

# Hicham Fenniri

## List of Publications by Year in descending order

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118  
papers

4,531  
citations

87888

38  
h-index

110387

64  
g-index

122  
all docs

122  
docs citations

122  
times ranked

5172  
citing authors

#	ARTICLE	IF	CITATIONS
1	Helical Rosette Nanotubes: Design, Self-Assembly, and Characterization. <i>Journal of the American Chemical Society</i> , 2001, 123, 3854-3855.	13.7	369
2	Helical Rosette Nanotubes with Tunable Chiroptical Properties. <i>Journal of the American Chemical Society</i> , 2002, 124, 11064-11072.	13.7	273
3	Widespread Nanoparticle-Assay Interference: Implications for Nanotoxicity Testing. <i>PLoS ONE</i> , 2014, 9, e90650.	2.5	225
4	Molecular Basis for Water-Promoted Supramolecular Chirality Inversion in Helical Rosette Nanotubes. <i>Journal of the American Chemical Society</i> , 2007, 129, 5735-5743.	13.7	184
5	Nanoimprinted SERS-Active Substrates with Tunable Surface Plasmon Resonances. <i>Journal of Physical Chemistry C</i> , 2007, 111, 6720-6723.	3.1	177
6	Entropically driven self-assembly of multichannel rosette nanotubes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002, 99, 6487-6492.	7.1	157
7	Helical Rosette Nanotubes with Tunable Stability and Hierarchy. <i>Journal of the American Chemical Society</i> , 2005, 127, 8307-8309.	13.7	134
8	Arginine-glycine-aspartic acid modified rosette nanotube hydrogel composites for bone tissue engineering. <i>Biomaterials</i> , 2009, 30, 1309-1320.	11.4	128
9	Stimuli-responsive hydrogels for manipulation of cell microenvironment: From chemistry to biofabrication technology. <i>Progress in Polymer Science</i> , 2019, 98, 101147.	24.7	120
10	Barcoded Resins: A New Concept for Polymer-Supported Combinatorial Library Self-Deconvolution. <i>Journal of the American Chemical Society</i> , 2001, 123, 8151-8152.	13.7	86
11	Molecular Recognition of NADP(H) and ATP by Macrocyclic Polyamines Bearing Acridine Groups. <i>Helvetica Chimica Acta</i> , 1997, 80, 786-803.	1.6	82
12	Biologically inspired rosette nanotubes and nanocrystalline hydroxyapatite hydrogel nanocomposites as improved bone substitutes. <i>Nanotechnology</i> , 2009, 20, 175101.	2.6	79
13	Helical rosette nanotubes: a more effective orthopaedic implant material. <i>Nanotechnology</i> , 2004, 15, S234-S239.	2.6	77
14	Enhanced Osteoblast Adhesion on Self-Assembled Nanostructured Hydrogel Scaffolds. <i>Tissue Engineering - Part A</i> , 2008, 14, 1353-1364.	3.1	77
15	Artificial Nose Technology: Status and Prospects in Diagnostics. <i>Trends in Biotechnology</i> , 2017, 35, 33-42.	9.3	76
16	Electroconductive Gelatin Methacryloyl-PEDOT:PSS Composite Hydrogels: Design, Synthesis, and Properties. <i>ACS Biomaterials Science and Engineering</i> , 2018, 4, 1558-1567.	5.2	75
17	Helical rosette nanotubes: A biomimetic coating for orthopedics?. <i>Biomaterials</i> , 2005, 26, 7304-7309.	11.4	73
18	Water Enhances the Aggregation of Model Asphaltenes in Solution via Hydrogen Bonding. <i>Energy &amp; Fuels</i> , 2009, 23, 3687-3693.	5.1	66

