

Giovanni M Pavan

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

102
papers

3,232
citations

34
h-index

52
g-index

129
ext. papers

3,844
ext. citations

9
avg, IF

5.56
L-index

#	Paper	IF	Citations
102	Controlling the length of porphyrin supramolecular polymers via coupled equilibria and dilution-induced supramolecular polymerization.. <i>Nature Communications</i> , 2022 , 13, 248	17.4	9
101	Automatic multi-objective optimization of coarse-grained lipid force fields using SwarmCG.. <i>Journal of Chemical Physics</i> , 2022 , 156, 024801	3.9	1
100	Porous covalent organic nanotubes and their assembly in loops and toroids.. <i>Nature Chemistry</i> , 2022 ,	17.6	6
99	Molecular communications in complex systems of dynamic supramolecular polymers.. <i>Nature Communications</i> , 2022 , 13, 2162	17.4	4
98	Non-uniform Photoinduced Unfolding of Supramolecular Polymers Leading to Topological Block Nanofibers. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 26986	16.4	2
97	Living supramolecular polymerization of fluorinated cyclohexanes. <i>Nature Communications</i> , 2021 , 12, 3134	17.4	12
96	Multiscale Molecular Modelling of ATP-Fueled Supramolecular Polymerisation and Depolymerisation**. <i>ChemSystemsChem</i> , 2021 , 3, e2000038	3.1	5
95	Solvent-Driven Supramolecular Wrapping of Self-Assembled Structures. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 5407-5413	16.4	20
94	Discordant Supramolecular Fibres Reversibly Depolymerised by Temperature and Light. <i>Chemistry - A European Journal</i> , 2021 , 27, 1829-1838	4.8	0
93	Solvent-Driven Supramolecular Wrapping of Self-Assembled Structures. <i>Angewandte Chemie</i> , 2021 , 133, 5467-5473	3.6	7
92	Understanding functional group and assembly dynamics in temperature responsive systems leads to design principles for enzyme responsive assemblies. <i>Nanoscale</i> , 2021 , 13, 11568-11575	7.7	5
91	A Data-Driven Dimensionality Reduction Approach to Compare and Classify Lipid Force Fields. <i>Journal of Physical Chemistry B</i> , 2021 , 125, 7785-7796	3.4	10
90	Controlling Exchange Pathways in Dynamic Supramolecular Polymers by Controlling Defects. <i>ACS Nano</i> , 2021 , 15, 14229-14241	16.7	5
89	Toward Chemotactic Supramolecular Nanoparticles: From Autonomous Surface Motion Following Specific Chemical Gradients to Multivalency-Controlled Disassembly. <i>ACS Nano</i> , 2021 , 15, 16149-16161	16.7	3
88	Electrostatic co-assembly of nanoparticles with oppositely charged small molecules into static and dynamic superstructures. <i>Nature Chemistry</i> , 2021 , 13, 940-949	17.6	21
87	: Automatic Parametrization of Bonded Terms in MARTINI-Based Coarse-Grained Models of Simple to Complex Molecules Fuzzy Self-Tuning Particle Swarm Optimization. <i>ACS Omega</i> , 2020 , 5, 32823-32843	3.9	11
86	Cooperative Supramolecular Block Copolymerization for the Synthesis of Functional Axial Organic Heterostructures. <i>Journal of the American Chemical Society</i> , 2020 , 142, 11528-11539	16.4	51

