Niki Baccile

List of Publications by Year
in descending order

83 papers	5,725 citations	117625 34 h-index	74163 75 g-index
97 all docs	97 docs citations	97 times ranked	6258 citing authors

#	Article	IF	Citations
1	Hydrothermal carbon from biomass: a comparison of the local structure from poly- to monosaccharides and pentoses/hexoses. Green Chemistry, 2008, 10, 1204.	9.0	689
2	Morphological and structural differences between glucose, cellulose and lignocellulosic biomass derived hydrothermal carbons. Green Chemistry, 2011, 13, 3273.	9.0	622
3	Carboxylate-Rich Carbonaceous Materials via One-Step Hydrothermal Carbonization of Glucose in the Presence of Acrylic Acid. Chemistry of Materials, 2009, 21, 484-490.	6.7	492
4	Structural Characterization of Hydrothermal Carbon Spheres by Advanced Solid-State MAS ¹³C NMR Investigations. Journal of Physical Chemistry C, 2009, 113, 9644-9654.	3.1	392
5	Sustainable nitrogen-doped carbonaceous materials from biomass derivatives. Carbon, 2010, 48, 3778-3787.	10.3	361
6	Hydrothermal Carbon from Biomass: Structural Differences between Hydrothermal and Pyrolyzed Carbons via ¹³C Solid State NMR. Langmuir, 2011, 27, 14460-14471.	3.5	248
7	Solid-State NMR Study of Ibuprofen Confined in MCM-41 Material. Chemistry of Materials, 2006, 18, 6382-6390.	6.7	242
8	Introducing ecodesign in silica solâ€“gel materials. Journal of Materials Chemistry, 2009, 19, 8537.	6.7	128
9	Oneâ€Step Hydrothermal Synthesis of Nitrogenâ€Doped Nanocarbons: Albumine Directing the Carbonization of Glucose. ChemSusChem, 2010, 3, 246-253.	6.8	124
10	Degradation and Crystallization of Cellulose in Hydrogen Chloride Vapor for Highâ€Yield Isolation of Cellulose Nanocrystals. Angewandte Chemie - International Edition, 2016, 55, 14455-14458.	13.8	123
11	Solid-State NMR Characterization of the Surfactantâ˘Silica Interface in Templated Silicas:Â Acidic versus Basic Conditions. Chemistry of Materials, 2007, 19, 1343-1354.	6.7	98
12	Advanced Solid State NMR Techniques for the Characterization of Solâ€“Gel-Derived Materials. Accounts of Chemical Research, 2007, 40, 738-746.	15.6	97
13	Structural Insights on Nitrogen-Containing Hydrothermal Carbon Using Solid-State Magic Angle Spinning ¹³C and ¹⁵N Nuclear Magnetic Resonance. Journal of Physical Chemistry C, 2011, 115, 8976-8982.	3.1	97
14	Unusual, pH-Induced, Self-Assembly Of Sophorolipid Biosurfactants. ACS Nano, 2012, 6, 4763-4776.	14.6	97
15	Aerosol generated mesoporous silica particles. Journal of Materials Chemistry, 2003, 13, 3011.	6.7	85
16	Characterization of biomass and its derived char using¹³C-solid state nuclear magnetic resonance. Green Chemistry, 2014, 16, 4839-4869.	9.0	82
17	Adjuvant Antibiotic Activity of Acidic Sophorolipids with Potential for Facilitating Wound Healing. Antimicrobial Agents and Chemotherapy, 2017, 61, .	3.2	76
18	Self-Assembly Mechanism of pH-Responsive Glycolipids: Micelles, Fibers, Vesicles, and Bilayers. Langmuir, 2016, 32, 10881-10894.	3.5	73

