Yang Ren

List of Publications by Citations

830 papers	28,891 citations	85 h-index	133 g-index
880 ext. papers	35,046 ext. citations	8.6 avg, IF	7.32 L-index

#	Paper	IF	Citations
830	Nanostructured high-energy cathode materials for advanced lithium batteries. *Nature Materials*, **2012**, 11, 942-7	27	781
829	Origin of morphotropic phase boundaries in ferroelectrics. *Nature*, **2008**, 451, 545-8	50.4	640
828	Strong lithium polysulfide chemisorption on electroactive sites of nitrogen-doped carbon composites for high-performance lithium-sulfur battery cathodes. *Angewandte Chemie - International Edition*, **2015**, 54, 4325-9	16.4	630
827	Preparation and application of magnetic Fe3O4 nanoparticles for wastewater purification. *Separation and Purification Technology*, **2009**, 68, 312-319	8.3	407
826	Aqueous Li-ion battery enabled by halogen conversion-intercalation chemistry in graphite. *Nature*, **2019**, 569, 245-250	50.4	378
825	Magnetic Field-Induced Phase Transformation in NiMnCoIn Magnetic Shape-Memory Alloys—A New Actuation Mechanism with Large Work Output. *Advanced Functional Materials*, **2009**, 19, 983-998	15.6	320
824	Efficient blue light-emitting diodes based on quantum-confined bromide perovskite nanostructures. *Nature Photonics*, **2019**, 13, 760-764	33.9	313
823	Approaching the capacity limit of lithium cobalt oxide in lithium ion batteries via lanthanum and aluminium doping. *Nature Energy*, **2018**, 3, 936-943	62.3	312
822	Coexistence of the spin-density wave and superconductivity in Ba 1− K x Fe 2 As 2. *Europhysics Letters*, **2009**, 85, 17006	1.6	296
821	Burning lithium in CS2 for high-performing compact Li2S–graphene nanocapsules for Li–S batteries. *Nature Energy*, **2017**, 2,	62.3	271
820	(De)lithiation mechanism of Li/SeS(x) (x = 0-7) batteries determined by in situ synchrotron X-ray diffraction and X-ray absorption spectroscopy. *Journal of the American Chemical Society*, **2013**, 135, 8047-56	16.4	268
819	Ascorbic-acid-assisted recovery of cobalt and lithium from spent Li-ion batteries. *Journal of Power Sources*, **2012**, 218, 21-27	8.9	259
818	Temperature-induced magnetization reversal in a YVO3 single crystal. *Nature*, **1998**, 396, 441-444	50.4	252
817	Morphological and crystalline evolution of nanostructured MnO2 and its application in lithium--air batteries. *ACS Nano*, **2012**, 6, 8067-77	16.7	239
816	High-content ductile coherent nanoprecipitates achieve ultrastrong high-entropy alloys. *Nature Communications*, **2018**, 9, 4063	17.4	218
815	Evidence for orbital ordering in LaCoO3. *Physical Review B*, **2003**, 67,	3.3	208
814	Nanostructured Black Phosphorus/Ketjenblack-Multiwalled Carbon Nanotubes Composite as High Performance Anode Material for Sodium-Ion Batteries. *Nano Letters*, **2016**, 16, 3955-65	11.5	208

813	Examining Hysteresis in Composite xLi2MnO3□(1□)LiMO2 Cathode Structures. *Journal of Physical Chemistry C*, **2013**, 117, 6525-6536	3.8	203
812	The effect of oxygen crossover on the anode of a Li-O(2) battery using an ether-based solvent: insights from experimental and computational studies. *ChemSusChem*, **2013**, 6, 51-5	8.3	202
811	Optimizing the coupled effects of Hall-Petch and precipitation strengthening in a Al 0.3 CoCrFeNi high entropy alloy. *Materials and Design*, **2017**, 121, 254-260	8.1	195
