

Gil Goobes

List of Publications by Year in descending order

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55
papers

1,705
citations

331670

21
h-index

289244

40
g-index

58
all docs

58
docs citations

58
times ranked

2399
citing authors

#	ARTICLE	IF	CITATIONS
1	Pushing the limit of layered transition metal oxide cathodes for high-energy density rechargeable Li ion batteries. <i>Energy and Environmental Science</i> , 2018, 11, 1271-1279.	30.8	322
2	Integrated Materials $x\text{Li}_{2}\text{MnO}_{3}\cdot(1-x)\text{LiMn}_{1/3}\text{Ni}_{1/3}\text{Co}_{1/3}\text{O}_{2}$ ($x=0.3, 0.5, 0.7$) Synthesized. <i>Journal of the Electrochemical Society</i> , 2010, 157, A1121.	2.9	185
3	Folding of the C-terminal bacterial binding domain in statherin upon adsorption onto hydroxyapatite crystals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 16083-16088.	7.1	88
4	Studies of Li and Mn-Rich $\text{Li}_{x}\text{[MnNiCo]O}_{2}$ Electrodes: Electrochemical Performance, Structure, and the Effect of the Aluminum Fluoride Coating. <i>Journal of the Electrochemical Society</i> , 2013, 160, A2220-A2233.	2.9	87
5	On the Surface Chemistry of LiMO_{2} Cathode Materials ($M=[\text{MnNi}]$ and $[\text{MnNiCo}]$): Electrochemical, Spectroscopic, and Calorimetric Studies. <i>Journal of the Electrochemical Society</i> , 2010, 157, A1099.	2.9	86
6	Thermodynamics of Statherin Adsorption onto Hydroxyapatite. <i>Biochemistry</i> , 2006, 45, 5576-5586.	2.5	74
7	Minerals in the pre-settled coral <i>Stylophora pistillata</i> crystallize via protein and ion changes. <i>Nature Communications</i> , 2018, 9, 1880.	12.8	53
8	Homomuclear and Heteronuclear NMR Studies of a Statherin Fragment Bound to Hydroxyapatite Crystals. <i>Journal of Physical Chemistry B</i> , 2006, 110, 9324-9332.	2.6	50
9	Solid state NMR studies of molecular recognition at protein-mineral interfaces. <i>Progress in Nuclear Magnetic Resonance Spectroscopy</i> , 2007, 50, 71-85.	7.5	50
10	Studying the Conformation of a Silaffin-Derived Pentalysine Peptide Embedded in Bioinspired Silica using Solution and Dynamic Nuclear Polarization Magic-Angle Spinning NMR. <i>Journal of the American Chemical Society</i> , 2016, 138, 5561-5567.	13.7	46
11	The structure, dynamics, and energetics of protein adsorption—lessons learned from adsorption of statherin to hydroxyapatite. <i>Magnetic Resonance in Chemistry</i> , 2007, 45, S32-S47.	1.9	44
12	A $^{13}\text{C}\{^{31}\text{P}\}$ REDOR NMR Investigation of the Role of Glutamic Acid Residues in Statherin-Hydroxyapatite Recognition. <i>Langmuir</i> , 2009, 25, 12136-12143.	3.5	41
13	Cation Diffusion Facilitators Transport Initiation and Regulation Is Mediated by Cation Induced Conformational Changes of the Cytoplasmic Domain. <i>PLoS ONE</i> , 2014, 9, e92141.	2.5	41
14	Siliplant1 protein precipitates silica in sorghum silica cells. <i>Journal of Experimental Botany</i> , 2020, 71, 6830-6843.	4.8	34
15	$\text{LiNi}_{0.8}\text{Co}_{0.15}\text{Al}_{0.05}\text{O}_{2}$ Cathode Material: New Insights via ^{7}Li and ^{27}Al Magic-Angle Spinning NMR Spectroscopy. <i>Chemistry of Materials</i> , 2016, 28, 7594-7604.	6.7	32
16	New aqueous energy storage devices comprising graphite cathodes, MXene anodes and concentrated sulfuric acid solutions. <i>Energy Storage Materials</i> , 2020, 32, 1-10.	18.0	32
17	NMR-Detected Dynamics of Sodium Co-Intercalation with Diglyme Solvent Molecules in Graphite Anodes Linked to Prolonged Cycling. <i>Journal of Physical Chemistry C</i> , 2018, 122, 21172-21184.	3.1	27
18	Biogenic Guanine Crystals Are Solid Solutions of Guanine and Other Purine Metabolites. <i>Journal of the American Chemical Society</i> , 2022, 144, 5180-5189.	13.7	26

