

Candace K Chan

List of Publications by Year in descending order

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108
papers

16,341
citations

101543
36
h-index

45317
90
g-index

115
all docs

115
docs citations

115
times ranked

18657
citing authors

#	ARTICLE	IF	CITATIONS
1	High-performance lithium battery anodes using silicon nanowires. <i>Nature Nanotechnology</i> , 2008, 3, 31-35.	31.5	5,860
2	Printable Thin Film Supercapacitors Using Single-Walled Carbon Nanotubes. <i>Nano Letters</i> , 2009, 9, 1872-1876.	9.1	1,440
3	Crystalline-Amorphous Core-Shell Silicon Nanowires for High Capacity and High Current Battery Electrodes. <i>Nano Letters</i> , 2009, 9, 491-495.	9.1	1,110
4	High Capacity Li Ion Battery Anodes Using Ge Nanowires. <i>Nano Letters</i> , 2008, 8, 307-309.	9.1	855
5	Emerging opportunities for nanotechnology to enhance water security. <i>Nature Nanotechnology</i> , 2018, 13, 634-641.	31.5	627
6	Spinel LiMn_2O_4 Nanorods as Lithium Ion Battery Cathodes. <i>Nano Letters</i> , 2008, 8, 3948-3952.	9.1	579
7	Surface chemistry and morphology of the solid electrolyte interphase on silicon nanowire lithium-ion battery anodes. <i>Journal of Power Sources</i> , 2009, 189, 1132-1140.	7.8	559
8	Impedance Analysis of Silicon Nanowire Lithium Ion Battery Anodes. <i>Journal of Physical Chemistry C</i> , 2009, 113, 11390-11398.	3.1	510
9	Solution-Grown Silicon Nanowires for Lithium-Ion Battery Anodes. <i>ACS Nano</i> , 2010, 4, 1443-1450.	14.6	492
10	Origami lithium-ion batteries. <i>Nature Communications</i> , 2014, 5, 3140.	12.8	466
11	Fast, Completely Reversible Li Insertion in Vanadium Pentoxide Nanoribbons. <i>Nano Letters</i> , 2007, 7, 490-495.	9.1	375
12	Composite Polymer Electrolytes with $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ Garnet-Type Nanowires as Ceramic Fillers: Mechanism of Conductivity Enhancement and Role of Doping and Morphology. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 21773-21780.	8.0	316
13	Structural and electrochemical study of the reaction of lithium with silicon nanowires. <i>Journal of Power Sources</i> , 2009, 189, 34-39.	7.8	276
14	Stepwise Nanopore Evolution in One-Dimensional Nanostructures. <i>Nano Letters</i> , 2010, 10, 1409-1413.	9.1	229
15	Folding Paper-Based Lithium-Ion Batteries for Higher Areal Energy Densities. <i>Nano Letters</i> , 2013, 13, 4969-4974.	9.1	218
16	Shape Evolution of Layer-Structured Bismuth Oxychloride Nanostructures via Low-Temperature Chemical Vapor Transport. <i>Chemistry of Materials</i> , 2009, 21, 247-252.	6.7	146
17	Hexavalent chromium removal using metal oxide photocatalysts. <i>Applied Catalysis B: Environmental</i> , 2015, 176-177, 740-748.	20.2	135
18	Hyperbranched Lead Selenide Nanowire Networks. <i>Nano Letters</i> , 2007, 7, 1095-1099.	9.1	131

