Esther Amstad

List of Publications by Year
in descending order

86 papers	4,420 citations	172207 29 h-index	106150 65 g-index
89 all docs	89 docs citations	89 times ranked	6645 citing authors

#	Article	IF	Citations
1	Ultrastable Iron Oxide Nanoparticle Colloidal Suspensions Using Dispersants with Catechol-Derived Anchor Groups. Nano Letters, 2009, 9, 4042-4048.	4.5	411
2	Stabilization and functionalization of iron oxide nanoparticles for biomedical applications. Nanoscale, 2011, 3, 2819.	2.8	360
3	Triggered Release from Liposomes through Magnetic Actuation of Iron Oxide Nanoparticle Containing Membranes. Nano Letters, 2011, 11, 1664-1670.	4.5	339
4	25th Anniversary Article: Double Emulsion Templated Solid Microcapsules: Mechanics And Controlled Release. Advanced Materials, 2014, 26, 2205-2218.	11.1	226
5	Colloidal Stabilization of Nanoparticles in Concentrated Suspensions. Langmuir, 2007, 23, 1081-1090.	1.6	217
6	Surface Functionalization of Single Superparamagnetic Iron Oxide Nanoparticles for Targeted Magnetic Resonance Imaging. Small, 2009, 5, 1334-1342.	5.2	203
7	Robust scalable high throughput production of monodisperse drops. Lab on A Chip, 2016, 16, 4163-4172.	3.1	178
8	Photoâ€•and Thermoresponsive Polymersomes for Triggered Release. Angewandte Chemie - International Edition, 2012, 51, 12499-12503.	7.2	155
9	Ultrathin Shell Double Emulsion Templated Giant Unilamellar Lipid Vesicles with Controlled Microdomain Formation. Small, 2014, 10, 950-956.	5.2	150
10	Influence of Electronegative Substituents on the Binding Affinity of Catechol-Derived Anchors to Fe₃O₄ Nanoparticles. Journal of Physical Chemistry C, 2011, 115, 683-691.	1.5	142
11	Highâ€Throughput Step Emulsification for the Production of Functional Materials Using a Glass Microfluidic Device. Macromolecular Chemistry and Physics, 2017, 218, 1600472.	1.1	113
12	Production of amorphous nanoparticles by supersonic spray-drying with a microfluidic nebulator. Science, 2015, 349, 956-960.	6.0	110
13	Water: How Does It Influence the CaCO₃ Formation?. Angewandte Chemie - International Edition, 2020, 59, 1798-1816.	7.2	94
14	Nanoscale Probing of a Polymerâ€Blend Thin Film with Tipâ€Enhanced Raman Spectroscopy. Small, 2009, 5, 952-960.	5.2	88
15	3D Printing of Strong and Tough Double Network Granular Hydrogels. Advanced Functional Materials, 2021, 31, 2005929.	7.8	85
16	Adsorption of core-shell nanoparticles at liquidâ€“liquid interfaces. Soft Matter, 2011, 7, 7663.	1.2	78
17	Nanoparticle actuated hollow drug delivery vehicles. Nanomedicine, 2012, 7, 145-164.	1.7	76
18	Biocompatible Amphiphilic Hydrogelâ€“Solid Dimer Particles as Colloidal Surfactants. ACS Nano, 2017, 11, 11978-11985.	7.3	72

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19	Rheology of Concentrated Suspensions Containing Weakly Attractive Alumina Nanoparticles. Journal of the American Ceramic Society, 2006, 89, 2418-2425.	1.9	68
20	Simultaneous formation of ferrite nanocrystals and deposition of thin films via a microwave-assisted nonaqueous solâ€“gel process. Journal of Sol-Gel Science and Technology, 2011, 57, 313-322.	1.1	68
21	Amorphous CaCO₃: Influence of the Formation Time on Its Degree of Hydration and Stability. Journal of the American Chemical Society, 2018, 140, 14289-14299.	6.6	64
22	Scalable single-step microfluidic production of single-core double emulsions with ultra-thin shells. Lab on A Chip, 2015, 15, 3335-3340.	3.1	59
23	Shape retaining self-healing metal-coordinated hydrogels. Nanoscale, 2021, 13, 4073-4084.	2.8	45
24	Cross-talk between emulsion drops: how are hydrophilic reagents transported across oil phases?. Lab on A Chip, 2018, 18, 3903-3912.	3.1	43
25	Influence of Fluorinated Surfactant Composition on the Stability of Emulsion Drops. Macromolecular Chemistry and Physics, 2017, 218, 1600365.	1.1	39
26	Capsules: Their Past and Opportunities for Their Future. ACS Macro Letters, 2017, 6, 841-847.	2.3	36
27	The microfluidic post-array device: high throughput production of single emulsion drops. Lab on A Chip, 2014, 14, 705-709.	3.1	34
28	Production of monodisperse drops from viscous fluids. Lab on A Chip, 2018, 18, 648-654.	3.1	33
29	Deterministic scRNA-seq captures variation in intestinal crypt and organoid composition. Nature Methods, 2022, 19, 323-330.	9.0	33
30	Clogging in parallelized tapered microfluidic channels. Microfluidics and Nanofluidics, 2016, 20, 1.	1.0	32
31	Additives: Their Influence on the Humidity- and Pressure-Induced Crystallization of Amorphous CaCO₃. Chemistry of Materials, 2020, 32, 4282-4291.	3.2	30
32	Tailored Double Emulsions Made Simple. Advanced Materials, 2022, 34, e2107338.	11.1	30
33	Tribological properties of graphite- and ZrC-reinforced bulk metallic glass composites. Intermetallics, 2007, 15, 1228-1236.	1.8	29
34	Shear Stressâ€Responsive Polymersome Nanoreactors Inspired by the Marine Bioluminescence of Dinoflagellates. Angewandte Chemie - International Edition, 2021, 60, 904-909.	7.2	29
35	Mechanical reinforcement of granular hydrogels. Chemical Science, 2022, 13, 3082-3093.	3.7	27
36	Parallelization of microfluidic flow-focusing devices. Physical Review E, 2017, 95, 043105.	0.8	26

