

# Niki Baccile

## List of Publications by Year in descending order

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83  
papers

5,725  
citations

117571

34  
h-index

74108

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. <i>Green Chemistry</i> , 2008, 10, 1204.	4.6	689
2	Morphological and structural differences between glucose, cellulose and lignocellulosic biomass derived hydrothermal carbons. <i>Green Chemistry</i> , 2011, 13, 3273.	4.6	622
3	Carboxylate-Rich Carbonaceous Materials via One-Step Hydrothermal Carbonization of Glucose in the Presence of Acrylic Acid. <i>Chemistry of Materials</i> , 2009, 21, 484-490.	3.2	492
4	Structural Characterization of Hydrothermal Carbon Spheres by Advanced Solid-State MAS <sup>13</sup> C NMR Investigations. <i>Journal of Physical Chemistry C</i> , 2009, 113, 9644-9654.	1.5	392
5	Sustainable nitrogen-doped carbonaceous materials from biomass derivatives. <i>Carbon</i> , 2010, 48, 3778-3787.	5.4	361
6	Hydrothermal Carbon from Biomass: Structural Differences between Hydrothermal and Pyrolyzed Carbons via <sup>13</sup> C Solid State NMR. <i>Langmuir</i> , 2011, 27, 14460-14471.	1.6	248
7	Solid-State NMR Study of Ibuprofen Confined in MCM-41 Material. <i>Chemistry of Materials</i> , 2006, 18, 6382-6390.	3.2	242
8	Introducing ecodesign in silica sol-gel materials. <i>Journal of Materials Chemistry</i> , 2009, 19, 8537.	6.7	128
9	One-Step Hydrothermal Synthesis of Nitrogen-Doped Nanocarbons: Albumine Directing the Carbonization of Glucose. <i>ChemSusChem</i> , 2010, 3, 246-253.	3.6	124
10	Degradation and Crystallization of Cellulose in Hydrogen Chloride Vapor for High-Yield Isolation of Cellulose Nanocrystals. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 14455-14458.	7.2	123
11	Solid-State NMR Characterization of the Surfactant-Silica Interface in Templated Silicas: Acidic versus Basic Conditions. <i>Chemistry of Materials</i> , 2007, 19, 1343-1354.	3.2	98
12	Advanced Solid State NMR Techniques for the Characterization of Sol-Gel-Derived Materials. <i>Accounts of Chemical Research</i> , 2007, 40, 738-746.	7.6	97
13	Structural Insights on Nitrogen-Containing Hydrothermal Carbon Using Solid-State Magic Angle Spinning <sup>13</sup> C and <sup>15</sup> N Nuclear Magnetic Resonance. <i>Journal of Physical Chemistry C</i> , 2011, 115, 8976-8982.	1.5	97
14	Unusual, pH-Induced, Self-Assembly Of Sophorolipid Biosurfactants. <i>ACS Nano</i> , 2012, 6, 4763-4776.	7.3	97
15	Aerosol generated mesoporous silica particles. <i>Journal of Materials Chemistry</i> , 2003, 13, 3011.	6.7	85
16	Characterization of biomass and its derived char using <sup>13</sup> C-solid state nuclear magnetic resonance. <i>Green Chemistry</i> , 2014, 16, 4839-4869.	4.6	82
17	Adjuvant Antibiotic Activity of Acidic Sophorolipids with Potential for Facilitating Wound Healing. <i>Antimicrobial Agents and Chemotherapy</i> , 2017, 61, .	1.4	76
18	Self-Assembly Mechanism of pH-Responsive Glycolipids: Micelles, Fibers, Vesicles, and Bilayers. <i>Langmuir</i> , 2016, 32, 10881-10894.	1.6	73