810	High-performance symmetric sodium-ion batteries using a new, bipolar O3-type material, Na0.8Ni0.4Ti0.6O2. *Energy and Environmental Science*, **2015**, 8, 1237-1244	35.4	193
809	Building ultraconformal protective layers on both secondary and primary particles of layered lithium transition metal oxide cathodes. *Nature Energy*, **2019**, 4, 484-494	62.3	190
808	A transforming metal nanocomposite with large elastic strain, low modulus, and high strength. *Science*, **2013**, 339, 1191-4	33.3	190
807	Synthesis of porous carbon supported palladium nanoparticle catalysts by atomic layer deposition: application for rechargeable lithium-O2 battery. *Nano Letters*, **2013**, 13, 4182-9	11.5	170
806	Facet-dependent active sites of a single Cu2O particle photocatalyst for CO2 reduction to methanol. *Nature Energy*, **2019**, 4, 957-968	62.3	170
805	Spontaneous spin-lattice coupling in the geometrically frustrated triangular lattice antiferromagnet CuFeO2. *Physical Review B*, **2006**, 73,	3.3	168
804	Strong Lithium Polysulfide Chemisorption on Electroactive Sites of Nitrogen-Doped Carbon Composites For High-Performance Lithium□Sulfur Battery Cathodes. *Angewandte Chemie*, **2015**, 127, 4399-4403	3.6	165
803	In situ fabrication of porous-carbon-supported □MnO2 nanorods at room temperature: application for rechargeable Li□O2 batteries. *Energy and Environmental Science*, **2013**, 6, 519	35.4	164
802	From Three-Dimensional Flower-Like □Ni(OH)2 Nanostructures to Hierarchical Porous NiO Nanoflowers: Microwave-Assisted Fabrication and Supercapacitor Properties. *Journal of the American Ceramic Society*, **2010**, 93, 3560-3564	3.8	164
801	Graphene-modified nanostructured vanadium pentoxide hybrids with extraordinary electrochemical performance for Li-ion batteries. *Nature Communications*, **2015**, 6, 6127	17.4	158
800	Tuning the Kinetics of Zinc-Ion Insertion/Extraction in V O by In Situ Polyaniline Intercalation Enables Improved Aqueous Zinc-Ion Storage Performance. *Advanced Materials*, **2020**, 32, e2001113	24	158
799	An in situ high-energy X-ray diffraction study of micromechanical behavior of multiple phases in advanced high-strength steels. *Acta Materialia*, **2009**, 57, 3965-3977	8.4	157
798	A high-energy and long-cycling lithium-sulfur pouch cell via a macroporous catalytic cathode with double-end binding sites. *Nature Nanotechnology*, **2021**, 16, 166-173	28.7	153
797	Polymorphism in a high-entropy alloy. *Nature Communications*, **2017**, 8, 15687	17.4	151
796	Layered P2/O3 Intergrowth Cathode: Toward High Power Na-Ion Batteries. *Advanced Energy Materials*, **2014**, 4, 1400458	21.8	146

795	The effects of texture and extension twinning on the low-cycle fatigue behavior of a rolled magnesium alloy, AZ31B. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2010**, 527, 7057-7067	5.3	146
794	Magnetic properties of YVO3 single crystals. *Physical Review B*, **2000**, 62, 6577-6586	3.3	136
793	Li-Se battery: absence of lithium polyselenides in carbonate based electrolyte. *Chemical Communications*, **2014**, 50, 5576-9	5.8	134
792	Understanding Pt Nanoparticle Anchoring on Graphene Supports through Surface Functionalization. *ACS Catalysis*, **2016**, 6, 2642-2653	13.1	133
791	Structural rejuvenation in a bulk metallic glass induced by severe plastic deformation. *Acta Materialia*, **2010**, 58, 429-438	8.4	132
