J JÂ l M Cornelissen

List of Publications by Year
in descending order

138 papers	11,355 citations	30070 54 h-index	29157 104 g-index
146 all docs	146 docs citations	146 times ranked	11308 citing authors

#	Article	IF	Citations
1	Self-Assembled Nanoreactors. Chemical Reviews, 2005, 105, 1445-1490.	47.7	1,395
2	Chiral Architectures from Macromolecular Building Blocks. Chemical Reviews, 2001, 101, 4039-4070.	47.7	857
3	Conversion of light into macroscopic helical motion. Nature Chemistry, 2014, 6, 229-235.	13.6	646
4	A virus-based single-enzyme nanoreactor. Nature Nanotechnology, 2007, 2, 635-639.	31.5	406
5	Design and Synthesis ofN-Maleimido-Functionalized Hydrophilic Polymers via Copper-Mediated Living Radical Polymerization:Â A Suitable Alternative to PEGylation Chemistry. Journal of the American Chemical Society, 2005, 127, 2966-2973.	13.7	385
6	Virus-based nanocarriers for drug delivery. Advanced Drug Delivery Reviews, 2012, 64, 811-825.	13.7	374
7	A Polymersome Nanoreactor with Controllable Permeability Induced by Stimuliâ€Responsive Block Copolymers. Advanced Materials, 2009, 21, 2787-2791.	21.0	320
8	A Threeâ€Enzyme Cascade Reaction through Positional Assembly of Enzymes in a Polymersome Nanoreactor. Chemistry - A European Journal, 2009, 15, 1107-1114.	3.3	319
9	beta -Helical Polymers from Isocyanopeptides. Science, 2001, 293, 676-680.	12.6	290
10	Polymersome Stomatocytes: Controlled Shape Transformation in Polymer Vesicles. Journal of the American Chemical Society, 2010, 132, 12522-12524.	13.7	199
11	Controlled Encapsulation of Multiple Proteins in Virus Capsids. Journal of the American Chemical Society, 2009, 131, 17771-17773.	13.7	191
12	Metalâ€Free Triazole Formation as a Tool for Bioconjugation. ChemBioChem, 2007, 8, 1504-1508.	2.6	185
13	Self-assembly and optically triggered disassembly of hierarchical dendronâ€“virus complexes. Nature Chemistry, 2010, 2, 394-399.	13.6	178
14	Self-Assembled Architectures from Biohybrid Triblock Copolymers. Journal of the American Chemical Society, 2007, 129, 2327-2332.	13.7	170
15	Catalytic capsids: the art of confinement. Chemical Science, 2011, 2, 358-362.	7.4	147
16	Polymeric Monosaccharide Receptors Responsive at Neutral pH. Journal of the American Chemical Society, 2009, 131, 13908-13909.	13.7	143
17	Virus-like Particles Templated by DNA Micelles: A General Method for Loading Virus Nanocarriers. Journal of the American Chemical Society, 2010, 132, 7834-7835.	13.7	130
18	Enzymes containing porous polymersomes as nano reaction vessels for cascade reactions. Organic and Biomolecular Chemistry, 2008, 6, 4315.	2.8	126

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19	Encapsulation of Phthalocyanine Supramolecular Stacks into Virus-like Particles. Journal of the American Chemical Society, 2011, 133, 6878-6881.	13.7	122
20	Synthesis of Polymerâˆ'Biohybrids: From Small to Giant Surfactants. Accounts of Chemical Research, 2009, 42, 681-692.	15.6	119
21	Viruses and protein cages as nanocontainers and nanoreactors. Journal of Materials Chemistry, 2009, 19, 2274.	6.7	115
22	Macromolecular multi-chromophoric scaffolding. Chemical Society Reviews, 2010, 39, 1576.	38.1	113
23	Monodisperse polymerâ€"virus hybrid nanoparticles. Organic and Biomolecular Chemistry, 2007, 5, 54-57.	2.8	109
