Lihi Adler-Abramovich

List of Publications by Year
in descending order

105 papers	7,557 citations	61984 43 h-index	53230 85 g-index
112 all docs	112 docs citations	112 times ranked	6598 citing authors

#	Article	IF	Citations
1	The physical properties of supramolecular peptide assemblies: from building block association to technological applications. Chemical Society Reviews, 2014, 43, 6881-6893.	38.1	580
2	Self-Assembled Peptide Nanotubes Are Uniquely Rigid Bioinspired Supramolecular Structures. Nano Letters, 2005, 5, 1343-1346.	9.1	392
3	Self-assembled arrays of peptide nanotubes by vapour deposition. Nature Nanotechnology, 2009, 4, 849-854.	31.5	372
4	Fmoc-modified amino acids and short peptides: simple bio-inspired building blocks for the fabrication of functional materials. Chemical Society Reviews, 2016, 45, 3935-3953.	38.1	366
5	Phenylalanine assembly into toxic fibrils suggests amyloid etiology in phenylketonuria. Nature Chemical Biology, 2012, 8, 701-706.	8.0	354
6	Thermal and Chemical Stability of Diphenylalanine Peptide Nanotubes:â€‰ Implications for Nanotechnological Applications. Langmuir, 2006, 22, 1313-1320.	3.5	349
7	Self-assembling dipeptide antibacterial nanostructures with membrane disrupting activity. Nature Communications, 2017, 8, 1365.	12.8	299
8	Self-Assembled Fmoc-Peptides as a Platform for the Formation of Nanostructures and Hydrogels. Biomacromolecules, 2009, 10, 2646-2651.	5.4	297
9	Self-Assembly of Phenylalanine Oligopeptides: Insights from Experiments and Simulations. Biophysical Journal, 2009, 96, 5020-5029.	0.5	212
10	Ostwaldâ€™s rule of stages governs structural transitions and morphology of dipeptide supramolecular polymers. Nature Communications, 2014, 5, 5219.	12.8	197
11	Blue Luminescence Based on Quantum Confinement at Peptide Nanotubes. Nano Letters, 2009, 9, 3111-3115.	9.1	187
12	The Rheological and Structural Properties of Fmoc-Peptide-Based Hydrogels: The Effect of Aromatic Molecular Architecture on Self-Assembly and Physical Characteristics. Langmuir, 2012, 28, 2015-2022.	3.5	158
13	A Self-Healing, All-Organic, Conducting, Composite Peptide Hydrogel as Pressure Sensor and Electrogenic Cell Soft Substrate. ACS Nano, 2019, 13, 163-175.	14.6	149
14	Expanding the Solvent Chemical Space for Self-Assembly of Dipeptide Nanostructures. ACS Nano, 2014, 8, 1243-1253.	14.6	146
15	Why Are Diphenylalanine-Based Peptide Nanostructures so Rigid? Insights from First Principles Calculations. Journal of the American Chemical Society, 2014, 136, 963-969.	13.7	136
16	Light-emitting self-assembled peptide nucleic acids exhibit both stacking interactions and Watsonâ€“Crick base pairing. Nature Nanotechnology, 2015, 10, 353-360.	31.5	136
17	Selfâ€Assembled Organic Nanostructures with Metallicâ€Like Stiffness. Angewandte Chemie - International Edition, 2010, 49, 9939-9942.	13.8	128
18	Peptide-based hydrogel nanoparticles as effective drug delivery agents. Bioorganic and Medicinal Chemistry, 2013, 21, 3517-3522.	3.0	119

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19	Extension of the generic amyloid hypothesis to nonproteinaceous metabolite assemblies. Science Advances, 2015, 1, e1500137.	10.3	119
20	Direct Observation of the Release of Phenylalanine from Diphenylalanine Nanotubes. Journal of the American Chemical Society, 2006, 128, 6903-6908.	13.7	112