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19	Changes to the Disordered Phase and Apatite Crystallite Morphology during Mineralization by an Acidic Mineral Binding Peptide from Osteonectin. <i>Biomacromolecules</i> , 2015, 16, 2656-2663.	5.4	23
20	Biosilica and bioinspired silica studied by solid-state NMR. <i>Coordination Chemistry Reviews</i> , 2016, 327-328, 110-122.	18.8	23
21	Osteopontin regulates biomimetic calcium phosphate crystallization from disordered mineral layers covering apatite crystallites. <i>Scientific Reports</i> , 2020, 10, 15722.	3.3	23
22	Linking structure to performance of $\text{Li}_{1.2}\text{Mn}_{0.54}\text{Ni}_{0.13}\text{Co}_{0.13}\text{O}_{2}$ (Li and Mn) Tj ETQg 0 0 0 rgBJ/Overlock 2020, 22, 9098-9109.	2.8	22
23	Interfacial Mineralâ€“Peptide Properties of a Mineral Binding Peptide from Osteonectin and Bone-like Apatite. <i>Chemistry of Materials</i> , 2015, 27, 5562-5569.	6.7	21
24	The Coral Protein CARP3 Acts from a Disordered Mineral Surface Film to Divert Aragonite Crystallization in Favor of Mgâ€“Calcite. <i>Advanced Functional Materials</i> , 2018, 28, 1707321.	14.9	19
25	Ammonia Treatment of $0.35\text{Li}_{2}\text{MnO}_{3}\cdot 0.65\text{LiNi}_{0.35}\text{Mn}_{0.45}\text{Co}_{0.20}\text{O}_{12}$ Material: Insights from Solid-State NMR Analysis. <i>Journal of Physical Chemistry C</i> , 2018, 122, 3773-3779.	12	19
26	Spectroscopic Discrimination of Sorghum Silica Phytoliths. <i>Frontiers in Plant Science</i> , 2019, 10, 1571.	3.6	18
27	Past and Future Solidâ€“State NMR Spectroscopy Studies at the Convergence Point between Biology and Materials Research. <i>Israel Journal of Chemistry</i> , 2014, 54, 113-124.	2.3	17
28	A REDOR ssNMR Investigation of the Role of an N-Terminus Lysine in R5 Silica Recognition. <i>Langmuir</i> , 2018, 34, 8678-8684.	3.5	15
29	Understanding the roles of functional peptides in designing apatite and silica nanomaterials biomimetically using NMR techniques. <i>Current Opinion in Colloid and Interface Science</i> , 2018, 33, 44-52.	7.4	14
30	A REDOR study of diammonium hydrogen phosphate: A model for distance measurements from adsorbed molecules to surfaces. <i>Solid State Nuclear Magnetic Resonance</i> , 2006, 29, 242-250.	2.3	13
31	Ubiquitin immobilized on mesoporous MCM41 silica surfaces â€“ Analysis by solid-state NMR with biophysical and surface characterization. <i>Biointerphases</i> , 2017, 12, 02D414.	1.6	13
32	Trapping RNase A on MCM41 pores: effects on structure stability, product inhibition and overall enzymatic activity. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 9031-9038.	2.8	12
33	How does osteocalcin lacking $\hat{1}^3$ -glutamic groups affect biomimetic apatite formation and what can we say about its structure in mineral-bound form?. <i>Journal of Structural Biology</i> , 2019, 207, 104-114.	2.8	12
34	Design of Compact Biomimetic Cellulose Binding Peptides as Carriers for Cellulose Catalytic Degradation. <i>Journal of Physical Chemistry B</i> , 2016, 120, 309-319.	2.6	10
35	Engineering $\langle \text{scp} \rangle$ -asparaginase for spontaneous formation of calcium phosphate bioinspired microreactors. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 12719-12726.	2.8	9
36	Molecular differences in collagen organization and in organic-inorganic interfacial structure of bones with and without osteocytes. <i>Acta Biomaterialia</i> , 2022, 144, 195-209.	8.3	9

