Danielle Laurencin

List of Publications by Year
in descending order

93 papers	3,467 citations	126907 33 h-index	155660 55 g-index
103 all docs	103 docs citations	103 times ranked	4769 citing authors

#	Article	IF	Citations
1	Magnesium incorporation into hydroxyapatite. Biomaterials, 2011, 32, 1826-1837.	11.4	296
2	Bonding-induced thermal conductance enhancement at inorganic heterointerfaces usingÂnanomolecular monolayers. Nature Materials, 2013, 12, 118-122.	27.5	223
3	Phosphonate coupling molecules for the control of surface/interface properties and the synthesis of nanomaterials. Dalton Transactions, 2013, 42, 12569.	3.3	195
4	A rare example of a porous Ca-MOF for the controlled release of biologically active NO. Chemical Communications, 2013, 49, 7773.	4.1	138
5	New perspectives on calcium environments in inorganic materials containing calciumâ€“oxygen bonds: A combined computationalâ€“experimental 43Ca NMR approach. Chemical Physics Letters, 2008, 464, 42-48.	2.6	83
6	Recent NMR developments applied to organicâ€“inorganic materials. Progress in Nuclear Magnetic Resonance Spectroscopy, 2014, 77, 1-48.	7.5	78
7	Reactivity of gold nanoparticles towards N-heterocyclic carbenes. Dalton Transactions, 2014, 43, 5978.	3.3	77
8	NMR Investigation of the Role of Osteocalcin and Osteopontin at the Organicâ€“Inorganic Interface in Bone. Langmuir, 2013, 29, 13873-13882.	3.5	72
9	Absence of the lysophosphatidic acid receptor LPA1 results in abnormal bone development and decreased bone mass. Bone, 2011, 49, 395-403.	2.9	71
10	Probing the calcium and sodium local environment in bones and teeth using multinuclear solid state NMR and X-ray absorption spectroscopy. Physical Chemistry Chemical Physics, 2010, 12, 1081-1091.	2.8	70
11	⁸⁷Sr Solid-State NMR as a Structurally Sensitive Tool for the Investigation of Materials: Antiosteoporotic Pharmaceuticals and Bioactive Glasses. Journal of the American Chemical Society, 2012, 134, 12611-12628.	13.7	68
12	Development of 43Ca solid state NMR spectroscopy as a probe of local structure in inorganic and molecular materials. Progress in Nuclear Magnetic Resonance Spectroscopy, 2013, 68, 1-40.	7.5	68
13	A new organometallic heteropolytungstate related to [Sb2W22O74(OH)2]12â€“: synthesis and structural characterisation of the bis-{Ru(p-cymene)}2+-containing anion [Sb2W20O70{Ru(p-cymene)}2]10â€“. Chemical Communications, 2005, , 5524.	4.1	67
14	Natural abundance ⁴³Ca solidâ€state NMR characterisation of hydroxyapatite: identification of the two calcium sites. Magnetic Resonance in Chemistry, 2008, 46, 347-350.	1.9	60
15	Incorporation of iodates into hydroxyapatites: a new approach for the confinement of radioactive iodine. Journal of Materials Chemistry, 2011, 21, 17609.	6.7	59
16	Ultrasmall NHC-coated gold nanoparticles obtained through solvent free thermolysis of organometallic Au(i) complexes. Dalton Transactions, 2014, 43, 15713-15718.	3.3	59
17	Interfacial Ca2+ environments in nanocrystalline apatites revealed by dynamic nuclear polarization enhanced 43Ca NMR spectroscopy. Nature Communications, 2017, 8, 14104.	12.8	55
18	A High-Resolution⁴³Ca Solid-State NMR Study of the Calcium Sites of Hydroxyapatite. Journal of the American Chemical Society, 2008, 130, 2412-2413.	13.7	54