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19	Porous carbon sphere anodes for enhanced lithium-ion storage. <i>Journal of Materials Chemistry A</i> , 2015, 3, 9861-9868.	10.3	130
20	Cutting single-walled carbon nanotubes. <i>Nanotechnology</i> , 2005, 16, S539-S544.	2.6	101
21	Facile One-Pot Synthesis of Highly Porous Carbon Foams for High-Performance Supercapacitors Using Template-Free Direct Pyrolysis. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 8952-8960.	8.0	91
22	Nanostructured Garnet-Type Solid Electrolytes for Lithium Batteries: Electrospinning Synthesis of $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ Nanowires and Particle Size-Dependent Phase Transformation. <i>Journal of Physical Chemistry C</i> , 2015, 119, 14947-14953.	3.1	87
23	Nanostructured Garnet-type $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$: Synthesis, Properties, and Opportunities as Electrolytes for Li-ion Batteries. <i>Electrochimica Acta</i> , 2017, 253, 268-280.	5.2	83
24	Fullerene stabilized gold nanoparticles supported on titanium dioxide for enhanced photocatalytic degradation of methyl orange and catalytic reduction of 4-nitrophenol. <i>Journal of Environmental Chemical Engineering</i> , 2018, 6, 3827-3836.	6.7	82
25	Morphology Control of Layer-Structured Gallium Selenide Nanowires. <i>Nano Letters</i> , 2007, 7, 199-203.	9.1	79
26	Preparation of amorphous and nanocrystalline sodium tantalum oxide photocatalysts with porous matrix structure for overall water splitting. <i>Nano Energy</i> , 2013, 2, 116-123.	16.0	69
27	Highly Active Cobalt-Based Electrocatalysts with Facile Incorporation of Dopants for the Oxygen Evolution Reaction. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 3491-3495.	13.8	67
28	High surface area, amorphous titania with reactive Ti^{3+} through a photo-assisted synthesis method for photocatalytic H_2 generation. <i>Journal of Materials Chemistry A</i> , 2017, 5, 10957-10967.	10.3	55
29	Laser Fragmentation-Induced Defect-Rich Cobalt Oxide Nanoparticles for Electrochemical Oxygen Evolution Reaction. <i>ChemSusChem</i> , 2020, 13, 520-528.	6.8	55
30	Enhanced lithium ion conductivity in lithium lanthanum titanate solid electrolyte nanowires prepared by electrospinning. <i>Journal of Power Sources</i> , 2015, 287, 164-169.	7.8	45
31	Spent Tea Leaf Templating of Cobalt-Based Mixed Oxide Nanocrystals for Water Oxidation. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 32488-32495.	8.0	43
32	Layered Double Hydroxide/Chitosan Nanocomposite Beads as Sorbents for Selenium Oxoanions. <i>Industrial & Engineering Chemistry Research</i> , 2018, 57, 4978-4987.	3.7	42
33	Coffee-Waste Templating of Metal Ion-Substituted Cobalt Oxides for the Oxygen Evolution Reaction. <i>ChemSusChem</i> , 2018, 11, 605-611.	6.8	40
34	Titanium Dioxide-Layered Double Hydroxide Composite Material for Adsorption-Photocatalysis of Water Pollutants. <i>Langmuir</i> , 2019, 35, 8699-8708.	3.5	40
35	Preparation of Nano- and Microstructured Garnet $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ Solid Electrolytes for Li-Ion Batteries via Cellulose Templating. <i>ACS Sustainable Chemistry and Engineering</i> , 2016, 4, 6391-6398.	6.7	39
36	Tissue paper-derived porous carbon encapsulated transition metal nanoparticles as advanced non-precious catalysts: Carbon-shell influence on the electrocatalytic behaviour. <i>Journal of Colloid and Interface Science</i> , 2021, 581, 905-918.	9.4	39