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37	Conformation and Dynamics of Organic Tethers Bound to MCM41-Type Surfaces from Solid State NMR Measurements. <i>Journal of Physical Chemistry C</i> , 2012, 116, 7442-7449.	3.1	8
38	Electrochemical and Thermal Behavior of Modified Li and Mn-Rich Cathode Materials in Battery Prototypes: Impact of Pentasodium Aluminate Coating and Comprehensive Understanding of Its Evolution upon Cycling through Solid-State Nuclear Magnetic Resonance Analysis. <i>Advanced Energy and Sustainability Research</i> , 2021, 2, 2000089.	5.8	8
39	Alumina thin coat on pre-charged soft carbon anode reduces electrolyte breakdown and maintains sodiation sites active in Na-ion battery – Insights from NMR measurements. <i>Journal of Solid State Chemistry</i> , 2021, 298, 122121.	2.9	8
40	Molecular Layer Deposition of Alucone Thin Film on LiCoO ₂ to Enable High Voltage Operation. <i>Batteries and Supercaps</i> , 2021, 4, 1739-1748.	4.7	8
41	Mesomorphic behavior induced by stacking interactions between poly(2-vinyl pyridine) and palladium pincer surfactants in the solid state. <i>Soft Matter</i> , 2012, 8, 7393.	2.7	6
42	Covalent binding of a nickel macrocyclic complex to a silica support: towards an electron exchange column. <i>Dalton Transactions</i> , 2014, 43, 103-110.	3.3	6
43	Polyoxometalates entrapped in sol-gel matrices for reducing electron exchange column applications. <i>Journal of Coordination Chemistry</i> , 2016, 69, 3449-3457.	2.2	6
44	Peptides from diatoms and grasses harness phosphate ion binding to silica to help regulate biomaterial structure. <i>Acta Biomaterialia</i> , 2020, 112, 286-297.	8.3	6
45	Solid-State NMR Studies of Biomineralization Peptides and Proteins. <i>ACS Symposium Series</i> , 2012, , 77-96.	0.5	4
46	Dynamic Behavior of Supramolecular Comb Polymers Consisting of Poly(2-Vinyl Pyridine) and Palladium-Pincer Surfactants in the Solid State. <i>Chemistry - A European Journal</i> , 2014, 20, 6951-6959.	3.3	4
47	A J-modulated protonless NMR experiment characterizes the conformational ensemble of the intrinsically disordered protein WIP. <i>Journal of Biomolecular NMR</i> , 2016, 66, 243-257.	2.8	4
48	Structure and Dynamics Perturbations in Ubiquitin Adsorbed or Entrapped in Silica Materials Are Related to Disparate Surface Chemistries Resolved by Solid-State NMR Spectroscopy. <i>Biomacromolecules</i> , 2021, 22, 3718-3730.	5.4	4
49	Lysozyme is Sterically Trapped Within the Silica Cage in Bioinspired Silica-Lysozyme Composites: A Multi-Technique Understanding of Elusive Protein-Material Interactions. <i>Langmuir</i> , 2022, 38, 8030-8037.	3.5	4
50	Preparation of Ge@Organosilicon Core-Shell Structures and Characterization by Solid State NMR and Other Techniques. <i>Journal of Physical Chemistry C</i> , 2013, 117, 11086-11094.	3.1	3
51	Reply to: Characterizing coral skeleton mineralogy with Raman spectroscopy. <i>Nature Communications</i> , 2018, 9, 5324.	12.8	3
52	Cu ²⁺ -Induced self-assembly and amyloid formation of a cyclic α -peptide: structure and function. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 6699-6715.	2.8	3
53	NMR studies of DNA microcapsules prepared using sonochemical methods. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 2235-2240.	2.8	2
54	Dynamics in hydrophilic and hydrophobic molecular chains tethered to MCM41-type mesoporous silica upon wetting and dehydration processes. <i>Solid State Nuclear Magnetic Resonance</i> , 2019, 98, 24-35.	2.3	1

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55	Sourcing Herod the Great's calcite-alabaster bathtubs by a multi-analytic approach. Scientific Reports, 2022, 12, 7524.	3.3	0