Gary M Koenig

List of Publications by Year
in descending order

63 papers	1,722 citations	279701 23 h-index	276775 41 g-index
63 all docs	63 docs citations	63 times ranked	1948 citing authors

#	Article	IF	Citations
1	Investigating dopants to improve sintered LiMn2O4 spinel electrode electrochemical cycling limitations. Electrochimica Acta, 2022, 401, 139484.	2.6	16
2	Chemical redox of lithium-ion solid electroactive material in a packed bed flow reactor. Chemical Engineering Science, 2022, 251, 117443.	1.9	7
3	Microstructure and mechanical properties of electrochemically cycled iceâ€templated <scp> Li ₄ Ti ₅ O ₁₂ </scp> sintered anodes. International Journal of Energy Research, 2022, 46, 11501-11509.	2.2	1
4	Multicomponent two-layered cathode for thick sintered lithium-ion batteries. Materials Advances, 2022, 3, 4200-4212.	2.6	10
5	Simulated discharge overpotential distributions for sintered electrode batteries in rechargeable coin cell form factors. Journal of Energy Storage, 2022, 54, 105218.	3.9	14
6	Improving high rate cycling limitations of thick sintered battery electrodes by mitigating molecular transport limitations through modifying electrode microstructure and electrolyte conductivity. Molecular Systems Design and Engineering, 2021, 6, 708-712.	1.7	16
7	Comparative Analysis of Chemical Redox between Redox Shuttles and a Lithium-Ion Cathode Material via Electrochemical Analysis of Redox Shuttle Conversion. Journal of the Electrochemical Society, 2021, 168, 050546.	1.3	12
8	Pore Microstructure Impacts on Lithium Ion Transport and Rate Capability of Thick Sintered Electrodes. Journal of the Electrochemical Society, 2021, 168, 060550.	1.3	24
9	Microstructure in the transition region and steady-state region of ice-templated sintered lithium titanate Li4Ti5O12 materials fabricated with and without sucrose. Journal of Materials Research, 2021, 36, 3519-3538.	1.2	4
10	Liquid metal battery storage in an offshore wind turbine: Concept and economic analysis. Renewable and Sustainable Energy Reviews, 2021, 149, 111387.	8.2	21
11	Anisotropic particle synthesis and characterization for lithium-ion battery electrode materials via precursor precipitate growth inhibitor. Powder Technology, 2021, 394, 214-224.	2.1	9
12	Thermodynamic Interactions as a Descriptor of Cross-Over in Nonaqueous Redox Flow Battery Membranes. ACS Applied Materials & Interfaces, 2021, 13, 49331-49339.	4.0	6
13	A review on synthesis and engineering of crystal precursors producedviacoprecipitation for multicomponent lithium-ion battery cathode materials. CrystEngComm, 2020, 22, 1514-1530.	1.3	92
14	Probing transport limitations in thick sintered battery electrodes with neutron imaging. Molecular Systems Design and Engineering, 2020, 5, 245-256.	1.7	32
15	Strength enhancement in ice-templated lithium titanate Li4Ti5O12 materials using sucrose. Materialia, 2020, 14, 100901.	1.3	11
16	Analysis of Chemical and Electrochemical Lithiation/Delithiation of a Lithium-Ion Cathode Material. Journal of the Electrochemical Society, 2020, 167, 020537.	1.3	11
17	Conductivity, permeability, and stability properties of chemically tailored poly(phenylene oxide) membranes for Li+ conductive non-aqueous redox flow battery separators. Journal of Power Sources, 2020, 460, 228107.	4.0	18
18	Perspectiveâ€"Expected Variation in Reported Coin Cell Capacities Due to Current Collector Mass Distribution. Journal of the Electrochemical Society, 2020, 167, 120529.	1.3	5

