Frank von der Kammer

List of Publications by Citations

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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.

116 papers	7,647 citations	47 h-index	86 g-index
119 ext. papers	8,348 ext. citations	7 avg, IF	5.94 L-index

#	Paper	IF	Citations
116	The ecotoxicology and chemistry of manufactured nanoparticles. *Ecotoxicology*, **2008**, 17, 287-314	2.9	674
115	Nanoparticles: structure, properties, preparation and behaviour in environmental media. *Ecotoxicology*, **2008**, 17, 326-43	2.9	433
114	Analysis of engineered nanomaterials in complex matrices (environment and biota): general considerations and conceptual case studies. *Environmental Toxicology and Chemistry*, **2012**, 31, 32-49	3.8	355
113	Nanomaterials for environmental studies: classification, reference material issues, and strategies for physico-chemical characterisation. *Science of the Total Environment*, **2010**, 408, 1745-54	10.2	290
112	Release of TiO2 nanoparticles from sunscreens into surface waters: a one-year survey at the old Danube recreational Lake. *Environmental Science & Technology*, **2014**, 48, 5415-22	10.3	283
111	Paradigms to assess the environmental impact of manufactured nanomaterials. *Environmental Toxicology and Chemistry*, **2012**, 31, 3-14	3.8	263
110	Algal testing of titanium dioxide nanoparticles--testing considerations, inhibitory effects and modification of cadmium bioavailability. *Toxicology*, **2010**, 269, 190-7	4.4	247
109	Separation and characterization of nanoparticles in complex food and environmental samples by field-flow fractionation. *TrAC - Trends in Analytical Chemistry*, **2011**, 30, 425-436	14.6	221
108	Nanostructured TiO2: transport behavior and effects on aquatic microbial communities under environmental conditions. *Environmental Science & Technology*, **2009**, 43, 8098-104	10.3	198
107	Commercial titanium dioxide nanoparticles in both natural and synthetic water: comprehensive multidimensional testing and prediction of aggregation behavior. *Environmental Science & Technology*, **2011**, 45, 10045-52	10.3	162
106	Detection and characterization of silver nanoparticles in chicken meat by asymmetric flow field flow fractionation with detection by conventional or single particle ICP-MS. *Analytical and Bioanalytical Chemistry*, **2013**, 405, 8185-95	4.4	158
105	Iron Oxides as Geochemical Nanovectors for Metal Transport in Soil-River Systems. *Elements*, **2008**, 4, 401-406	3.8	151
104	A Review of the Properties and Processes Determining the Fate of Engineered Nanomaterials in the Aquatic Environment. *Critical Reviews in Environmental Science and Technology*, **2015**, 45, 2084-2134	11.1	145
103	The road to nowhere: equilibrium partition coefficients for nanoparticles. *Environmental Science: Nano*, **2014**, 1, 317-323	7.1	116
102	Behavior of Ag nanoparticles in soil: effects of particle surface coating, aging and sewage sludge amendment. *Environmental Pollution*, **2013**, 182, 141-9	9.3	115
101	Concern-driven integrated approaches to nanomaterial testing and assessment--report of the NanoSafety Cluster Working Group 10. *Nanotoxicology*, **2014**, 8, 334-48	5.3	111
100	Field-flow fractionation and inductively coupled plasma mass spectrometer coupling: History, development and applications. *Journal of Analytical Atomic Spectrometry*, **2010**, 25, 613	3.7	109