85	Self-Sorted, Random, and Block Supramolecular Copolymers via Sequence Controlled, Multicomponent Self-Assembly. <i>Journal of the American Chemical Society</i> , 2020 , 142, 7606-7617	16.4	75
84	Biomimetic Synthesis of Sub-20 nm Covalent Organic Frameworks in Water. <i>Journal of the American Chemical Society</i> , 2020 , 142, 3540-3547	16.4	33
83	Molecular Factors Controlling the Isomerization of Azobenzenes in the Cavity of a Flexible Coordination Cage. <i>Journal of the American Chemical Society</i> , 2020 , 142, 9792-9802	16.4	38
82	Identifying and Tracking Defects in Dynamic Supramolecular Polymers. <i>Journal of Physical Chemistry B</i> , 2020 , 124, 589-599	3.4	25
81	Understanding the Dynamics of Supramolecular Polymers. <i>Chimia</i> , 2020 , 74, 734	1.3	1
80	Solvent-driven chirality for luminescent self-assembled structures: experiments and theory. <i>Nanoscale</i> , 2020 , 12, 21359-21367	7.7	1
79	Exploring the Potential of Benzene-1,3,5-tricarboxamide Supramolecular Polymers as Biomaterials. <i>Biomacromolecules</i> , 2020 , 21, 4105-4115	6.9	11
78	Self-assembled poly-catenanes from supramolecular toroidal building blocks. <i>Nature</i> , 2020 , 583, 400-405	50.4	85
77	Improving Fatigue Resistance of Dihydropyrene by Encapsulation within a Coordination Cage. <i>Journal of the American Chemical Society</i> , 2020 , 142, 14557-14565	16.4	13
76	How Defects Control the Out-of-Equilibrium Dissipative Evolution of a Supramolecular Tubule. <i>ACS Nano</i> , 2019 , 13, 4322-4334	16.7	36
75	Insights into the Kinetics of Supramolecular Comonomer Incorporation in Water. <i>Macromolecules</i> , 2019 , 52, 3049-3055	5.5	8
74	Symbiotic Self-Assembly Strategy toward Lipid-Encased Cross-Linked Polymer Nanoparticles for Efficient Gene Silencing. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 24971-24983	9.5	8
73	Three-Dimensional Directionality Is a Pivotal Structural Feature for the Bioactivity of Azabisphosphonate-Capped Poly(PhosphorHydrazone) Nanodrug Dendrimers. <i>Biomacromolecules</i> , 2018 , 19, 712-720	6.9	15
72	Molecular modelling of supramolecular polymers. <i>Advances in Physics: X</i> , 2018 , 3, 1436408	5.1	31
71	Supramolecular Copolymerization as a Strategy to Control the Stability of Self-Assembled Nanofibers. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 6843-6847	16.4	34
70	From isodesmic to highly cooperative: reverting the supramolecular polymerization mechanism in water by fine monomer design. <i>Chemical Communications</i> , 2018 , 54, 4112-4115	5.8	28
69	How the Dynamics of a Supramolecular Polymer Determines Its Dynamic Adaptivity and Stimuli-Responsiveness: Structure-Dynamics-Property Relationships From Coarse-Grained Simulations. <i>Journal of Physical Chemistry B</i> , 2018 , 122, 4169-4178	3.4	18
68	A Block Supramolecular Polymer and Its Kinetically Enhanced Stability. <i>Journal of the American Chemical Society</i> , 2018 , 140, 10570-10577	16.4	71

