Marco Lattuada

List of Publications by Year
in descending order

122 papers	5,748 citations	94269 37 h-index	82410 72 g-index
124 all docs	124 docs citations	124 times ranked	8471 citing authors

#	Article	IF	Citations
1	Nanoparticle colloidal stability in cell culture media and impact on cellular interactions. Chemical Society Reviews, 2015, 44, 6287-6305.	18.7	771
2	Synthesis, properties and applications of Janus nanoparticles. Nano Today, 2011, 6, 286-308.	6.2	484
3	Functionalization of Monodisperse Magnetic Nanoparticles. Langmuir, 2007, 23, 2158-2168.	1.6	430
4	Bioinspired Stimuliâ€Responsive Colorâ€Changing Systems. Advanced Materials, 2018, 30, e1707069.	11.1	246
5	Preparation and Controlled Self-Assembly of Janus Magnetic Nanoparticles. Journal of the American Chemical Society, 2007, 129, 12878-12889.	6.6	194
6	A simple model for the structure of fractal aggregates. Journal of Colloid and Interface Science, 2003, 268, 106-120.	5.0	153
7	Reversible Clustering of pH- and Temperature-Responsive Janus Magnetic Nanoparticles. ACS Nano, 2008, 2, 1799-1806.	7.3	142
8	Effect of aging on silica aerogel properties. Microporous and Mesoporous Materials, 2017, 241, 293-302.	2.2	111
9	Hydrodynamic radius of fractal clusters. Journal of Colloid and Interface Science, 2003, 268, 96-105.	5.0	107
10	Aggregation kinetics of polymer colloids in reaction limited regime: experiments and simulations. Advances in Colloid and Interface Science, 2003, 103, 33-56.	7.0	101
11	Triggered Metal Ion Release and Oxidation: Ferrocene as a Mechanophore in Polymers. Angewandte Chemie - International Edition, 2018, 57, 11445-11450.	7.2	100
12	Breakup of dense colloidal aggregates under hydrodynamic stresses. Physical Review E, 2009, 79, 061401.	0.8	92
13	Population Balance Modeling of Antibodies Aggregation Kinetics. Journal of Physical Chemistry B, 2012, 116, 7066-7075.	1.2	84
14	Further insights into the universality of colloidal aggregation. Advances in Colloid and Interface Science, 2005, 113, 65-83.	7.0	83
15	Insertion of Nanoparticle Clusters into Vesicle Bilayers. ACS Nano, 2014, 8, 3451-3460.	7.3	82
16	Experimental and Modeling Study of Breakage and Restructuring of Open and Dense Colloidal Aggregates. Langmuir, 2011, 27, 5739-5752.	1.6	77
17	Generation and Geometrical Analysis of Dense Clusters with Variable Fractal Dimension. Journal of Physical Chemistry B, 2009, 113, 10587-10599.	1.2	75
18	Strong, Machinable, and Insulating Chitosanâ€“Urea Aerogels: Toward Ambient Pressure Drying of Biopolymer Aerogel Monoliths. ACS Applied Materials & Interfaces, 2020, 12, 22037-22049.	4.0	71