21	Formation of functional super-helical assemblies by constrained single heptad repeat. Nature Communications, 2015, 6, 8615.	12.8	101
22	Design of metalâ€binding sites onto selfâ€assembled peptide fibrils. Biopolymers, 2009, 92, 164-172.	2.4	95
23	Injectable Alginate-Peptide Composite Hydrogel as a Scaffold for Bone Tissue Regeneration. Nanomaterials, 2019, 9, 497.	4.1	94
24	Controlled patterning of peptide nanotubes and nanospheres using inkjet printing technology. Journal of Peptide Science, 2008, 14, 217-223.	1.4	91
25	Controlling the Physical Dimensions of Peptide Nanotubes by Supramolecular Polymer Coassembly. ACS Nano, 2016, 10, 7436-7442.	14.6	91
26	Dynamic microfluidic control of supramolecular peptide self-assembly. Nature Communications, 2016, 7, 13190.	12.8	89
27	Alignment of Aromatic Peptide Tubes in Strong Magnetic Fields. Advanced Materials, 2007, 19, 4474-4479.	21.0	87
28	UV Lightâ€“Responsive Peptideâ€Based Supramolecular Hydrogel for Controlled Drug Delivery. Macromolecular Rapid Communications, 2018, 39, e1800588.	3.9	85
29	Expanding the Nanoarchitectural Diversity Through Aromatic Di- and Tri-Peptide Coassembly: Nanostructures and Molecular Mechanisms. ACS Nano, 2016, 10, 8316-8324.	14.6	84
30	Arginine-Presenting Peptide Hydrogels Decorated with Hydroxyapatite as Biomimetic Scaffolds for Bone Regeneration. Biomacromolecules, 2017, 18, 3541-3550.	5.4	78
31	Molecular co-assembly as a strategy for synergistic improvement of the mechanical properties of hydrogels. Chemical Communications, 2017, 53, 9586-9589.	4.1	78
32	Characterization of Peptideâ€Nanostructureâ€Modified Electrodes and Their Application for Ultrasensitive Environmental Monitoring. Small, 2010, 6, 825-831.	10.0	75
33	Structural Polymorphism in a Self-Assembled Tri-Aromatic Peptide System. ACS Nano, 2018, 12, 3253-3262.	14.6	72
34	Fmoc-FF and hexapeptide-based multicomponent hydrogels as scaffold materials. Soft Matter, 2019, 15, 487-496.	2.7	70
35	Seamless Metallic Coating and Surface Adhesion of Self-Assembled Bioinspired Nanostructures Based on Di-(3,4-dihydroxy-<scp>l</scp>-phenylalanine) Peptide Motif. ACS Nano, 2014, 8, 7220-7228.	14.6	68
36	Improving the Mechanical Rigidity of Hyaluronic Acid by Integration of a Supramolecular Peptide Matrix. ACS Applied Materials & Interfaces, 2018, 10, 41883-41891.	8.0	65

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37	Spontaneous structural transition and crystal formation in minimal supramolecular polymer model. Science Advances, 2016, 2, e1500827.	10.3	62
38	Diphenylalanine as a Reductionist Model for the Mechanistic Characterization of Î²<i>-</i>Amyloid Modulators. ACS Nano, 2017, 11, 5960-5969.	14.6	62
39	Formation of Apoptosisâ€Inducing Amyloid Fibrils by Tryptophan. Israel Journal of Chemistry, 2017, 57, 729-737.	2.3	56
40	The self-assembling zwitterionic form of<scp>L</scp>-phenylalanine at neutral pH. Acta Crystallographica Section C, Structural Chemistry, 2014, 70, 326-331.	0.5	55
41	Differential inhibition of metabolite amyloid formation by generic fibrillation-modifying polyphenols. Communications Chemistry, 2018, 1, .	4.5	52
42	A minimal length rigid helical peptide motif allows rational design of modular surfactants. Nature Communications, 2017, 8, 14018.	12.8	49
