Jacques Jestin

List of Publications by Year
in descending order

93 papers	3,688 citations	159585 30 h-index	138484 58 g-index
95 all docs	95 docs citations	95 times ranked	4277 citing authors

#	Article	IF	Citations
1	Insight into silicate-glass corrosion mechanisms. Nature Materials, 2008, 7, 978-983.	27.5	402
2	Polymer-Grafted-Nanoparticles Nanocomposites: Dispersion, Grafted Chain Conformation, and Rheological Behavior. Macromolecules, 2011, 44, 122-133.	4.8	292
3	Insight into Asphaltene Nanoaggregate Structure Inferred by Small Angle Neutron and X-ray Scattering. Journal of Physical Chemistry B, 2011, 115, 6827-6837.	2.6	245
4	Well-Dispersed Fractal Aggregates as Filler in Polymerâˆ’Silica Nanocomposites: Long-Range Effects in Rheology. Macromolecules, 2009, 42, 2031-2040.	4.8	242
5	Unusual, pH-Induced, Self-Assembly Of Sophorolipid Biosurfactants. ACS Nano, 2012, 6, 4763-4776.	14.6	97
6	Role of Filler Shape and Connectivity on the Viscoelastic Behavior in Polymer Nanocomposites. Macromolecules, 2015, 48, 5433-5438.	4.8	96
7	Multiscale characterization of filler dispersion and origins of mechanical reinforcement in model nanocomposites. Polymer, 2012, 53, 761-775.	3.8	88
8	A Small Angle Neutron Scattering Study of the Adsorbed Asphaltene Layer in Water-in-Hydrocarbon Emulsions:â€‰ Structural Description Related to Stability. Langmuir, 2007, 23, 10471-10478.	3.5	86
9	Polystyrene grafting from silica nanoparticles via nitroxide-mediated polymerization (NMP): synthesis and SANS analysis with the contrast variation method. Soft Matter, 2009, 5, 3741.	2.7	78
10	Direct Measurement of Polymer Chain Conformation in Well-Controlled Model Nanocomposites by Combining SANS and SAXS. Macromolecules, 2010, 43, 9881-9891.	4.8	78
11	Nanofiller Structure and Reinforcement in Model Silica/Rubber Composites: A Quantitative Correlation Driven by Interfacial Agents. Macromolecules, 2014, 47, 5365-5378.	4.8	77
12	Tuning the mechanical properties in model nanocomposites: Influence of the polymerâ€filler interfacial interactions. Journal of Polymer Science, Part B: Polymer Physics, 2011, 49, 781-791.	2.1	72
13	Anisotropic Reinforcement of Nanocomposites Tuned by Magnetic Orientation of the Filler Network. Advanced Materials, 2008, 20, 2533-2540.	21.0	70
14	â€œWet-to-Dryâ€•Conformational Transition of Polymer Layers Grafted to Nanoparticles in Nanocomposite. Macromolecules, 2010, 43, 4833-4837.	4.8	69
15	Amphiphilic Diblock Copolymers with a Moderately Hydrophobic Block: Toward Dynamic Micelles. Macromolecules, 2010, 43, 2667-2671.	4.8	67
16	Effect of aging and alkali activator on the porous structure of a geopolymer. Journal of Applied Crystallography, 2014, 47, 316-324.	4.5	66
17	Polymer Chain Behavior in Polymer Nanocomposites with Attractive Interactions. ACS Macro Letters, 2016, 5, 523-527.	4.8	63
18	Tunable Multiscale Nanoparticle Ordering by Polymer Crystallization. ACS Central Science, 2017, 3, 751-758.	11.3	60