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19	Preparation, Physical Properties, On-Bead Binding Assay and Spectroscopic Reliability of 25 Barcoded Polystyrene-Poly(ethylene glycol) Graft Copolymers. <i>Journal of the American Chemical Society</i> , 2003, 125, 10546-10560.	13.7	65
20	Novel injectable biomimetic hydrogels with carbon nanofibers and self assembled rosette nanotubes for myocardial applications. <i>Journal of Biomedical Materials Research - Part A</i> , 2013, 101A, 1095-1102.	4.0	64
21	Biomimetic helical rosette nanotubes and nanocrystalline hydroxyapatite coatings on titanium for improving orthopedic implants. <i>International Journal of Nanomedicine</i> , 2008, 3, 323.	6.7	61
22	Water-Soluble J-Type Rosette Nanotubes with Giant Molar Ellipticity. <i>Journal of the American Chemical Society</i> , 2010, 132, 15136-15139.	13.7	61
23	Self-Assembled Rosette Nanotube/Hydrogel Composites for Cartilage Tissue Engineering. <i>Tissue Engineering - Part C: Methods</i> , 2010, 16, 1233-1243.	2.1	59
24	Three-Dimensional Printing Biologically Inspired DNA-Based Gradient Scaffolds for Cartilage Tissue Regeneration. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 33219-33228.	8.0	57
25	Spectroscopically Encoded Microspheres for Antigen Biosensing. <i>Langmuir</i> , 2007, 23, 6482-6485.	3.5	55
26	Nanomaterial-based barcodes. <i>Nanoscale</i> , 2015, 7, 11240-11247.	5.6	55
27	Pyrene Derivatives of 2,2'-Bipyridine as Models for Asphaltenes: Synthesis, Characterization, and Supramolecular Organization. <i>Energy &amp; Fuels</i> , 2008, 22, 715-720.	5.1	52
28	Enhanced endothelial cell functions on rosette nanotube-coated titanium vascular stents. <i>International Journal of Nanomedicine</i> , 2009, 4, 91.	6.7	50
29	3D Printed scaffolds with hierarchical biomimetic structure for osteochondral regeneration. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2019, 19, 58-70.	3.3	49
30	Hexabenzocoronene Model Compounds for Asphaltene Fractions: Synthesis & Characterization. <i>Energy &amp; Fuels</i> , 2006, 20, 2439-2447.	5.1	48
31	Self-assembled rosette nanotubes for incorporating hydrophobic drugs in physiological environments. <i>International Journal of Nanomedicine</i> , 2011, 6, 101.	6.7	48
32	One-Pot Nucleation, Growth, Morphogenesis, and Passivation of 1.4 nm Au Nanoparticles on Self-Assembled Rosette Nanotubes. <i>Journal of the American Chemical Society</i> , 2010, 132, 32-33.	13.7	47
33	Chemically stable silver nanoparticle-crosslinked polymer microspheres. <i>Journal of Colloid and Interface Science</i> , 2008, 319, 572-576.	9.4	44
34	Structural Water Drives Self-Assembly of Organic Rosette Nanotubes and Holds Host Atoms in the Channel. <i>ChemPhysChem</i> , 2010, 11, 361-367.	2.1	43
35	Novel biologically-inspired rosette nanotube PLLA scaffolds for improving human mesenchymal stem cell chondrogenic differentiation. <i>Biomedical Materials (Bristol)</i> , 2013, 8, 065003.	3.3	42
36	Self-assembled rosette nanotubes encapsulate and slowly release dexamethasone. <i>International Journal of Nanomedicine</i> , 2011, 6, 1035.	6.7	40