99	Estimating the relevance of engineered carbonaceous nanoparticle facilitated transport of hydrophobic organic contaminants in porous media. *Environmental Pollution*, **2009**, 157, 1117-26	9.3	104
98	Microplastic Exposure Assessment in Aquatic Environments: Learning from Similarities and Differences to Engineered Nanoparticles. *Environmental Science & Technology*, **2017**, 51, 2499-2507	10.3	103
97	Single-particle multi-element fingerprinting (spMEF) using inductively-coupled plasma time-of-flight mass spectrometry (ICP-TOFMS) to identify engineered nanoparticles against the elevated natural background in soils. *Environmental Science: Nano*, **2017**, 4, 307-314	7.1	96
96	Size-based speciation of natural colloidal particles by flow field flow fractionation, inductively coupled plasma-mass spectroscopy, and transmission electron microscopy/X-ray energy dispersive spectroscopy: colloids-trace element interaction. *Environmental Science & Technology*, **2006**, 40, 2156-62	10.3	95
95	Progress towards the validation of modeled environmental concentrations of engineered nanomaterials by analytical measurements. *Environmental Science: Nano*, **2015**, 2, 421-428	7.1	94
94	Effect of pH and stream order on iron and arsenic speciation in boreal catchments. *Environmental Science & Technology*, **2013**, 47, 7120-8	10.3	93
93	Spot the difference: engineered and natural nanoparticles in the environment--release, behavior, and fate. *Angewandte Chemie - International Edition*, **2014**, 53, 12398-419	16.4	91
92	Current status and future direction for examining engineered nanoparticles in natural systems. *Environmental Chemistry*, **2014**, 11, 351	3.2	88
91	Size fractionation and characterization of natural colloids by flow-field flow fractionation coupled to multi-angle laser light scattering. *Journal of Chromatography A*, **2006**, 1104, 272-81	4.5	88
90	Using FlFFF and aTEM to determine trace metal–nanoparticle associations in riverbed sediment. *Environmental Chemistry*, **2010**, 7, 82	3.2	86
89	Influence of surface functionalization and particle size on the aggregation kinetics of engineered nanoparticles. *Chemosphere*, **2012**, 87, 918-24	8.4	84
88	Assessment of the physico-chemical behavior of titanium dioxide nanoparticles in aquatic environments using multi-dimensional parameter testing. *Environmental Pollution*, **2010**, 158, 3472-81	9.3	84
87	Optimisation of asymmetrical flow field flow fractionation for environmental nanoparticles separation. *Journal of Chromatography A*, **2008**, 1206, 160-5	4.5	83
86	Field-flow fractionation coupled to multi-angle laser light scattering detectors: Applicability and analytical benefits for the analysis of environmental colloids. *Analytica Chimica Acta*, **2005**, 552, 166-174	6.6	81
85	Validation of methods for the detection and quantification of engineered nanoparticles in food. *Food Chemistry*, **2013**, 138, 1959-66	8.5	79
84	Relevance of peat-draining rivers for the riverine input of dissolved iron into the ocean. *Science of the Total Environment*, **2010**, 408, 2402-8	10.2	79
83	Optimization and evaluation of asymmetric flow field-flow fractionation of silver nanoparticles. *Journal of Chromatography A*, **2013**, 1272, 116-25	4.5	78
82	Where is the nano? Analytical approaches for the detection and quantification of TiO2 engineered nanoparticles in surface waters. *Environmental Science: Nano*, **2018**, 5, 313-326	7.1	77

81	Natural organic matter concentration and hydrochemistry influence aggregation kinetics of functionalized engineered nanoparticles. *Environmental Science & Technology*, **2013**, 47, 4113-20	10.3	76
80	The role of nanominerals and mineral nanoparticles in the transport of toxic trace metals: Field-flow fractionation and analytical TEM analyses after nanoparticle isolation and density separation. *Geochimica Et Cosmochimica Acta*, **2013**, 102, 213-225	5.5	73
79	Detection of Engineered Copper Nanoparticles in Soil Using Single Particle ICP-MS. *International Journal of Environmental Research and Public Health*, **2015**, 12, 15756-68	4.6	73
78	Legal and practical challenges in classifying nanomaterials according to regulatory definitions. *Nature Nanotechnology*, **2019**, 14, 208-216	28.7	72
77	Identification and characterization of organic nanoparticles in food. *TrAC - Trends in Analytical Chemistry*, **2011**, 30, 100-112	14.6	72
76	Humic acid adsorption and surface charge effects on schwertmannite and goethite in acid sulphate waters. *Water Research*, **2008**, 42, 2051-60	12.5	70
75	The potential of TiO2 nanoparticles as carriers for cadmium uptake in Lumbriculus variegatus and Daphnia magna. *Aquatic Toxicology*, **2012**, 118-119, 1-8	5.1	66
74	First steps towards a generic sample preparation scheme for inorganic engineered nanoparticles in a complex matrix for detection, characterization, and quantification by asymmetric flow-field flow fractionation coupled to multi-angle light scattering and ICP-MS. *Journal of Analytical Atomic Spectrometry*, **2015**, 30, 1286-1296	3.7	60
73	River-derived humic substances as iron chelators in seawater. *Marine Chemistry*, **2015**, 174, 85-93	3.7	55
72	Natural sample fractionation by FlFFF-MALLS-TEM: sample stabilization, preparation, pre-concentration and fractionation. *Journal of Chromatography A*, **2005**, 1093, 156-66	4.5	50
71	Meeting the Needs for Released Nanomaterials Required for Further Testing-The SUN Approach. *Environmental Science & Technology*, **2016**, 50, 2747-53	10.3	49
70	Using FLOWFFF and HPSEC to determine trace metal-colloid associations in wetland runoff. *Water Research*, **2013**, 47, 2757-69	12.5	47
69	The influence of pH on iron speciation in podzol extracts: iron complexes with natural organic matter, and iron mineral nanoparticles. *Science of the Total Environment*, **2013**, 461-462, 108-16	10.2	46
68	Nanoscale lignin particles as sources of dissolved iron to the ocean. *Global Biogeochemical Cycles*, **2012**, 26,	5.9	46
67	Influence of carrier solution ionic strength and injected sample load on retention and recovery of natural nanoparticles using Flow Field-Flow Fractionation. *Journal of Chromatography A*, **2011**, 1218, 6763-73	4.5	40
66	Colloid-associated export of arsenic in stream water during stormflow events. *Chemical Geology*, **2013**, 352, 81-91	4.2	39
65	3D characterization of natural colloids by FlFFF-MALLS-TEM. *Analytical and Bioanalytical Chemistry*, **2005**, 383, 549-56	4.4	38
64	Ageing of synthetic and natural schwertmannites at pH 2B. *Clay Minerals*, **2008**, 43, 437-448	1.3	37