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19	Impact of aggregate formation on the viscosity of protein solutions. Soft Matter, 2015, 11, 5513-5522.	1.2	69
20	Nanoparticle administration method in cell culture alters particle-cell interaction. Scientific Reports, 2019, 9, 900.	1.6	65
21	The Role of Mass and Length in the Sonochemistry of Polymers. Macromolecules, 2016, 49, 1630-1636.	2.2	64
22	Modelling of aggregation kinetics of colloidal systems and its validation by light scattering measurements. Chemical Engineering Science, 2004, 59, 1783-1798.	1.9	62
23	Breakage Rate of Colloidal Aggregates in Shear Flow through Stokesian Dynamics. Langmuir, 2012, 28, 283-292.	1.6	62
24	Preparation of biocompatible magnetiteâ€"PLGA composite nanoparticles using supercritical fluid extraction of emulsions. Journal of Supercritical Fluids, 2010, 54, 348-356.	1.6	58
25	Estimation of Fractal Dimension in Colloidal Gels. Langmuir, 2003, 19, 6312-6316.	1.6	55
26	Role of Counterion Association in Colloidal Stability. Langmuir, 2009, 25, 2696-2702.	1.6	55
27	Simulation model for overloaded monoclonal antibody variants separations in ion-exchange chromatography. Journal of Chromatography A, 2012, 1253, 32-43.	1.8	52
28	Correlation between Colloidal Stability and Surfactant Adsorption/Association Phenomena Studied by Light Scattering. Journal of Physical Chemistry B, 2008, 112, 1976-1986.	1.2	50
29	Modeling structure effects on aggregation kinetics in colloidal dispersions. AICHE Journal, 2003, 49, 1542-1555.	1.8	49
30	Electrostatic model for protein adsorption in ion-exchange chromatography and application to monoclonal antibodies, lysozyme and chymotrypsinogen A. Journal of Chromatography A, 2010, 1217, 5610-5621.	1.8	49
31	Electrostatics Controls the Formation of Amyloid Superstructures in Protein Aggregation. Physical Review Letters, 2013, 111, 108105.	2.9	49
32	Magnetoliposomes: opportunities and challenges. European Journal of Nanomedicine, 2014, 6, .	0.6	48
33	Membraneâ€"particle interactions in an asymmetric flow field flow fractionation channel studied with titanium dioxide nanoparticles. Journal of Chromatography A, 2014, 1334, 92-100.	1.8	44
34	Hydrodynamic properties of rigid fractal aggregates of arbitrary morphology. Journal of Colloid and Interface Science, 2010, 352, 87-98.	5.0	43
35	Dependence of fractal dimension of DLCA clusters on size of primary particles. Advances in Colloid and Interface Science, 2013, 195-196, 41-49.	7.0	43
36	Protein adsorption on ion exchange resins and monoclonal antibody charge variant modulation. Journal of Chromatography A, 2016, 1447, 82-91.	1.8	43

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37	Dense and strong, but superinsulating silica aerogel. Acta Materialia, 2021, 213, 116959.	3.8	42
38	Role of Sedimentation and Buoyancy on the Kinetics of Diffusion Limited Colloidal Aggregation. Langmuir, 2003, 19, 10710-10718.	1.6	41
39	Kinetics of Monoclonal Antibody Aggregation from Dilute toward Concentrated Conditions. Journal of Physical Chemistry B, 2016, 120, 3267-3280.	1.2	40
40	Polymer nanocomposites with nanorods having different length distributions. Polymer, 2017, 110, 284-291.	1.8	39
41	Scattering Structure Factor of Colloidal Gels Characterized by Static Light Scattering, Small-Angle Light Scattering, and Small-Angle Neutron Scattering Measurements. Langmuir, 2005, 21, 3291-3295.	1.6	38
42	PLAâ€based nanoparticles with tunable hydrophobicity and degradation kinetics. Journal of Polymer Science Part A, 2012, 50, 5191-5200.	2.5	36
43	Interpretation of Light Scattering and Turbidity Measurements in Aggregated Systems: Effect of Intra-Cluster Multiple-Light Scattering. Journal of Physical Chemistry B, 2009, 113, 14962-14970.	1.2	35
44	Predictive Model for Diffusion-Limited Aggregation Kinetics of Nanocolloids under High Concentration. Journal of Physical Chemistry B, 2012, 116, 120-129.	1.2	34
45	Cellular Shuttles: Monocytes/Macrophages Exhibit Transendothelial Transport of Nanoparticles under Physiological Flow. ACS Applied Materials & Interfaces, 2017, 9, 18501-18511.	4.0	33
46	Effect of Temperature on High Shear-Induced Gelation of Charge-Stabilized Colloids without Adding Electrolytes. Langmuir, 2010, 26, 2761-2768.	1.6	32
47	Removal of Cells from Body Fluids by Magnetic Separation in Batch and Continuous Mode: Influence of Bead Size, Concentration, and Contact Time. ACS Applied Materials & Interfaces, 2017, 9, 29571-29579.	4.0	31
48	Effect of aging on thermal conductivity of fiber-reinforced aerogel composites: An X-ray tomography study. Microporous and Mesoporous Materials, 2019, 278, 289-296.	2.2	29
49	Shear Stressâ€Responsive Polymersome Nanoreactors Inspired by the Marine Bioluminescence of Dinoflagellates. Angewandte Chemie - International Edition, 2021, 60, 904-909.	7.2	29
50	Reinforced and superinsulating silica aerogel through in situ cross-linking with silane terminated prepolymers. Acta Materialia, 2018, 147, 322-328.	3.8	28
51	High Shear-Induced Gelation of Charge-Stabilized Colloids in a Microchannel without Adding Electrolytes. Langmuir, 2009, 25, 4715-4723.	1.6	27
52	Estimation of fractal dimension of colloidal gels in the presence of multiple scattering. Physical Review E, 2001, 64, 061404.	0.8	26
53	Experimental Investigation of Colloidal Gel Structures. Langmuir, 2004, 20, 4355-4362.	1.6	26
54	Detailed Model of the Aggregation Event between Two Fractal Clusters. Journal of Physical Chemistry B, 2006, 110, 6574-6586.	1.2	26