790	Tuning of Thermal Stability in Layered Li(NiMnCo)O. *Journal of the American Chemical Society*, **2016**, 138, 13326-13334	16.4	128
789	Multi-scale study of thermal stability of lithiated graphite. *Energy and Environmental Science*, **2011**, 4, 4023	35.4	126
788	Tailoring size and structural distortion of Fe3O4 nanoparticles for the purification of contaminated water. *Bioresource Technology*, **2009**, 100, 4139-46	11	124
787	Colossal Elastocaloric Effect in Ferroelastic Ni-Mn-Ti Alloys. *Physical Review Letters*, **2019**, 122, 255703	7.4	120
786	Zero thermal expansion and ferromagnetism in cubic Sc(1-x)M(x)F3 (M = Ga, Fe) over a wide temperature range. *Journal of the American Chemical Society*, **2014**, 136, 13566-9	16.4	119
785	Understanding Thermodynamic and Kinetic Contributions in Expanding the Stability Window of Aqueous Electrolytes. *CheM*, **2018**, 4, 2872-2882	16.2	119
784	Self-Supported Copper Oxide Electrocatalyst for Water Oxidation at Low Overpotential and Confirmation of Its Robustness by Cu K-Edge X-ray Absorption Spectroscopy. *Journal of Physical Chemistry C*, **2016**, 120, 831-840	3.8	118
783	An ultrastable anode for long-life room-temperature sodium-ion batteries. *Angewandte Chemie - International Edition*, **2014**, 53, 8963-9	16.4	116
782	New Insights into the Performance Degradation of Fe-Based Layered Oxides in Sodium-Ion Batteries: Instability of Fe3+/Fe4+ Redox in □NaFeO2. *Chemistry of Materials*, **2015**, 27, 6755-6764	9.6	114
781	Effect of laser power on defect, texture, and microstructure of a laser powder bed fusion processed 316L stainless steel. *Materials and Design*, **2019**, 164, 107534	8.1	113
780	Insights into the structural effects of layered cathode materials for high voltage sodium-ion batteries. *Energy and Environmental Science*, **2017**, 10, 1677-1693	35.4	111
779	Multi-Component Fe□Ni Hydroxide Nanocatalyst for Oxygen Evolution and Methanol Oxidation Reactions under Alkaline Conditions. *ACS Catalysis*, **2017**, 7, 365-379	13.1	109
778	Temperature-Sensitive Structure Evolution of Lithium-Manganese-Rich Layered Oxides for Lithium-Ion Batteries. *Journal of the American Chemical Society*, **2018**, 140, 15279-15289	16.4	108

777	Insight into sulfur reactions in Li-S batteries. *ACS Applied Materials & Interfaces*, **2014**, 6, 21938-45	9.5	107
776	Reversible Redox Chemistry of Azo Compounds for Sodium-Ion Batteries. *Angewandte Chemie - International Edition*, **2018**, 57, 2879-2883	16.4	106
775	Ambient-stable tetragonal phase in silver nanostructures. *Nature Communications*, **2012**, 3, 971	17.4	106
774	Transition between orbital orderings in YVO3. *Physical Review Letters*, **2001**, 87, 245501	7.4	106
773	New class of nonaqueous electrolytes for long-life and safe lithium-ion batteries. *Nature Communications*, **2013**, 4, 1513	17.4	104
772	Synthesis, Characterization, and Structural Modeling of High-Capacity, Dual Functioning MnO2 Electrode/Electrocatalysts for Li-O2 Cells. *Advanced Energy Materials*, **2013**, 3, 75-84	21.8	103
771	Plasmonic/magnetic bifunctional nanoparticles. *Angewandte Chemie - International Edition*, **2011**, 50, 3158-63	16.4	103
770	Giant and reversible room-temperature magnetocaloric effect in Ti-doped Ni-Co-Mn-Sn magnetic shape memory alloys. *Acta Materialia*, **2017**, 134, 236-248	8.4	100