63	Silver and gold nanoparticle separation using asymmetrical flow-field flow fractionation: Influence of run conditions and of particle and membrane charges. *Journal of Chromatography A*, **2016**, 1440, 150-159	4.5	36
62	Strategies for determining heteroaggregation attachment efficiencies of engineered nanoparticles in aquatic environments. *Environmental Science: Nano*, **2020**, 7, 351-367	7.1	35
61	Key principles and operational practices for improved nanotechnology environmental exposure assessment. *Nature Nanotechnology*, **2020**, 15, 731-742	28.7	34
60	Dynamic light-scattering measurement comparability of nanomaterial suspensions. *Journal of Nanoparticle Research*, **2014**, 16, 1	2.3	33
59	Quantifying the influence of humic acid adsorption on colloidal microsphere deposition onto iron-oxide-coated sand. *Environmental Pollution*, **2010**, 158, 3498-506	9.3	33
58	Production of reference materials for the detection and size determination of silica nanoparticles in tomato soup. *Analytical and Bioanalytical Chemistry*, **2014**, 406, 3895-907	4.4	32
57	Environmental Impacts by Fragments Released from Nanoenabled Products: A Multiassay, Multimaterial Exploration by the SUN Approach. *Environmental Science & Technology*, **2018**, 52, 1514-1524	10.3	30
56	Release of TiO 2 (Nano) particles from construction and demolition landfills. *NanoImpact*, **2017**, 8, 73-79	5.6	30
55	Asymmetrical Flow-Field-Flow Fractionation coupled with inductively coupled plasma mass spectrometry for the analysis of gold nanoparticles in the presence of natural nanoparticles. *Journal of Chromatography A*, **2014**, 1372C, 204-211	4.5	30
54	Feasibility of the development of reference materials for the detection of Ag nanoparticles in food: neat dispersions and spiked chicken meat. *Accreditation and Quality Assurance*, **2015**, 20, 3-16	0.7	29
53	TiO2 nanomaterial detection in calcium rich matrices by spICPMS. A matter of resolution and treatment. *Journal of Analytical Atomic Spectrometry*, **2017**, 32, 1400-1411	3.7	27
52	Physicochemical characterization of titanium dioxide pigments using various techniques for size determination and asymmetric flow field flow fractionation hyphenated with inductively coupled plasma mass spectrometry. *Analytical and Bioanalytical Chemistry*, **2016**, 408, 6679-91	4.4	26
51	Influence of ionic strength and pH on the limitation of latex microsphere deposition sites on iron-oxide coated sand by humic acid. *Environmental Pollution*, **2011**, 159, 1896-904	9.3	26
50	Nanoscale Coloristic Pigments: Upper Limits on Releases from Pigmented Plastic during Environmental Aging, In Food Contact, and by Leaching. *Environmental Science & Technology*, **2017**, 51, 11669-11680	10.3	25
49	Tetrachloroferrate containing ionic liquids: Magnetic- and aggregation behavior. *Inorganic Chemistry Communication*, **2010**, 13, 1485-1488	3.1	25
48	Application of a high-performance liquid chromatography fluorescence detector as a nephelometric turbidity detector following Field-Flow Fractionation to analyse size distributions of environmental colloids. *Journal of Chromatography A*, **2005**, 1100, 81-9	4.5	25
47	Agar agar-stabilized milled zerovalent iron particles for in situ groundwater remediation. *Science of the Total Environment*, **2016**, 563-564, 713-23	10.2	24
46	Natural organic matter and iron export from the Tanner Moor, Austria. *Limnologica*, **2013**, 43, 239-244	2	23