67	Crystalline Cyclophane-Protein Cage Frameworks. <i>ACS Nano</i> , 2018 , 12, 8029-8036	16.7	27
66	Consequences of a cosolvent on the structure and molecular dynamics of supramolecular polymers in water. <i>Chemical Science</i> , 2018 , 9, 6199-6209	9.4	24
65	Impact of the water-compatible periphery on the dynamic and structural properties of benzene-1,3,5-tricarboxamide based amphiphiles. <i>Chemical Communications</i> , 2018 , 54, 11128-11131	5.8	14
64	Supramolecular Copolymerization as a Strategy to Control the Stability of Self-Assembled Nanofibers. <i>Angewandte Chemie</i> , 2018 , 130, 6959-6963	3.6	9
63	Nitrobenzoxadiazole-Appended Cell Membrane Modifiers for Efficient Optoporation with Noncoherent Light. <i>Bioconjugate Chemistry</i> , 2018 , 29, 2068-2073	6.3	4
62	Facile synthesis of stable, water soluble, dendron-coated gold nanoparticles. <i>Nanoscale</i> , 2017 , 9, 3128-3132	13.2	17
61	Intrinsic Fluorescence of Triazine Dendrimers Provides a New Approach to Study Dendrimer Structure and Conformational Dynamics. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 6946-6954	3.8	15
60	Site accessibility tailors DNA cleavage by restriction enzymes in DNA confined monolayers. <i>Nanoscale</i> , 2017 , 9, 6399-6405	7.7	1
59	Programmable Nanoassemblies from Non-Assembling Homopolymers Using Ad Hoc Electrostatic Interactions. <i>Angewandte Chemie</i> , 2017 , 129, 4209-4213	3.6	3
58	Programmable Nanoassemblies from Non-Assembling Homopolymers Using Ad Hoc Electrostatic Interactions. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 4145-4149	16.4	16
57	From Cooperative Self-Assembly to Water-Soluble Supramolecular Polymers Using Coarse-Grained Simulations. <i>ACS Nano</i> , 2017 , 11, 1000-1011	16.7	56
56	Molecular photoswitches mediating the strain-driven disassembly of supramolecular tubules. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, 11850-11855	11.5	55
55	Effect of Concentration on the Supramolecular Polymerization Mechanism via Implicit-Solvent Coarse-Grained Simulations of Water-Soluble 1,3,5-Benzenetricarboxamide. <i>Journal of Physical Chemistry Letters</i> , 2017 , 8, 3813-3819	6.4	21
54	Into the Dynamics of a Supramolecular Polymer at Submolecular Resolution. <i>Nature Communications</i> , 2017 , 8, 147	17.4	74
53	Effect of H-Bonding on Order Amplification in the Growth of a Supramolecular Polymer in Water. <i>Journal of the American Chemical Society</i> , 2016 , 138, 13985-13995	16.4	75
52	Molecularly Defined Nanostructures Based on a Novel AAA-DDD Triple Hydrogen-Bonding Motif. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 1685-9	16.4	11
51	In situ functionalization of self-assembled dendrimer nanofibers with cadmium sulfide quantum dots through simple ionic-substitution. <i>New Journal of Chemistry</i> , 2016 , 40, 6325-6331	3.6	7
50	Low generation polyamine dendrimers bearing flexible tetraethylene glycol as nanocarriers for plasmids and siRNA. <i>Nanoscale</i> , 2016 , 8, 5106-19	7.7	20

