

# Hugh Geaney

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

80  
papers

2,614  
citations

27  
h-index

49  
g-index

84  
ext. papers

2,974  
ext. citations

7.5  
avg, IF

5.48  
L-index

#	Paper	IF	Citations
80	Silicon Nanowire Growth on Carbon Cloth for Flexible Li-ion Battery Anodes. <i>Materials Today Energy</i> , <b>2022</b> , 101030	7	0
79	Dense Silicon Nanowire Networks Grown on a Stainless-Steel Fiber Cloth: A Flexible and Robust Anode for Lithium-Ion Batteries. <i>Advanced Materials</i> , <b>2021</b> , e2105917	24	9
78	Temperature induced diameter variation of silicon nanowires a liquid-solid phase transition in the Zn seed. <i>Chemical Communications</i> , <b>2021</b> , 57, 12504-12507	5.8	0
77	A Nanowire Nest Structure Comprising Copper Silicide and Silicon Nanowires for Lithium-Ion Battery Anodes with High Areal Loading. <i>Small</i> , <b>2021</b> , 17, e2102333	11	8
76	Tin-Based Oxide, Alloy, and Selenide Li-Ion Battery Anodes Derived from a Bimetallic MetalOrganic Material. <i>Journal of Physical Chemistry C</i> , <b>2021</b> , 125, 1180-1189	3.8	4
75	Direct Growth of Si, Ge, and Si-Ge Heterostructure Nanowires Using Electroplated Zn: An Inexpensive Seeding Technique for Li-Ion Alloying Anodes. <i>Small</i> , <b>2021</b> , 17, e2005443	11	11
74	Alternative anodes for low temperature lithium-ion batteries. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 14172-14213	13	17
73	Alloying Germanium Nanowire Anodes Dramatically Outperform Graphite Anodes in Full-Cell Chemistries over a Wide Temperature Range. <i>ACS Applied Energy Materials</i> , <b>2021</b> , 4, 1793-1804	6.1	9
72	Amorphization driven Na-alloying in SixGe1-x alloy nanowires for Na-ion batteries. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 20626-20634	13	3
71	Two-Dimensional SnSe Nanonetworks: Growth and Evaluation for Li-Ion Battery Applications. <i>ACS Applied Energy Materials</i> , <b>2020</b> , 3, 6602-6610	6.1	12
70	Influence of Carbonate-Based Additives on the Electrochemical Performance of Si NW Anodes Cycled in an Ionic Liquid Electrolyte. <i>Nano Letters</i> , <b>2020</b> , 20, 7011-7019	11.5	9
69	Colloidal WSe nanocrystals as anodes for lithium-ion batteries. <i>Nanoscale</i> , <b>2020</b> , 12, 22307-22316	7.7	8
68	A Copper Silicide Nanofoam Current Collector for Directly Grown Si Nanowire Networks and their Application as Lithium-Ion Anodes. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2003278	15.6	31
67	Evolution of Hierarchically Layered Cu-Rich Silicide Nanoarchitectures. <i>Crystal Growth and Design</i> , <b>2020</b> , 20, 6677-6682	3.5	2
66	Long Cycle Life, Highly Ordered SnO <sub>2</sub> /GeO <sub>2</sub> Nanocomposite Inverse Opal Anode Materials for Li-Ion Batteries. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2005073	15.6	18
65	Highlighting the Importance of Full-Cell Testing for High Performance Anode Materials Comprising Li Alloying Nanowires. <i>Journal of the Electrochemical Society</i> , <b>2019</b> , 166, A2784-A2790	3.9	3
64	Enhancing the performance of germanium nanowire anodes for Li-ion batteries by direct growth on textured copper. <i>Chemical Communications</i> , <b>2019</b> , 55, 7780-7783	5.8	17