43	Spectral Transition in Bioâ€Inspired Selfâ€Assembled Peptide Nucleic Acid Photonic Crystals. Advanced Materials, 2016, 28, 2195-2200.	21.0	47
44	Controlled Assembly of Peptide Nanotubes Triggered by Enzymatic Activation of Self-Immolative Dendrimers. ChemBioChem, 2007, 8, 859-862.	2.6	43
45	Composite of Peptideâ€Supramolecular Polymer and Covalent Polymer Comprises a New Multifunctional, Bioâ€Inspired Soft Material. Macromolecular Rapid Communications, 2019, 40, e1900175.	3.9	37
46	Exploring the self-assembly of glycopeptides using a diphenylalanine scaffold. Organic and Biomolecular Chemistry, 2011, 9, 5755.	2.8	36
47	Enhanced Nanoassembly-Incorporated Antibacterial Composite Materials. ACS Applied Materials & Interfaces, 2019, 11, 21334-21342.	8.0	36
48	Synergetic functional properties of two-component single amino acid-based hydrogels. CrystEngComm, 2015, 17, 8105-8112.	2.6	34
49	Doxycycline hinders phenylalanine fibril assemblies revealing a potential novel therapeutic approach in phenylketonuria. Scientific Reports, 2015, 5, 15902.	3.3	33
50	Elastic instability-mediated actuation by a supra-molecular polymer. Nature Physics, 2016, 12, 926-930.	16.7	32
51	Improvement of the Mechanical Properties of Epoxy by Peptide Nanotube Fillers. Small, 2011, 7, 1007-1011.	10.0	29
52	Cathepsin nanofiber substrates as potential agents for targeted drug delivery. Journal of Controlled Release, 2017, 257, 60-67.	9.9	28
53	Amyloidâ€Like Fibrillary Morphology Originated by Tyrosineâ€Containing Aromatic Hexapeptides. Chemistry - A European Journal, 2018, 24, 6804-6817.	3.3	28
54	Bioinspired Flexible and Tough Layered Peptide Crystals. Advanced Materials, 2018, 30, 1704551.	21.0	28

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55	Diphenylalanine Peptide Nanotube: Charge Transport, Band Gap And Its Relevance To Potential Biomedical Applications. Advanced Materials Letters, 2011, 2, 100-105.	0.6	27
56	Formation of bacterial pilus-like nanofibres by designed minimalistic self-assembling peptides. Nature Communications, 2016, 7, 13482.	12.8	27
57	Molecular Engineering of Self-Assembling Diphenylalanine Analogues Results in the Formation of Distinctive Microstructures. Chemistry of Materials, 2016, 28, 4341-4348.	6.7	27
58	Protection of Oxygen-Sensitive Enzymes by Peptide Hydrogel. ACS Nano, 2021, 15, 6530-6539.	14.6	26
59	Optical property modulation of Fmoc group by pH-dependent self-assembly. RSC Advances, 2015, 5, 73914-73918.	3.6	25
60	Rosmarinic Acid Restores Complete Transparency of Sonicated Human Cataract Ex Vivo and Delays Cataract Formation In Vivo. Scientific Reports, 2018, 8, 9341.	3.3	25
61	Collagen-Inspired Helical Peptide Coassembly Forms a Rigid Hydrogel with Twisted Polyproline II Architecture. ACS Nano, 2020, 14, 9990-10000.	14.6	25
62	Disruption of diphenylalanine assembly by a Boc-modified variant. Soft Matter, 2016, 12, 9451-9457.	2.7	23
63	Transition of Metastable Cross-Î± Crystals into Cross-Î² Fibrils by Î²-Turn Flipping. Journal of the American Chemical Society, 2019, 141, 363-369.	13.7	22
64	Phase Transition and Crystallization Kinetics of a Supramolecular System in a Microfluidic Platform. Chemistry of Materials, 2020, 32, 8342-8349.	6.7	22