769	Structure of gold nanoparticles suspended in water studied by x-ray diffraction and computer simulations. *Physical Review B*, **2005**, 72,	3.3	99
768	Unexpected high-temperature stability of □Zn4Sb3 opens the door to enhanced thermoelectric performance. *Journal of the American Chemical Society*, **2014**, 136, 1497-504	16.4	97
767	In Operando XRD and TXM Study on the Metastable Structure Change of NaNi1/3Fe1/3Mn1/3O2 under Electrochemical Sodium-Ion Intercalation. *Advanced Energy Materials*, **2016**, 6, 1601306	21.8	95
766	Intrinsic structural distortion and superexchange interaction in the orthorhombic rare-earth perovskites RCrO3. *Physical Review B*, **2010**, 81,	3.3	94
765	Architecting a Stable High-Energy Aqueous Al-Ion Battery. *Journal of the American Chemical Society*, **2020**, 142, 15295-15304	16.4	94
764	Parasitic Reactions in Nanosized Silicon Anodes for Lithium-Ion Batteries. *Nano Letters*, **2017**, 17, 1512-1519	11.3	93
763	Composition Tunability and (111)-Dominant Facets of Ultrathin Platinum-Gold Alloy Nanowires toward Enhanced Electrocatalysis. *Journal of the American Chemical Society*, **2016**, 138, 12166-75	16.4	93
762	A Fully Sodiated NaVOPO4 with Layered Structure for High-Voltage and Long-Lifespan Sodium-Ion Batteries. *CheM*, **2018**, 4, 1167-1180	16.2	92
761	Correlation between manganese dissolution and dynamic phase stability in spinel-based lithium-ion battery. *Nature Communications*, **2019**, 10, 4721	17.4	91
760	Single-walled carbon nanotube-reinforced copper composite coatings prepared by electrodeposition under ultrasonic field. *Materials Letters*, **2008**, 62, 47-50	3.3	91

759	Facile route fabrication of nickel based mesoporous carbons with high catalytic performance towards 4-nitrophenol reduction. *Green Chemistry*, **2014**, 16, 2273	10	90
758	Enabling the high capacity of lithium-rich anti-fluorite lithium iron oxide by simultaneous anionic and cationic redox. *Nature Energy*, **2017**, 2, 963-971	62.3	90
757	Atomic-scale mechanisms of the glass-forming ability in metallic glasses. *Physical Review Letters*, **2012**, 109, 105502	7.4	90
756	Neutron diffraction, x-ray diffraction, and specific heat studies of orbital ordering in YVO3. *Physical Review B*, **2002**, 65,	3.3	90
755	Atomic-Scale Structure of Nanocrystalline BaxSr1-xTiO3 (x = 1, 0.5, 0) by X-ray Diffraction and the Atomic Pair Distribution Function Technique. *Chemistry of Materials*, **2006**, 18, 814-821	9.6	89
754	Constraining CO coverage on copper promotes high-efficiency ethylene electroproduction. *Nature Catalysis*, **2019**, 2, 1124-1131	36.5	89
753	Proton enhanced dynamic battery chemistry for aprotic lithium-oxygen batteries. *Nature Communications*, **2017**, 8, 14308	17.4	88
752	New Insights into the Negative Thermal Expansion: Direct Experimental Evidence for the "Guitar-String" Effect in Cubic ScF3. *Journal of the American Chemical Society*, **2016**, 138, 8320-3	16.4	88
751	Lithium titanate hydrates with superfast and stable cycling in lithium ion batteries. *Nature Communications*, **2017**, 8, 627	17.4	88
750	Size-dependent amorphization of nanoscale Y2O3 at high pressure. *Physical Review Letters*, **2010**, 105, 095701	7.4	87
749	Unconventional magnetic transitions in the mineral clinoatacamite Cu2Cl(OH)3. *Physical Review B*, **2005**, 71,	3.3	87
