

David Gajan

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2481959/publications.pdf>

Version: 2024-02-01

73
papers

4,182
citations

117625

34
h-index

110387

64
g-index

77
all docs

77
docs citations

77
times ranked

3533
citing authors

#	ARTICLE	IF	CITATIONS
1	Harnessing Catalysis Selectivity and Isophorone Diisocyanate Asymmetry for Tailored Polyurethane Prepolymers and Networks. <i>Macromolecules</i> , 2022, 55, 3344-3352.	4.8	5
2	Multiple Surface Site Three-Dimensional Structure Determination of a Supported Molecular Catalyst. <i>Journal of the American Chemical Society</i> , 2022, 144, 10270-10281.	13.7	9
3	Atomic-Scale Structure and Its Impact on Chemical Properties of Aluminum Oxide Layers Prepared by Atomic Layer Deposition on Silica. <i>Chemistry of Materials</i> , 2021, 33, 3335-3348.	6.7	23
4	Spectroscopic Signature and Structure of the Active Sites in Ziegler-Natta Polymerization Catalysts Revealed by Electron Paramagnetic Resonance. <i>Journal of the American Chemical Society</i> , 2021, 143, 9791-9797.	13.7	19
5	Ni(II) and Co(II) bis(acetylacetonato) complexes for alkene/vinylsilane silylation and silicone crosslinking. <i>Catalysis Science and Technology</i> , 2021, 11, 4849-4856.	4.1	1
6	Toward the Coordination Fingerprint of the Edge-Sharing BO ₄ Tetrahedra. <i>Inorganic Chemistry</i> , 2021, 60, 2406-2413.	4.0	6
7	Efficient Dynamic Nuclear Polarization up to 230 K with Hybrid BDPA-Nitroxide Radicals at a High Magnetic Field. <i>Journal of Physical Chemistry B</i> , 2021, 125, 13329-13338.	2.6	9
8	Stepwise construction of silica-supported tantalum/iridium heteropolymetallic catalysts using surface organometallic chemistry. <i>Journal of Catalysis</i> , 2020, 392, 287-301.	6.2	11
9	The Structure of Molecular and Surface Platinum Sites Determined by DNP-SENS and Fast MAS ¹⁹⁵ Pt Solid-State NMR Spectroscopy. <i>Journal of the American Chemical Society</i> , 2020, 142, 18936-18945.	13.7	35
10	Atomic-Scale Description of Interfaces between Antigen and Aluminum-Based Adjuvants Used in Vaccines by Dynamic Nuclear Polarization (DNP) Enhanced NMR Spectroscopy. <i>Chemistry - A European Journal</i> , 2020, 26, 8976-8982.	3.3	13
11	One-pot syntheses of heterotelechelic $\hat{\pm}$ -vinyl, $\hat{\%}$ -methoxysilane polyethylenes and condensation into comb-like and star-like polymers with high chain end functionality. <i>Polymer Chemistry</i> , 2020, 11, 3884-3891.	3.9	11
12	TinyPols: a family of water-soluble binitroxides tailored for dynamic nuclear polarization enhanced NMR spectroscopy at 18.8 and 21.1 T. <i>Chemical Science</i> , 2020, 11, 2810-2818.	7.4	72
13	Specific Localization of Aluminum Sites Favors Ethene-to-Propene Conversion on (Al)MCM-41-Supported Ni(II) Single Sites. <i>ACS Catalysis</i> , 2019, 9, 7476-7485.	11.2	24
14	Metal-Metal Synergy in Well-Defined Surface Tantalum-Iridium Heterobimetallic Catalysts for H/D Exchange Reactions. <i>Journal of the American Chemical Society</i> , 2019, 141, 19321-19335.	13.7	33
15	Beyond $\hat{3}$ -Al ₂ O ₃ crystallite surfaces: The hidden features of edges revealed by solid-state ¹ H NMR and DFT calculations. <i>Journal of Catalysis</i> , 2019, 378, 140-143.	6.2	36
16	Supported Ru olefin metathesis catalysts <i>via</i> a thiolate tether. <i>Dalton Transactions</i> , 2019, 48, 2886-2890.	3.3	5
17	¹⁹ F Magic Angle Spinning Dynamic Nuclear Polarization Enhanced NMR Spectroscopy. <i>Angewandte Chemie</i> , 2019, 131, 7327-7331.	2.0	2
18	Structural description of surfaces and interfaces in biominerals by DNP SENS. <i>Solid State Nuclear Magnetic Resonance</i> , 2019, 102, 2-11.	2.3	25