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19	Thick Sintered Electrode Lithium-Ion Battery Discharge Simulations: Incorporating Lithiation-Dependent Electronic Conductivity and Lithiation Gradient Due to Charge Cycle. Journal of the Electrochemical Society, 2020, 167, 140542.	1.3	19
20	Apparent activation energy of multicomponent transition metal oxalates to probe synthesis of battery precursor materials. Powder Technology, 2019, 354, 158-164.	2.1	9
21	Probing lithiation and delithiation of thick sintered lithium-ion battery electrodes with neutron imaging. Journal of Power Sources, 2019, 419, 127-136.	4.0	46
22	LiFePO₄â€Accelerated Change in Surface and Electrochemical Properties in Aqueous Systems Induced by Mechanical Agitation. Energy Technology, 2019, 7, 1801116.	1.8	6
23	Interfacial reaction during coâ€sintering of lithium manganese nickel oxide and lithium aluminum germanium phosphate. International Journal of Applied Ceramic Technology, 2019, 16, 1659-1667.	1.1	4
24	Electrochemical performance and modeling of lithium-sulfur batteries with varying carbon to sulfur ratios. International Journal of Energy Research, 2019, 43, 874-883.	2.2	22
25	Role of Coprecipitation and Calcination of Precursors on Phase Homogeneity and Electrochemical Properties of Battery Active Materials. ECS Meeting Abstracts, 2019, , .	0.0	0
26	Characterization of Flowing Aqueous Solid Dispersions of Electroactive Lithium-Ion Battery Materials. ECS Meeting Abstracts, 2019, , .	0.0	0
27	Experiment and Modeling of Electrochemical Performance of Lithium-Sulfur Batteries with Varying Carbon to Sulfur Ratios. ECS Meeting Abstracts, 2019, , .	0.0	0
28	Characterizing Lithiation/Delithiation of Thick Electrodes without Binders and Conductive Additives Using Neutron Imaging. ECS Meeting Abstracts, 2019, , .	0.0	0
29	Fabrication and Characterization of Thick Sintered Lithium-Ion Battery Full Cells. ECS Meeting Abstracts, 2019, , .	0.0	0
30	Graduate Education in Electrochemistry and Corrosion Science at the University of Virginia. ECS Meeting Abstracts, 2019, , .	0.0	0
31	Characterization of Chemical and Electrochemical Lithiation/ Delithiation of LiFePO4. ECS Meeting Abstracts, 2019, , .	0.0	0
32	In-Situ Analysis of Nucleation and Growth of Transition Metal Oxalate Particles As Precursors for Battery Active Materials Via Time Evolution of Solution Composition and Particle Size Distribution. ECS Meeting Abstracts, 2019, , .	0.0	0
33	High temperature electrodeâ€electrolyte interface formation between LiMn 1.5 Ni 0.5 O 4 and Li 1.4 Al 0.4 Ge 1.6 (PO 4) 3. Journal of the American Ceramic Society, 2018, 101, 1087-1094.	1.9	35
34	Role of coprecipitation and calcination of precursors on phase homogeneity and electrochemical properties of battery active materials. Powder Technology, 2018, 335, 137-146.	2.1	19
35	Sintered electrode full cells for high energy density lithium-ion batteries. Journal of Applied Electrochemistry, 2018, 48, 1297-1304.	1.5	27
36	In-situ analysis of nucleation and growth of transition metal oxalate battery precursor particles via time evolution of solution composition and particle size distribution. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 558, 8-15.	2.3	14