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19	Implementation of High Resolution ⁴³Ca Solid State NMR Spectroscopy: Toward the Elucidation of Calcium Sites in Biological Materials. Journal of the American Chemical Society, 2009, 131, 13430-13440.	13.7	54
20	Experimental and Theoretical Study of the Regiospecific Coordination of RuIIand OsIIFragments on the Lacunary Polyoxometalate [Î±-PW11O39]7-. Journal of Physical Chemistry A, 2006, 110, 6345-6355.	2.5	52
21	Influence of Magnesium Substitution on the Basic Properties of Hydroxyapatites. Journal of Physical Chemistry C, 2011, 115, 24317-24327.	3.1	52
22	Porous Porphyrinâ€Based Organosilica Nanoparticles for NIR Twoâ€Photon Photodynamic Therapy and Gene Delivery in Zebrafish. Advanced Functional Materials, 2018, 28, 1800235.	14.9	50
23	A biocompatible calcium bisphosphonate coordination polymer: towards a metal-linker synergistic therapeutic effect?. CrystEngComm, 2013, 15, 9899.	2.6	49
24	Synthesis and reactivity of {Ru(p-cymene)}2+derivatives of [Nb6O19]8â^': a rational approach towards fluxional organometallic derivatives of polyoxometalates. Dalton Transactions, 2007, , 1334-1345.	3.3	47
25	Unleashing the Potential of ¹⁷Oâ€…NMR Spectroscopy Using Mechanochemistry. Angewandte Chemie - International Edition, 2017, 56, 6803-6807.	13.8	47
26	Framework Fluxionality of Organometallic Oxides: Synthesis, Crystal Structure, EXAFS, and DFT Studies on[{Ru(Î·6-arene)}4Mo4O16] Complexes. Chemistry - A European Journal, 2004, 10, 208-217.	3.3	45
27	Solid State NMR Investigation of Intact Human Bone Quality: Balancing Issues and Insight into the Structure at the Organicâ€“Mineral Interface. Journal of Physical Chemistry C, 2012, 116, 6320-6331.	3.1	42
28	Whewellite, CaC2O4â‹…H2O: structural study by a combined NMR, crystallography and modelling approach. CrystEngComm, 2013, 15, 8840.	2.6	40
29	A Solid-State NMR Study of Lead and Vanadium Substitution into Hydroxyapatite. Journal of the American Chemical Society, 2009, 131, 5145-5152.	13.7	37
30	Intercalation of Benzoxaborolate Anions in Layered Double Hydroxides: Toward Hybrid Formulations for Benzoxaborole Drugs. Chemistry of Materials, 2015, 27, 1242-1254.	6.7	37
31	The Effect of Surface Modification of Aligned Poly-L-Lactic Acid Electrospun Fibers on Fiber Degradation and Neurite Extension. PLoS ONE, 2015, 10, e0136780.	2.5	36
32	NMR and EPR Characterization of Functionalized Nanodiamonds. Journal of Physical Chemistry C, 2015, 119, 12408-12422.	3.1	36
33	Experimental and Theoretical Study of the Reactivity of Gold Nanoparticles Towards Benzimidazoleâ€2â€ylidene Ligands. Chemistry - A European Journal, 2016, 22, 10446-10458.	3.3	36
34	Synthesis and Characterization of Crystalline Structures Based on Phenylboronate Ligands Bound to Alkaline Earth Cations. Inorganic Chemistry, 2011, 50, 7802-7810.	4.0	35
35	Two-dimensional 43Caâ€“1H correlation solid-state NMR spectroscopy. Solid State Nuclear Magnetic Resonance, 2009, 35, 32-36.	2.3	34
36	From crystalline to amorphous calcium pyrophosphates: A solid state Nuclear Magnetic Resonance perspective. Acta Biomaterialia, 2016, 31, 348-357.	8.3	33

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37	Durability testing of an iodate-substituted hydroxyapatite designedÂfor the conditioning of 129 I. Journal of Nuclear Materials, 2017, 484, 324-331.	2.7	31
38	Gemcitabine Delivery and Photodynamic Therapy in Cancer Cells via Porphyrinâ€Ethyleneâ€Based Periodic Mesoporous Organosilica Nanoparticles. ChemNanoMat, 2018, 4, 46-51.	2.8	31
39	Immobilization of iodine into a hydroxyapatite structure prepared by cementation. Journal of Materials Chemistry A, 2014, 2, 20923-20932.	10.3	30
40	Electrochemical Mg alloying properties along the Sb1-xBix solid solution. Electrochimica Acta, 2018, 259, 276-283.	5.2	30
41	Controlled Anchoring of Iron Oxide Nanoparticles on Polymeric Nanofibers: Easy Access to Core@Shell Organicâ€“Inorganic Nanocomposites for Magneto-Scaffolds. ACS Applied Materials & Interfaces, 2019, 11, 9519-9529.	8.0	29
42	Organometallic polyoxometalates: synthesis and structural analysis of (Î·6-arene) ruthenium-containing polyoxomolybdates. Journal of Molecular Structure, 2003, 656, 67-77.	3.6	27
43	A combined experimental-computational study of benzoxaborole crystal structures. CrystEngComm, 2014, 16, 4999.	2.6	27
44	Drugâ€“Polymer Electrostatic Complexes as New Structuring Agents for the Formation of Drug-Loaded Ordered Mesoporous Silica. Langmuir, 2015, 31, 12839-12844.	3.5	27
45	Surface modification of calcium carbonate with phosphonic acids. Journal of Materials Chemistry, 2012, 22, 1212-1218.	6.7	26
46	Structural study of calcium phosphonates: a combined synchrotron powder diffraction, solid-state NMR and first-principle calculations approach. CrystEngComm, 2013, 15, 8763.	2.6	26
47	Enhanced stability and local structure in biologically relevant amorphous materials containing pyrophosphate. Journal of Materials Chemistry, 2011, 21, 18783.	6.7	25
48	Investigation of the local environment of iodate in hydroxyapatite by combination of X-ray absorption spectroscopy and DFT modeling. RSC Advances, 2014, 4, 14700-14707.	3.6	25
49	An Ab Initio Quantum Chemical Investigation of ⁴³Ca NMR Interaction Parameters for the Ca²⁺ Sites in Organic Complexes and in Metalloproteins. Journal of Physical Chemistry A, 2008, 112, 9807-9813.	2.5	24
50	Experimental and Computational Study of the Framework Fluxionality of Organometallic Derivatives of Polyoxometalates: Analysis of the Effect of the Metal and of the Solvent. Organometallics, 2009, 28, 3140-3151.	2.3	24
51	Unveiling the Structure and Reactivity of Fatty-Acid Based (Nano)materials Thanks to Efficient and Scalable ¹⁷O and ¹⁸O-Isotopic Labeling Schemes. Journal of the American Chemical Society, 2020, 142, 21068-21081.	13.7	24
52	Direct ¹⁷O Isotopic Labeling of Oxides Using Mechanochemistry. Inorganic Chemistry, 2020, 59, 13050-13066.	4.0	24
53	Pushing the limits of sensitivity and resolution for natural abundance ⁴³Ca NMR using ultra-high magnetic field (35.2 T). Chemical Communications, 2018, 54, 9591-9594.	4.1	22
54	High-resolution solid state NMR experiments for the characterization of calcium phosphate biomaterials and biominerals. Journal of Materials Research, 2011, 26, 2355-2368.	2.6	21