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55	Bioactive polyacrylamide hydrogels with gradients in mechanical stiffness. Biotechnology and Bioengineering, 2013, 110, 1508-1519.	1.7	26
56	Radial density distribution of fractal clusters. Chemical Engineering Science, 2004, 59, 4401-4413.	1.9	25
57	Charged Molecular Films on Brownian Particles: Structure, Interactions, and Relation to Stability. Journal of Physical Chemistry B, 2008, 112, 6793-6802.	1.2	25
58	Controlled PEGylation of PLAâ€Based Nanoparticles. Macromolecular Chemistry and Physics, 2012, 213, 2012-2018.	1.1	25
59	Template-Assisted Synthesis of Janus Silica Nanobowls. Langmuir, 2015, 31, 4635-4643.	1.6	25
60	Multiresponsive Photonic Microspheres Formed by Hierarchical Assembly of Colloidal Nanogels for Colorimetric Sensors. ACS Applied Nano Materials, 2021, 4, 3389-3396.	2.4	25
61	Flow-Induced Aggregation and Breakup of Particle Clusters Controlled by Surface Nanoroughness. Langmuir, 2013, 29, 14386-14395.	1.6	24
62	Analytical Model of Fractal Aggregate Stability and Restructuring in Shear Flows. Industrial & Engineering Chemistry Research, 2014, 53, 9109-9119.	1.8	24
63	Reinterpretation of the mechanical reinforcement of polymer nanocomposites reinforced with cellulose nanorods. Journal of Applied Polymer Science, 2017, 134, 45254.	1.3	23
64	Kinetics of Free-Radical Cross-Linking Polymerization: Comparative Experimental and Numerical Study. Macromolecules, 2013, 46, 5831-5841.	2.2	22
65	Viscosity scaling in concentrated dispersions and its impact on colloidal aggregation. Physical Chemistry Chemical Physics, 2015, 17, 24392-24402.	1.3	20
66	Universal Breakup of Colloidal Clusters in Simple Shear Flow. Journal of Physical Chemistry B, 2016, 120, 7244-7252.	1.2	20
67	Getriggerte Freisetzung und Oxidation von Metallionen: Ferrocen als neuer Mechanophor in Polymeren. Angewandte Chemie, 2018, 130, 11616-11621.	1.6	20
68	Phase Transformation of Superparamagnetic Iron Oxide Nanoparticles via Thermal Annealing: Implications for Hyperthermia Applications. ACS Applied Nano Materials, 2019, 2, 4462-4470.	2.4	20
69	Magnetic gelation: a new method for the preparation of polymeric anisotropic porous materials. Soft Matter, 2010, 6, 5636.	1.2	19
70	Population-balance description of shear-induced clustering, gelation and suspension viscosity in sheared DLVO colloids. Soft Matter, 2016, 12, 5313-5324.	1.2	18
71	Protein Amyloid Fibrils as Template for the Synthesis of Silica Nanofibers, and Their Use to Prepare Superhydrophobic, Lotusâ€Like Surfaces. Small, 2018, 14, e1802854.	5.2	18
72	Scattering Properties of Dense Clusters of Colloidal Nanoparticles. Journal of Physical Chemistry B, 2009, 113, 5938-5950.	1.2	17