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37	Molecular and supramolecular chemistry of rosette nanotubes. RSC Advances, 2016, 6, 75820-75838.	3.6	40
38	Cutting Edge Methods for Non-Invasive Disease Diagnosis Using E-Tongue and E-Nose Devices. Biosensors, 2017, 7, 59.	4.7	40
39	Tuning cell adhesion on titanium with osteogenic rosette nanotubes. Journal of Biomedical Materials Research - Part A, 2010, 95A, 550-563.	4.0	39
40	Enhanced antibiotic activity of ampicillin conjugated to gold nanoparticles on PEGylated rosette nanotubes. International Journal of Nanomedicine, 2019, Volume 14, 7281-7289.	6.7	38
41	SERS-active Ag/Au bimetallic nanoalloys on Si/SiO <sub>2</sub> . Journal of Colloid and Interface Science, 2009, 333, 237-241.	9.4	36
42	Bioactive Rosette Nanotube-Hydroxyapatite Nanocomposites Improve Osteoblast Functions. Tissue Engineering - Part A, 2012, 18, 1741-1750.	3.1	35
43	Towards the DRED of Resin-Supported Combinatorial Libraries: A Non-Invasive Methodology Based on Bead Self-Encoding and Multispectral Imaging. Angewandte Chemie - International Edition, 2000, 39, 4483-4485.	13.8	34
44	A Regioselective Approach to Trisubstituted 2 (or 6)-Arylamino-pyrimidine-5-carbaldehydes and Their Application in the Synthesis of Structurally and Electronically Unique C <sub>5</sub> Base Precursors. Journal of Organic Chemistry, 2008, 73, 931-939.	3.2	34
45	Hierarchical Self-Assembly of Organic Prolate Nanospheroids from Hydrophobic Rosette Nanotubes. Langmuir, 2008, 24, 4447-4450.	3.5	34
46	Recent Advances at the Interface of Medicinal and Combinatorial Chemistry. Views on Methodologies for the Generation and Evaluation of Diversity and Application to Molecular Recognition and Catalysis. Current Medicinal Chemistry, 1996, 3, 343-378.	2.4	34
47	Rosette nanotubes show low acute pulmonary toxicity in vivo. International Journal of Nanomedicine, 2008, 3, 373.	6.7	33
48	Classification of Spectroscopically Encoded Resins by Raman Mapping and Infrared Hyperspectral Imaging. ACS Combinatorial Science, 2006, 8, 192-198.	3.3	31
49	Long-Range Flow-Induced Alignment of Self-Assembled Rosette Nanotubes on Si/SiO <sub>2</sub> and Poly(Methyl Methacrylate). Journal of Materials Chemistry, 2007, 17, 7843-7851.	10.784314	29
50	Robust Au-PEG/PS Microbeads as Optically Stable Platforms for SERS. Small, 2009, 5, 1283-1286.	10.0	29
51	The role of RGD-tagged helical rosette nanotubes in the induction of inflammation and apoptosis in human lung adenocarcinoma cells through the P38 MAPK pathway. Biomaterials, 2009, 30, 3084-3090.	11.4	29
52	Rosette nanotubes with 1.4 nm inner diameter from a tricyclic variant of the Lehn-Mascal C <sub>5</sub> base. Chemical Communications, 2010, 46, 6527.	4.1	29
53	Advances in cancer theranostics using organic-inorganic hybrid nanotechnology. Applied Materials Today, 2021, 23, 101003.	4.3	28
54	Synthesis of Hydrophobic Derivatives of the C <sub>5</sub> Base for Rosette Nanotube Self-Assembly in Apolar Media. Journal of Organic Chemistry, 2008, 73, 4248-4251.	3.2	24