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19	From lab to market: An integrated bioprocess design approach for newâ€toâ€nature biosurfactants produced by <i>Starmerella bombicola</i>. Biotechnology and Bioengineering, 2018, 115, 1195-1206.	3.3	70
20	Development of a Cradle-to-Grave Approach for Acetylated Acidic Sophorolipid Biosurfactants. ACS Sustainable Chemistry and Engineering, 2017, 5, 1186-1198.	6.7	69
21	pH-Driven Self-Assembly of Acidic Microbial Glycolipids. Langmuir, 2016, 32, 6343-6359.	3.5	66
22	Kinetics of the Formation of 2D-Hexagonal Silica Nanostructured Materials by Nonionic Block Copolymer Templating in Solution. Journal of Physical Chemistry B, 2011, 115, 11330-11344.	2.6	64
23	Sophorolipids: a yeast-derived glycolipid as greener structure directing agents for self-assembled nanomaterials. Green Chemistry, 2010, 12, 1564.	9.0	62
24	pH-triggered formation of nanoribbons from yeast-derived glycolipid biosurfactants. Soft Matter, 2014, 10, 3950-3959.	2.7	62
25	Microbial biosurfactant research: time to improve the rigour in the reporting of synthesis, functional characterization and process development. Microbial Biotechnology, 2021, 14, 147-170.	4.2	61
26	Self-assembly, interfacial properties, interactions with macromolecules and molecular modelling and simulation of microbial bio-based amphiphiles (biosurfactants). A tutorial review. Green Chemistry, 2021, 23, 3842-3944.	9.0	61
27	Structure of Bolaamphiphile Sophorolipid Micelles Characterized with SAXS, SANS, and MD Simulations. Journal of Physical Chemistry B, 2015, 119, 13113-13133.	2.6	55
28	Sophorolipids-functionalized iron oxide nanoparticles. Physical Chemistry Chemical Physics, 2013, 15, 1606-1620.	2.8	46
29	Solid-state nuclear magnetic resonance: A valuable tool to explore organic-inorganic interfaces in silica-based hybrid materials. Comptes Rendus Chimie, 2010, 13, 58-68.	0.5	43
30	Antibacterial properties of sophorolipid-modified gold surfaces against Gram positive and Gram negative pathogens. Colloids and Surfaces B: Biointerfaces, 2017, 157, 325-334.	5.0	42
31	Ecodesign of Ordered Mesoporous Materials Obtained with Switchable Micellar Assemblies. Angewandte Chemie - International Edition, 2008, 47, 8433-8437.	13.8	40
32	Organo-modified mesoporous silicas for organic pollutant removal in water: Solid-state NMR study of the organic/silica interactions. Microporous and Mesoporous Materials, 2008, 110, 534-542.	4.4	40
33	From bumblebee to bioeconomy: Recent developments and perspectives for sophorolipid biosynthesis. Biotechnology Advances, 2022, 54, 107788.	11.7	39
34	Surface charge of acidic sophorolipid micelles: effect of base and time. Soft Matter, 2013, 9, 4911.	2.7	37
35	pH-Controlled Self-Assembled Fibrillar Network Hydrogels: Evidence of Kinetic Control of the Mechanical Properties. Chemistry of Materials, 2019, 31, 4817-4830.	6.7	35
36	Practical methods to reduce impurities for gramâ€scale amounts of acidic sophorolipid biosurfactants. European Journal of Lipid Science and Technology, 2013, 115, 1404-1412.	1.5	34