24	High Shape Persistence in Single Polymer Chains Rigidified with Lateral Hydrogen Bonded Networks. Macromolecules, 2002, 35, 5290-5294.	4.8	104
25	Helical Polymer-Anchored Porphyrin Nanorods. Chemistry - A European Journal, 2003, 9, 1775-1781.	3.3	103
26	Designing Two Self-Assembly Mechanisms into One Viral Capsid Protein. Journal of the American Chemical Society, 2012, 134, 18506-18509.	13.7	101
27	Self-Sorting of Foreign Proteins in a Bacterial Nanocompartment. Journal of the American Chemical Society, 2014, 136, 3828-3832.	13.7	100
28	Assembling Enzymatic Cascade Pathways inside Virus-Based Nanocages Using Dual-Tasking Nucleic Acid Tags. Journal of the American Chemical Society, 2017, 139, 1512-1519.	13.7	98
29	Single-Step Azide Introduction in Proteins via an Aqueous Diazo Transfer. Bioconjugate Chemistry, 2009, 20, 20-23.	3.6	97
30	Block copolymer vesicles. Pure and Applied Chemistry, 2004, 76, 1309-1319.	1.9	93
31	Polymersome Nanoreactors for Enzymatic Ring-Opening Polymerization. Biomacromolecules, 2007, 8, 3723-3728.	5.4	88
32	Application of Metalâ€Free Triazole Formation in the Synthesis of Cyclic RGDâ€"DTPA Conjugates. ChemBioChem, 2008, 9, 1805-1815.	2.6	87
33	The Relationship between Nanoscale Architecture and Function in Photovoltaic Multichromophoric Arrays as Visualized by Kelvin Probe Force Microscopy. Journal of the American Chemical Society, 2008, 130, 14605-14614.	13.7	85
34	Reactions inside nanoscale protein cages. Nanoscale, 2011, 3, 2376.	5.6	85
35	Protein-Polymer Hybrid Amphiphiles. Angewandte Chemie - International Edition, 2001, 40, 4732-4734.	13.8	82
36	A Block Copolymer for Functionalisation of Polymersome Surfaces. Macromolecular Rapid Communications, 2008, 29, 321-325.	3.9	81

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37	Proteinâ€"Polymer Hybrid Amphiphiles. Advanced Materials, 2008, 20, 3953-3957.	21.0	79
38	Role of Electrostatics in the Assembly Pathway of a Single-Stranded RNA Virus. Journal of Virology, 2014, 88, 10472-10479.	3.4	79
39	Synthesis and Self-Assembly of Rod-Rod Hybrid Poly(Î³-benzylL-glutamate)-block-Polyisocyanide Copolymers. Angewandte Chemie - International Edition, 2005, 44, 4349-4352.	13.8	78
40	Hierarchical Self-Assembly and Optical Disassembly for Controlled Switching of Magnetoferritin Nanoparticle Magnetism. ACS Nano, 2011, 5, 6394-6402.	14.6	75
41	Structural Characterization of Native and Modified Encapsulins as Nanoplatforms for <i>in Vitro</i> Catalysis and Cellular Uptake. ACS Nano, 2017, 11, 12796-12804.	14.6	71
42	Electronic Transport Properties of Ensembles of Peryleneâ€Substituted Polyâ€isocyanopeptide Arrays. Advanced Functional Materials, 2008, 18, 3947-3955.	14.9	70
43	Electroformed Giant Vesicles from Thiophene-Containing Rodâˆ'Coil Diblock Copolymers. Macromolecules, 2004, 37, 4736-4739.	4.8	67
44	Viral capsids as templates for the production of monodisperse Prussian blue nanoparticles. Chemical Communications, 2008, , 1542.	4.1	67
45	Controlled Integration of Polymers into Viral Capsids. Biomacromolecules, 2009, 10, 3141-3147.	5.4	66
46	Cascade Reactions in an Allâ€Enzyme Nanoreactor. Chemistry - A European Journal, 2009, 15, 12600-12603.	3.3	65
47	â€œHelterâ€Skelterâ€Likeâ€• Perylene Polyisocyanopeptides. Chemistry - A European Journal, 2009, 15, 2536-2547.	3.3	64
48	A clamp-like biohybrid catalyst for DNA oxidation. Nature Chemistry, 2013, 5, 945-951.	13.6	64