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55	Low Inflammatory Activation by Self-Assembling Rosette Nanotubes in Human Calu-3 Pulmonary Epithelial Cells. <i>Small</i> , 2008, 4, 817-823.	10.0	23
56	Chiromers: conformation-driven mirror-image supramolecular chirality isomerism identified in a new class of helical rosette nanotubes. <i>Nanoscale</i> , 2014, 6, 9421-9427.	5.6	23
57	Synthesis of a Tetracyclic C <sup>15</sup> C Scaffold for the Assembly of Rosette Nanotubes with 1.7 nm Inner Diameter. <i>Journal of Organic Chemistry</i> , 2010, 75, 7233-7239.	3.2	22
58	High Field Solid-State NMR Spectroscopy Investigation of <sup>15</sup> N-Labeled Rosette Nanotubes: Hydrogen Bond Network and Channel-Bound Water. <i>Journal of the American Chemical Society</i> , 2016, 138, 6115-6118.	13.7	22
59	High-throughput screening flows along. <i>Nature Chemical Biology</i> , 2007, 3, 247-249.	8.0	21
60	Macrophage Inflammatory Response to Self-Assembling Rosette Nanotubes. <i>Small</i> , 2009, 5, 1446-1452.	10.0	20
61	Rosette Nanotube Porins as Ion Selective Transporters and Single-Molecule Sensors. <i>Journal of the American Chemical Society</i> , 2020, 142, 1680-1685.	13.7	19
62	Supramolecular Catalysis of H/D Exchange in Malonate Ions by Macrocyclic Polyamines: A Model Enzyme with Enolase Activity. <i>Angewandte Chemie International Edition in English</i> , 1996, 35, 337-339.	4.4	18
63	AuCu@Pt Nanoalloys for Catalytic Application in Reduction of 4-Nitrophenol. <i>Journal of Spectroscopy</i> , 2016, 2016, 1-8.	1.3	18
64	Zinc oxide end-capped Fe <sub>3</sub> O <sub>4</sub> @mSiO <sub>2</sub> core-shell nanocarriers as targeted and responsive drug delivery system for chemo-/ions synergistic therapeutics. <i>Drug Delivery</i> , 2019, 26, 732-743.	5.7	18
65	Spectroscopically Encoded Resins for High Throughput Imaging Time-of-Flight Secondary Ion Mass Spectrometry. <i>ACS Combinatorial Science</i> , 2006, 8, 18-25.	3.3	17
66	Self-assembled rosette nanotubes and poly(2-hydroxyethyl methacrylate) hydrogels promote skin cell functions. <i>Journal of Biomedical Materials Research - Part A</i> , 2014, 102, 3446-3451.	4.0	16
67	Preparation and Infrared/Raman Classification of 630 Spectroscopically Encoded Styrene Copolymers. <i>ACS Combinatorial Science</i> , 2008, 10, 31-36.	3.3	15
68	SERS Classification of Highly Related Performance Enhancers. <i>ChemMedChem</i> , 2007, 2, 1165-1167.	3.2	14
69	High-aspect ratio nanoparticles in nanotoxicology. <i>Integrated Environmental Assessment and Management</i> , 2008, 4, 128-129.	2.9	14
70	Synthesis of a $\beta$ -glycoside functionalized G <sub>1</sub> C motif for self-assembly into rosette nanotubes with predefined length. <i>Tetrahedron Letters</i> , 2011, 52, 661-664.	1.4	14
71	Synthesis of N-substituted Pyrido[4,3- <i>d</i> ]pyrimidines for the Large-Scale Production of Self-Assembled Rosettes and Nanotubes. <i>Journal of Organic Chemistry</i> , 2013, 78, 11421-11426.	3.2	14
72	Self-encoded polymer beads for microarray technologies. <i>Sensors and Actuators B: Chemical</i> , 2007, 125, 357-359.	7.8	13