#	ARTICLE	IF	CITATIONS
19	Aromatic Ring Dynamics, Thermal Activation, and Transient Conformations of a 468 kDa Enzyme by Specific ¹³ C Labeling and Fast Magic-Angle Spinning NMR. <i>Journal of the American Chemical Society</i> , 2019, 141, 11183-11195.	13.7	43
20	Innenr��cktitelbild: Preferential Siting of Aluminum Heteroatoms in the Zeolite Catalyst Al��SSZ��70 (Angew. Chem. 19/2019). <i>Angewandte Chemie</i> , 2019, 131, 6523-6523.	2.0	0
21	Preferential Siting of Aluminum Heteroatoms in the Zeolite Catalyst Al��SSZ��70. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 6255-6259.	13.8	31
22	Preferential Siting of Aluminum Heteroatoms in the Zeolite Catalyst Al��SSZ��70. <i>Angewandte Chemie</i> , 2019, 131, 6321-6325.	2.0	10
23	¹⁹ F Magic Angle Spinning Dynamic Nuclear Polarization Enhanced NMR Spectroscopy. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 7249-7253.	13.8	18
24	Dynamic Nuclear Polarization��Enhanced Biomolecular NMR Spectroscopy at High Magnetic Field with Fast Magic��Angle Spinning. <i>Angewandte Chemie</i> , 2018, 130, 7580-7584.	2.0	8
25	Dynamic Nuclear Polarization��Enhanced Biomolecular NMR Spectroscopy at High Magnetic Field with Fast Magic��Angle Spinning. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 7458-7462.	13.8	56
26	Predicting the DNP-SENS efficiency in reactive heterogeneous catalysts from hydrophilicity. <i>Chemical Science</i> , 2018, 9, 4866-4872.	7.4	24
27	BDPA-Nitroxide Biradicals Tailored for Efficient Dynamic Nuclear Polarization Enhanced Solid-State NMR at Magnetic Fields up to 21.1 T. <i>Journal of the American Chemical Society</i> , 2018, 140, 13340-13349.	13.7	99
28	Transportable hyperpolarized metabolites. <i>Nature Communications</i> , 2017, 8, 13975.	12.8	86
29	Oxygen-17 dynamic nuclear polarisation enhanced solid-state NMR spectroscopy at 18.8 T. <i>Chemical Communications</i> , 2017, 53, 2563-2566.	4.1	39
30	Tailored Polarizing Hybrid Solids with Nitroxide Radicals Localized in Mesostructured Silica Walls. <i>Helvetica Chimica Acta</i> , 2017, 100, e1700101.	1.6	24
31	Frozen Acrylamide Gels as Dynamic Nuclear Polarization Matrices. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 8726-8730.	13.8	26
32	From single-site tantalum complexes to nanoparticles of Ta _x N _y and TaO _x N _y supported on silica: elucidation of synthesis chemistry by dynamic nuclear polarization surface enhanced NMR spectroscopy and X-ray absorption spectroscopy. <i>Chemical Science</i> , 2017, 8, 5650-5661.	7.4	14
33	The structure and binding mode of citrate in the stabilization of gold nanoparticles. <i>Nature Chemistry</i> , 2017, 9, 890-895.	13.6	222
34	Phenylazide Hybrid��Silica �� Polarization Platform for Dynamic Nuclear Polarization at Cryogenic Temperatures. <i>Helvetica Chimica Acta</i> , 2017, 100, e1600122.	1.6	6
35	Three-Dimensional Structure Determination of Surface Sites. <i>Journal of the American Chemical Society</i> , 2017, 139, 849-855.	13.7	75
36	Frozen Acrylamide Gels as Dynamic Nuclear Polarization Matrices. <i>Angewandte Chemie</i> , 2017, 129, 8852-8856.	2.0	2