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37	Electrochemical characterization of lithium cobalt oxide within aqueous flow suspensions as an indicator of rate capability in lithium-ion battery electrodes. Electrochimica Acta, 2018, 281, 822-830.	2.6	8
38	Carbon-free Solid Dispersion LiCoO2 Redox Couple Characterization and Electrochemical Evaluation for All Solid Dispersion Redox Flow Batteries. Electrochimica Acta, 2017, 228, 91-99.	2.6	20
39	Review Article: Flow battery systems with solid electroactive materials. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2017, 35, .	0.6	45
40	Compositional control of precipitate precursors for lithium-ion battery active materials: role of solution equilibrium and precipitation rate. Journal of Materials Chemistry A, 2017, 5, 13785-13798.	5.2	32
41	Electrochemical Evaluation of Suspensions of Lithium-Ion Battery Active Materials as an Indicator of Rate Capability. Journal of the Electrochemical Society, 2017, 164, A151-A155.	1.3	9
42	Electrochemical Characterization of Lithium-Ion Battery Cathode Materials with Aqueous Flowing Dispersions. Electrochimica Acta, 2017, 253, 163-170.	2.6	6
43	Investigation of Polyanion Materials with Multiple Intercalation Cations: Na Ions in Na-Ion Full Cell. ECS Transactions, 2017, 80, 259-266.	0.3	2
44	Iron Phosphate Polyanion Compounds as Anodes for Aqueous Lithium-Ion Batteries. ECS Transactions, 2017, 80, 171-182.	0.3	0
45	A carbon-free lithium-ion solid dispersion redox couple with low viscosity for redox flow batteries. Journal of Power Sources, 2016, 323, 97-106.	4.0	43
46	Highâ€Performance LiCoO₂ Subâ€Micrometer Materials from Scalable Microparticle Template Processing. ChemistrySelect, 2016, 1, 3992-3999.	0.7	32
47	Tuning solution chemistry for morphology control of lithium-ion battery precursor particles. Powder Technology, 2015, 284, 225-230.	2.1	26
48	Composite of LiFePO₄ with Titanium Phosphate Phases as Lithium-Ion Battery Electrode Material. Journal of Physical Chemistry C, 2013, 117, 21132-21138.	1.5	11
49	Performance Degradation and Gassing of Li₄Ti₅O₁₂/LiMn₂O₄Lithium-Ion Cells. Journal of the Electrochemical Society, 2012, 159, A1165-A1170.	1.3	171
50	Growth mechanism of Ni0.3Mn0.7CO3 precursor for high capacity Li-ion battery cathodes. Journal of Materials Chemistry, 2011, 21, 9290.	6.7	119
51	Composition-Tailored Synthesis of Gradient Transition Metal Precursor Particles for Lithium-Ion Battery Cathode Materials. Chemistry of Materials, 2011, 23, 1954-1963.	3.2	106
52	Electrochemistry and safety of Li4Ti5O12 and graphite anodes paired with LiMn2O4 for hybrid electric vehicle Li-ion battery applications. Journal of Power Sources, 2011, 196, 10344-10350.	4.0	136
53	Identification of LiNi0.5Mn1.5O4 spinel in layered manganese enriched electrode materials. Electrochemistry Communications, 2011, 13, 232-236.	2.3	56
54	Hollow lithiated metal oxide particles as lithium-ion battery cathode materials. Electrochimica Acta, 2011, 56, 1426-1431.	2.6	24

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55	Chemoresponsive assemblies of microparticles at liquid crystalline interfaces. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 3998-4003.	3.3	87
56	Flow induced deformation of defects around nanoparticles and nanodroplets suspended in liquid crystals. Soft Matter, 2010, 6, 896.	1.2	35
57	Single Nanoparticle Tracking Reveals Influence of Chemical Functionality of Nanoparticles on Local Ordering of Liquid Crystals and Nanoparticle Diffusion Coefficients. Nano Letters, 2009, 9, 2794-2801.	4.5	64
58	Characterization of the Reversible Interaction of Pairs of Nanoparticles Dispersed in Nematic Liquid Crystals. Langmuir, 2009, 25, 13318-13321.	1.6	51
59	Using Localized Surface Plasmon Resonances to Probe the Nanoscopic Origins of Adsorbate-Driven Ordering Transitions of Liquid Crystals in Contact with Chemically Functionalized Gold Nanodots. Nano Letters, 2008, 8, 2362-2368.	4.5	33
60	Ordering of Solid Microparticles at Liquid Crystalâ^'Water Interfaces. Journal of Physical Chemistry B, 2008, 112, 16552-16558.	1.2	18
61	Coupling of the Plasmon Resonances of Chemically Functionalized Gold Nanoparticles to Local Order in Thermotropic Liquid Crystals. Chemistry of Materials, 2007, 19, 1053-1061.	3.2	44
62	Nanoparticles in nematic liquid crystals: Interactions with nanochannels. Journal of Chemical Physics, 2007, 127, 124702.	1.2	34
63	Solute concentration effects on microstructure and the compressive strength of iceâ€templated sintered lithium titanate. Journal of the American Ceramic Society, 0, , .	1.9	0