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37	Photocatalytic Nanolithography of Self-Assembled Monolayers and Proteins. ACS Nano, 2013, 7, 7610-7618.	7.3	25
38	Microfluidic Fabrication of Capsule Sensor Platform with Doubleâ€Shell Structure. Advanced Functional Materials, 2019, 29, 1902670.	7.8	23
39	The Investigation of Floryâ€“Huggins Interaction Parameters for Amorphous Solid Dispersion Across the Entire Temperature and Composition Range. Pharmaceutics, 2019, 11, 420.	2.0	23
40	Characterization of supported lipid bilayers incorporating and phosphoinositol-3,4,5-triphosphate by complementary techniques. Biointerphases, 2010, 5, 114-119.	0.6	22
41	Simplified Drop-seq workflow with minimized bead loss using a bead capture and processing microfluidic chip. Lab on A Chip, 2019, 19, 1610-1620.	3.1	22
42	Biocompatible microcapsules with a water core templated from single emulsions. Chinese Chemical Letters, 2017, 28, 1897-1900.	4.8	21
43	Self-Assembly of Iron Oxide-Poly(ethylene glycol) Coreâ€“Shell Nanoparticles at Liquidâ€“Liquid Interfaces. Chimia, 2010, 64, 145-149.	0.3	20
44	Stabilization of the Amorphous Structure of Spray-Dried Drug Nanoparticles. Journal of Physical Chemistry B, 2016, 120, 9161-9165.	1.2	20
45	Fabrication of Hexagonal-Prismatic Granular Hydrogel Sheets. Langmuir, 2018, 34, 3459-3466.	1.6	20
46	The interfacial structure of nano- and micron-sized oil and water droplets stabilized with SDS and Span80. Journal of Chemical Physics, 2019, 150, 204704.	1.2	20
47	Mechano-responsive microcapsules with uniform thin shells. Soft Matter, 2019, 15, 1290-1296.	1.2	18
48	Bioinspired Viscoelastic Capsules: Delivery Vehicles and Beyond. Advanced Materials, 2019, 31, e1808233.	11.1	17
49	Yielding of weakly attractive nanoparticle networks. Soft Matter, 2011, 7, 6408.	1.2	16
50	Scalable production of double emulsion drops with thin shells. Lab on A Chip, 2018, 18, 1936-1942.	3.1	16
51	Magnetic Decoupling of Surface Fe³⁺ in Magnetite Nanoparticles upon Nitrocatecholâ€Anchored Dispersant Binding. Chemistry - A European Journal, 2011, 17, 7396-7398.	1.7	15
52	Controlling the calcium carbonate microstructure of engineered living building materials. Journal of Materials Chemistry A, 2021, 9, 24438-24451.	5.2	15
53	Reducing the shell thickness of double emulsions using microfluidics. Microfluidics and Nanofluidics, 2016, 20, 1.	1.0	14
54	Microfluidic device for real-time formulation of reagents and their subsequent encapsulation into double emulsions. Scientific Reports, 2018, 8, 8143.	1.6	14

