Julien Gigault

List of Publications by Year
in descending order

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61 papers	4,439 citations	186209 28 h-index	123376 61 g-index
63 all docs	63 docs citations	63 times ranked	3863 citing authors

#	Article	IF	Citations
1	Current opinion: What is a nanoplastic?. Environmental Pollution, 2018, 235, 1030-1034.	3.7	1,011
2	Nanoplastic in the North Atlantic Subtropical Gyre. Environmental Science & Technology, 2017, 51, 13689-13697.	4.6	581
3	Nanoplastics are neither microplastics nor engineered nanoparticles. Nature Nanotechnology, 2021, 16, 501-507.	15.6	377
4	Marine plastic litter: the unanalyzed nano-fraction. Environmental Science: Nano, 2016, 3, 346-350.	2.2	283
5	Nanoplastic occurrence in a soil amended with plastic debris. Chemosphere, 2021, 262, 127784.	4.2	178
6	Nanoplastic from mechanically degraded primary and secondary microplastics for environmental assessments. NanoImpact, 2020, 17, 100206.	2.4	126
7	Are nanoplastics able to bind significant amount of metals? The lead example. Environmental Pollution, 2019, 249, 940-948.	3.7	124
8	Trace metals in polyethylene debris from the North Atlantic subtropical gyre. Environmental Pollution, 2019, 245, 371-379.	3.7	123
9	Rational strategy for characterization of nanoscale particles by asymmetric-flow field flow fractionation: A tutorial. Analytica Chimica Acta, 2014, 809, 9-24.	2.6	121
10	Asymmetrical flow field flow fractionation methods to characterize submicron particles: application to carbon-based aggregates and nanoplastics. Analytical and Bioanalytical Chemistry, 2017, 409, 6761-6769.	1.9	93
11	Ecotoxicity of polyethylene nanoplastics from the North Atlantic oceanic gyre on freshwater and marine organisms (microalgae and filter-feeding bivalves). Environmental Science and Pollution Research, 2020, 27, 3746-3755.	2.7	87
12	Hyphenated analytical techniques for multidimensional characterisation of submicron particles: A review. Analytica Chimica Acta, 2011, 692, 26-41.	2.6	80
13	Soot aggregate restructuring during water processing. Journal of Aerosol Science, 2013, 66, 209-219.	1.8	73
14	Nanoplastics on the coast exposed to the North Atlantic Gyre: Evidence and traceability. NanoImpact, 2020, 20, 100262.	2.4	69
15	Nanoplastics Identification in Complex Environmental Matrices: Strategies for Polystyrene and Polypropylene. Environmental Science & Technology, 2021, 55, 8753-8759.	4.6	57
16	Differentiation and characterization of isotopically modified silver nanoparticles in aqueous media using asymmetric-flow field flow fractionation coupled to optical detection and mass spectrometry. Analytica Chimica Acta, 2013, 763, 57-66.	2.6	51
17	Highly Stable Positively Charged Dendron-Encapsulated Gold Nanoparticles. Langmuir, 2014, 30, 3883-3893.	1.6	51
18	Nano-litter from cigarette butts: Environmental implications and urgent consideration. Chemosphere, 2018, 194, 125-130.	4.2	51