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19	Tuning Selectivities in Gas Separation Membranes Based on Polymer-Grafted Nanoparticles. ACS Nano, 2020, 14, 17174-17183.	14.6	55
20	Proton Conducting Ionic Liquid Doped Nafion Membranes: Nano-Structuration, Transport Properties and Water Sorption. Journal of Physical Chemistry C, 2012, 116, 24413-24423.	3.1	53
21	Nanocomposite Materials with Controlled Anisotropic Reinforcement Triggered by Magnetic Self-Assembly. Macromolecules, 2011, 44, 8858-8865.	4.8	52
22	Exchange Lifetimes of the Bound Polymer Layer on Silica Nanoparticles. ACS Macro Letters, 2019, 8, 166-171.	4.8	50
23	Relation between Solution and Interfacial Properties of Asphaltene Aggregates. Energy & Fuels, 2009, 23, 306-313.	5.1	48
24	Structure and rheological properties of softâ€“hard nanocomposites: influence of aggregation and interfacial modification. Polymer, 2005, 46, 6695-6705.	3.8	44
25	Direct small-angle-neutron-scattering observation of stretched chain conformation in nanocomposites: More insight on polymer contributions in mechanical reinforcement. Physical Review E, 2010, 82, 031801.	2.1	42
26	Asphaltene Adsorption Mechanisms on the Local Scale Probed by Neutron Reflectivity: Transition from Monolayer to Multilayer Growth above the Flocculation Threshold. Langmuir, 2009, 25, 3991-3998.	3.5	41
27	Self-Assembly of Monodisperse versus Bidisperse Polymer-Grafted Nanoparticles. ACS Macro Letters, 2016, 5, 790-795.	4.8	40
28	Homogeneous Dispersion of Magnetic Nanoparticles Aggregates in a PS Nanocomposite: Highly Reproducible Hierarchical Structure Tuned by the Nanoparticlesâ€™ Size. Macromolecules, 2010, 43, 5785-5796.	4.8	39
29	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.	4.3	39
30	Polymer-Grafted Magnetic Nanoparticles in Nanocomposites: Curvature Effects, Conformation of Grafted Chain, and Bimodal Nanotriggering of Filler Organization by Combination of Chain Grafting and Magnetic Field. Macromolecules, 2012, 45, 9220-9231.	4.8	32
31	Evidence of organic matter control on As oxidation by iron oxides in riparian wetlands. Chemical Geology, 2016, 439, 161-172.	3.3	32
32	Mechanical reinforcement in model elastomer nanocomposites with tuned microstructure and interactions. Polymer, 2013, 54, 1466-1479.	3.8	31
33	Comparative Study of Proton Conducting Ionic Liquid Doped Nafion Membranes Elaborated by Swelling and Casting Methods: Processing Conditions, Morphology, and Functional Properties. Journal of Physical Chemistry C, 2014, 118, 14157-14168.	3.1	31
34	Water management in proton exchange membrane fuel cell at sub-zero temperatures: An in operando SANS-EIS coupled study. Solid State Ionics, 2013, 252, 56-61.	2.7	30
35	3D Dispersion of Spherical Silica Nanoparticles in Polymer Nanocomposites: A Quantitative Study by Electron Tomography. Macromolecules, 2014, 47, 2044-2051.	4.8	30
36	Interplay between polymer chain conformation and nanoparticle assembly in model industrial silica/rubber nanocomposites. Faraday Discussions, 2016, 186, 325-343.	3.2	29