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55	The microfluidic nebulator: production of sub-micrometer sized airborne drops. Lab on A Chip, 2017, 17, 1475-1480.	3.1	12
56	Microfluidics: A Tool to Control the Size and Composition of Particles. Chimia, 2017, 71, 334.	0.3	12
57	Monodisperse Selectively Permeable Hydrogel Capsules Made from Single Emulsion Drops. ACS Applied Materials & Interfaces, 2021, 13, 15601-15609.	4.0	12
58	Recycling of Loadâ€Bearing 3D Printable Double Network Granular Hydrogels. Small, 2022, 18, e2107128.	5.2	12
59	Crystallization of undercooled liquid fenofibrate. Physical Chemistry Chemical Physics, 2015, 17, 30158-30161.	1.3	11
60	Selectively Permeable Double Emulsions. Small, 2019, 15, e1903054.	5.2	11
61	Microfluidic fabrication of vesicles with hybrid lipid/nanoparticle bilayer membranes. Soft Matter, 2019, 15, 1388-1395.	1.2	11
62	Microarrays for the study of compartmentalized microorganisms in alginate microbeads and (W/O/W) double emulsions. RSC Advances, 2016, 6, 114830-114842.	1.7	10
63	Tuning the Incorporation of Magnesium into Calcite during Its Crystallization from Additive-Free Aqueous Solution. Crystal Growth and Design, 2019, 19, 4385-4394.	1.4	10
64	Black Lipid Membranes: Challenges in Simultaneous Quantitative Characterization by Electrophysiology and Fluorescence Microscopy. Langmuir, 2019, 35, 8748-8757.	1.6	10
65	Production of Additiveâ€Free Amorphous Nanoparticles with a SAWâ€Based Microfluidic Sprayâ€Dryer. Advanced Materials Technologies, 2019, 4, 1800665.	3.0	10
66	Does the Size of Microgels Influence the Toughness of Microgelâ€Reinforced Hydrogels?. Macromolecular Rapid Communications, 2022, 43, e2200196.	2.0	10
67	Nacre-inspired Hard and Tough Materials. Chimia, 2019, 73, 29.	0.3	9
68	Reversible Oxygen Sensing Based on Multi-Emission Fluorescence Quenching. Sensors, 2020, 20, 477.	2.1	9
69	Temperature-induced liquid crystal microdroplet formation in a partially miscible liquid mixture. Soft Matter, 2021, 17, 947-954.	1.2	9
70	Rapid Production of Submicron Drug Substance Particles by Supersonic Spray Drying. Crystal Growth and Design, 2017, 17, 2046-2053.	1.4	8
71	Linear triglycerol-based fluorosurfactants show high potential for droplet-microfluidics-based biochemical assays. Soft Matter, 2021, 17, 7260-7267.	1.2	8
72	Shear Stressâ€Responsive Polymersome Nanoreactors Inspired by the Marine Bioluminescence of Dinoflagellates. Angewandte Chemie, 2021, 133, 917-922.	1.6	7

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73	Capsules made from prefabricated thin films. Science, 2018, 359, 743-743.	6.0	6
74	Microfluidics of binary liquid mixtures with temperature-dependent miscibility. Molecular Systems Design and Engineering, 2020, 5, 358-365.	1.7	6
75	From vesicles to materials: bioinspired strategies for fabricating hierarchically structured soft matter. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2021, 379, 20200338.	1.6	6
76	Reversible and Broad-Range Oxygen Sensing Based on Purely Organic Long-Lived Photoemitters. ACS Applied Polymer Materials, 2021, 3, 2480-2488.	2.0	5
77	Nitrocatechol Dispersants to Tailor Superparamagnetic Fe3 O4 Nanoparticles. Chimia, 2010, 64, 826.	0.3	4
78	Everything in its right place: controlling the local composition of hydrogels using microfluidic traps. Lab on A Chip, 2020, 20, 4572-4581.	3.1	4
79	Load-bearing hydrogels ionically reinforced through competitive ligand exchanges. Biomaterials Science, 2021, 9, 6753-6762.	2.6	4
80	Spray-Assisted Formation of Micrometer-Sized Emulsions. ACS Applied Materials & Interfaces, 2022, 14, 13952-13961.	4.0	4
81	Microfluidic Fabrication of Giant Unilamellar Lipid Vesicles with Controlled Microdomain Formation. Biophysical Journal, 2014, 106, 42a.	0.2	3
82	Wasser: Wie beeinflusst es die CaCO₃â€Bildung?. Angewandte Chemie, 2020, 132, 1814-1833.	1.6	3
83	Reply to the â€˜Comment on â€œRobust scalable high throughput production of monodisperse dropsâ€â€™ by M. Nakajima, Lab Chip, 2017, 17, DOI: 10.1039/C7LC00181A. Lab on A Chip, 2017, 17, 2332-2333.	3.1	2
84	Succinic Acid Based Particles as Carriers of Volatile Substances. ACS Sustainable Chemistry and Engineering, 2022, 10, 2914-2920.	3.2	2
85	Stabilization and Characterization of Iron Oxide Superparamagnetic Core-Shell Nanoparticles for Biomedical Applications. , 2014, , 355-387.		1
86	Leveraging Liquidâ€“Liquid Interfaces to Assemble Responsive Vesicles. Chimia, 2014, 68, 819.	0.3	0