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55	Synthesis and characterization of carboxystyryl end-functionalized poly(3-hexylthiophene)/TiO2 hybrids in view of photovoltaic applications. Synthetic Metals, 2012, 162, 1615-1622.	3.9	21
56	Insights into new calcium phosphosilicate xerogels using an advanced characterization methodology. Journal of Non-Crystalline Solids, 2011, 357, 3548-3555.	3.1	20
57	Boronate Ligands in Materials: Determining Their Local Environment by Using a Combination of IR/Solidâ€State NMR Spectroscopies and DFT Calculations. Chemistry - A European Journal, 2013, 19, 880-891.	3.3	19
58	Synthesis of TiO₂â€“Poly(3-hexylthiophene) Hybrid Particles through Surface-Initiated Kumada Catalyst-Transfer Polycondensation. Langmuir, 2014, 30, 11340-11347.	3.5	19
59	Bis-benzoxaboroles: Design, Synthesis, and Biological Evaluation as Carbonic Anhydrase Inhibitors. ACS Medicinal Chemistry Letters, 2019, 10, 1205-1210.	2.8	19
60	Improvement of the Oxidative Stability of Nanodiamonds by Surface Phosphorylation. Chemistry of Materials, 2013, 25, 2051-2055.	6.7	18
61	A soft-chemistry approach to the synthesis of amorphous calcium ortho/pyrophosphate biomaterials of tunable composition. Acta Biomaterialia, 2020, 103, 333-345.	8.3	18
62	Relationship between structure, fluxionality and racemization activity in organometallic derivatives of polyoxometalates. Tetrahedron: Asymmetry, 2007, 18, 367-371.	1.8	17
63	Theoretical Study of the Relative Stabilities of the Î±/Î²₃-[XW₁₁O₃₉]^{mâ’} Lacunary Polyoxometalates (X) 4jcETQq1 1 0.784314	1	17
64	Formulation of benzoxaborole drugs in PLLA: from materials preparation to in vitro release kinetics and cellular assays. Journal of Materials Chemistry B, 2016, 4, 257-272.	5.8	17
65	A multinuclear NMR perspective on the complexation between bisboronic acids and bisbenzoxaboroles with cis-diols. New Journal of Chemistry, 2018, 42, 2815-2823.	2.8	16
66	Recent directions in the solid-state NMR study of synthetic and natural calcium phosphates. Solid State Nuclear Magnetic Resonance, 2020, 107, 101663.	2.3	15
67	Connecting ruthenium substituted Keggin-type tungstophosphates by oxotungstic bridges: Evidence for the steric effect of {RuL3}2+ (L3â€…=â€…Î·6-arene, (DMSO)3) fragments. Comptes Rendus Chimie, 2012, 15, 135-142.	0.5	14
68	Surface Functionalization of Detonation Nanodiamonds by Phosphonic Dichloride Derivatives. Langmuir, 2014, 30, 9239-9245.	3.5	14
69	Biomimetic apatite-based composite materials obtained by spark plasma sintering (SPS): physicochemical and mechanical characterizations. Journal of Materials Science: Materials in Medicine, 2015, 26, 223.	3.6	14
70	Unleashing the Potential of ¹⁷Oâ€…NMR Spectroscopy Using Mechanochemistry. Angewandte Chemie, 2017, 129, 6907-6911.	2.0	14
71	Development of a new family of monolithic calcium (pyro)phosphate glasses by soft chemistry. Acta Biomaterialia, 2016, 41, 320-327.	8.3	13
72	French Studies on the Development of Potential Conditioning Matrices for Iodine 129. Materials Research Society Symposia Proceedings, 2015, 1744, 15-20.	0.1	11