49	Role of Aromatic Interactions in Temperature-Sensitive Amphiphilic Supramolecular Assemblies. <i>Langmuir</i> , 2016 , 32, 2874-81	4	24
48	Synthesis of Dense and Chiral Dendritic Polyols Using Glyconanospherical Scaffolds. <i>Molecules</i> , 2016 , 21, 448	4.8	6
47	Molecularly Defined Nanostructures Based on a Novel AAADDD Triple Hydrogen-Bonding Motif. <i>Angewandte Chemie</i> , 2016 , 128, 1717-1721	3.6	3
46	Innenteilbild: Molecularly Defined Nanostructures Based on a Novel AAADDD Triple Hydrogen-Bonding Motif (Angew. Chem. 5/2016). <i>Angewandte Chemie</i> , 2016 , 128, 1594-1594	3.6	
45	Self-organization of star-shaped columnar liquid crystals with a coaxial nanophase segregation revealed by a combined experimental and simulation approach. <i>Chemical Communications</i> , 2015 , 51, 1811-4	5.8	34
44	Consequences of chirality on the dynamics of a water-soluble supramolecular polymer. <i>Nature Communications</i> , 2015 , 6, 6234	17.4	94
43	The key role of the scaffold on the efficiency of dendrimer nanodrugs. <i>Nature Communications</i> , 2015 , 6, 7722	17.4	116
42	Interaction studies reveal specific recognition of an anti-inflammatory polyphosphorhydrazone dendrimer by human monocytes. <i>Nanoscale</i> , 2015 , 7, 17672-84	7.7	33
41	Influence of linker groups on the solubility of triazine dendrimers. <i>New Journal of Chemistry</i> , 2015 , 39, 1247-1252	3.6	12
40	Experimental and theoretical investigations in stimuli responsive dendrimer-based assemblies. <i>Nanoscale</i> , 2015 , 7, 3817-37	7.7	56
39	Theoretical and experimental characterization of amino-PEG-phosphonate-terminated Polyphosphorhydrazone dendrimers: Influence of size and PEG capping on cytotoxicity profiles. <i>Journal of Polymer Science Part A</i> , 2015 , 53, 761-774	2.5	9
38	Structure and shape effects of molecular glue on supramolecular tubulin assemblies. <i>ACS Nano</i> , 2014 , 8, 904-14	16.7	32
37	Protein-triggered supramolecular disassembly: insights based on variations in ligand location in amphiphilic dendrons. <i>Journal of the American Chemical Society</i> , 2014 , 136, 5385-99	16.4	48
36	Modeling the interaction between dendrimers and nucleic acids: a molecular perspective through hierarchical scales. <i>ChemMedChem</i> , 2014 , 9, 2623-31	3.7	25
35	Structural and energetic basis for hybridization limits in high-density DNA monolayers. <i>Nanoscale</i> , 2013 , 5, 9988-93	7.7	12
34	Computational design principles for the discovery of bioactive dendrimers: [s]-triazines and other examples. <i>Expert Opinion on Drug Discovery</i> , 2013 , 8, 1057-69	6.2	16
33	Design, synthesis and biological assessment of a triazine dendrimer with approximately 16 Paclitaxel groups and 8 PEG groups. <i>Molecular Pharmaceutics</i> , 2013 , 10, 4452-61	5.6	33
32	Synthesis of large dendrimers with the dimensions of small viruses. <i>Journal of the American Chemical Society</i> , 2013 , 135, 4660-3	16.4	59

31	Combining metadynamics simulation and experiments to characterize dendrimers in solution. <i>Soft Matter</i> , 2013 , 9, 2593	3.6	34
30	Validation of a novel molecular dynamics simulation approach for lipophilic drug incorporation into polymer micelles. <i>Journal of Physical Chemistry B</i> , 2012 , 116, 4338-45	3.4	73
29	Enhanced bioactivity of internally functionalized cationic dendrimers with PEG cores. <i>Biomacromolecules</i> , 2012 , 13, 4089-97	6.9	50
28	Experimental and computational evidence for an inversion in guest capacity in high-generation triazine dendrimer hosts. <i>Journal of the American Chemical Society</i> , 2012 , 134, 1942-5	16.4	40
27	Ion-selective controlled assembly of dendrimer-based functional nanofibers and their ionic-competitive disassembly. <i>Journal of the American Chemical Society</i> , 2012 , 134, 3349-57	16.4	43
26	Gadolinium MRI contrast agents based on triazine dendrimers: relaxivity and in vivo pharmacokinetics. <i>Bioconjugate Chemistry</i> , 2012 , 23, 2291-9	6.3	41
25	Targeting the blind spot of polycationic nanocarrier-based siRNA delivery. <i>ACS Nano</i> , 2012 , 6, 9447-54	16.7	71
24	Antitumor activity and molecular dynamics simulations of paclitaxel-laden triazine dendrimers. <i>Molecular Pharmaceutics</i> , 2012 , 9, 404-12	5.6	46
23	Role of generation, architecture, pH and ionic strength on successful siRNA delivery and transfection by hybrid PPV-PAMAM dendrimers. <i>Current Medicinal Chemistry</i> , 2012 , 19, 4929-41	4.3	23
22	Catalytic chameleon dendrimers. <i>Journal of the American Chemical Society</i> , 2011 , 133, 14359-67	16.4	49
21	Molecular modeling and in vivo imaging can identify successful flexible triazine dendrimer-based siRNA delivery systems. <i>Journal of Controlled Release</i> , 2011 , 153, 23-33	11.7	42
20	Elucidating the molecular mechanism of PAMAM-siRNA dendriplex self-assembly: effect of dendrimer charge density. <i>International Journal of Pharmaceutics</i> , 2011 , 416, 410-8	6.5	71
19	Protein-dendron conjugates for DNA binding: understanding the effect of the protein core on multivalency. <i>RSC Advances</i> , 2011 , 1, 1677	3.7	6
18	Generation-dependent molecular recognition controls self-assembly in supramolecular dendron-virus complexes. <i>Nano Letters</i> , 2011 , 11, 723-8	11.5	32
17	Dendrimer-based fluorescent indicators: in vitro and in vivo applications. <i>PLoS ONE</i> , 2011 , 6, e28450	3.7	27
16	Supporting the design of efficient dendritic DNA and siRNA nano-carriers with molecular modeling. <i>Current Drug Discovery Technologies</i> , 2011 , 8, 314-28	1.5	6
15	Computational insights into the interactions between DNA and siRNA with "rigid" and "flexible" triazine dendrimers. <i>Biomacromolecules</i> , 2010 , 11, 721-30	6.9	68
14	Computational approach for understanding the interactions of UV-degradable dendrons with DNA and siRNA. <i>Journal of Physical Chemistry B</i> , 2010 , 114, 5686-93	3.4	35