748	Synthetic Control of Kinetic Reaction Pathway and Cationic Ordering in High-Ni Layered Oxide Cathodes. *Advanced Materials*, **2017**, 29, 1606715	24	86
747	Pd□h intermetallic alloy nanoparticles: highly selective ethane dehydrogenation catalysts. *Catalysis Science and Technology*, **2016**, 6, 6965-6976	5.5	85
746	Mechanisms related to different generations of □ precipitation during continuous cooling of a nickel base superalloy. *Acta Materialia*, **2013**, 61, 280-293	8.4	85
745	Unusual transformation from strong negative to positive thermal expansion in PbTiO3-BiFeO3 perovskite. *Physical Review Letters*, **2013**, 110, 115901	7.4	85
744	Phase transformations of HfNbTaTiZr high-entropy alloy at intermediate temperatures. *Scripta Materialia*, **2019**, 158, 50-56	5.6	85
743	Solid-Solution CrCoCuFeNi High-Entropy Alloy Thin Films Synthesized by Sputter Deposition. *Materials Research Letters*, **2015**, 3, 203-209	7.4	84
742	Elucidation of peptide-directed palladium surface structure for biologically tunable nanocatalysts. *ACS Nano*, **2015**, 9, 5082-92	16.7	83

741	Structure and reactivity of PtIn intermetallic alloy nanoparticles: Highly selective catalysts for ethane dehydrogenation. *Catalysis Today*, **2018**, 299, 146-153	5.3	83
740	Unique Piezoelectric Properties of the Monoclinic Phase in Pb(Zr,Ti)O_{3} Ceramics: Large Lattice Strain and Negligible Domain Switching. *Physical Review Letters*, **2016**, 116, 027601	7.4	82
739	PEDOT-PSS coated ZnO/C hierarchical porous nanorods as ultralong-life anode material for lithium ion batteries. *Nano Energy*, **2015**, 18, 253-264	17.1	80
738	Is alpha-V2O5 a cathode material for Mg insertion batteries?. *Journal of Power Sources*, **2016**, 323, 44-50	8.9	80
737	Cu assisted stabilization and nucleation of L12 precipitates in Al0.3CuFeCrNi2 fcc-based high entropy alloy. *Acta Materialia*, **2017**, 129, 170-182	8.4	79
736	Gallium Sulfide Single-Walled Carbon Nanotube Composites: High-Performance Anodes for Lithium-Ion Batteries. *Advanced Functional Materials*, **2014**, 24, 5435-5442	15.6	78
735	Changes in Catalytic and Adsorptive Properties of 2 nm PtMn Nanoparticles by Subsurface Atoms. *Journal of the American Chemical Society*, **2018**, 140, 14870-14877	16.4	78
734	Tunable thermal expansion in framework materials through redox intercalation. *Nature Communications*, **2017**, 8, 14441	17.4	76
733	Phase stability and transformation in a light-weight high-entropy alloy. *Acta Materialia*, **2018**, 146, 280-293	8.4	76
732	Magnetic interactions in the geometrically frustrated triangular lattice antiferromagnet CuFeO2. *Physical Review Letters*, **2007**, 99, 157201	7.4	76
731	Hidden amorphous phase and reentrant supercooled liquid in Pd-Ni-P metallic glasses. *Nature Communications*, **2017**, 8, 14679	17.4	75
730	Role of support-nanoalloy interactions in the atomic-scale structural and chemical ordering for tuning catalytic sites. *Journal of the American Chemical Society*, **2012**, 134, 15048-60	16.4	75
729	Towards a greater understanding of serrated flows in an Al-containing high-entropy-based alloy. *International Journal of Plasticity*, **2019**, 115, 71-92	7.6	75
728	Average and local atomic-scale structure in BaZrxTi(1-x)O3 (x = 0. 10, 0.20, 0.40) ceramics by high-energy x-ray diffraction and Raman spectroscopy. *Journal of Physics Condensed Matter*, **2014**, 26, 065901	1.8	74
