

# Yikai Wang

## List of Publications by Year in descending order

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35  
papers

926  
citations

430442

18  
h-index

454577

30  
g-index

35  
all docs

35  
docs citations

35  
times ranked

1277  
citing authors

#	ARTICLE	IF	CITATIONS
1	Improving Ionic Conductivity with Bimodal-Sized $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ Fillers for Composite Polymer Electrolytes. ACS Applied Materials & Interfaces, 2019, 11, 12467-12475.	4.0	100
2	A nanoindentation study of the viscoplastic behavior of pure lithium. Scripta Materialia, 2017, 130, 191-195.	2.6	60
3	Unveiling the Critical Role of Polymeric Binders for Silicon Negative Electrodes in Lithium-Ion Full Cells. ACS Applied Materials & Interfaces, 2017, 9, 3562-3569.	4.0	55
4	Role of polymeric binders on mechanical behavior and cracking resistance of silicon composite electrodes during electrochemical cycling. Journal of Power Sources, 2018, 387, 9-15.	4.0	55
5	In situ measurement of mechanical property and stress evolution in a composite silicon electrode. Journal of Power Sources, 2017, 366, 80-85.	4.0	51
6	Mechanical Property Evolution of Silicon Composite Electrodes Studied by Environmental Nanoindentation. Advanced Energy Materials, 2018, 8, 1702578.	10.2	51
7	Influence of polymeric binders on mechanical properties and microstructure evolution of silicon composite electrodes during electrochemical cycling. Journal of Power Sources, 2019, 425, 170-178.	4.0	46
8	Linking lignin source with structural and electrochemical properties of lignin-derived carbon materials. RSC Advances, 2018, 8, 38721-38732.	1.7	42
9	Effects of adhesion and cohesion on the electrochemical performance and durability of silicon composite electrodes. Journal of Power Sources, 2018, 397, 223-230.	4.0	36
10	The Influence of Polyvinylidene Fluoride (PVDF) Binder Properties on $\text{LiNi}_{0.33}\text{Co}_{0.33}\text{Mn}_{0.33}\text{O}_2$ (NMC) Electrodes Made by a Dry-Powder-Coating Process. Journal of the Electrochemical Society, 2019, 166, A2151-A2157.	1.3	36
11	Effects of polymeric binders on the cracking behavior of silicon composite electrodes during electrochemical cycling. Journal of Power Sources, 2019, 438, 226938.	4.0	34
12	Interfacial microstructure evolution and shear behavior of $\text{Au}^{20}\text{Sn}/(\text{Sn})\text{Cu}$ solder joints bonded at 250 °C. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 651, 626-635.	2.6	30
13	Freeze-dried low-tortuous graphite electrodes with enhanced capacity utilization and rate capability. Carbon, 2020, 159, 133-139.	5.4	28
14	Research progress of $\text{Ag}_3\text{PO}_4$ -based photocatalyst: Fundamentals and performance enhancement. Transactions of Nonferrous Metals Society of China, 2015, 25, 112-121.	1.7	24
15	Indentation-based rate-dependent plastic deformation of polycrystalline pure magnesium. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 716, 63-71.	2.6	24
16	Indentation size effect and micromechanics characterization of intermetallic compounds in the $\text{Au}^{20}\text{Sn}$ system. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 610, 161-170.	2.6	23
17	Mechanical behavior of electroplated mossy lithium at room temperature studied by flat punch indentation. Applied Physics Letters, 2019, 115, .	1.5	22
18	Spatial Molecular Layer Deposition of Ultrathin Polyamide To Stabilize Silicon Anodes in Lithium-Ion Batteries. ACS Applied Energy Materials, 2019, 2, 4135-4143.	2.5	20

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19	Real-time measurements of electro-mechanical coupled deformation and mechanical properties of commercial graphite electrodes. Carbon, 2020, 169, 258-263.	5.4	20
20	In-situ measurements of mechanical property and stress evolution of commercial graphite electrode. Materials and Design, 2020, 194, 108887.	3.3	19
21	Systematic Investigation of the Alucone-Coating Enhancement on Silicon Anodes. ACS Applied Materials & Interfaces, 2017, 9, 40143-40150.	4.0	18
22	Nanoindentation study on micromechanical behaviors of Au-Ni-Sn intermetallic layers in Au-20Sn/Ni solder joints. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 653, 13-22.	2.6	16
23	Communication Fracture Behavior of Single $\text{LiNi}_{0.33}\text{Mn}_{0.33}\text{Co}_{0.33}\text{O}_2$ Particles Studied by Flat Punch Indentation. Journal of the Electrochemical Society, 2019, 166, A2749-A2751.	1.3	16
24	Indentation depth dependent micromechanical properties and rate dependent pop-in events of (Au,Cu)5Sn. Materials Letters, 2014, 131, 57-60.	1.3	14
25	Electrochemically induced fractures in crystalline silicon anodes. Journal of Power Sources, 2019, 425, 44-49.	4.0	14
26	Indentation size effect of stress exponent and hardness in homogeneous duplex eutectic 80Au/20Sn. Materials Letters, 2014, 120, 151-154.	1.3	11
27	Structure and mechanical properties of electroplated mossy lithium: Effects of current density and electrolyte. Energy Storage Materials, 2020, 26, 276-282.	9.5	11
28	Lithium Substituted Poly(acrylic acid) as a Mechanically Robust Binder for Low-Cost Silicon Microparticle Electrodes. ACS Applied Energy Materials, 2020, 3, 10940-10949.	2.5	10
29	Interfacial microstructure evolution and shear behavior of Au-12Ge/Ni solder joints during isothermal aging. Journal of Materials Science: Materials in Electronics, 2017, 28, 3685-3694.	1.1	9
30	Effects of cooling rate and magnetic field on solidification characteristics of Au80Sn20 eutectic solder. Journal of Materials Science: Materials in Electronics, 2018, 29, 436-445.	1.1	9
31	Depth sensing indentation of magnesium/boron nitride nanocomposites. Journal of Composite Materials, 2019, 53, 1751-1763.	1.2	8
32	Diffusion-Induced Stress in Commercial Graphite Electrodes during Multiple Cycles Measured by an In Situ Method. Micromachines, 2022, 13, 142.	1.4	7
33	Interfacial reaction mechanism and kinetics between Au-20Sn and Sn. Journal of Materials Science: Materials in Electronics, 2016, 27, 5982-5991.	1.1	5
34	Formation and evolution of intermetallic compounds between the In-3Ag solder and Cu substrate during soldering. Journal of Materials Science: Materials in Electronics, 2015, 26, 7967-7976.	1.1	1
35	Communication Controllable Deformation of Composite Graphite Electrodes during Electrochemical Process. Journal of the Electrochemical Society, 2020, 167, 140511.	1.3	1