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19	From lab to market: An integrated bioprocess design approach for new nature biosurfactants produced by <i>Starmarella bombicola</i> . <i>Biotechnology and Bioengineering</i> , 2018, 115, 1195-1206.	1.7	70
20	Development of a Cradle-to-Grave Approach for Acetylated Acidic Sophorolipid Biosurfactants. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 1186-1198.	3.2	69
21	pH-Driven Self-Assembly of Acidic Microbial Glycolipids. <i>Langmuir</i> , 2016, 32, 6343-6359.	1.6	66
22	Kinetics of the Formation of 2D-Hexagonal Silica Nanostructured Materials by Nonionic Block Copolymer Templating in Solution. <i>Journal of Physical Chemistry B</i> , 2011, 115, 11330-11344.	1.2	64
23	Sophorolipids: a yeast-derived glycolipid as greener structure directing agents for self-assembled nanomaterials. <i>Green Chemistry</i> , 2010, 12, 1564.	4.6	62
24	pH-triggered formation of nanoribbons from yeast-derived glycolipid biosurfactants. <i>Soft Matter</i> , 2014, 10, 3950-3959.	1.2	62
25	Microbial biosurfactant research: time to improve the rigour in the reporting of synthesis, functional characterization and process development. <i>Microbial Biotechnology</i> , 2021, 14, 147-170.	2.0	61
26	Self-assembly, interfacial properties, interactions with macromolecules and molecular modelling and simulation of microbial bio-based amphiphiles (biosurfactants). A tutorial review. <i>Green Chemistry</i> , 2021, 23, 3842-3944.	4.6	61
27	Structure of Bolaamphiphile Sophorolipid Micelles Characterized with SAXS, SANS, and MD Simulations. <i>Journal of Physical Chemistry B</i> , 2015, 119, 13113-13133.	1.2	55
28	Sophorolipids-functionalized iron oxide nanoparticles. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 1606-1620.	1.3	46
29	Solid-state nuclear magnetic resonance: A valuable tool to explore organic-inorganic interfaces in silica-based hybrid materials. <i>Comptes Rendus Chimie</i> , 2010, 13, 58-68.	0.2	43
30	Antibacterial properties of sophorolipid-modified gold surfaces against Gram positive and Gram negative pathogens. <i>Colloids and Surfaces B: Biointerfaces</i> , 2017, 157, 325-334.	2.5	42
31	Ecodesign of Ordered Mesoporous Materials Obtained with Switchable Micellar Assemblies. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 8433-8437.	7.2	40
32	Organo-modified mesoporous silicas for organic pollutant removal in water: Solid-state NMR study of the organic/silica interactions. <i>Microporous and Mesoporous Materials</i> , 2008, 110, 534-542.	2.2	40
33	From bumblebee to bioeconomy: Recent developments and perspectives for sophorolipid biosynthesis. <i>Biotechnology Advances</i> , 2022, 54, 107788.	6.0	39
34	Surface charge of acidic sophorolipid micelles: effect of base and time. <i>Soft Matter</i> , 2013, 9, 4911.	1.2	37
35	pH-Controlled Self-Assembled Fibrillar Network Hydrogels: Evidence of Kinetic Control of the Mechanical Properties. <i>Chemistry of Materials</i> , 2019, 31, 4817-4830.	3.2	35
36	Practical methods to reduce impurities for gram scale amounts of acidic sophorolipid biosurfactants. <i>European Journal of Lipid Science and Technology</i> , 2013, 115, 1404-1412.	1.0	34