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73	Multiplex pathogen detection based on spatially addressable microarrays of barcoded resins. <i>Biotechnology Journal</i> , 2008, 3, 948-953.	3.5	13
74	Synthesis of sulfur-containing aryl and heteroaryl vinyls via Suzuki-Miyaura cross-coupling for the preparation of SERS-active polymers. <i>Tetrahedron Letters</i> , 2009, 50, 5467-5469.	1.4	13
75	Imaging Carbon Nanotube Interaction with Nucleobases in Water Using the Statistical Mechanical Theory of Molecular Liquids. <i>Journal of Physical Chemistry C</i> , 2012, 116, 15087-15092.	3.1	13
76	RGD-tagged helical rosette nanotubes aggravate acute lipopolysaccharide-induced lung inflammation. <i>International Journal of Nanomedicine</i> , 2011, 6, 3113.	6.7	12
77	Organic Photovoltaics with Stacked Graphene Anodes. <i>ACS Applied Energy Materials</i> , 2018, 1, 17-21.	5.1	11
78	Rosette nanotubes inhibit bovine neutrophil chemotaxis. <i>Veterinary Research</i> , 2010, 41, 75.	3.0	11
79	Synthesis and catalytic activity of TentaGel-supported asymmetric dihydroxylation (DHQ)2PHAL ligand. <i>Tetrahedron: Asymmetry</i> , 2008, 19, 1049-1051.	1.8	10
80	Single-Molecule SERRS Detection Platforms Obtained via Galvanic Displacement on Silver Fractals. <i>Journal of Physical Chemistry C</i> , 2009, 113, 12897-12900.	3.1	10
81	Cellular Delivery of Plasmid DNA into Wheat Microspores Using Rosette Nanotubes. <i>ACS Omega</i> , 2020, 5, 24422-24433.	3.5	10
82	Synthesis and characterization of aryl thioacetyl styrene monomers: towards a new generation of SERS-active polymers. <i>Tetrahedron Letters</i> , 2007, 48, 9144-9147.	1.4	9
83	Covalent Capture of Self-Assembled Rosette Nanotubes. <i>Macromolecules</i> , 2012, 45, 7157-7162.	4.8	9
84	Sensor arrays from spectroscopically-encoded polymers: Towards an affordable diagnostic device for biomolecules. <i>Sensors and Actuators B: Chemical</i> , 2019, 288, 332-336.	7.8	9
85	Synthesis of rhenium chelated MAG3 functionalized rosette nanotubes. <i>Tetrahedron Letters</i> , 2012, 53, 1645-1651.	1.4	8
86	Rosette Nanotubes Alter IgE-Mediated Degranulation in the Rat Basophilic Leukemia (RBL)-2H3 Cell Line. <i>Toxicological Sciences</i> , 2015, 148, 108-120.	3.1	8
87	Editorial: Supramolecular Nanomaterials for Engineering, Drug Delivery, and Medical Applications. <i>Frontiers in Chemistry</i> , 2020, 8, 626468.	3.6	6
88	Cross-reactive, self-encoded polymer film arrays for sensor applications. <i>RSC Advances</i> , 2016, 6, 82616-82624.	3.6	5
89	Synthesis of N-Bridged Pyrido[4,3-d]pyrimidines and Self-Assembly into Twin Rosette Cages and Nanotubes in Organic Media. <i>Scientific Reports</i> , 2018, 8, 15949.	3.3	5
90	Synthetic strategy toward 1,9-difunctionalized pyrido[2,3-d:6,5-d']dipyrimidine-tetrazones. <i>Journal of Heterocyclic Chemistry</i> , 2009, 46, 79-83.	2.6	4