45	Harmonizing across environmental nanomaterial testing media for increased comparability of nanomaterial datasets. *Environmental Science: Nano*, **2020**, 7, 13-36	7.1	23
44	Scientific rationale for the development of an OECD test guideline on engineered nanomaterial stability. *NanoImpact*, **2018**, 11, 42-50	5.6	22
43	Transformations of Nanoenabled Copper Formulations Govern Release, Antifungal Effectiveness, and Sustainability throughout the Wood Protection Lifecycle. *Environmental Science & Technology*, **2018**, 52, 1128-1138	10.3	22
42	Bovine serum albumin adsorption to iron-oxide coated sands can change microsphere deposition mechanisms. *Environmental Science & Technology*, **2012**, 46, 2583-91	10.3	22
41	Impact of particle size and light exposure on the effects of TiO2 nanoparticles on Caenorhabditis elegans. *Environmental Toxicology and Chemistry*, **2014**, 33, 2288-96	3.8	21
40	Aquatische Kolloide I: Eine Übersichtsarbeit zur Definition, zu Systemen und zur Relevanz. *Grundwasser*, **2003**, 8, 203-212	1.1	20
39	Concentrations and Distributions of Metals Associated with Dissolved Organic Matter from the Suwannee River (GA, USA). *Environmental Engineering Science*, **2015**, 32, 54-65	2	19
38	Accessibility of humic-associated Fe to a microbial siderophore: implications for bioavailability. *Environmental Science & Technology*, **2014**, 48, 1015-22	10.3	19
37	Proposal for a tiered dietary bioaccumulation testing strategy for engineered nanomaterials using fish. *Environmental Science: Nano*, **2018**, 5, 2030-2046	7.1	17
36	Toward a comprehensive and realistic risk evaluation of engineered nanomaterials in the urban water system. *Frontiers in Chemistry*, **2014**, 2, 39	5	17
35	Aquatische Kolloide II: Eine Übersichtsarbeit zur Probennahme, Probenaufbereitung und Charakterisierung. *Grundwasser*, **2003**, 8, 213-223	1.1	16
34	Combining gas-phase electrophoretic mobility molecular analysis (GEMMA), light scattering, field flow fractionation and cryo electron microscopy in a multidimensional approach to characterize liposomal carrier vesicles. *International Journal of Pharmaceutics*, **2016**, 513, 309-318	6.5	16
33	Characterisation of Aquatic Colloids and Macromolecules by Field-Flow Fractionation **2007**, 223-276		15
32	Colloidal Transport in Porous Media **2007**,		15
31	Accurate quantification of TiO nanoparticles in commercial sunscreens using standard materials and orthogonal particle sizing methods for verification. *Talanta*, **2020**, 215, 120921	6.2	15
30	A Large-Scale 3D Study on Transport of Humic Acid-Coated Goethite Nanoparticles for Aquifer Remediation. *Water (Switzerland)*, **2020**, 12, 1207	3	14
29	Combining spatially resolved hydrochemical data with in-vitro nanoparticle stability testing: assessing environmental behavior of functionalized gold nanoparticles on a continental scale. *Environment International*, **2013**, 59, 53-62	12.9	14
28	Comparison of Different Monitoring Programs of the 2002 Summer Flood in the River Elbe. *Clean - Soil, Air, Water*, **2005**, 33, 404-417		14