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73	Synthesis of non-spherical polymer particles using the activated swelling method. Journal of Colloid and Interface Science, 2022, 611, 377-389.	5.0	17
74	Influence of the Potential Well on the Breakage Rate of Colloidal Aggregates in Simple Shear and Uniaxial Extensional Flows. Langmuir, 2015, 31, 5712-5721.	1.6	16
75	Fabrication of Anisotropic Porous Silica Monoliths by Means of Magnetically Controlled Phase Separation in Solâ€"Gel Processes. Langmuir, 2012, 28, 12655-12662.	1.6	15
76	Measuring the heating power of magnetic nanoparticles: an overview of currently used methods. Materials Today: Proceedings, 2017, 4, S107-S117.	0.9	15
77	Lock-In Thermography as an Analytical Tool for Magnetic Nanoparticles: Measuring Heating Power and Magnetic Fields. Journal of Physical Chemistry C, 2017, 121, 27164-27175.	1.5	15
78	Rheological characterization of nanostructured material based on Polystyrene-b-poly(ethylene-butylene)-b-polystyrene (SEBS) block copolymer: Effect of block copolymer composition and nanoparticle geometry. Composites Science and Technology, 2017, 149, 192-206.	3.8	15
79	Oneâ€Step Ring Opening Metathesis Blockâ€Like Copolymers and their Compositional Analysis by a Novel Retardation Technique. Angewandte Chemie - International Edition, 2020, 59, 13597-13601.	7.2	15
80	A Generalized Approach for Evaluating the Mechanical Properties of Polymer Nanocomposites Reinforced with Spherical Fillers. Nanomaterials, 2021, 11, 830.	1.9	15
81	Solvothermal Synthesis Combined with Design of Experimentsâ€"Optimization Approach for Magnetite Nanocrystal Clusters. Nanomaterials, 2021, 11, 360.	1.9	14
82	Superinsulating nanocellulose aerogels: Effect of density and nanofiber alignment. Carbohydrate Polymers, 2022, 292, 119675.	5.1	14
83	Rotational Diffusivity of Fractal Clusters. Langmuir, 2004, 20, 5630-5636.	1.6	13
84	Theoretical elastic moduli for disordered packings of interconnected spheres. Journal of Chemical Physics, 2007, 127, 174512.	1.2	13
85	Simple and fast evaluation of relaxation parameters of magnetic nanoparticles. Journal of Magnetism and Magnetic Materials, 2020, 499, 166176.	1.0	13
86	Aerogel Springâ€Back Correlates with Strain Recovery: Effect of Silica Concentration and Aging. Advanced Engineering Materials, 2021, 23, 2100376.	1.6	13
87	Single-Component Upconverting Polymeric Nanoparticles. Macromolecular Rapid Communications, 2016, 37, 826-832.	2.0	12
88	The role of hydrodynamic interactions on the aggregation kinetics of sedimenting colloidal particles. Soft Matter, 2022, 18, 1715-1730.	1.2	12
89	Effect of repulsive interactions on the rate of doublet formation of colloidal nanoparticles in the presence of convective transport. Journal of Colloid and Interface Science, 2011, 355, 42-53.	5.0	11
90	Structural Behavior of Cylindrical Polystyreneâ€<i>block</i>â€Poly(ethyleneâ€butylene)â€<i>block</i>â€Polystyrene (SEBS) Triblock Copolymer Containing MWCNTs: On the Influence of Nanoparticle Surface Modification. Macromolecular Chemistry and Physics, 2017, 218, 1700231.	1.1	11