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19	Discriminating the States of Matter in Metallic Nanoparticle Transformations: What Are We Missing?. ACS Nano, 2013, 7, 2491-2499.	7.3	50
20	Saponins: A Renewable and Biodegradable Surfactant From Its Microwave-Assisted Extraction to the Synthesis of Monodisperse Lattices. Biomacromolecules, 2014, 15, 856-862.	2.6	47
21	Observation of size-independent effects in nanoparticle retention behavior during asymmetric-flow field-flow fractionation. Analytical and Bioanalytical Chemistry, 2013, 405, 6251-6258.	1.9	46
22	Gold nanorod separation and characterization by asymmetric-flow field flow fractionation with UVâ€“Vis detection. Analytical and Bioanalytical Chemistry, 2013, 405, 1191-1202.	1.9	45
23	Stabilization of Fragmental Polystyrene Nanoplastic by Natural Organic Matter: Insight into Mechanisms. ACS ES&T Water, 2021, 1, 1198-1208.	2.3	43
24	Characterization of ironâ€“organic matter nano-aggregate networks through a combination of SAXS/SANS and XAS analyses: impact on As binding. Environmental Science: Nano, 2017, 4, 938-954.	2.2	39
25	Soap- and metal-free polystyrene latex particles as a nanoplastic model. Environmental Science: Nano, 2019, 6, 2253-2258.	2.2	38
26	Single walled carbon nanotube length determination by asymmetrical-flow field-flow fractionation hyphenated to multi-angle laser-light scattering. Journal of Chromatography A, 2010, 1217, 7891-7897.	1.8	33
27	Nanoplastics: From model materials to colloidal fate. Current Opinion in Colloid and Interface Science, 2022, 57, 101528.	3.4	33
28	Nanoparticle Characterization by Cyclical Electrical Field-Flow Fractionation. Analytical Chemistry, 2011, 83, 6565-6572.	3.2	32
29	Metals in microplastics: determining which are additive, adsorbed, and bioavailable. Environmental Sciences: Processes and Impacts, 2021, 23, 553-558.	1.7	31
30	Quantitative analysis of dendron-conjugated cisplatin-complexed gold nanoparticles using scanning particle mobility mass spectrometry. Nanoscale, 2013, 5, 5390.	2.8	30
31	Molecular impacts of dietary exposure to nanoplastics combined with arsenic in Canadian oysters (Crassostrea virginica) and bioaccumulation comparison with Caribbean oysters (Isognomon alatus). Chemosphere, 2021, 277, 130331.	4.2	27
32	Trace element distribution in marine microplastics using laser ablation-ICP-MS. Marine Pollution Bulletin, 2020, 160, 111716.	2.3	26
33	Deposition of environmentally relevant nanoplastic models in sand during transport experiments. Chemosphere, 2020, 255, 126912.	4.2	24
34	Environmental Fate Modeling of Nanoplastics in a Salinity Gradient Using a Lab-on-a-Chip: Where Does the Nanoscale Fraction of Plastic Debris Accumulate?. Environmental Science & Technology, 2021, 55, 3001-3008.	4.6	24
35	Unexpected Changes in Functionality and Surface Coverage for Au Nanoparticle PEI Conjugates: Implications for Stability and Efficacy in Biological Systems. Langmuir, 2015, 31, 7673-7683.	1.6	21
36	Size characterization of the associations between carbon nanotubes and humic acids in aqueous media by asymmetrical flow field-flow fractionation combined with multi-angle light scattering. Chemosphere, 2012, 86, 177-182.	4.2	18