727	Compatibility of lithium salts with solvent of the non-aqueous electrolyte in Li-O2 batteries. *Physical Chemistry Chemical Physics*, **2013**, 15, 5572-81	3.6	74
726	BCC-Phased PdCu Alloy as a Highly Active Electrocatalyst for Hydrogen Oxidation in Alkaline Electrolytes. *Journal of the American Chemical Society*, **2018**, 140, 16580-16588	16.4	74
725	Temperature-dependent micromechanical behavior of medium-Mn transformation-induced-plasticity steel studied by in situ synchrotron X-ray diffraction. *Acta Materialia*, **2017**, 141, 294-303	8.4	73
724	Stress and Strain Partitioning of Ferrite and Martensite during Deformation. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2009**, 40, 1383-1387	2.3	73

723	Reversible deformation-induced martensitic transformation in Al0.6CoCrFeNi high-entropy alloy investigated by in situ synchrotron-based high-energy X-ray diffraction. *Acta Materialia*, **2017**, 128, 12-21	8.4	72
722	Preferred orientation and elastic anisotropy in shales. *Geophysics*, **2007**, 72, D33-D40	3.1	71
721	Simultaneously achieved large reversible elastocaloric and magnetocaloric effects and their coupling in a magnetic shape memory alloy. *Acta Materialia*, **2018**, 151, 41-55	8.4	70
720	Unravelling the origin of irreversible capacity loss in NaNiO2 for high voltage sodium ion batteries. *Nano Energy*, **2017**, 34, 215-223	17.1	69
719	Sequence-Dependent Structure/Function Relationships of Catalytic Peptide-Enabled Gold Nanoparticles Generated under Ambient Synthetic Conditions. *Journal of the American Chemical Society*, **2016**, 138, 540-8	16.4	69
718	Insight into the Capacity Fading Mechanism of Amorphous Se2S5 Confined in Micro/Mesoporous Carbon Matrix in Ether-Based Electrolytes. *Nano Letters*, **2016**, 16, 2663-73	11.5	69
717	Identification of a Pt3Co Surface Intermetallic Alloy in Pt□o Propane Dehydrogenation Catalysts. *ACS Catalysis*, **2019**, 9, 5231-5244	13.1	68
716	Surface Modification for Suppressing Interfacial Parasitic Reactions of a Nickel-Rich Lithium-Ion Cathode. *Chemistry of Materials*, **2019**, 31, 2723-2730	9.6	68
715	Atomic Linkage Flexibility Tuned Isotropic Negative, Zero, and Positive Thermal Expansion in MZrF (M = Ca, Mn, Fe, Co, Ni, and Zn). *Journal of the American Chemical Society*, **2016**, 138, 14530-14533	16.4	67
714	Long-Range Antiferromagnetic Order in a Rocksalt High Entropy Oxide. *Chemistry of Materials*, **2019**, 31, 3705-3711	9.6	66
713	Microstructure evolution during cold rolling in a nanocrystalline Ni□e alloy determined by synchrotron X-ray diffraction. *Acta Materialia*, **2009**, 57, 4988-5000	8.4	66
712	An experimental study of the (Ti□Al□V)□H phase diagram using in situ synchrotron XRD and TGA/DSC techniques. *Acta Materialia*, **2015**, 84, 29-41	8.4	65
711	Understanding Co roles towards developing Co-free Ni-rich cathodes for rechargeable batteries. *Nature Energy*, **2021**, 6, 277-286	62.3	64
710	Structure Identification of Two-Dimensional Colloidal Semiconductor Nanocrystals with Atomic Flat Basal Planes. *Nano Letters*, **2015**, 15, 4477-82	11.5	63
709	Critical Role of Monoclinic Polarization Rotation in High-Performance Perovskite Piezoelectric Materials. *Physical Review Letters*, **2017**, 119, 017601	7.4	62
708	Early stage formation of iron oxyhydroxides during neutralization of simulated acid mine drainage solutions. *Environmental Science & Technology*, **2012**, 46, 8140-7	10.3	62