65	Dipeptide Nanostructure Assembly and Dynamics <i>via in Situ</i> Liquid-Phase Electron Microscopy. ACS Nano, 2021, 15, 16542-16551.	14.6	21
66	Bi-functional peptide-based 3D hydrogel-scaffolds. Soft Matter, 2020, 16, 7006-7017.	2.7	20
67	Spontaneous Structural Transition in Phospholipid-Inspired Aromatic Phosphopeptide Nanostructures. ACS Nano, 2015, 9, 4085-4095.	14.6	19
68	Hyaluronic Acid and a Short Peptide Improve the Performance of a PCL Electrospun Fibrous Scaffold Designed for Bone Tissue Engineering Applications. International Journal of Molecular Sciences, 2021, 22, 2425.	4.1	19
69	From Folding to Assembly: Functional Supramolecular Architectures of Peptides Comprised of Nonâ€Canonical Amino Acids. Macromolecular Bioscience, 2021, 21, e2100090.	4.1	19
70	Opal-like Multicolor Appearance of Self-Assembled Photonic Array. ACS Applied Materials & Interfaces, 2018, 10, 20783-20789.	8.0	17
71	Mechanical Enhancement and Kinetics Regulation of Fmocâ€Diphenylalanine Hydrogels by Thioflavinâ€…T. Angewandte Chemie - International Edition, 2021, 60, 25339-25345.	13.8	16
72	Correction: The physical properties of supramolecular peptide assemblies: from building block association to technological applications. Chemical Society Reviews, 2014, 43, 7236-7236.	38.1	14

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73	Pillarareneâ€Based Twoâ€Component Thixotropic Supramolecular Organogels: Complementarity and Multivalency as Prominent Motifs. Chemistry - A European Journal, 2018, 24, 15750-15755.	3.3	14
74	Self-Assembly-Mediated Release of Peptide Nanoparticles through Jets Across Microdroplet Interfaces. ACS Applied Materials & Interfaces, 2018, 10, 27578-27583.	8.0	14
75	Induction of retinopathy by fibrillar oxalate assemblies. Communications Chemistry, 2020, 3, .	4.5	14
76	Directed Enzyme Evolution and Encapsulation in Peptide Nanospheres of Quorum Quenching Lactonase as an Antibacterial Treatment against Plant Pathogen. ACS Applied Materials & Interfaces, 2021, 13, 2179-2188.	8.0	14
77	Patterned Arrays of Ordered Peptide Nanostructures. Journal of Nanoscience and Nanotechnology, 2009, 9, 1701-1708.	0.9	13
78	Rheological analysis of the interplay between the molecular weight and concentration of hyaluronic acid in formulations of supramolecular HA/FmocFF hybrid hydrogels. Polymer Journal, 2020, 52, 1007-1012.	2.7	13
79	The Effects of a Short Self-Assembling Peptide on the Physical and Biological Properties of Biopolymer Hydrogels. Pharmaceutics, 2021, 13, 1602.	4.5	13
80	Formation of peptide-based oligomers in dimethylsulfoxide: identifying the precursor of fibril formation. Soft Matter, 2020, 16, 7860-7868.	2.7	12
81	Thixotropic Red Microalgae Sulfated Polysaccharide-Peptide Composite Hydrogels as Scaffolds for Tissue Engineering. Biomedicines, 2022, 10, 1388.	3.2	12
82	Spacer driven morphological twist in Phe-Phe dipeptide conjugates. Tetrahedron, 2013, 69, 2004-2009.	1.9	11
83	Solventâ€Induced Selfâ€Assembly of Highly Hydrophobic Tetraâ€•and Pentaphenylalanine Peptides. Israel Journal of Chemistry, 2015, 55, 756-762.	2.3	11
84	The retinal toxicity profile towards assemblies of Amyloid-Î² indicate the predominant pathophysiological activity of oligomeric species. Scientific Reports, 2020, 10, 20954.	3.3	11