49	Assembly and Mechanical Properties of the Cargo-Free and Cargo-Loaded Bacterial Nanocompartment Encapsulin. Biomacromolecules, 2016, 17, 2522-2529.	5.4	62
50	Thermoresponsive giant biohybrid amphiphiles. Polymer Chemistry, 2011, 2, 333-340.	3.9	61
51	Predicting the Loading of Virus-Like Particles with Fluorescent Proteins. Biomacromolecules, 2014, 15, 558-563.	5.4	60
52	Nitroarene Reduction by a Virus Protein Cage Based Nanoreactor. ACS Catalysis, 2016, 6, 3084-3091.	11.2	58
53	Electrostatic self-assembly of virusâ€"polymer complexes. Journal of Materials Chemistry, 2011, 21, 2112-2117.	6.7	57
54	Synthesis and characterization of polyisocyanides derived from alanine and glycine dipeptides. Journal of Polymer Science Part A, 2001, 39, 4255-4264.	2.3	54

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55	Silver Nanoarrays Templated by Block Copolymers of Carbosilane Dendrimers and Polyisocyanopeptides. Advanced Materials, 2002, 14, 489-492.	21.0	54
56	Selfâ€Assembly of Proteins: Towards Supramolecular Materials. Chemistry - A European Journal, 2016, 22, 15570-15582.	3.3	54
57	Using viruses as nanomedicines. British Journal of Pharmacology, 2014, 171, 4001-4009.	5.4	53
58	Generation-Dependent Templated Self-Assembly of Biohybrid Protein Nanoparticles around Photosensitizer Dendrimers. Nano Letters, 2015, 15, 1245-1251.	9.1	52
59	Self-assembly and characterization of small and monodisperse dye nanospheres in a protein cage. Chemical Science, 2014, 5, 575-581.	7.4	50
60	Temperatureâ€Switchable Assembly of Supramolecular Virusâ€"Polymer Complexes. Advanced Functional Materials, 2011, 21, 2012-2019.	14.9	49
61	Structural Transitions and Energy Landscape for Cowpea Chlorotic Mottle Virus Capsid Mechanics from Nanomanipulation inÂVitro and in Silico. Biophysical Journal, 2013, 105, 1893-1903.	0.5	47
62	Post-modification of helical dipeptido polyisocyanides using the â€˜clickâ€™ reaction. Journal of Materials Chemistry, 2008, 18, 5615.	6.7	46
63	Monitoring Proteinâ^'Polymer Conjugation by a Fluorogenic Cu(I)-Catalyzed Azideâ^'Alkyne 1,3-Dipolar Cycloaddition. Bioconjugate Chemistry, 2009, 20, 1129-1138.	3.6	46
64	Encapsulation of DNAâ€Templated Chromophore Assemblies within Virus Protein Nanotubes. Angewandte Chemie - International Edition, 2010, 49, 5335-5338.	13.8	46
65	Conformational analysis of dipeptide-derived polyisocyanides. Journal of Polymer Science Part A, 2003, 41, 1725-1736.	2.3	44
66	Templated Formation of Luminescent Virus-like Particles by Tailor-Made Pt(II) Amphiphiles. Journal of the American Chemical Society, 2018, 140, 2355-2362.	13.7	42
67	Synthesis, characterisation and chiroptical properties of â€˜clickâ€™able polyisocyanopeptides. Journal of Materials Chemistry, 2007, 17, 1876-1884.	6.7	41
68	CCMV capsid formation induced by a functional negatively charged polymer. Organic and Biomolecular Chemistry, 2009, 7, 4685.	2.8	41
69	Biocatalytic oxidation by chloroperoxidase from Caldariomyces fumago in polymersome nanoreactors. Organic and Biomolecular Chemistry, 2009, 7, 4604.	2.8	39
70	Selfâ€Assembled Cageâ€Like Protein Structures. ChemPhysChem, 2015, 16, 911-918.	2.1	39
71	Polyisocyanides Derived from Tripeptides of Alanine. Chemistry - A European Journal, 2007, 13, 950-960.	3.3	38
72	Direct Access to Polyisocyanide Screw Sense Using Vibrational Circular Dichroism. Macromolecules, 2010, 43, 7931-7935.	4.8	37