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73	Looking into the dynamics of molecular crystals of ibuprofen and terephthalic acid using ¹⁷O and ²H nuclear magnetic resonance analyses. Magnetic Resonance in Chemistry, 2021, 59, 975-990.	1.9	11
74	From Operando Raman Mechanochemistry to â€œNMR Crystallographyâ€: Understanding the Structures and Interconversion of Zn-Terephthalate Networks Using Selective ¹⁷O-Labeling. Chemistry of Materials, 2022, 34, 2292-2312.	6.7	11
75	Adsorption of benzoxaboroles on hydroxyapatite phases. Acta Biomaterialia, 2016, 41, 342-350.	8.3	10
76	Labeling and Probing the Silica Surface Using Mechanochemistry and 17 Oâ€…NMR Spectroscopy**. Chemistry - A European Journal, 2021, 27, 12574-12588.	3.3	10
77	Coordination Polymers Based on Alkylboronate Ligands: Synthesis, Characterization, and Computational Modelling. European Journal of Inorganic Chemistry, 2015, 2015, 1182-1191.	2.0	9
78	Molecular complexes and main-chain organometallic polymers based on Janus bis(carbenes) fused to metalloporphyrins. Dalton Transactions, 2020, 49, 7005-7014.	3.3	9
79	Cost-efficient and user-friendly 17O/18O labeling procedures of fatty acids using mechanochemistry. Chemical Communications, 2021, 57, 6812-6815.	4.1	9
80	Stacking Versatility in Alkali-Mixed Honeycomb Layered NaKNi₂TeO₆. Inorganic Chemistry, 2021, 60, 14310-14317.	4.0	9
81	Coordination Networks Based on Boronate and Benzoxaborolate Ligands. Crystals, 2016, 6, 48.	2.2	8
82	⁸⁷Sr, ¹¹⁹Sn, ¹²⁷I Single and {¹H/¹⁹F}â€Double Resonance Solidâ€State NMR Experiments: Application to Inorganic Materials and Nanobuilding Blocks. ChemistrySelect, 2016, 1, 4509-4519.	1.5	8
83	Advances in the synthesis and structure of Î±-canaphite: a multitool and multiscale study. CrystEngComm, 2020, 22, 3130-3143.	2.6	8
84	A ⁴³Ca nuclear magnetic resonance perspective on octacalcium phosphate and its hybrid derivatives. Magnetic Resonance in Chemistry, 2021, 59, 1048-1061.	1.9	8
85	Operando acoustic analysis: a valuable method for investigating reaction mechanisms in mechanochemistry. Chemical Science, 2022, 13, 6328-6334.	7.4	8
86	New Layered Polythiophene-Silica Composite Through the Self-Assembly and Polymerization of Thiophene-Based Silylated Molecular Precursors. Molecules, 2018, 23, 2510.	3.8	5
87	Insight into the local environment of magnesium and calcium in low-coordination-number organo-complexes using ²⁵Mg and ⁴³Ca solid-state NMR: a DFT study. Acta Crystallographica Section C, Structural Chemistry, 2017, 73, 208-218.	0.5	4
88	A novel multinuclear solid-state NMR approach for the characterization of kidney stones. Magnetic Resonance, 2021, 2, 653-671.	1.9	4
89	Long-term in vivo performances of polylactide/iron oxide nanoparticles coreâ€“shell fibrous nanocomposites as MRI-visible magneto-scaffolds. Biomaterials Science, 2021, 9, 6203-6213.	5.4	4
90	Advanced Solid State NMR Techniques for the Investigation of the Organic-Mineral Interfaces in Biomaterials. Materials Research Society Symposia Proceedings, 2009, 1236, 1.	0.1	2

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91	Synthesis, characterization and modeling of self-assembled porphyrin nanorods. Journal of Porphyrins and Phthalocyanines, 2019, 23, 1346-1354.	0.8	2
92	Recent advances in solidâ€state nuclear magnetic resonance spectroscopy of quadrupolar nuclei. Magnetic Resonance in Chemistry, 2021, 59, 851-852.	1.9	1
93	Innentitelbild: Unleashing the Potential of ¹⁷Oâ€...NMR Spectroscopy Using Mechanochemistry (Angew. Chem. 24/2017). Angewandte Chemie, 2017, 129, 6780-6780.	2.0	0