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37	Molecular Impacts of Dietary Exposure to Nanoplastics Combined or Not with Arsenic in the Caribbean Mangrove Oysters (Isognomon alatus). Nanomaterials, 2021, 11, 1151.	1.9	18
38	The underestimated toxic effects of nanoplastics coming from marine sources: A demonstration on oysters (Isognomon alatus). Chemosphere, 2022, 295, 133824.	4.2	17
39	Multi-wall carbon nanotube aqueous dispersion monitoring by using A4F-UV-MALS. Analytical and Bioanalytical Chemistry, 2011, 401, 3345-3353.	1.9	16
40	PEGylated gold nanorod separation based on aspect ratio: characterization by asymmetric-flow field flow fractionation with UV-Vis detection. Analytical and Bioanalytical Chemistry, 2014, 406, 1651-1659.	1.9	16
41	A reliable procedure to obtain environmentally relevant nanoplastic proxies. Environmental Science: Nano, 2021, 8, 3211-3219.	2.2	15
42	Heteroaggregates of Polystyrene Nanospheres and Organic Matter: Preparation, Characterization and Evaluation of Their Toxicity to Algae in Environmentally Relevant Conditions. Nanomaterials, 2021, 11, 482.	1.9	15
43	The removal of colloidal lead during estuarine mixing: seasonal variations and importance of iron oxides and humic substances. Marine and Freshwater Research, 2011, 62, 329.	0.7	14
44	Micro- and nanoplastic transfer in freezing saltwater: implications for their fate in polar waters. Environmental Sciences: Processes and Impacts, 2021, 23, 1759-1770.	1.7	14
45	Accurate determination of the length of carbon nanotubes using multi-angle light scattering. Mikrochimica Acta, 2011, 175, 265-271.	2.5	12
46	A new analytical approach based on asymmetrical flow field-flow fractionation coupled to ultraviolet spectrometry and light scattering detection for SWCNT aqueous dispersion studies. Analyst, The, 2012, 137, 917-923.	1.7	12
47	Selection of an appropriate aqueous nano-fullerene (nC60) preparation protocol for studying its environmental fate and behavior. TrAC - Trends in Analytical Chemistry, 2016, 80, 1-11.	5.8	12
48	Improving the understanding of fullerene (nC 60) aggregate structures: Fractal dimension characterization by static light scattering coupled to asymmetrical flow field flow fractionation. Journal of Colloid and Interface Science, 2017, 502, 193-200.	5.0	12
49	Fate of nanoplastics in the environment: Implication of the cigarette butts. Environmental Pollution, 2021, 268, 115170.	3.7	12
50	Effect of the Surface Hydrophobicityâ€“Morphologyâ€“Functionality of Nanoplastics on Their Homoaggregation in Seawater. ACS ES&T Water, 2022, 2, 88-95.	2.3	12
51	Metals and metalloids concentrations in three genotypes of pelagic Sargassum from the Atlantic Ocean Basin-scale. Marine Pollution Bulletin, 2022, 178, 113564.	2.3	12
52	Optimization of flow field-flow fractionation for the characterization of natural colloids. Analytical and Bioanalytical Chemistry, 2014, 406, 1639-1649.	1.9	11
53	Measurement Bias on Nanoparticle Size Characterization by Asymmetric Flow Field-Flow Fractionation Using Dynamic Light-Scattering Detection. Chromatographia, 2017, 80, 287-294.	0.7	10
54	Estuary-on-a-chip: unexpected results for the fate and transport of nanoparticles. Environmental Science: Nano, 2018, 5, 1231-1236.	2.2	10

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55	Accurate determination of the size distribution for polydisperse, cationic metallic nanomaterials by asymmetric-flow field flow fractionation. Journal of Nanoparticle Research, 2014, 16, 1.	0.8	9
56	Examining the Relevance of the Microplastic-Associated Additive Fraction in Environmental Compartments. ACS ES&T Water, 2022, 2, 405-413.	2.3	9
57	Early molecular responses of mangrove oysters to nanoplastics using a microfluidic device to mimic environmental exposure. Journal of Hazardous Materials, 2022, 436, 129283.	6.5	9
58	Asymmetrical flow field-flow fractionation analysis of water suspensions of polymer nanofibers synthesized via RAFT-mediated emulsion polymerization. Analytica Chimica Acta, 2014, 819, 116-121.	2.6	8
59	In situ monitoring, separation, and characterization of gold nanorod transformation during seed-mediated synthesis. Analytical and Bioanalytical Chemistry, 2016, 408, 2195-2201.	1.9	6
60	An assessment of retention behavior for gold nanorods in asymmetrical flow field-flow fractionation. Analytical and Bioanalytical Chemistry, 2018, 410, 6977-6984.	1.9	5
61	Metals binding processes on Nanoplastics : Rare earth elements as a probe. Environmental Science: Nano, 0, , .	2.2	2