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73	Metal Ion-Induced Self-Assembly of a Multi-Responsive Block Copolypeptide into Well-Defined Nanocapsules. Small, 2016, 12, 2476-2483.	10.0	37
74	Protein Cages as Containers for Gold Nanoparticles. Journal of Physical Chemistry B, 2016, 120, 6352-6357.	2.6	37
75	Self-assembly triggered by self-assembly: Optically active, paramagnetic micelles encapsulated in protein cage nanoparticles. Journal of Inorganic Biochemistry, 2014, 136, 140-146.	3.5	36
76	Diastereopure Fe(II) and Zn(II) Complexes Derived from a TridentateN,Nâ€˜,N-Bis(methyl-l-prolinate)-Substituted Pyridine Ligand. Inorganic Chemistry, 2006, 45, 4214-4227.	4.0	34
77	A hydrogel-based enzyme-loaded polymersome reactor. Nanoscale, 2010, 2, 709.	5.6	34
78	Polymorphic assembly of virus-capsid proteins around DNA and the cellular uptake of the resulting particles. Journal of Controlled Release, 2019, 307, 342-354.	9.9	32
79	Synthesis, Characterization, and Folding Behavior of Î²-Amino Acid Derived Polyisocyanides. Chemistry - A European Journal, 2006, 12, 2778-2786.	3.3	28
80	Hydrogen bonding and chemical shift assignments in carbazole functionalized isocyanides from solid-state NMR and first-principles calculations. Physical Chemistry Chemical Physics, 2011, 13, 13082.	2.8	28
81	Labelling Bacterial Nanocages with Photoâ€switchable Fluorophores. ChemPhysChem, 2016, 17, 1815-1818.	2.1	28
82	Synthesis, Characterization, and Surface Initiated Polymerization of Carbazole Functionalized Isocyanides. Chemistry of Materials, 2010, 22, 2597-2607.	6.7	27
83	Complex Assembly Behavior During the Encapsulation of Green Fluorescent Protein Analogs in Virus Derived Protein Capsules. Macromolecular Bioscience, 2010, 10, 539-545.	4.1	26
84	Synthesis and Characterization of Surface-Initiated Helical Polyisocyanopeptide Brushes. Macromolecules, 2008, 41, 1945-1951.	4.8	25
85	Metalâ€Ionâ€Induced Formation and Stabilization of Protein Cages Based on the Cowpea Chlorotic Mottle Virus. Small, 2011, 7, 911-919.	10.0	24
86	Determination of the helical sense in alanine based polyisocyanides. Macromolecular Chemistry and Physics, 2002, 203, 1625-1630.	2.2	23
87	Phototriggered cargo release from virus-like assemblies. Faraday Discussions, 2013, 166, 47.	3.2	23
88	Chiroptical properties of a chiral-substituted poly(thienylene vinylene). Acta Polymerica, 1998, 49, 471-476.	0.9	22
89	Cysteineâ€Containing Polyisocyanides as Versatile Nanoplatforms for Chromophoric and Bioscaffolding. Chemistry - A European Journal, 2010, 16, 6176-6186.	3.3	22
90	Combining Protein Cages and Polymers: from Understanding Self-Assembly to Functional Materials. ACS Macro Letters, 2016, 5, 987-994.	4.8	22

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91	Quantum dot encapsulation in virus-like particles with tuneable structural properties and low toxicity. RSC Advances, 2017, 7, 38110-38118.	3.6	21
92	Immobilization of catalytic virus-like particles in a flow reactor. Chemical Communications, 2017, 53, 7632-7634.	4.1	20
93	Versatile post-functionalization of the external shell of cowpea chlorotic mottle virus by using click chemistry. Organic and Biomolecular Chemistry, 2014, 12, 4065-4069.	2.8	19
94	Introduction of Surface Loops as a Tool for Encapsulin Functionalization. Biomacromolecules, 2021, 22, 5234-5242.	5.4	17