85	Effect of peptide nanotube filler on structural and ion-transport properties of solid polymer electrolytes. Solid State Ionics, 2012, 220, 39-46.	2.7	10
86	Bio Mimicking of Extracellular Matrix. Advances in Experimental Medicine and Biology, 2019, 1174, 371-399.	1.6	10
87	Molecular Coâ€Assembly of Two Building Blocks Harnesses Both their Attributes into a Functional Supramolecular Hydrogel. Macromolecular Bioscience, 2022, 22, e2100439.	4.1	10
88	The Use of the Calcitonin Minimal Recognition Module for the Design of DOPA-Containing Fibrillar Assemblies. Nanomaterials, 2014, 4, 726-740.	4.1	9
89	Modification of a Single Atom Affects the Physical Properties of Double Fluorinated Fmoc-Phe Derivatives. International Journal of Molecular Sciences, 2021, 22, 9634.	4.1	9
90	Stabilizing gelatin-based bioinks under physiological conditions by incorporation of ethylene-glycol-conjugated Fmoc-FF peptides. Nanoscale, 2022, 14, 8525-8533.	5.6	9

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91	Sonochemical Functionalization of Cotton and Nonâ€Woven Fabrics with Bioâ€Inspired Selfâ€Assembled Nanostructures. Israel Journal of Chemistry, 2020, 60, 1190-1196.	2.3	8
92	Disordered Protein Stabilization by Co-Assembly of Short Peptides Enables Formation of Robust Membranes. ACS Applied Materials & Interfaces, 2022, 14, 464-473.	8.0	8
93	Surface Modification by Nano-Structures Reduces Viable Bacterial Biofilm in Aerobic and Anaerobic Environments. International Journal of Molecular Sciences, 2020, 21, 7370.	4.1	7
94	Controllable Phase Separation by Boc-Modified Lipophilic Acid as a Multifunctional Extractant. Scientific Reports, 2015, 5, 17509.	3.3	4
95	Photonic Crystals: Spectral Transition in Bioâ€Inspired Selfâ€Assembled Peptide Nucleic Acid Photonic Crystals (Adv. Mater. 11/2016). Advanced Materials, 2016, 28, 2276-2276.	21.0	3
96	Molecular Engineering of Somatostatin Analogue with Minimal Dipeptide Motif Induces the Formation of Functional Nanoparticles. ChemNanoMat, 2017, 3, 27-32.	2.8	3
97	Resilient Women and the Resiliency of Science. Chemistry of Materials, 2021, 33, 6585-6588.	6.7	3
98	Mechanical Enhancement and Kinetics Regulation of Fmocâ€Diphenylalanine Hydrogels by Thioflavin T. Angewandte Chemie, 0, , .	2.0	3
99	FtsZ Cytoskeletal Filaments as a Template for Metallic Nanowire Fabrication. Journal of Nanoscience and Nanotechnology, 2015, 15, 556-561.	0.9	2
100	Advantages of Self-assembled Supramolecular Polymers Toward Biological Applications. , 2017, , 9-35.		2
101	Atomic insight into short helical peptide comprised of consecutive multiple aromatic residues. Chemical Communications, 2022, 58, 6445-6448.	4.1	2
102	Inside Cover: Self-Assembled Organic Nanostructures with Metallic-Like Stiffness (Angew. Chem. Int.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	13.8	1
103	Pillarareneâ€Based Twoâ€Component Thixotropic Supramolecular Organogels: Complementarity and Multivalency as Prominent Motifs. Chemistry - A European Journal, 2018, 24, 15695-15695.	3.3	1
104	Bionanostructures: Bioinspired Flexible and Tough Layered Peptide Crystals (Adv. Mater. 5/2018). Advanced Materials, 2018, 30, 1870035.	21.0	0
105	Structural Transformation and Morphology of Dipeptide Supramolecular Assemblies by Liquid-phase TEM. Microscopy and Microanalysis, 2020, 26, 1442-1443.	0.4	0