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37	Micelles versus Ribbons: How Congeners Drive the Self-Assembly of Acidic Sophorolipid Biosurfactants. <i>ChemPhysChem</i> , 2017, 18, 643-652.	1.0	29
38	Bio-based glyco-bolaamphiphile forms a temperature-responsive hydrogel with tunable elastic properties. <i>Soft Matter</i> , 2018, 14, 7859-7872.	1.2	29
39	Nanoscale Platelet Formation by Monounsaturated and Saturated Sophorolipids under Basic pH Conditions. <i>Chemistry - A European Journal</i> , 2015, 21, 19265-19277.	1.7	27
40	Complex coacervation of natural sophorolipid bolaamphiphile micelles with cationic polyelectrolytes. <i>Green Chemistry</i> , 2018, 20, 3371-3385.	4.6	27
41	In Situ Time-Resolved SAXS Study of the Formation of Mesostuctured Organically Modified Silica through Modeling of Micelles Evolution during Surfactant-Templated Self-Assembly. <i>Langmuir</i> , 2012, 28, 17477-17493.	1.6	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. <i>Chemistry of Materials</i> , 2013, 25, 4671-4678.	3.2	24
43	Biocidal Properties of a Glycosylated Surface: Sophorolipids on Au(111). <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 18086-18095.	4.0	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. <i>Journal of Physical Chemistry B</i> , 2019, 123, 3841-3858.	1.2	23
45	pH-switchable pickering emulsions stabilized by polyelectrolyte-biosurfactant complex coacervate colloids. <i>Journal of Colloid and Interface Science</i> , 2021, 600, 23-36.	5.0	23
46	Single-molecule lamellar hydrogels from bolaform microbial glucolipids. <i>Soft Matter</i> , 2020, 16, 2528-2539.	1.2	22
47	Synthesis of Uniform, Monodisperse, Sophorolipid Twisted Ribbons. <i>Chemistry - an Asian Journal</i> , 2015, 10, 2419-2426.	1.7	21
48	Biosurfactant-mediated one-step synthesis of hydrophobic functional imogolite nanotubes. <i>RSC Advances</i> , 2012, 2, 426-435.	1.7	20
49	Synthesis and Biological Evaluation of Bolaamphiphilic Sophorolipids. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 8992-9005.	3.2	20
50	Soft lamellar solid foams from ice-templating of self-assembled lipid hydrogels: organization drives the mechanical properties. <i>Materials Horizons</i> , 2019, 6, 2073-2086.	6.4	20
51	Lipid-Based Quaternary Ammonium Sophorolipid Amphiphiles with Antimicrobial and Transfection Activities. <i>ChemSusChem</i> , 2019, 12, 3642-3653.	3.6	18
52	Nanoscale antiadhesion properties of sophorolipid-coated surfaces against pathogenic bacteria. <i>Nanoscale Horizons</i> , 2019, 4, 975-982.	4.1	18
53	Physical properties and in vitro bioactivity of hierarchical porous silica-HAP composites. <i>Journal of Materials Chemistry</i> , 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. <i>Chemistry of Materials</i> , 2008, 20, 1161-1172.	3.2	17