63	Electrophoretic Deposition of Tin Sulfide Nanocubes as High-Performance Lithium-Ion Battery Anodes. <i>ChemElectroChem</i> , <b>2019</b> , 6, 3049-3056	4.3	11
62	Tunable Core-Shell Nanowire Active Material for High Capacity Li-Ion Battery Anodes Comprised of PECVD Deposited aSi on Directly Grown Ge Nanowires. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 19372-19380	9.5	19
61	Bio-derived Carbon Nanofibres from Lignin as High-Performance Li-Ion Anode Materials. <i>ChemSusChem</i> , <b>2019</b> , 12, 4516-4521	8.3	90
60	Copper Silicide Nanowires as Hosts for Amorphous Si Deposition as a Route to Produce High Capacity Lithium-Ion Battery Anodes. <i>Nano Letters</i> , <b>2019</b> , 19, 8829-8835	11.5	22
59	Synthesis and Characterization of CuZnSe <sub>2</sub> Nanocrystals in Wurtzite, Zinc Blende, and Core-Shell Polytypes. <i>Chemistry of Materials</i> , <b>2019</b> , 31, 10085-10093	9.6	4
58	Multimodal surface analyses of chemistry and structure of biominerals in rodent pineal gland concretions. <i>Applied Surface Science</i> , <b>2019</b> , 469, 378-386	6.7	2
57	Copper Sulfide (Cu <sub>x</sub> S) Nanowire-in-Carbon Composites Formed from Direct Sulfurization of the Metal-Organic Framework HKUST-1 and Their Use as Li-Ion Battery Cathodes. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1800587	15.6	59
56	Investigation into the Selenization Mechanisms of Wurtzite CZTS Nanorods. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 7117-7125	9.5	9
55	Aligned Copper Zinc Tin Sulfide Nanorods as Lithium-Ion Battery Anodes with High Specific Capacities. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 20090-20098	3.8	15
54	Axial Si-Ge Heterostructure Nanowires as Lithium-Ion Battery Anodes. <i>Nano Letters</i> , <b>2018</b> , 18, 5569-5575	11.5	57
53	High capacity binder-free nanocrystalline GeO <sub>2</sub> inverse opal anodes for Li-ion batteries with long cycle life and stable cell voltage. <i>Nano Energy</i> , <b>2018</b> , 43, 11-21	17.1	65
52	Linear heterostructured NiSi/Si nanowires with abrupt interfaces synthesised in solution. <i>Nanoscale</i> , <b>2018</b> , 10, 19182-19187	7.7	3
51	Layered Bimetallic Metal-Organic Material Derived Cu <sub>2</sub> SnS <sub>3</sub> /SnS <sub>2</sub> /C Composite for Anode Applications in Lithium-Ion Batteries. <i>ChemElectroChem</i> , <b>2018</b> , 5, 3764-3770	4.3	9
50	Common Battery Anode Testing Protocols Are Not Suitable for New Combined Alloying and Conversion Materials. <i>ChemElectroChem</i> , <b>2018</b> , 5, 3757-3763	4.3	1
49	Carbon-Coated Honeycomb Ni-Mn-Co-O Inverse Opal: A High Capacity Ternary Transition Metal Oxide Anode for Li-ion Batteries. <i>Scientific Reports</i> , <b>2017</b> , 7, 42263	4.9	38
48	The effect of particle size, morphology and C-rates on 3D structured Co <sub>3</sub> O <sub>4</sub> inverse opal conversion mode anode materials. <i>Materials Research Express</i> , <b>2017</b> , 4, 025011	1.7	21
47	Influence of Binders and Solvents on Stability of Ru/RuO Nanoparticles on ITO Nanocrystals as Li-O Battery Cathodes. <i>ChemSusChem</i> , <b>2017</b> , 10, 575-586	8.3	15
46	Behavior of Germanium and Silicon Nanowire Anodes with Ionic Liquid Electrolytes. <i>ACS Nano</i> , <b>2017</b> , 11, 5933-5943	16.7	54