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37	Micelles versus Ribbons: How Congeners Drive the Selfâ€Assembly of Acidic Sophorolipid Biosurfactants. ChemPhysChem, 2017, 18, 643-652.	2.1	29
38	Bio-based glyco-bolaamphiphile forms a temperature-responsive hydrogel with tunable elastic properties. Soft Matter, 2018, 14, 7859-7872.	2.7	29
39	Nanoscale Platelet Formation by Monounsaturated and Saturated Sophorolipids under Basic pH Conditions. Chemistry - A European Journal, 2015, 21, 19265-19277.	3.3	27
40	Complex coacervation of natural sophorolipid bolaamphiphile micelles with cationic polyelectrolytes. Green Chemistry, 2018, 20, 3371-3385.	9.0	27
41	In Situ Time-Resolved SAXS Study of the Formation of Mesostructured Organically Modified Silica through Modeling of Micelles Evolution during Surfactant-Templated Self-Assembly. Langmuir, 2012, 28, 17477-17493.	3.5	25
42	Using Evaporation-Induced Self-Assembly for the Direct Drug Templating of Therapeutic Vectors with High Loading Fractions, Tunable Drug Release, and Controlled Degradation. Chemistry of Materials, 2013, 25, 4671-4678.	6.7	24
43	Biocidal Properties of a Glycosylated Surface: Sophorolipids on Au(111). ACS Applied Materials & Interfaces, 2015, 7, 18086-18095.	8.0	24
44	Asymmetrical, Symmetrical, Divalent, and Y-Shaped (Bola)amphiphiles: The Relationship between the Molecular Structure and Self-Assembly in Amino Derivatives of Sophorolipid Biosurfactants. Journal of Physical Chemistry B, 2019, 123, 3841-3858.	2.6	23
45	pH-switchable pickering emulsions stabilized by polyelectrolyte-biosurfactant complex coacervate colloids. Journal of Colloid and Interface Science, 2021, 600, 23-36.	9.4	23
46	Single-molecule lamellar hydrogels from bolaform microbial glucolipids. Soft Matter, 2020, 16, 2528-2539.	2.7	22
47	Synthesis of Uniform, Monodisperse, Sophorolipid Twisted Ribbons. Chemistry - an Asian Journal, 2015, 10, 2419-2426.	3.3	21
48	Biosurfactant-mediated one-step synthesis of hydrophobic functional imogolite nanotubes. RSC Advances, 2012, 2, 426-435.	3.6	20
49	Synthesis and Biological Evaluation of Bolaamphiphilic Sophorolipids. ACS Sustainable Chemistry and Engineering, 2018, 6, 8992-9005.	6.7	20
50	Soft lamellar solid foams from ice-templating of self-assembled lipid hydrogels: organization drives the mechanical properties. Materials Horizons, 2019, 6, 2073-2086.	12.2	20
51	Lipidâ€Based Quaternary Ammonium Sophorolipid Amphiphiles with Antimicrobial and Transfection Activities. ChemSusChem, 2019, 12, 3642-3653.	6.8	18
52	Nanoscale antiadhesion properties of sophorolipid-coated surfaces against pathogenic bacteria. Nanoscale Horizons, 2019, 4, 975-982.	8.0	18
53	Physical properties and in vitro bioactivity of hierarchical porous silicaâ€"HAP composites. Journal of Materials Chemistry, 2007, 17, 463-468.	6.7	17
54	Time-Resolved in Situ Raman and Small-Angle X-ray Diffraction Experiments: From Silica-Precursor Hydrolysis to Development of Mesoscopic Order in SBA-3 Surfactant-Templated Silica. Chemistry of Materials, 2008, 20, 1161-1172.	6.7	17