27	A uniform measurement expression for cross method comparison of nanoparticle aggregate size distributions. *Analyst, The*, **2015**, 140, 5257-67	5	13
26	Persistence of copper-based nanoparticle-containing foliar sprays in Lactuca sativa (lettuce) characterized by spICP-MS. *Journal of Nanoparticle Research*, **2019**, 21, 1	2.3	13
25	Impact of Sodium Humate Coating on Collector Surfaces on Deposition of Polymer-Coated Nanoiron Particles. *Environmental Science & Technology*, **2017**, 51, 9202-9209	10.3	13
24	Effect of field site hydrogeochemical conditions on the corrosion of milled zerovalent iron particles and their dechlorination efficiency. *Science of the Total Environment*, **2018**, 618, 1619-1627	10.2	13
23	Opportunities for examining the natural nanogeochemical environment using recent advances in nanoparticle analysis. *Journal of Analytical Atomic Spectrometry*, **2019**, 34, 1768-1772	3.7	12
22	Natural colloid characterization using flow-field-flow-fractionation followed by multi-detector analysis. *Water Science and Technology*, **1998**, 37, 173	2.2	12
21	Impact of natural nanophases on heavy-metal retention in zeolite-supported reactive filtration facilities for urban run-off treatment. *Freseniusl Journal of Analytical Chemistry*, **2001**, 371, 652-9		12
20	Nano electrospray gas-phase electrophoretic mobility molecular analysis (nES GEMMA) of liposomes: applicability of the technique for nano vesicle batch control. *Analyst, The*, **2016**, 141, 6042-6050	5	12
19	Mechanisms of (photo)toxicity of TiO nanomaterials (NM103, NM104, NM105): using high-throughput gene expression in Enchytraeus crypticus. *Nanoscale*, **2018**, 10, 21960-21970	7.7	12
18	Quantification and Characterization of Nanoparticulate Zinc in an Urban Watershed. *Frontiers in Environmental Science*, **2020**, 8,	4.8	11
17	Natural Colloids and Nanoparticles in Aquatic and Terrestrial Environments109-161		8
16	Modeling colloid deposition on a protein layer adsorbed to iron-oxide-coated sand. *Journal of Contaminant Hydrology*, **2012**, 142-143, 50-62	3.9	7
15	Nanomaterial environmental risk assessment. *Integrated Environmental Assessment and Management*, **2015**, 11, 333-5	2.5	6
14	The importance of aromaticity to describe the interactions of organic matter with carbonaceous materials depends on molecular weight and sorbent geometry. *Environmental Sciences: Processes and Impacts*, **2020**, 22, 1888-1897	4.3	6
13	Quantification of anthropogenic and geogenic Ce in sewage sludge based on Ce oxidation state and rare earth element patterns. *Water Research X*, **2020**, 9, 100059	8.1	5
12	New guidance brings clarity to environmental hazard and behaviour testing of nanomaterials. *Nature Nanotechnology*, **2021**, 16, 482-483	28.7	5
11	Methanol-based extraction protocol for insoluble and moderately water-soluble nanoparticles in plants to enable characterization by single particle ICP-MS. *Analytical and Bioanalytical Chemistry*, **2021**, 413, 299-314	4.4	5
10	Intra-laboratory assessment of a method for the detection of TiO2 nanoparticles present in sunscreens based on multi-detector asymmetrical flow field-flow fractionation. *NanoImpact*, **2020**, 19, 100233	5.6	4

9	Refinement of the selection of physicochemical properties for grouping and read-across of nanoforms.. *NanoImpact*, **2022**, 25, 100375	5.6	2
8	Rapid analysis of gunshot residues with single-particle inductively coupled plasma time-of-flight mass spectrometry.. *Forensic Science International*, **2022**, 332, 111202	2.6	2
7	Towards Standardization for Determining Dissolution Kinetics of Nanomaterials in Natural Aquatic Environments: Continuous Flow Dissolution of Ag Nanoparticles.. *Nanomaterials*, **2022**, 12,	5.4	2
6	Novel multimethod approach for the determination of the colloidal stability of nanomaterials in complex environmental mixtures using a global stability index: TiO as case study. *Science of the Total Environment*, **2021**, 801, 149607	10.2	2
5	Comparing the Influence of Two Different Natural Organic Matter Types on Colloid Deposition in Saturated Porous Medium. *Advanced Materials Research*, **2012**, 455-456, 1324-1329	0.5	1
4	Exploring Nanogeochemical Environments: New Insights from Single Particle ICP-TOFMS and AF4-ICPMS.. *ACS Earth and Space Chemistry*, **2022**, 6, 943-952	3.2	1
3	A critical evaluation of short columns for estimating the attachment efficiency of engineered nanomaterials in natural soils. *Environmental Science: Nano*, **2021**, 8, 1801-1814	7.1	0
2	Freshwater suspended particulate matterKey components and processes in floc formation and dynamics. *Water Research*, **2022**, 220, 118655	12.5	0
1	Transport of Colloids in Filter Columns: Laboratory and Field Experiments **2007**, 87-115		