Sebastian Kruss

List of Publications by Year
in descending order

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62 papers	3,955 citations	101384 36 h-index	149479 56 g-index
68 all docs	68 docs citations	68 times ranked	3854 citing authors

#	Article	IF	Citations
1	Nanobiotechnology approaches for engineering smart plant sensors. Nature Nanotechnology, 2019, 14, 541-553.	15.6	337
2	Carbon nanotubes as optical biomedical sensors. Advanced Drug Delivery Reviews, 2013, 65, 1933-1950.	6.6	324
3	Neurotransmitter Detection Using Corona Phase Molecular Recognition on Fluorescent Single-Walled Carbon Nanotube Sensors. Journal of the American Chemical Society, 2014, 136, 713-724.	6.6	288
4	Molecular recognition using corona phase complexes made of synthetic polymers adsorbed on carbon nanotubes. Nature Nanotechnology, 2013, 8, 959-968.	15.6	282
5	Protein-targeted corona phase molecular recognition. Nature Communications, 2016, 7, 10241.	5.8	193
6	Chromatin swelling drives neutrophil extracellular trap release. Nature Communications, 2018, 9, 3767.	5.8	165
7	High-resolution imaging of cellular dopamine efflux using a fluorescent nanosensor array. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 1789-1794.	3.3	158
8	Monitoring Plant Health with Near-Infrared Fluorescent H₂O₂ Nanosensors. Nano Letters, 2020, 20, 2432-2442.	4.5	142
9	Near-Infrared Imaging of Serotonin Release from Cells with Fluorescent Nanosensors. Nano Letters, 2019, 19, 6604-6611.	4.5	92
10	Biosensing with Fluorescent Carbon Nanotubes. Angewandte Chemie - International Edition, 2022, 61, .	7.2	90
11	Remote near infrared identification of pathogens with multiplexed nanosensors. Nature Communications, 2020, 11, 5995.	5.8	81
12	Chirality dependent corona phase molecular recognition of DNA-wrapped carbon nanotubes. Carbon, 2016, 97, 147-153.	5.4	78
13	Impact of Redox-Active Molecules on the Fluorescence of Polymer-Wrapped Carbon Nanotubes. Journal of Physical Chemistry C, 2016, 120, 3061-3070.	1.5	78
14	A Rapid, Direct, Quantitative, and Labelâ€Free Detector of Cardiac Biomarker Troponin T Using Nearâ€Infrared Fluorescent Singleâ€Walled Carbon Nanotube Sensors. Advanced Healthcare Materials, 2014, 3, 412-423.	3.9	76
15	Comparative Dynamics and Sequence Dependence of DNA and RNA Binding to Single Walled Carbon Nanotubes. Journal of Physical Chemistry C, 2015, 119, 10048-10058.	1.5	75
16	Recent Advances in Molecular Recognition Based on Nanoengineered Platforms. Accounts of Chemical Research, 2014, 47, 979-988.	7.6	70
17	Banning carbon nanotubes would be scientifically unjustified and damaging to innovation. Nature Nanotechnology, 2020, 15, 164-166.	15.6	69
18	Serum and Serum Albumin Inhibit in vitro Formation of Neutrophil Extracellular Traps (NETs). Frontiers in Immunology, 2019, 10, 12.	2.2	68

#	Article	IF	Citations
19	Quantification of the Number of Adsorbed DNA Molecules on Single-Walled Carbon Nanotubes. Journal of Physical Chemistry C, 2019, 123, 4837-4847.	1.5	63
20	Tuning Selectivity of Fluorescent Carbon Nanotube-Based Neurotransmitter Sensors. Sensors, 2017, 17, 1521.	2.1	62
21	Mechanism of Immobilized Protein A Binding to Immunoglobulin G on Nanosensor Array Surfaces. Analytical Chemistry, 2015, 87, 8186-8193.	3.2	56
22	Nanobodyâ€Conjugated Nanotubes for Targeted Nearâ€Infrared In Vivo Imaging and Sensing. Angewandte Chemie - International Edition, 2019, 58, 11469-11473.	7.2	54
23	Quantum Defects as a Toolbox for the Covalent Functionalization of Carbon Nanotubes with Peptides and Proteins. Angewandte Chemie - International Edition, 2020, 59, 17732-17738.	7.2	54
24	Adhesion Maturation of Neutrophils on Nanoscopically Presented Platelet Glycoprotein Ibî±. ACS Nano, 2013, 7, 9984-9996.	7.3	51
25	Experimental Tools to Study Molecular Recognition within the Nanoparticle Corona. Sensors, 2014, 14, 16196-16211.	2.1	49
26	Control of Integrin Affinity by Confining RGD Peptides on Fluorescent Carbon Nanotubes. ACS Applied Materials & Interfaces, 2018, 10, 17693-17703.	4.0	47
27	Exfoliated near infrared fluorescent silicate nanosheets for (bio)photonics. Nature Communications, 2020, 11, 1495.	5.8	46
28	Auâ€“Ag Hybrid Nanoparticle Patterns of Tunable Size and Density on Glass and Polymeric Supports. Langmuir, 2012, 28, 1562-1568.	1.6	45
29	Emergent Properties of Nanosensor Arrays: Applications for Monitoring IgG Affinity Distributions, Weakly Affined Hypermannosylation, and Colony Selection for Biomanufacturing. ACS Nano, 2013, 7, 7472-7482.	7.3	45
30	Nanosensors for neurotransmitters. Analytical and Bioanalytical Chemistry, 2016, 408, 2727-2741.	1.9	45
31	Carbon Nanotubes Encapsulated in Coiledâ€Coil Peptide Barrels. Chemistry - A European Journal, 2018, 24, 12241-12245.	1.7	45
32	Sensing with Chirality-Pure Near-Infrared Fluorescent Carbon Nanotubes. Analytical Chemistry, 2021, 93, 6446-6455.	3.2	45
33	Nanoscale Integrin Ligand Patterns Determine Melanoma Cell Behavior. ACS Nano, 2014, 8, 9113-9125.	7.3	44
34	Low Dimensional Carbon Materials for Applications in Mass and Energy Transport. Chemistry of Materials, 2014, 26, 172-183.	3.2	42
35	Stimulation of Cell Adhesion at Nanostructured Teflon Interfaces. Advanced Materials, 2010, 22, 5499-5506.	11.1	41
36	A Mathematical Formulation and Solution of the CoPhMoRe Inverse Problem for Helically Wrapping Polymer Corona Phases on Cylindrical Substrates. Journal of Physical Chemistry C, 2015, 119, 13876-13886.	1.5	40

