaf Sprays on Plants Grown on Soil. Biological Trace Element Research, 2003, 91, 179-190.	1.9	42
84	CONTRIBUTION TO UNDERSTANDING THE MECHANISM OF TITANIUM ACTION IN PLANT. Journal of Plant Nutrition, 2002, 25, 577-598.	0.9	79
85	Influence of some fertilizer chemical properties on magnesium resorption from leaf surface of oats. Journal of Plant Nutrition, 1999, 22, 1241-1251.	0.9	2