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37	Effects of Hairy Nanoparticles on Polymer Crystallization Kinetics. Macromolecules, 2019, 52, 9186-9198.	4.8	27
38	pH-Induced reorientation of cytochrome c on silica nanoparticles. Soft Matter, 2019, 15, 350-354.	2.7	26
39	Osmotically induced deformation of capsid-like icosahedral vesicles. Soft Matter, 2011, 7, 1084-1089.	2.7	25
40	Highlighting the wide variability in arsenic speciation in wetlands: A new insight into the control of the behavior of arsenic. Geochimica Et Cosmochimica Acta, 2017, 203, 284-302.	3.9	25
41	Controlled grafted brushes of polystyrene on magnetic Î³-Fe2O3 nanoparticles via nitroxide-mediated polymerization. Soft Matter, 2012, 8, 3407.	2.7	24
42	Accelerated Local Dynamics in Matrix-Free Polymer Grafted Nanoparticles. Physical Review Letters, 2019, 123, 158003.	7.8	24
43	Controlled grafting of polystyrene on silicananoparticles using NMP: a new route without free initiator to tune the grafted chain length. Polymer Chemistry, 2011, 2, 567-571.	3.9	23
44	From nanopores to macropores: Fractal morphology of graphite. Carbon, 2016, 96, 541-547.	10.3	23
45	A Competing Hydrogen Bonding Pattern to Yield a Thermoâ€Thickening Supramolecular Polymer. Angewandte Chemie - International Edition, 2019, 58, 13849-13853.	13.8	23
46	Influence of chain interdiffusion between immiscible polymers on dewetting dynamics. Soft Matter, 2011, 7, 9951.	2.7	22
47	Controlling Microstructureâ€“Transport Interplay in Highly Phase-Separated Perfluorosulfonated Aromatic Multiblock Ionomers via Molecular Architecture Design. ACS Applied Materials & Interfaces, 2017, 9, 1671-1683.	8.0	21
48	Synthesis of polyisoprene, polybutadiene and Styrene Butadiene Rubber grafted silica nanoparticles by nitroxide-mediated polymerization. Polymer, 2020, 190, 122190.	3.8	20
49	Nanoparticles reorganizations in polymer nanocomposites under large deformation. Polymer, 2014, 55, 2523-2534.	3.8	19
50	Role of block copolymer adsorption versus bimodal grafting on nanoparticle self-assembly in polymer nanocomposites. Soft Matter, 2016, 12, 7241-7247.	2.7	19
51	Intra- and Interchain Correlations in Polymer Nanocomposites: A Small-Angle Neutron Scattering Extrapolation Method. ACS Macro Letters, 2016, 5, 1095-1099.	4.8	19
52	Morphologies of Polyisoprene-Grafted Silica Nanoparticles in Model Elastomers. Macromolecules, 2019, 52, 7638-7645.	4.8	19
53	Control of the Pore Texture in Nanoporous Silicon via Chemical Dissolution. Langmuir, 2015, 31, 8121-8128.	3.5	18
54	Bisurea-Functionalized RAFT Agent: A Straightforward and Versatile Tool toward the Preparation of Supramolecular Cylindrical Nanostructures in Water. Macromolecules, 2018, 51, 10214-10222.	4.8	18

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55	Iron speciation in ironâ€“organic matter nanoaggregates: a kinetic approach coupling Quick-EXAFS and MCR-ALS chemometrics. Environmental Science: Nano, 2019, 6, 2641-2651.	4.3	18
56	Self-assembling properties of a series of homologous ester-diamides â€“ from ribbons to nanotubes. Soft Matter, 2013, 9, 8483.	2.7	17
57	Adsorption Mechanism of Substituted Pyridines on Silica Suspensions:Â An NMR Study. Langmuir, 2004, 20, 10591-10598.	3.5	16
58	Application of NMR Solvent Relaxation and SAXS to Asphaltenes Solutions Characterization. Journal of Dispersion Science and Technology, 2004, 25, 341-347.	2.4	16
59	Preparation of water-soluble graphene nanoplatelets and highly conductive films. Carbon, 2017, 124, 133-141.	10.3	16
60	Structure of alumina-silica nanoparticles grafted with alkylphosphonic acids in poly(ethylacrylate) nanocomposites. Polymer, 2016, 97, 138-146.	3.8	15
61	Microemulsion nanocomposites: phase diagram, rheology and structure using a combined small angle neutron scattering and reverse Monte Carlo approach. Soft Matter, 2010, 6, 5605.	2.7	14
62	Robust supramolecular nanocylinders of naphthalene diimide in water. Chemical Communications, 2019, 55, 9519-9522.	4.1	14
63	Melt Chain Conformation in Nanoparticles/Polymer Nanocomposites Elucidated by the SANS Extrapolation Method: Evidence of the Filler Contribution. Macromolecules, 2018, 51, 2216-2226.	4.8	13
64	Location of Imbibed Solvent in Polymer-Grafted Nanoparticle Membranes. ACS Macro Letters, 2018, 7, 1051-1055.	4.8	12
65	Straightforward preparation of supramolecular Janus nanorods by hydrogen bonding of end-functionalized polymers. Nature Communications, 2020, 11, 4760.	12.8	12
66	New regime in polyelectrolyte solutions. Europhysics Letters, 2014, 106, 28003.	2.0	11
67	Aromatic Copolymer/Nafion Blends Outperforming the Corresponding Pristine Ionomers. ACS Applied Energy Materials, 2018, 1, 355-367.	5.1	10
68	How does calcium drive the structural organization of ironâ€“organic matter aggregates? A multiscale investigation. Environmental Science: Nano, 2020, 7, 2833-2849.	4.3	10
69	Stalk-free membrane fusion of cationic lipids via an interdigitated phase. Soft Matter, 2012, 8, 7243.	2.7	9
70	How crucial is the impact of calcium on the reactivity of iron-organic matter aggregates? Insights from arsenic. Journal of Hazardous Materials, 2021, 404, 124127.	12.4	9
71	Control of the Colloidal Stability of Polymer-Grafted-Silica Nanoparticles Obtained by Atom Transfer Radical Polymerization. Macromolecular Symposia, 2005, 226, 263-278.	0.7	8
72	On the design and experimental realization of a multislit-based very small angle neutron scattering instrument at the European Spallation Source. Journal of Applied Crystallography, 2015, 48, 1242-1253.	4.5	8