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37	Carbon nanosphere adsorbents for removal of arsenate and selenate from water. <i>Environmental Science: Nano</i> , 2015, 2, 245-250.	4.3	36
38	Highly Active Cobalt-Based Electrocatalysts with Facile Incorporation of Dopants for the Oxygen Evolution Reaction. <i>Angewandte Chemie</i> , 2019, 131, 3529-3533.	2.0	36
39	High-Density Oxygen Doping of Conductive Metal Sulfides for Better Polysulfide Trapping and $\text{Li}_{2.5}\text{S}_{0.8}$ Redox Kinetics in High Areal Capacity Lithium-Sulfur Batteries. <i>Advanced Science</i> , 2022, 9, e2200840.	11.2	36
40	Synthesis of Fine Cubic $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ Powders in Molten LiCl-KCl Eutectic and Facile Densification by Reversal of Li^+/H^+ Exchange. <i>ACS Applied Energy Materials</i> , 2018, 1, 552-560.	5.1	34
41	Relating crack-tip deformation to mineralization and fracture resistance in human femur cortical bone. <i>Bone</i> , 2009, 45, 427-434.	2.9	30
42	Type I Clathrates as Novel Silicon Anodes: An Electrochemical and Structural Investigation. <i>Advanced Science</i> , 2015, 2, 1500057.	11.2	30
43	Electrochemical Cycling of Sodium-Filled Silicon Clathrate. <i>ChemElectroChem</i> , 2014, 1, 347-353.	3.4	29
44	Oxidation-reduction assisted exfoliation of LiCoO_2 into nanosheets and reassembly into functional Li-ion battery cathodes. <i>Journal of Materials Chemistry A</i> , 2016, 4, 6902-6910.	10.3	27
45	Al_2O_3 and SiO_2 Atomic Layer Deposition Layers on ZnO Photoanodes and Degradation Mechanisms. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 16138-16147.	8.0	26
46	Anodes for Lithium-Ion Batteries Based on Type I Silicon Clathrate $\text{Ba}_8\text{Al}_{16}\text{Si}_{30}$ - Role of Processing on Surface Properties and Electrochemical Behavior. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 41246-41257.	8.0	26
47	Selenium Removal from Sulfate-Containing Groundwater Using Granular Layered Double Hydroxide Materials. <i>Industrial & Engineering Chemistry Research</i> , 2017, 56, 2458-2465.	3.7	24
48	Highly Conductive Garnet-Type Electrolytes: Access to $\text{Li}_{6.5}\text{La}_3\text{Zr}_{1.5}\text{Ta}_{0.5}\text{O}_{12}$ Prepared by Molten Salt and Solid-State Methods. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 48580-48590.	8.0	24
49	First-Principles Study of Lithiation of Type I Ba-Doped Silicon Clathrates. <i>Journal of Physical Chemistry C</i> , 2015, 119, 28247-28257.	3.1	22
50	Synthesis of TiO_2 nanosheet photocatalysts from exfoliation of TiS_2 and hydrothermal treatment. <i>Journal of Materials Research</i> , 2018, 33, 3540-3548.	2.6	22
51	Needleless Electrospinning for High Throughput Production of $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ Solid Electrolyte Nanofibers. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 17399-17405.	3.7	22
52	Printed Carbon Nanotubes on Polymer Films for Active Origami. <i>Materials Research Letters</i> , 2013, 1, 13-18.	8.7	20
53	Reduction in Formation Temperature of Ta-Doped Lithium Lanthanum Zirconate by Application of Lux Flood Basic Molten Salt Synthesis. <i>ACS Applied Energy Materials</i> , 2020, 3, 6466-6475.	5.1	20
54	Electrochemical Properties of Nanostructured Copper Hydroxysulfate Mineral Brochantite upon Reaction with Lithium. <i>Nano Letters</i> , 2013, 13, 6055-6063.	9.1	19

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55	New hydrogen titanium phosphate sulfate electrodes for Li-ion and Na-ion batteries. <i>Journal of Power Sources</i> , 2017, 343, 197-206.	7.8	18
56	Experimental and Computational Study of the Lithiation of Ba ₈ Al _y Ge ₄₆ ‐y Based Type I Germanium Clathrates. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 37981-37993.	8.0	17
57	Synthesis of Hyperbranched Perovskite Nanostructures. <i>Crystal Growth and Design</i> , 2013, 13, 3901-3907.	3.0	16
58	Surface Properties of Battery Materials Elucidated Using Scanning Electrochemical Microscopy: The Case of Type I Silicon Clathrate. <i>ChemElectroChem</i> , 2020, 7, 665-671.	3.4	16
59	Electrochemical and Photoelectrochemical Properties of the Copper Hydroxyphosphate Mineral Libethenite. <i>ChemElectroChem</i> , 2014, 1, 663-672.	3.4	15
60	Synthesis of Jarosite and Vanadium Jarosite Analogues Using Microwave Hydrothermal Reaction and Evaluation of Composition-Dependent Electrochemical Properties. <i>Journal of Physical Chemistry C</i> , 2016, 120, 9702-9712.	3.1	14
61	Nonaqueous Polymer Combustion Synthesis of Cubic Li ₇ La ₃ Zr ₂ O ₁₂ Nanopowders. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 953-962.	8.0	14
62	First principles and experimental studies of empty Si ₄₆ as anode materials for Li-ion batteries. <i>Journal of Materials Research</i> , 2016, 31, 3657-3665.	2.6	13
63	Metal-Organic frameworks-derived multifunctional carbon encapsulated metallic nanocatalysts for catalytic peroxymonosulfate activation and electrochemical hydrogen generation. <i>Molecular Catalysis</i> , 2020, 498, 111241.	2.0	13
64	Dual‐Templated Cobalt Oxide for Photochemical Water Oxidation. <i>ChemSusChem</i> , 2016, 9, 409-415.	6.8	12
65	Pyrochlore nanocrystals as versatile quasi-single-source precursors to lithium conducting garnets. <i>Journal of Materials Chemistry A</i> , 2020, 8, 17405-17410.	10.3	12
66	Structural Origin of Reversible Li Insertion in Guest‐Free, Type‐I Silicon Clathrates. <i>Advanced Energy and Sustainability Research</i> , 2021, 2, 2000114.	5.8	12
67	Structural and Photoelectrochemical Evaluation of Nanotextured Sn‐Doped AgInS ₂ Films Prepared by Spray Pyrolysis. <i>ChemSusChem</i> , 2013, 6, 102-109.	6.8	11
68	Ab Initio Investigation of Li and Na Migration in Guest-Free, Type I Clathrates. <i>Journal of Physical Chemistry C</i> , 2019, 123, 22812-22822.	3.1	11
69	Observation of Elemental Inhomogeneity and Its Impact on Ionic Conductivity in Li‐Conducting Garnets Prepared with Different Synthesis Methods. <i>Advanced Energy and Sustainability Research</i> , 2021, 2, 2000109.	5.8	11
70	Phase transformations in one-dimensional materials: applications in electronics and energy sciences. <i>Journal of Materials Chemistry</i> , 2009, 19, 5879.	6.7	10
71	Facile synthesis of Al-stabilized lithium garnets by a solution-combustion technique for all solid-state batteries. <i>Materials Advances</i> , 2021, 2, 5181-5188.	5.4	10
72	Polyelectrolyte platform for sensitive detection of biological analytes via reversible fluorescence quenching. <i>Polymer</i> , 2007, 48, 7582-7589.	3.8	9