45	The selective synthesis of nickel germanide nanowires and nickel germanide seeded germanium nanowires within a solvent vapour growth system. <i>CrystEngComm</i> , <b>2017</b> , 19, 2072-2078	3.3	8
44	Patterning optically clear films: Coplanar transparent and color-contrasted thin films from interdiffused electrodeposited and solution-processed metal oxides. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , <b>2017</b> , 35, 020602	2.9	1
43	Tailoring Asymmetric Discharge-Charge Rates and Capacity Limits to Extend Li-O <sub>2</sub> Battery Cycle Life. <i>ChemElectroChem</i> , <b>2017</b> , 4, 628-635	4.3	4
42	Direct Synthesis of Alloyed SiGe Nanowires for Performance-Tunable Lithium Ion Battery Anodes. <i>ACS Nano</i> , <b>2017</b> , 11, 10088-10096	16.7	48
41	Growing Oxide Nanowires and Nanowire Networks by Solid State Contact Diffusion into Solution-Processed Thin Films. <i>Small</i> , <b>2016</b> , 12, 5954-5962	11	3
40	Assessing Charge Contribution from Thermally Treated Ni Foam as Current Collectors for Li-Ion Batteries. <i>Journal of the Electrochemical Society</i> , <b>2016</b> , 163, A1805-A1811	3.9	9
39	Solvent-less method for efficient photocatalytic Fe <sub>2</sub> O <sub>3</sub> nanoparticles using macromolecular polymeric precursors. <i>New Journal of Chemistry</i> , <b>2016</b> , 40, 6768-6776	3.6	18
38	Examining the Role of Electrolyte and Binders in Determining Discharge Product Morphology and Cycling Performance of Carbon Cathodes in Li-O <sub>2</sub> Batteries. <i>Journal of the Electrochemical Society</i> , <b>2016</b> , 163, A43-A49	3.9	23
37	High performance inverse opal Li-ion battery with paired intercalation and conversion mode electrodes. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 4448-4456	13	32
36	Mesoporosity in doped silicon nanowires from metal assisted chemical etching monitored by phonon scattering. <i>Semiconductor Science and Technology</i> , <b>2016</b> , 31, 014003	1.8	11
35	2D and 3D photonic crystal materials for photocatalysis and electrochemical energy storage and conversion. <i>Science and Technology of Advanced Materials</i> , <b>2016</b> , 17, 563-582	7.1	62
34	Electrochemical investigation of the role of MnO <sub>2</sub> nanorod catalysts in water containing and anhydrous electrolytes for Li-O <sub>2</sub> battery applications. <i>Physical Chemistry Chemical Physics</i> , <b>2015</b> , 17, 6748-6759	3.6	25
33	Linking Precursor Alterations to Nanoscale Structure and Optical Transparency in Polymer Assisted Fast-Rate Dip-Coating of Vanadium Oxide Thin Films. <i>Scientific Reports</i> , <b>2015</b> , 5, 11574	4.9	10
32	Metal-assisted chemical etching of silicon and the behavior of nanoscale silicon materials as Li-ion battery anodes. <i>Nano Research</i> , <b>2015</b> , 8, 1395-1442	10	84
31	Synthesis of silicon-germanium axial nanowire heterostructures in a solvent vapor growth system using indium and tin catalysts. <i>Physical Chemistry Chemical Physics</i> , <b>2015</b> , 17, 6919-24	3.6	10
30	Electrodeposited Structurally Stable V <sub>2</sub> O <sub>5</sub> Inverse Opal Networks as High Performance Thin Film Lithium Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 27006-15	9.5	66
29	Pseudocapacitive Charge Storage at Nanoscale Silicon Electrodes. <i>ECS Transactions</i> , <b>2015</b> , 66, 39-48	1	
28	The influence of carrier density and doping type on lithium insertion and extraction processes at silicon surfaces. <i>Electrochimica Acta</i> , <b>2014</b> , 135, 356-367	6.7	21