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55	Glucosomes: Glycosylated Vesicleâ€inâ€Vesicle Aggregates in Water from pHâ€Responsive Microbial Glycolipid. ChemistryOpen, 2017, 6, 526-533.	1.9	17
56	Surface-Induced Frustration in Solid State Polymorphic Transition of Native Cellulose Nanocrystals. Biomacromolecules, 2017, 18, 1975-1982.	5.4	16
57	Stimuli-Induced Nonequilibrium Phase Transitions in Polyelectrolyteâ€"Surfactant Complex Coacervates. Langmuir, 2020, 36, 8839-8857.	3.5	16
58	Effects of pH, temperature and shear on the structureâ€"property relationship of lamellar hydrogels from microbial glucolipids probed by<i>in situ</i>rheo-SAXS. Soft Matter, 2020, 16, 2540-2551.	2.7	16
59	pH- and Time-Resolved <i>in Situ</i> SAXS Study of Self-Assembled Twisted Ribbons Formed by Elaidic Acid Sophorolipids. Langmuir, 2018, 34, 2121-2131.	3.5	15
60	Mesostructured silica from amino acid-based surfactant formulations and sodium silicate at neutral pH. Journal of Sol-Gel Science and Technology, 2011, 58, 170-174.	2.4	13
61	Synthesis of multilamellar walls vesicles polyelectrolyte-surfactant complexes from pH-stimulated phase transition using microbial biosurfactants. Journal of Colloid and Interface Science, 2020, 580, 493-502.	9.4	12
62	Palmitic acid sophorolipid biosurfactant: from self-assembled fibrillar network (SAFiN) to hydrogels with fast recovery. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2021, 379, 20200343.	3.4	12
63	Core-shell effects of functionalized oxide nanoparticles inside long-range meso-ordered spray-dried silica spheres. Journal of Sol-Gel Science and Technology, 2008, 47, 119-123.	2.4	11
64	Cellulose Nanocrystalâ€"Fibrin Nanocomposite Hydrogels Promoting Myotube Formation. Biomacromolecules, 2021, 22, 2740-2753.	5.4	11
65	Hierarchical Porosity in Silica Thin Films by a One-Step Templating Strategy Using a Stimuli-Responsive Bioderived Glycolipid. Journal of Physical Chemistry C, 2013, 117, 23899-23907.	3.1	10
66	Easy Formation of Functional Liposomes in Water Using a pHâ€Responsive Microbial Glycolipid: Encapsulation of Magnetic and Upconverting Nanoparticles. ChemNanoMat, 2019, 5, 1188-1201.	2.8	10
67	Biocompatible Glyconanoparticles by Grafting Sophorolipid Monolayers on Monodispersed Iron Oxide Nanoparticles. ACS Applied Bio Materials, 2019, 2, 3095-3107.	4.6	10
68	Energy Landscape of the Sugar Conformation Controls the Sol-to-Gel Transition in Self-Assembled Bola Glycolipid Hydrogels. Chemistry of Materials, 2022, 34, 5546-5557.	6.7	10
69	Synthesis and self-assembly of aminyl and alkynyl substituted sophorolipids. Green Chemistry, 2020, 22, 8323-8336.	9.0	9
70	Antibacterial properties of glycosylated surfaces: variation of the glucosidal moiety and fatty acid conformation of grafted microbial glycolipids. Molecular Systems Design and Engineering, 2020, 5, 1307-1316.	3.4	8
71	Unveiling the Interstitial Pressure between Growing Ice Crystals during Ice-Templating Using a Lipid Lamellar Probe. Journal of Physical Chemistry Letters, 2020, 11, 1989-1997.	4.6	8
72	Interpenetrated biosurfactant-silk fibroin networks â€" a SANS study. Soft Matter, 2021, 17, 2302-2314.	2.7	8

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73	Surface-induced assembly of sophorolipids. Physical Chemistry Chemical Physics, 2017, 19, 15227-15238.	2.8	8
74	Primary and Secondary Hydration Forces between Interdigitated Membranes Composed of Bolaform Microbial Glucolipids. Langmuir, 2020, 36, 2191-2198.	3.5	6
75	Impact of batch variability on physicochemical properties of manufactured TiO 2 and SiO 2 nanopowders. Powder Technology, 2014, 267, 39-53.	4.2	5
76	Lyotropic Liquid-Crystalline Phases of Sophorolipid Biosurfactants. Langmuir, 2022, 38, 8564-8574.	3.5	5
77	One-Step Introduction of Broad-Band Mesoporosity in Silica Particles Using a Stimuli-Responsive Bioderived Glycolipid. ACS Sustainable Chemistry and Engineering, 2014, 2, 512-522.	6.7	4
78	Nanomaterials from Renewable Resources. , 2013, , 335-356.		2
79	NMR Characterisation of the Organic/SiO₂ Interfaces in Templated Porous Silica.. Materials Research Society Symposia Proceedings, 2006, 984, 1.	0.1	1
80	Abstract 2294: Sophorolipid-mediated inhibition of colorectal tumor cell growth in vitro and in vivo. , 2015, , .		1
81	Nuclear Magnetic Resonance as Investigation Tool for Pollutant/Sorbent Interactions. NATO Science for Peace and Security Series C: Environmental Security, 2008, , 31-46.	0.2	0
82	Proteins Induced Formation of Hydrothermal Nitrogen Doped Carbons. Materials Research Society Symposia Proceedings, 2009, 1219, 4051.	0.1	0
83	Homogeneous supported monolayer from microbial glycolipid biosurfactant. Journal of Molecular Liquids, 2022, 345, 117827.	4.9	0