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73	Carbon Nanotube-Based Electrodes for Detection of Low ppb Level Hexavalent Chromium Using Amperometry. ECS Journal of Solid State Science and Technology, 2016, 5, M3026-M3031.	1.8	9
74	Zn _x Mn _{1-x} O Solid Solutions in the Rocksalt Structure: Optical, Charge Transport, and Photoelectrochemical Properties. ACS Applied Energy Materials, 2018, 1, 260-266.	5.1	8
75	Understanding the Amorphous Lithiation Pathway of the Type I Ba ₈ Ge ₄₃ Clathrate with Synchrotron X-ray Characterization. Chemistry of Materials, 2020, 32, 9444-9457.	6.7	8
76	Solid-State Electrochemical Synthesis of Silicon Clathrates Using a Sodium-Sulfur Battery Inspired Approach. Journal of the Electrochemical Society, 2021, 168, 020516.	2.9	8
77	Investigation of the Optical Absorbance, Electronic, and Photocatalytic Properties of (Cu _{1-x} Co _x) ₂ (OH)PO ₄ Solid Solutions. Journal of Physical Chemistry C, 2015, 119, 4684-4693.	3.1	7
78	Exfoliation of LiNi _{1/3} Mn _{1/3} Co _{1/3} O ₂ into Nanosheets Using Electrochemical Oxidation and Reassembly with Dialysis or Flocculation. Langmuir, 2017, 33, 9271-9279.	3.5	7
79	First-Principles Studies of the Lithiation and Delithiation Paths in Si Anodes in Li-Ion Batteries. Journal of Physical Chemistry C, 2019, 123, 22775-22786.	3.1	7
80	In situ total scattering experiments of nucleation and crystallisation of tantalum-based oxides: from highly dilute solutions via cluster formation to nanoparticles. Nanoscale, 2021, 13, 150-162.	5.6	7
81	High-performance lithium battery anodes using silicon nanowires. , 2010, , 187-191.		6
82	Synthesis and Characterization of Empty Silicon Clathrates for Anode Applications in Li-ion Batteries. MRS Advances, 2016, 1, 3043-3048.	0.9	6
83	Hyperbranched potassium lanthanum titanate perovskite photocatalysts for hydrogen generation. Journal of Materials Chemistry A, 2016, 4, 2837-2841.	10.3	5
84	Monitoring the Structure Evolution of Titanium Oxide Photocatalysts: From the Molecular Form via the Amorphous State to the Crystalline Phase. Chemistry - A European Journal, 2021, 27, 11600-11608.	3.3	5
85	Advanced and In Situ Analytical Methods for Solar Fuel Materials. Topics in Current Chemistry, 2015, 371, 253-324.	4.0	4
86	Size and strain effects on mechanical and electronic properties of green phosphorene nanoribbons. AIP Advances, 2018, 8, .	1.3	4
87	Layered Double Hydroxide Sorbents for Removal of Selenium from Power Plant Wastewaters. ChemEngineering, 2019, 3, 20.	2.4	4
88	Electrochemical Lithium Alloying Behavior of Guest-Free Type II Silicon Clathrates. Journal of Physical Chemistry C, 2021, 125, 19110-19118.	3.1	4
89	Structural and Electrochemical Properties of Type VIII Ba ₈ Ga ₁₆ Ir ₃ Sn ₃₀ Ir Clathrate (Ir ³⁺) during Lithiation. ACS Applied Materials & Interfaces, 2021, 13, 42564-42578.	8.0	3
90	Web-enabled formative feedback and learning resources for enhancing student attitude, achievement, and persistence. , 2014, , .		2