95	Synthesis, characterization and aggregation behavior of block copolymers containing a polyisocyanopeptide segment. Polymer, 2004, 45, 7417-7430.	3.8	16
96	Lyotropic liquid-crystalline behavior of polyisocyanodipeptides. Journal of Polymer Science Part A, 2007, 45, 981-988.	2.3	16
97	Sequential Energy and Electron Transfer in Polyisocyanopeptide-Based Multichromophoric Arrays. Journal of Physical Chemistry B, 2011, 115, 1590-1600.	2.6	16
98	Supramolecular Surface Immobilization of Knottin Derivatives for Dynamic Display of High Affinity Binders. Bioconjugate Chemistry, 2015, 26, 1972-1980.	3.6	16
99	Xâ€Ray Spectroscopic and Diffraction Study of the Structure of the Active Species in the Ni^{II}â€Catalyzed Polymerization of Isocyanides. ChemPhysChem, 2007, 8, 1850-1856.	2.1	15
100	Tuning the properties of PSâ€“PIAT block copolymers and their assembly into polymersomes. Soft Matter, 2008, 4, 1003.	2.7	15
101	Beta Sheets with a Twist: The Conformation of Helical Polyisocyanopeptides Determined by Using Vibrational Circular Dichroism. Chemistry - A European Journal, 2013, 19, 13168-13174.	3.3	15
102	Oligonucleotide Lengthâ€Dependent Formation of Virusâ€Like Particles. Chemistry - A European Journal, 2018, 24, 7456-7463.	3.3	15
103	Structural nanotechnology: three-dimensional cryo-EM and its use in the development of nanoplatforms for<i>in vitro</i>catalysis. Nanoscale, 2019, 11, 4130-4146.	5.6	15
104	Nanotechnological Applications Based on Bacterial Encapsulins. Nanomaterials, 2021, 11, 1467.	4.1	15
105	Polymeric nanomedicines targeting hematological malignancies. Journal of Controlled Release, 2021, 337, 571-588.	9.9	15
106	Synthesis and aggregation behavior of biohybrid amphiphiles composed of a tripeptidic head group and a polystyrene tail. Soft Matter, 2009, 5, 1692.	2.7	14
107	Photoresponsive, reversible immobilization of virus particles on supramolecular platforms. Chemical Communications, 2017, 53, 1896-1899.	4.1	14
108	Compartmentalized supramolecular hydrogels based on viral nanocages towards sophisticated cargo administration. Nanoscale, 2018, 10, 4123-4129.	5.6	14

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109	Highly Sensitive Protein Detection by Asymmetric Machâ€“Zehnder Interferometry for Biosensing Applications. ACS Applied Bio Materials, 2020, 3, 4566-4572.	4.6	14
110	Water soluble azido polyisocyanopeptides as functional Î²â€sheet mimics. Journal of Polymer Science Part A, 2009, 47, 4150-4164.	2.3	13
111	Clustered Nanocarriers: The Effect of Size on the Clustering of CCMV Virusâ€Like Particles With Soft Macromolecules. Macromolecular Bioscience, 2015, 15, 98-110.	4.1	13
112	Compartmentalized Thin Films with Customized Functionality via Interfacial Crossâ€linking of Protein Cages. Advanced Functional Materials, 2018, 28, 1801574.	14.9	13
113	Protecting Encapsulin Nanoparticles with Cysteine-Knot Miniproteins. Molecular Pharmaceutics, 2018, 15, 2991-2996.	4.6	13
114	Experimental and Theoretical Determination of the pH inside the Confinement of a Virusâ€Like Particle. Small, 2018, 14, e1802081.	10.0	13
115	HER2-Specific Reduction-Sensitive Immunopolymersomes with High Loading of Epirubicin for Targeted Treatment of Ovarian Tumor. Biomacromolecules, 2019, 20, 3855-3863.	5.4	13