13	Ability to adapt: different generations of PAMAM dendrimers show different behaviors in binding siRNA. <i>Journal of Physical Chemistry B</i> , 2010 , 114, 2667-75	3.4	90
12	Molecular characterization of the interaction between siRNA and PAMAM G7 dendrimers by SAXS, ITC, and molecular dynamics simulations. <i>Biomacromolecules</i> , 2010 , 11, 3571-7	6.9	70
11	The influence of dendron architecture on the "rigid" and "flexible" behaviour in binding DNA--a modelling study. <i>Physical Chemistry Chemical Physics</i> , 2010 , 12, 13914-7	3.6	18
10	Quantifying the effect of surface ligands on dendron-DNA interactions: insights into multivalency through a combined experimental and theoretical approach. <i>Chemistry - A European Journal</i> , 2010 , 16, 4519-32	4.8	57
9	PAMAM dendrimers for siRNA delivery: computational and experimental insights. <i>Chemistry - A European Journal</i> , 2010 , 16, 7781-95	4.8	83
8	Optically degradable dendrons for temporary adhesion of proteins to DNA. <i>Chemistry - A European Journal</i> , 2010 , 16, 6912-8	4.8	23
7	T670X KIT mutations in gastrointestinal stromal tumors: making sense of missense. <i>Journal of the National Cancer Institute</i> , 2009 , 101, 194-204	9.7	21
6	Activity of dasatinib against L576P KIT mutant melanoma: molecular, cellular, and clinical correlates. <i>Molecular Cancer Therapeutics</i> , 2009 , 8, 2079-85	6.1	163
5	Activate and resist: L576P-KIT in GIST. <i>Molecular Cancer Therapeutics</i> , 2009 , 8, 2491-5	6.1	30
4	Modeling the multivalent recognition between dendritic molecules and DNA: understanding how ligand "sacrifice" and screening can enhance binding. <i>Journal of the American Chemical Society</i> , 2009 , 131, 9686-94	16.4	110
3	Unlucky number 13? Differential effects of KIT exon 13 mutation in gastrointestinal stromal tumors. <i>Molecular Oncology</i> , 2008 , 2, 161-3	7.9	16
2	Base Invaders. Coupling Experiments and Multiscale Modeling of Dendrimer-Based siRNA Delivery Agents. <i>Advances in Science and Technology</i> , 2008 , 57, 154-159	0.1	1
1	Swarm-CG: Automatic Parametrization of Bonded Terms in Coarse-Grained Models of Simple to Complex Molecules via Fuzzy Self-Tuning Particle Swarm Optimization		2