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91	Silicon Nanowire Electrodes for Lithium-Ion Battery Negative Electrodes. , 2013, , 1-68.		2
92	Synthesis of Nanostructured Garnets. , 2019, , 25-68.		2
93	Nanowire batteries for next generation electronics. , 2008, , .		1
94	High-performance lithium battery anodes using silicon nanowires. , 0, .		1
95	Synthesis of $\text{Li}_{7/3}\text{La}_{3/2}\text{Zr}_2\text{O}_{12}$ Li-Ion Conducting Electrolytes By a Rapid Solution-Combustion Method. ECS Meeting Abstracts, 2020, MA2020-02, 941-941.	0.0	1
96	ONE-DIMENSIONAL NANOSTRUCTURED ELECTRODES FOR HIGH CAPACITY LITHIUM-ION BATTERY ELECTRODES. , 2011, , 175-217.		0
97	Nanowires for Nanoscale Electronics, Biosensors and Energy Applications. , 2007, , .		0
98	Synthesis of Li-Ion Conducting Garnet $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ Powders in Molten Salt Media: Implications for Future Li-Ion Batteries. ECS Meeting Abstracts, 2018, , .	0.0	0
99	(Invited) Molten Salt Synthesis of Lithium Conducting Garnets for More Scalable Solid-State Batteries. ECS Meeting Abstracts, 2019, , .	0.0	0
100	Properties of $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ Solid Electrolytes Synthesized from Highly Basic Molten Salts Fluxes. ECS Meeting Abstracts, 2019, , .	0.0	0
101	Reversible Li Insertion in Guest Free Type II Si Clathrates for Li-Ion Batteries. ECS Meeting Abstracts, 2019, , .	0.0	0
102	How Not to Chase the Wrong Rabbits: Mentorship and Science Lessons from Bob Huggins. ECS Meeting Abstracts, 2019, , .	0.0	0
103	Understanding the Li and Na Intercalation in Si Clathrate Frameworks. ECS Meeting Abstracts, 2021, MA2021-02, 226-226.	0.0	0
104	Structural and Electrochemical Properties of the Type VIII $\text{Ba}_8\text{Ga}_{16}\text{Sn}_{30}\text{I}^{\wedge}(\text{I}^{\wedge}\text{a}\% ^1)\text{clathrate}$ during Lithiation. ECS Meeting Abstracts, 2021, MA2021-02, 405-405.	0.0	0
105	Understanding the Lithiation Pathways of Tetrel Clathrates with Synchrotron X-Ray Characterization. ECS Meeting Abstracts, 2020, MA2020-02, 168-168.	0.0	0
106	Effects of Synthesis Method and Parameters on Electrochemical Performance in Li-Conducting Garnets. ECS Meeting Abstracts, 2020, MA2020-02, 985-985.	0.0	0
107	Electrochemical Synthesis of Type I $\text{Na}_8\text{Si}_{46}$ Clathrate with a $\text{Na}^{\wedge}\text{Alumina}$ Solid Electrolyte. ECS Meeting Abstracts, 2020, MA2020-02, 469-469.	0.0	0
108	(Invited) High Surface Area, Amorphous Titania with Reactive Ti^{3+} through a Photo-Assisted Synthesis Method for Photocatalytic H_2 Generation. ECS Meeting Abstracts, 2018, MA2018-01, 1874-1874.	0.0	0