116	A6 peptide-tagged, ultra-small and reduction-sensitive polymersomal vincristine sulfate as a smart and specific treatment for CD44+ acute myeloid leukemia. Journal of Controlled Release, 2021, 329, 706-716.	9.9	13
117	Solution scattering studies on a virus capsid protein as a building block for nanoscale assemblies. Soft Matter, 2011, 7, 11380.	2.7	12
118	Direct Backbone Structure Determination of Polyisocyanodipeptide Using Solid-State Nuclear Magnetic Resonance. Macromolecules, 2012, 45, 2209-2218.	4.8	12
119	Elucidating the Thermodynamic Driving Forces of Polyanion-Templated Virus-like Particle Assembly. Journal of Physical Chemistry B, 2019, 123, 9733-9741.	2.6	12
120	Nanoscale organization of proteins via block copolymer lithography and non-covalent bioconjugation. Journal of Materials Chemistry B, 2013, 1, 3026.	5.8	11
121	Fluorescent nanodiamonds encapsulated by <i>Cowpea Chlorotic Mottle Virus</i> (CCMV) proteins for intracellular 3D-trajectory analysis. Journal of Materials Chemistry B, 2021, 9, 5621-5627.	5.8	11
122	Hierarchical transfer of stereochemical information in synthetic macromolecules. Pure and Applied Chemistry, 2002, 74, 2021-2030.	1.9	10
123	Sorting Catalytically Active Polymersome Nanoreactors by Flow Cytometry. Small, 2009, 5, 1138-1143.	10.0	9
124	Amineâ€Reactive PEGylated Nanoparticles for Potential Bioconjugation. Macromolecular Rapid Communications, 2011, 32, 19-24.	3.9	9
125	Delivery of MicroRNAs by plant virus-based nanoparticles to functionally alter the osteogenic differentiation of human mesenchymal stem cells. Chinese Chemical Letters, 2023, 34, 107448.	9.0	9
126	Construction of phthalocyanineâ€terminated polystyrene nanoarchitectures. Journal of Physical Organic Chemistry, 2012, 25, 586-591.	1.9	8

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127	CCMV-Based Enzymatic Nanoreactors. Methods in Molecular Biology, 2018, 1776, 237-247.	0.9	8
128	Optimizing fluorophore density for single virus counting: a photophysical approach. Methods and Applications in Fluorescence, 2021, 9, 025001.	2.3	8
129	Virus removal from semen with a pinched flow fractionation microfluidic chip. Lab on A Chip, 2021, 21, 4477-4486.	6.0	8
130	Construction of core-shell hybrid nanoparticles templated by virus-like particles. RSC Advances, 2017, 7, 56328-56334.	3.6	6
131	Packing polymers in protein cages. Nature Chemistry, 2012, 4, 775-777.	13.6	4
132	Self-Assembly of Viral Capsid Proteins Driven by Compressible Nanobubbles. Journal of Physical Chemistry Letters, 2020, 11, 10421-10424.	4.6	4
133	Induced FÃ¶rster resonance energy transfer by encapsulation of DNA-scaffold based probes inside a plant virus based protein cage. Journal of Physics Condensed Matter, 2018, 30, 184002.	1.8	3
134	Photoprogramming Allostery in Human Serum Albumin. Bioconjugate Chemistry, 2018, 29, 2215-2224.	3.6	3
135	Carbazole Functionalized Isocyanide Brushes in Heterojunction Photovoltaic Devices. Journal of Nanoscience and Nanotechnology, 2012, 12, 503-507.	0.9	2
136	Exploiting Complex Fluorophore Interactions to Monitor Virus Capsid Disassembly. Molecules, 2021, 26, 5750.	3.8	2
137	Silver Nanoarrays Templated by Block Copolymers of Carbosilane Dendrimers and Polyisocyanopeptides. Advanced Materials, 2002, 14, 489.	21.0	1
138	Quantification of the Retention and Disassembly of Virus Particles by a PEI-Functionalized Microfiltration Membrane. ACS Applied Polymer Materials, 2022, 4, 5173-5179.	4.4	0