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37	A graphene-based physiometer array for the analysis of single biological cells. Scientific Reports, 2014, 4, 6865.	1.6	36
38	Circular, nanostructured and biofunctionalized hydrogel microchannels for dynamic cell adhesion studies. Lab on A Chip, 2012, 12, 3285.	3.1	35
39	Effect of Adhesion and Substrate Elasticity on Neutrophil Extracellular Trap Formation. Frontiers in Immunology, 2019, 10, 2320.	2.2	35
40	Kinetic Requirements for Spatiotemporal Chemical Imaging with Fluorescent Nanosensors. ACS Nano, 2017, 11, 4017-4027.	7.3	31
41	Quantum Defects in Fluorescent Carbon Nanotubes for Sensing and Mechanistic Studies. Journal of Physical Chemistry C, 2021, 125, 18341-18351.	1.5	28
42	Imaging of Monoamine Neurotransmitters with Fluorescent Nanoscale Sensors. ChemPlusChem, 2020, 85, 1465-1480.	1.3	27
43	Detection and Imaging of the Plant Pathogen Response by Nearâ€Infrared Fluorescent Polyphenol Sensors. Angewandte Chemie - International Edition, 2022, 61, .	7.2	27
44	Blue and Long-Wave Ultraviolet Light Induce in vitro Neutrophil Extracellular Trap (NET) Formation. Frontiers in Immunology, 2019, 10, 2428.	2.2	26
45	The power from within â€“ understanding the driving forces of neutrophil extracellular trap formation. Journal of Cell Science, 2020, 133, .	1.2	26
46	Chirality enriched carbon nanotubes with tunable wrapping via corona phase exchange purification (CPEP). Nanoscale, 2019, 11, 11159-11166.	2.8	24
47	Multispectral near infrared absorption imaging for histology of skin cancer. Journal of Biophotonics, 2020, 13, e201960080.	1.1	18
48	Quantum defects as versatile anchors for carbon nanotube functionalization. Nature Protocols, 2022, 17, 727-747.	5.5	18
49	Transport and programmed release of nanoscale cargo from cells by using NETosis. Nanoscale, 2020, 12, 9104-9115.	2.8	15
50	Nanoscale Tuning of VCAM-1 Determines VLA-4â€“Dependent Melanoma Cell Plasticity on RGD Motifs. Molecular Cancer Research, 2018, 16, 528-542.	1.5	14
51	Photophysical properties and fluorescence lifetime imaging of exfoliated near-infrared fluorescent silicate nanosheets. Nanoscale Advances, 2021, 3, 4541-4553.	2.2	12
52	NanorÃ¶hrenâ€Nanobodyâ€Konjugate als zielgerichtete Sonden und Marker fÃ¼r die Inâ€vivoâ€Nahinfrarotâ€Bildgebung. Angewandte Chemie, 2019, 131, 11591.	1.6	11
53	Morphological Plasticity of Human Melanoma Cells Is Determined by Nanoscopic Patterns of E- and N-Cadherin Interactions. Journal of Investigative Dermatology, 2019, 139, 562-572.	0.3	9
54	Quantendefekte als Werkzeugkasten fÃ¼r die kovalente Funktionalisierung von KohlenstoffnanorÃ¶hren mit Peptiden und Proteinen. Angewandte Chemie, 2020, 132, 17885-17891.	1.6	6

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55	NIR-emitting benzene-fused oligo-BODIPYs for bioimaging. Analyst, The, 2022, 147, 230-237.	1.7	5
56	Detection and imaging of the plant pathogen response by near infrared fluorescent polyphenol sensors. Angewandte Chemie, 0, , .	1.6	2
57	Biosensing with Fluorescent Carbon Nanotubes. Angewandte Chemie, 0, , .	1.6	2
58	Molecular recognition using corona phase complexes made of synthetic polymers adsorbed on carbon nanotubes. , 2014, , .		1
59	Frontispiece: Detection and Imaging of the Plant Pathogen Response by Nearâ€Infrared Fluorescent Polyphenol Sensors. Angewandte Chemie - International Edition, 2022, 61, .	7.2	1
60	Nanostructured biofunctionalized polyurethanes for applications in regenerative medicine. Materials Research Society Symposia Proceedings, 2012, 1417, 36.	0.1	0
61	Innentitelbild: Quantendefekte als Werkzeugkasten fÃ¼r die kovalente Funktionalisierung von KohlenstoffnanorÃ¶hren mit Peptiden und Proteinen (Angew. Chem. 40/2020). Angewandte Chemie, 2020, 132, 17458-17458.	1.6	0
62	Frontispiz: Detektion und Visualisierung der Pflanzenâ€Pathogenâ€Response durch Nahâ€Infrarotâ€fluoreszente Polyphenolsensoren. Angewandte Chemie, 2022, 134, .	1.6	0