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55	Glucosomes: Glycosylated Vesicle-Vesicle Aggregates in Water from pH-Responsive Microbial Glycolipid. <i>ChemistryOpen</i> , 2017, 6, 526-533.	0.9	17
56	Surface-Induced Frustration in Solid State Polymorphic Transition of Native Cellulose Nanocrystals. <i>Biomacromolecules</i> , 2017, 18, 1975-1982.	2.6	16
57	Stimuli-Induced Nonequilibrium Phase Transitions in Polyelectrolyte-Surfactant Complex Coacervates. <i>Langmuir</i> , 2020, 36, 8839-8857.	1.6	16
58	Effects of pH, temperature and shear on the structure-property relationship of lamellar hydrogels from microbial glucolipids probed by <i>in situ</i> rheo-SAXS. <i>Soft Matter</i> , 2020, 16, 2540-2551.	1.2	16
59	pH- and Time-Resolved <i>in Situ</i> SAXS Study of Self-Assembled Twisted Ribbons Formed by Elaidic Acid Sophorolipids. <i>Langmuir</i> , 2018, 34, 2121-2131.	1.6	15
60	Mesostructured silica from amino acid-based surfactant formulations and sodium silicate at neutral pH. <i>Journal of Sol-Gel Science and Technology</i> , 2011, 58, 170-174.	1.1	13
61	Synthesis of multilamellar walls vesicles polyelectrolyte-surfactant complexes from pH-stimulated phase transition using microbial biosurfactants. <i>Journal of Colloid and Interface Science</i> , 2020, 580, 493-502.	5.0	12
62	Palmitic acid sophorolipid biosurfactant: from self-assembled fibrillar network (SAFiN) to hydrogels with fast recovery. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2021, 379, 20200343.	1.6	12
63	Core-shell effects of functionalized oxide nanoparticles inside long-range meso-ordered spray-dried silica spheres. <i>Journal of Sol-Gel Science and Technology</i> , 2008, 47, 119-123.	1.1	11
64	Cellulose Nanocrystal-Fibrin Nanocomposite Hydrogels Promoting Myotube Formation. <i>Biomacromolecules</i> , 2021, 22, 2740-2753.	2.6	11
65	Hierarchical Porosity in Silica Thin Films by a One-Step Templating Strategy Using a Stimuli-Responsive Bioderived Glycolipid. <i>Journal of Physical Chemistry C</i> , 2013, 117, 23899-23907.	1.5	10
66	Easy Formation of Functional Liposomes in Water Using a pH-Responsive Microbial Glycolipid: Encapsulation of Magnetic and Upconverting Nanoparticles. <i>ChemNanoMat</i> , 2019, 5, 1188-1201.	1.5	10
67	Biocompatible Glyconanoparticles by Grafting Sophorolipid Monolayers on Monodispersed Iron Oxide Nanoparticles. <i>ACS Applied Bio Materials</i> , 2019, 2, 3095-3107.	2.3	10
68	Energy Landscape of the Sugar Conformation Controls the Sol-to-Gel Transition in Self-Assembled Bola Glycolipid Hydrogels. <i>Chemistry of Materials</i> , 2022, 34, 5546-5557.	3.2	10
69	Synthesis and self-assembly of aminyl and alkynyl substituted sophorolipids. <i>Green Chemistry</i> , 2020, 22, 8323-8336.	4.6	9
70	Antibacterial properties of glycosylated surfaces: variation of the glucosidal moiety and fatty acid conformation of grafted microbial glycolipids. <i>Molecular Systems Design and Engineering</i> , 2020, 5, 1307-1316.	1.7	8
71	Unveiling the Interstitial Pressure between Growing Ice Crystals during Ice-Templating Using a Lipid Lamellar Probe. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 1989-1997.	2.1	8
72	Interpenetrated biosurfactant-silk fibroin networks - a SANS study. <i>Soft Matter</i> , 2021, 17, 2302-2314.	1.2	8

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73	Surface-induced assembly of sophorolipids. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 15227-15238.	1.3	8
74	Primary and Secondary Hydration Forces between Interdigitated Membranes Composed of Bolaform Microbial Glucolipids. <i>Langmuir</i> , 2020, 36, 2191-2198.	1.6	6
75	Impact of batch variability on physicochemical properties of manufactured TiO <sub>2</sub> and SiO <sub>2</sub> nanopowders. <i>Powder Technology</i> , 2014, 267, 39-53.	2.1	5
76	Lyotropic Liquid-Crystalline Phases of Sophorolipid Biosurfactants. <i>Langmuir</i> , 2022, 38, 8564-8574.	1.6	5
77	One-Step Introduction of Broad-Band Mesoporosity in Silica Particles Using a Stimuli-Responsive Bioderived Glycolipid. <i>ACS Sustainable Chemistry and Engineering</i> , 2014, 2, 512-522.	3.2	4
78	Nanomaterials from Renewable Resources. , 2013, , 335-356.		2
79	NMR Characterisation of the Organic/SiO <sub>2</sub> Interfaces in Templated Porous Silica.. <i>Materials Research Society Symposia Proceedings</i> , 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. <i>NATO Science for Peace and Security Series C: Environmental Security</i> , 2008, , 31-46.	0.1	0
82	Proteins Induced Formation of Hydrothermal Nitrogen Doped Carbons. <i>Materials Research Society Symposia Proceedings</i> , 2009, 1219, 4051.	0.1	0
83	Homogeneous supported monolayer from microbial glycolipid biosurfactant. <i>Journal of Molecular Liquids</i> , 2022, 345, 117827.	2.3	0