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91	Functionalized Rosette Nanotubes as Novel Electron Donor Materials for Solution-Processed Organic Photovoltaics. Materials Research Society Symposia Proceedings, 2015, 1737, 1.	0.1	4
92	The effects of rosette nanotubes with different functionalizations on channel catfish ( <i>Ictalurus</i> ) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 70	4.3	4
93	Bioactive Organic Rosette Nanotubes Support Sensory Neurite Outgrowth. ACS Biomaterials Science and Engineering, 2018, 4, 1630-1640.	5.2	4
94	Computational Modeling for Biomimetic Sensors. Methods in Molecular Biology, 2019, 2027, 195-210.	0.9	4
95	A Barcoded Polymer-Based Cross-Reactive Spectroscopic Sensor Array for Organic Volatiles. Sensors, 2019, 19, 3683.	3.8	4
96	Towards the DRED of Resin-Supported Combinatorial Libraries: A Non-Invasive Methodology Based on Bead Self-Encoding and Multispectral Imaging This work was supported by Purdue University, the TRASK fund, and the National Science Foundation (CHE-9875390 to HF, DMR-9704162 to DB). HF is a Cottrell Scholar of Research Corporation. DRED=dual recursive deconvolution.. Angewandte Chemie - International Edition, 2000, 39, 4483-4485.	13.8	4
97	Synthesis, Properties, and Mechanistic Insight into the Self-Assembly of a Lamellar Fibrous Superstructure from a Synthetically Simple Discotic Molecule. Langmuir, 2009, 25, 11857-11861.	3.5	3
98	Encapsulation of ferrocene by self-assembled rosette nanotubes: An investigation using statistical mechanical theory of molecular liquids. Journal of Molecular Liquids, 2016, 217, 70-74.	4.9	3
99	Electroless Synthesis of 1.4 nm Pd and Pt Nanoparticles on Self-Assembled Rosette Nanotubes. Materials Research Society Symposia Proceedings, 2011, 1301, 45.	0.1	2
100	Efficiency of Cationic Rosette Nanotubes for siRNA Delivery. Materials Research Society Symposia Proceedings, 2011, 1316, 1.	0.1	2
101	Electrostatic and Steric Effect of Peptides Functionalized on Self-Assembled Rosette Nanotubes. Materials Research Society Symposia Proceedings, 2011, 1316, 1.	0.1	2
102	The Canadian Regenerative Medicine and Nanomedicine Enterprise (CARMENE). International Journal of Nanomedicine, 2006, 1, 225-7.	6.7	2
103	Size Selective Corona Interactions from Self-Assembled Rosette and Single-Walled Carbon Nanotubes. Small, 2022, 18, e2104951.	10.0	2
104	Development of Novel Nanostructured Tissue Engineering Scaffold Materials through Self-assembly for Bed-side Orthopedic Applications. Materials Research Society Symposia Proceedings, 2006, 950, 1.	0.1	1
105	Synthesis of Porous Silica Nanotubes using Rosette Nanotubes as Templates. Materials Research Society Symposia Proceedings, 2007, 1057, 1.	0.1	1
106	Osteoblast Behaviors on Novel Self-assembled Helical Rosette Nanotubes and Hydrogel Composites for Bone Tissue Engineering. Materials Research Society Symposia Proceedings, 2007, 1056, 1.	0.1	1
107	Supramolecular Synthesis of Solid-State Tapes Through Molecular Facial Self-Recognition. Helvetica Chimica Acta, 2009, 92, 1963-1972.	1.6	1
108	Molecular Imaging of Self-Assembled Rosette Nanotubes by Scanning Tunneling Microscopy. Microscopy and Microanalysis, 2014, 20, 2080-2081.	0.4	1

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109	Fluorescent Rosette Nanotubes from the C-analogue of the Guanine-Cytosine (G <sup>A</sup> SC) Motif. Materials Research Society Symposia Proceedings, 2015, 1796, 1-6.	0.1	1
110	Rosette Nanotubes: Factors Affecting the Self-assembly of the Monobases Versus the Twin Base System. Materials Research Society Symposia Proceedings, 2007, 1057, 1.	0.1	0
111	Helical Rosette Nanotubes for bone tissue engineering applications. , 2007, , .		0
112	Different Cell Responses on Biologically Inspired Nano-coatings for Orthopedic Applications. Materials Research Society Symposia Proceedings, 2009, 1209, 1.	0.1	0
113	A novel drug delivery device for orthopedic applications. , 2010, , .		0
114	Injectable, self-assembled composites for implantable orthopedic applications. , 2011, , .		0
115	Process Optimization for Nanocrystalline Cellulose Production from Microcrystalline Cellulose. Materials Research Society Symposia Proceedings, 2011, 1312, 1.	0.1	0
116	Self-Assembly of a Water-Soluble Tricyclic Heterocycle into J-Type Rosette Nanotubes. Materials Research Society Symposia Proceedings, 2011, 1312, 1.	0.1	0
117	Selective cytotoxicity of curcumin loaded twin-base linker rosette nanotubes towards osteosarcoma than healthy osteoblasts. , 2014, , .		0
118	Cross-Reactive, Self-Encoded Polymer Film Arrays for Sensor Applications. Methods in Molecular Biology, 2019, 2027, 1-13.	0.9	0