707	Structural coherence and ferroelectricity decay in submicron- and nano-sized perovskites. *Physical Review B*, **2008**, 78,	3.3	62
706	A high-voltage rechargeable magnesium-sodium hybrid battery. *Nano Energy*, **2017**, 34, 188-194	17.1	61

705	In situ high-energy X-ray diffraction to study overcharge abuse of 18650-size lithium-ion battery. *Journal of Power Sources*, **2013**, 230, 32-37	8.9	61
704	A chiral switchable photovoltaic ferroelectric 1D perovskite. *Science Advances*, **2020**, 6, eaay4213	14.3	60
703	Polyaniline-encapsulated silicon on three-dimensional carbon nanotubes foam with enhanced electrochemical performance for lithium-ion batteries. *Journal of Power Sources*, **2018**, 381, 156-163	8.9	60
702	Large reversible magnetocaloric effect in a Ni-Co-Mn-In magnetic shape memory alloy. *Applied Physics Letters*, **2016**, 108, 032405	3.4	60
701	Thermally-induced reversible structural isomerization in colloidal semiconductor CdS magic-size clusters. *Nature Communications*, **2018**, 9, 2499	17.4	60
700	Hierarchical crack buffering triples ductility in eutectic herringbone high-entropy alloys. *Science*, **2021**, 373, 912-918	33.3	60
699	Atomic-scale structure of nanocrystalline ZrO2 prepared by high-energy ball milling. *Physical Review B*, **2005**, 71,	3.3	59
698	In Situ Synchrotron X-Ray Techniques for Real-Time Probing of Colloidal Nanoparticle Synthesis. *Particle and Particle Systems Characterization*, **2013**, 30, 399-419	3.1	58
697	Titania Polymorphs by Soft Chemistry: Is There a Common Structural Pattern?. *Chemistry of Materials*, **2007**, 19, 2512-2518	9.6	57
696	Correlation between long range and local structural changes in Ni-rich layered materials during charge and discharge process. *Journal of Power Sources*, **2019**, 412, 336-343	8.9	57
695	Probing the Thermal-Driven Structural and Chemical Degradation of Ni-Rich Layered Cathodes by Co/Mn Exchange. *Journal of the American Chemical Society*, **2020**, 142, 19745-19753	16.4	56
694	Insight into Ca-Substitution Effects on O3-Type NaNi Fe Mn O Cathode Materials for Sodium-Ion Batteries Application. *Small*, **2018**, 14, e1704523	11	56
693	Size, shape, and internal atomic ordering of nanocrystals by atomic pair distribution functions: a comparative study of gamma-Fe2O3 nanosized spheres and tetrapods. *Journal of the American Chemical Society*, **2009**, 131, 14264-6	16.4	55
692	Plastic behavior of a nickel-based alloy under monotonic-tension and low-cycle-fatigue loading. *International Journal of Plasticity*, **2008**, 24, 1440-1456	7.6	55
691	Orientation-dependent grain growth in a bulk nanocrystalline alloy during the uniaxial compressive deformation. *Applied Physics Letters*, **2006**, 88, 171914	3.4	55
690	Structural, electronic, and magneto-optical properties of YVO3. *Physical Review B*, **2004**, 69,	3.3	55
689	Individual phase constitutive properties of a TRIP-assisted QP980 steel from a combined synchrotron X-ray diffraction and crystal plasticity approach. *Acta Materialia*, **2017**, 132, 230-244	8.4	54
688	Ultralow-Strain Zn-Substituted Layered Oxide Cathode with Suppressed P2–O2 Transition for Stable Sodium Ion Storage. *Advanced Functional Materials*, **2020**, 30, 1910327	15.6	54