#	ARTICLE	IF	CITATIONS
37	Dynamic Nuclear Polarization Efficiency Increased by Very Fast Magic Angle Spinning. <i>Journal of the American Chemical Society</i> , 2017, 139, 10609-10612.	13.7	52
38	Reactive surface organometallic complexes observed using dynamic nuclear polarization surface enhanced NMR spectroscopy. <i>Chemical Science</i> , 2017, 8, 284-290.	7.4	55
39	Dendritic polarizing agents for DNP SENS. <i>Chemical Science</i> , 2017, 8, 416-422.	7.4	35
40	Atomistic Description of Reaction Intermediates for Supported Metathesis Catalysts Enabled by DNP SENS. <i>Angewandte Chemie</i> , 2016, 128, 4821-4825.	2.0	6
41	Hyperpolarization of Frozen Hydrocarbon Gases by Dynamic Nuclear Polarization at 1.2 K. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 3235-3239.	4.6	18
42	Cubic three-dimensional hybrid silica solids for nuclear hyperpolarization. <i>Chemical Science</i> , 2016, 7, 6846-6850.	7.4	19
43	Structural Characterization of the EtOHâ€“TiCl ₄ â€“MgCl ₂ Zieglerâ€“Natta Precatalyst. <i>Journal of Physical Chemistry C</i> , 2016, 120, 18075-18087.	3.1	28
44	Atomistic Description of Reaction Intermediates for Supported Metathesis Catalysts Enabled by DNP SENS. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 4743-4747.	13.8	52
45	Atomic-level organization of vicinal acidâ€“base pairs through the chemisorption of aniline and derivatives onto mesoporous SBA15. <i>Chemical Science</i> , 2016, 7, 6099-6105.	7.4	16
46	Predictive morphology, stoichiometry and structure of surface species in supported Ru nanoparticles under H ₂ and CO atmospheres from combined experimental and DFT studies. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 1969-1979.	2.8	36
47	Dynamic nuclear polarization at 40 kHz magic angle spinning. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 10616-10622.	2.8	74
48	The Nature of Secondary Interactions at Electrophilic Metal Sites of Molecular and Silica-Supported Organolutetium Complexes from Solid-State NMR Spectroscopy. <i>Journal of the American Chemical Society</i> , 2016, 138, 3831-3843.	13.7	35
49	Iridium(I)/Nâ€“Heterocyclic Carbene Hybrid Materials: Surface Stabilization of Lowâ€“Valent Iridium Species for High Catalytic Hydrogenation Performance. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 12937-12941.	13.8	33
50	Solid-State Dynamic Nuclear Polarization at 9.4 and 18.8 T from 100 K to Room Temperature. <i>Journal of the American Chemical Society</i> , 2015, 137, 14558-14561.	13.7	87
51	Influences of Dilute Organic Adsorbates on the Hydration of Low-Surface-Area Silicates. <i>Journal of the American Chemical Society</i> , 2015, 137, 8096-8112.	13.7	85
52	Polymorphs of Theophylline Characterized by DNP Enhanced Solid-State NMR. <i>Molecular Pharmaceutics</i> , 2015, 12, 4146-4153.	4.6	77
53	Hybrid polarizing solids for pure hyperpolarized liquids through dissolution dynamic nuclear polarization. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 14693-14697.	7.1	93
54	A Wellâ€“Defined Pd Hybrid Material for the <i>z</i> -selective Semihydrogenation of Alkynes Characterized at the Molecular Level by DNP SENS. <i>Chemistry - A European Journal</i> , 2013, 19, 12234-12238.	3.3	61