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91	Monolithic resorcinolâ€“formaldehyde alcogels and their corresponding nitrogen-doped activated carbons. Journal of Sol-Gel Science and Technology, 2020, 95, 719-732.	1.1	11
92	Kinetic modeling of aggregation and gel formation in quiescent dispersions of polymer colloids. Macromolecular Symposia, 2004, 206, 307-320.	0.4	10
93	Growth and Aggregation Regulate Clusters Structural Properties and Gel Time. Journal of Physical Chemistry B, 2017, 121, 2511-2524.	1.2	10
94	Synthesis of Hetero-nanoclusters: The Case of Polymerâ€“Magnetite Systems. Langmuir, 2014, 30, 2266-2273.	1.6	9
95	Effect of Primary Particle Size and Salt Concentration on the Structure of Colloidal Gels. Journal of Physical Chemistry C, 2011, 115, 931-936.	1.5	8
96	Tracking of Fluorescently Labeled Polymer Particles Reveals Surface Effects during Shear-Controlled Aggregation. Langmuir, 2017, 33, 14038-14044.	1.6	8
97	Nanoparticle Behaviour in Complex Media: Methods for Characterizing Physicochemical Properties, Evaluating Protein Corona Formation, and Implications for Biological Studies. Nanoscience and Technology, 2019, , 101-150.	1.5	8
98	Modeling ultrasound-induced molecular weight decrease of polymers with multiple scissile azo-mechanophores. Polymer Chemistry, 2021, 12, 4093-4103.	1.9	8
99	Application of Asymmetric Flow-Field Flow Fractionation to the Characterization of Colloidal Dispersions Undergoing Aggregation. Langmuir, 2010, 26, 7062-7071.	1.6	7
100	Viscosity contribution of an arbitrary shape rigid aggregate to a dilute suspension. Journal of Colloid and Interface Science, 2012, 367, 83-91.	5.0	7
101	Modeling of the Degradation of Poly(ethylene glycol)-<i>co</i>-(lactic acid)-dimethacrylate Hydrogels. Macromolecules, 2017, 50, 5527-5538.	2.2	7
102	Characterization of the Shape Anisotropy of Superparamagnetic Iron Oxide Nanoparticles during Thermal Decomposition. Materials, 2020, 13, 2018.	1.3	7
103	Shear Stressâ€Responsive Polymersome Nanoreactors Inspired by the Marine Bioluminescence of Dinoflagellates. Angewandte Chemie, 2021, 133, 917-922.	1.6	7
104	Preparation and Machine-Learning Methods of Nacre-like Composites from the Self-Assembly of Magnetic Colloids Exposed to Rotating Magnetic Fields. ACS Applied Materials & Interfaces, 2021, 13, 48040-48052.	4.0	7
105	Field-controlled Self-assembly and Disassembly of Colloidal Nanoparticles. Chimia, 2011, 65, 792-798.	0.3	4
106	Experimental and Theoretical Validation of Plasmonic Nanoparticle Heat Generation by Using Lock-In Thermography. Journal of Physical Chemistry C, 2021, 125, 5890-5896.	1.5	4
107	Ureido Functionalization through Amine-Urea Transamidation under Mild Reaction Conditions. Polymers, 2021, 13, 1583.	2.0	4
108	Silicaâ€“Resorcinolâ€“Melamineâ€“Formaldehyde Composite Aerogels as High-Performance Thermal Insulators. ACS Omega, 2022, 7, 14478-14489.	1.6	4

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109	Asymmetrically Functionalized Polymeric Dumbbells. Chimia, 2013, 67, 829-829.	0.3	2
110	Retarded hydrodynamic properties of fractal clusters. Journal of Colloid and Interface Science, 2014, 429, 8-16.	5.0	2
111	Metallocene as Mechanophore in Polymers Leads to Metal Ion Release & Oxidation. Chimia, 2018, 72, 902.	0.3	2
112	Holistic View on Cell Survival and DNA Damage: How Model-Based Data Analysis Supports Exploration of Dynamics in Biological Systems. Computational and Mathematical Methods in Medicine, 2020, 2020, 1-11.	0.7	2
113	Brownian Dynamics Simulations of Cavitation-Induced Polymer Chain Scission. Industrial & Engineering Chemistry Research, 2021, 60, 10539-10550.	1.8	2
114	Oneâ€Step Ring Opening Metathesis Blockâ€Like Copolymers and their Compositional Analysis by a Novel Retardation Technique. Angewandte Chemie, 2020, 132, 13699-13703.	1.6	2
115	Mechanically stirred singleâ€stage column for continuous gelation of colloidal systems. AICHE Journal, 2008, 54, 3106-3115.	1.8	1
116	Modeling analysis of ultrasonic attenuation and angular scattering measurements of suspended particles. Journal of the Acoustical Society of America, 2018, 143, 1049-1063.	0.5	1
117	Dynamic DNA Damage and Repair Modeling: Bridging the Gap Between Experimental Damage Readout and Model Structure. Communications in Computer and Information Science, 2019, , 127-137.	0.4	1
118	Novel Anisotropic Porous Materials through Self-Assembly of Super-Paramagnetic Particles. Chimia, 2009, 63, 78.	0.3	1
119	Rheological Properties and Structure of Gels Generated from Stable Polymer Colloids through High Shear in a MicroChannel. AIP Conference Proceedings, 2008, , .	0.3	0
120	Macromol. Chem. Phys. 19/2012. Macromolecular Chemistry and Physics, 2012, 213, 2011-2011.	1.1	0
121	Janus Particles. , 2015, , 1-12.		0
122	Janus Particles. , 2015, , 1027-1037.		0