27	Optimizing vanadium pentoxide thin films and multilayers from dip-coated nanofluid precursors. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 2031-8	9.5	18
26	A rapid, solvent-free protocol for the synthesis of germanium nanowire lithium-ion anodes with a long cycle life and high rate capability. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 18800-7	9.5	44
25	2D and 3D vanadium oxide inverse opals and hollow sphere arrays. <i>CrystEngComm</i> , <b>2014</b> , 16, 10804-10815	9.3	28
24	Fully porous GaN p-n junction diodes fabricated by chemical vapor deposition. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 17954-64	9.5	19
23	Key scientific challenges in current rechargeable non-aqueous Li-O <sub>2</sub> batteries: experiment and theory. <i>Physical Chemistry Chemical Physics</i> , <b>2014</b> , 16, 12093-130	3.6	115
22	On the Use of Gas Diffusion Layers as Current Collectors in Li-O <sub>2</sub> Battery Cathodes. <i>Journal of the Electrochemical Society</i> , <b>2014</b> , 161, A1964-A1968	3.9	17
21	High-performance germanium nanowire-based lithium-ion battery anodes extending over 1000 cycles through in situ formation of a continuous porous network. <i>Nano Letters</i> , <b>2014</b> , 14, 716-23	11.5	288
20	Structuring materials for lithium-ion batteries: advancements in nanomaterial structure, composition, and defined assembly on cell performance. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 9433	13	118
19	Epitaxial growth of (0001) oriented porous GaN layers by chemical vapour deposition. <i>CrystEngComm</i> , <b>2014</b> , 16, 10255-10261	3.3	6
18	Novel solid-state route to nanostructured tin, zinc and cerium oxides as potential materials for sensors. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2014</b> , 14, 6748-53	1.3	3
17	Palladium Nanoparticles as Catalysts for Li-O <sub>2</sub> Battery Cathodes. <i>ECS Transactions</i> , <b>2014</b> , 58, 21-29	1	5
16	Solution phase synthesis of silicon and germanium nanowires. <i>Journal of Materials Chemistry C</i> , <b>2013</b> , 1, 4996	7.1	31
15	The influence of 1D, meso- and crystal structures on charge transport and recombination in solid-state dye-sensitized solar cells. <i>Journal of Materials Chemistry A</i> , <b>2013</b> , 1, 12088	13	21
14	Doping controlled roughness and defined mesoporosity in chemically etched silicon nanowires with tunable conductivity. <i>Journal of Applied Physics</i> , <b>2013</b> , 114, 034309	2.5	16
13	Atomically abrupt silicon-germanium axial heterostructure nanowires synthesized in a solvent vapor growth system. <i>Nano Letters</i> , <b>2013</b> , 13, 1675-80	11.5	54
12	Synthesis of Tin Catalyzed Silicon and Germanium Nanowires in a Solvent Vapor System and Optimization of the Seed/Nanowire Interface for Dual Lithium Cycling. <i>Chemistry of Materials</i> , <b>2013</b> , 25, 1816-1822	9.6	72
11	Fabrication of p-type porous GaN on silicon and epitaxial GaN. <i>Applied Physics Letters</i> , <b>2013</b> , 103, 112103	3.4	10
10	High Density Growth of Indium seeded Silicon Nanowires in the Vapor phase of a High Boiling Point Solvent. <i>Chemistry of Materials</i> , <b>2012</b> , 24, 2204-2210	9.6	43

9	Size controlled growth of germanium nanorods and nanowires by solution pyrolysis directly on a substrate. <i>Chemical Communications</i> , <b>2012</b> , 48, 5446-8	5.8	19
8	Growth of Crystalline Copper Silicide Nanowires in High Yield within a High Boiling Point Solvent System. <i>Chemistry of Materials</i> , <b>2012</b> , 24, 4319-4325	9.6	28
7	Colloidal synthesis of wurtzite Cu <sub>2</sub> ZnSnS <sub>4</sub> nanorods and their perpendicular assembly. <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 2910-3	16.4	351
6	Perpendicular growth of catalyst-free germanium nanowire arrays. <i>Chemical Communications</i> , <b>2011</b> , 47, 3843-5	5.8	29
5	Role of Defects and Growth Directions in the Formation of Periodically Twinned and Kinked Unseeded Germanium Nanowires. <i>Crystal Growth and Design</i> , <b>2011</b> , 11, 3266-3272	3.5	27
4	High Density Germanium Nanowire Growth Directly from Copper Foil by Self-Induced Solid Seeding. <i>Chemistry of Materials</i> , <b>2011</b> , 23, 4838-4843	9.6	51
3	Metal surface nucleated supercritical fluid-solid growth of Si and Ge/SiO <sub>x</sub> core-shell nanowires. <i>Journal of Materials Chemistry</i> , <b>2010</b> , 20, 135-144		20
2	Electrophoretic Deposition of Spherical and Rod-Shaped Nanocrystals into Close Packed Superlattices. <i>ECS Transactions</i> , <b>2009</b> , 19, 209-219	1	4
1	Spontaneous room temperature elongation of CdS and Ag <sub>2</sub> S nanorods via oriented attachment. <i>Journal of the American Chemical Society</i> , <b>2009</b> , 131, 12250-7	16.4	85