687	Failure Investigation of LiFePO4Cells in Over-Discharge Conditions. *Journal of the Electrochemical Society*, **2013**, 160, A793-A804	3.9	54
686	Preferred orientation of anorthite deformed experimentally in Newtonian creep. *Earth and Planetary Science Letters*, **2007**, 264, 188-207	5.3	54
685	A smart strategy to fabricate Ru nanoparticle inserted porous carbon nanofibers as highly efficient levulinic acid hydrogenation catalysts. *Green Chemistry*, **2016**, 18, 3558-3566	10	53
684	Neutron scattering study of H2 adsorption in single-walled carbon nanotubes. *Applied Physics Letters*, **2001**, 79, 3684-3686	3.4	53
683	Synthesis and characterization of uniformly dispersed Fe3O4/Fe nanocomposite on porous carbon: application for rechargeable Li□O2 batteries. *RSC Advances*, **2013**, 3, 8276	3.7	52
682	Orbital-ordering-induced phase transition in LaVO3 and CeVO3. *Physical Review B*, **2003**, 67,	3.3	52
681	Peptide-Directed PdAu Nanoscale Surface Segregation: Toward Controlled Bimetallic Architecture for Catalytic Materials. *ACS Nano*, **2016**, 10, 8645-59	16.7	51
680	Rate-dependent, Li-ion insertion/deinsertion behavior of LiFePO4 cathodes in commercial 18650 LiFePO4 cells. *ACS Applied Materials & Interfaces*, **2014**, 6, 3282-9	9.5	51
679	Failure Investigation of LiFePO4Cells under Overcharge Conditions. *Journal of the Electrochemical Society*, **2012**, 159, A678-A687	3.9	51
678	Pressure-induced isostructural phase transition and correlation of FeAs coordination with the superconducting properties of 111-type Na(1-x)FeAs. *Journal of the American Chemical Society*, **2011**, 133, 7892-6	16.4	51
677	Synthesis of full concentration gradient cathode studied by high energy X-ray diffraction. *Nano Energy*, **2016**, 19, 522-531	17.1	50
676	Strain-dependent deformation behavior in nanocrystalline metals. *Physical Review Letters*, **2008**, 101, 015502	7.4	50
675	Order and dynamics of intrinsic nanoscale inhomogeneities in manganites. *Physical Review B*, **2007**, 76,	3.3	50
674	Low-field-actuated giant magnetocaloric effect and excellent mechanical properties in a NiMn-based multiferroic alloy. *Acta Materialia*, **2018**, 146, 142-151	8.4	49
673	Structure of Lithium Peroxide. *Journal of Physical Chemistry Letters*, **2011**, 2, 2483-2486	6.4	49
672	Deformation crossover: from nano- to mesoscale. *Physical Review Letters*, **2009**, 103, 035502	7.4	49
671	Large Photovoltage and Controllable Photovoltaic Effect in PbTiO3-Bi(Ni2/3+xNb1/3□)O3□ Ferroelectrics. *Advanced Electronic Materials*, **2015**, 1, 1400051	6.4	48
670	Sodium Ion Transport Mechanisms in Antiperovskite Electrolytes Na3OBr and Na4OI2: An in Situ Neutron Diffraction Study. *Inorganic Chemistry*, **2016**, 55, 5993-8	5.1	48

669	Free-Standing Sandwich-Type Graphene/Nanocellulose/Silicon Laminar Anode for Flexible Rechargeable Lithium Ion Batteries. *ACS Applied Materials & Interfaces*, **2018**, 10, 29638-29646	9.5	48
668	New intrinsic mechanism on gum-like superelasticity of multifunctional alloys. *Scientific Reports*, **2013**, 3, 2156	4.9	48
667	PbSe quantum dots: Finite, off-stoichiometric, and structurally distorted. *Physical Review B*, **2010**, 81,	3.3	48
666	Role of Reversible Phase Transformation for Strong Piezoelectric Performance at the Morphotropic Phase Boundary. *Physical Review Letters*, **2018**, 120, 055501	7.4	47
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