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73	Coaxial electrospinning process toward optimal nanoparticle dispersion in polymeric matrix. Polymer Composites, 2021, 42, 1565-1573.	4.6	8
74	Controlling the Morphology in Epoxy/Thermoplastic Systems. ACS Applied Polymer Materials, 2022, 4, 2091-2104.	4.4	8
75	Quenched microemulsions: a new route to proton conductors. Soft Matter, 2014, 10, 5928-5935.	2.7	7
76	Molten fatty acid based microemulsions. Physical Chemistry Chemical Physics, 2016, 18, 15911-15918.	2.8	7
77	Two-Component Self-Assemblies: Investigation of a Synergy between Bisurea Stickers. Langmuir, 2016, 32, 11664-11671.	3.5	7
78	Ionic PMMA/nanosilica interfaces from grafting ionic liquids under supercritical CO2 conditions. European Polymer Journal, 2018, 109, 82-92.	5.4	7
79	Insight into Kinetics and Mechanisms of AOT Vesicle Adsorption on Silica in Unfavorable Conditions. Langmuir, 2020, 36, 1937-1949.	3.5	7
80	How clay colloids surround internally self-assembled phytantriol drops.. Soft Matter, 2012, 8, 10502.	2.7	6
81	A Competing Hydrogen Bonding Pattern to Yield a Thermoâ€Thickening Supramolecular Polymer. Angewandte Chemie, 2019, 131, 13987-13991.	2.0	6
82	Crucial Role of the Spacer in Tuning the Length of Self-Assembled Nanorods. Macromolecules, 2020, 53, 427-433.	4.8	6
83	Poly(ethylene oxide) grafted silica nanoparticles: efficient routes of synthesis with associated colloidal stability. Soft Matter, 2021, 17, 6552-6565.	2.7	6
84	Probing Multiscale Structure of Mineral and Nanoporous Kerogen Phase in Organic-Rich Source Rocks: Quantitative Comparison of Small-Angle X-ray and Neutron Scattering. Energy & Fuels, 2020, 34, 9339-9354.	5.1	5
85	Tailoring the Proton Conductivity and Microstructure of Block Copolymers by Countercation-Selective Membrane Fabrication. Journal of Physical Chemistry C, 2020, 124, 13071-13081.	3.1	5
86	Unexpected thermo-responsiveness of bisurea-functionalized hydrophilic polymers in water. Journal of Colloid and Interface Science, 2021, 581, 874-883.	9.4	4
87	Photolabile Wellâ€Defined Polystyrene Grafted on Silica Nanoparticle via Nitroxideâ€Mediated Polymerization (NMP). Macromolecular Rapid Communications, 2021, 42, e2100181.	3.9	4
88	Adhesive Sponge Based on Supramolecular Dimer Interactions as Scaffolds for Neural Stem Cells. Biomacromolecules, 2020, 21, 3394-3410.	5.4	2
89	The desalting/salting pathway: a route to form metastable aggregates with tuneable morphologies and lifetimes. Soft Matter, 2021, 17, 8496-8505.	2.7	2
90	Modeling and Theory: general discussion. Faraday Discussions, 2016, 186, 371-398.	3.2	1

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91	Nanocomposites: general discussion. Faraday Discussions, 2016, 186, 277-293.	3.2	1
92	Synthesis of Nanoparticle Assemblies: general discussion. Faraday Discussions, 2016, 186, 123-152.	3.2	0
93	Morphological changes of silica aged under environmental conditions by three-dimensional nanoscale quantifications. Journal of Materials Chemistry A, 2021, 9, 16447-16455.	10.3	0