#	ARTICLE	IF	CITATIONS
55	A Well-Defined Silica-Supported Tungsten Oxo Alkylidene Is a Highly Active Alkene Metathesis Catalyst. <i>Journal of the American Chemical Society</i> , 2013, 135, 19068-19070.	13.7	83
56	Solid-Phase Polarization Matrixes for Dynamic Nuclear Polarization from Homogeneously Distributed Radicals in Mesostructured Hybrid Silica Materials. <i>Journal of the American Chemical Society</i> , 2013, 135, 15459-15466.	13.7	56
57	Molecular-level characterization of the structure and the surface chemistry of periodic mesoporous organosilicates using DNP-surface enhanced NMR spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 13270.	2.8	56
58	Evidence for Metal-Surface Interactions and Their Role in Stabilizing Well-Defined Immobilized Ru-NHC Alkene Metathesis Catalysts. <i>Journal of the American Chemical Society</i> , 2013, 135, 3193-3199.	13.7	96
59	A Slowly Relaxing Rigid Biradical for Efficient Dynamic Nuclear Polarization Surface-Enhanced NMR Spectroscopy: Expedient Characterization of Functional Group Manipulation in Hybrid Materials. <i>Journal of the American Chemical Society</i> , 2012, 134, 2284-2291.	13.7	182
60	Dynamic Nuclear Polarization NMR Spectroscopy of Microcrystalline Solids. <i>Journal of the American Chemical Society</i> , 2012, 134, 16899-16908.	13.7	242
61	Dynamic nuclear polarization of quadrupolar nuclei using cross polarization from protons: surface-enhanced aluminium-27 NMR. <i>Chemical Communications</i> , 2012, 48, 1988.	4.1	123
62	Non-aqueous solvents for DNP surface enhanced NMR spectroscopy. <i>Chemical Communications</i> , 2012, 48, 654-656.	4.1	155
63	One hundred fold overall sensitivity enhancements for Silicon-29 NMR spectroscopy of surfaces by dynamic nuclear polarization with CPMG acquisition. <i>Chemical Science</i> , 2012, 3, 108-115.	7.4	141
64	Solid-state NMR: a key tool for the understanding at a molecular level of well-defined heterogeneous catalysts and surface chemistry on top of oxide materials. <i>Spectroscopic Properties of Inorganic and Organometallic Compounds</i> , 2012, , 57-83.	0.4	2
65	Silica-supported single-site catalysts: to be or not to be? A conjecture on silica surfaces. <i>New Journal of Chemistry</i> , 2011, 35, 2403.	2.8	70
66	Probing surface site heterogeneity through 1D and INADEQUATE 31P solid state NMR spectroscopy of silica supported PMe3-Au(I) adducts. <i>Chemical Science</i> , 2011, 2, 928.	7.4	15
67	Fast Characterization of Functionalized Silica Materials by Silicon-29 Surface-Enhanced NMR Spectroscopy Using Dynamic Nuclear Polarization. <i>Journal of the American Chemical Society</i> , 2011, 133, 2104-2107.	13.7	254
68	A highly ordered mesostructured material containing regularly distributed phenols: preparation and characterization at a molecular level through ultra-fast magic angle spinning proton NMR spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 4230.	2.8	13
69	Surface Enhanced NMR Spectroscopy by Dynamic Nuclear Polarization. <i>Journal of the American Chemical Society</i> , 2010, 132, 15459-15461.	13.7	488
70	Synthesis and reactivity of molybdenum imido alkylidene bis-pyrazolide complexes. <i>Dalton Transactions</i> , 2010, 39, 8547.	3.3	18
71	Well-Defined Silica-Supported Mo-Alkylidene Catalyst Precursors Containing One OR Substituent: Methods of Preparation and Structure-Reactivity Relationship in Alkene Metathesis. <i>Chemistry - A European Journal</i> , 2009, 15, 5083-5089.	3.3	53
72	Gold Nanoparticles Supported on Passivated Silica: Access to an Efficient Aerobic Epoxidation Catalyst and the Intrinsic Oxidation Activity of Gold. <i>Journal of the American Chemical Society</i> , 2009, 131, 14667-14669.	13.7	111

#	ARTICLE	IF	CITATIONS
73	Hydrogen and oxygen adsorption stoichiometries on silica supported ruthenium nanoparticles. Journal of Catalysis, 2008, 260, 387-391.	6.2	35