

# Charles W Dunnill

## List of Publications by Year in descending order

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86  
papers

4,725  
citations

147566

31  
h-index

95083

68  
g-index

91  
all docs

91  
docs citations

91  
times ranked

7845  
citing authors

#	ARTICLE	IF	CITATIONS
1	Band alignment of rutile and anatase TiO <sub>2</sub> . <i>Nature Materials</i> , 2013, 12, 798-801.	13.3	1,924
2	The role of surfaces in catheter-associated infections. <i>Chemical Society Reviews</i> , 2009, 38, 3435.	18.7	190
3	Zero gap alkaline electrolysis cell design for renewable energy storage as hydrogen gas. <i>RSC Advances</i> , 2016, 6, 100643-100651.	1.7	161
4	Nitrogen-doped TiO <sub>2</sub> thin films: photocatalytic applications for healthcare environments. <i>Dalton Transactions</i> , 2011, 40, 1635-1640.	1.6	153
5	Enhanced photocatalytic activity under visible light in N-doped TiO <sub>2</sub> thin films produced by APCVD preparations using t-butylamine as a nitrogen source and their potential for antibacterial films. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2009, 207, 244-253.	2.0	106
6	White light induced photocatalytic activity of sulfur-doped TiO <sub>2</sub> thin films and their potential for antibacterial application. <i>Journal of Materials Chemistry</i> , 2009, 19, 8747.	6.7	105
7	Minimising the ohmic resistance of an alkaline electrolysis cell through effective cell design. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 23986-23994.	3.8	90
8	The interaction between gold nanoparticles and cationic and anionic dyes: enhanced UV-visible absorption. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 10513.	1.3	86
9	Shining light on materials – A self-sterilising revolution. <i>Advanced Drug Delivery Reviews</i> , 2013, 65, 570-580.	6.6	83
10	Low-Temperature Magnetic Properties of Hematite Nanorods. <i>Chemistry of Materials</i> , 2007, 19, 916-921.	3.2	75
11	Nanostructural Evolution: From One-Dimensional Tungsten Oxide Nanowires to Three-Dimensional Ferberite Flowers. <i>Chemistry of Materials</i> , 2008, 20, 5657-5665.	3.2	73
12	Hydrogen-enriched natural gas as a domestic fuel: an analysis based on flash-back and blow-off limits for domestic natural gas appliances within the UK. <i>Sustainable Energy and Fuels</i> , 2018, 2, 710-723.	2.5	73
13	Nanoparticulate silver coated-titania thin films – Photo-oxidative destruction of stearic acid under different light sources and antimicrobial effects under hospital lighting conditions. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2011, 220, 113-123.	2.0	69
14	Incorporation of methylene blue and nanogold into polyvinyl chloride catheters; a new approach for light-activated disinfection of surfaces. <i>Journal of Materials Chemistry</i> , 2012, 22, 15388.	6.7	62
15	Calcium phosphate-based materials of natural origin showing photocatalytic activity. <i>Journal of Materials Chemistry A</i> , 2013, 1, 6452.	5.2	57
16	Preparation and characterization of tungsten oxynitride nanowires. <i>Journal of Materials Chemistry</i> , 2007, 17, 4436.	6.7	56
17	Visible light photocatalysts – N-doped TiO <sub>2</sub> by sol-gel, enhanced with surface bound silver nanoparticle islands. <i>Journal of Materials Chemistry</i> , 2011, 21, 11854.	6.7	56
18	Combinatorial atmospheric pressure chemical vapour deposition (cAPCVD) of niobium doped anatase; effect of niobium on the conductivity and photocatalytic activity. <i>Journal of Materials Chemistry</i> , 2010, 20, 8336.	6.7	53

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19	Enhanced purification of carbon nanotubes by microwave and chlorine cleaning procedures. RSC Advances, 2016, 6, 11895-11902.	1.7	48
20	Thermoelectric Paper: Graphite Pencil Traces on Paper to Fabricate a Thermoelectric Generator. Advanced Materials Technologies, 2020, 5, 2000227.	3.0	44
21	Studies on chromium/aluminium-doped manganese spinel as cathode materials for lithium-ion batteries—A novel chelated sol-gel synthesis. Journal of Materials Processing Technology, 2008, 208, 520-531.	3.1	41
22	Phthalic acid assisted nano-sized spinel LiMn <sub>2</sub> O <sub>4</sub> and LiCr <sub>1-x</sub> Mn <sub>2x</sub> O <sub>4</sub> (x= 0.00–0.40) via sol-gel synthesis and its electrochemical behaviour for use in Li-ion-batteries. Materials Research Bulletin, 2008, 43, 2119-2129.	2.7	41
23	N-doped TiO <sub>2</sub> visible light photocatalyst films via a sol-gel route using TMEDA as the nitrogen source. Journal of Photochemistry and Photobiology A: Chemistry, 2014, 281, 27-34.	2.0	37
24	Electrochemical behaviour of nano-sized spinel LiMn <sub>2</sub> O <sub>4</sub> and LiAl <sub>x</sub> Mn <sub>2-2x</sub> O <sub>4</sub> (x=Al: 0.00–0.40) synthesized via fumaric acid-assisted sol-gel synthesis for use in lithium rechargeable batteries. Journal of Physics and Chemistry of Solids, 2008, 69, 2082-2090.	1.9	36
25	The relationship between photocatalytic activity and photochromic state of nanoparticulate silver surface loaded titanium dioxide thin-films. Physical Chemistry Chemical Physics, 2011, 13, 13827.	1.3	36
26	Powering the Hydrogen Economy from Waste Heat: A Review of Heat-to-Hydrogen Concepts. ChemSusChem, 2019, 12, 3882-3895.	3.6	36
27	CVD Production of Doped Titanium Dioxide Thin Films. Chemical Vapor Deposition, 2012, 18, 89-101.	1.4	35
28	Nanoparticle-sulphur inverse vulcanisation-polymer composites. Chemical Communications, 2015, 51, 10467-10470.	2.2	35
29	Sulfur and Nitrogen Doped Titania Biomaterials via APCVD. Chemical Vapor Deposition, 2010, 16, 50-54.	1.4	34
30	Porous carbons from inverse vulcanised polymers. Microporous and Mesoporous Materials, 2016, 232, 189-195.	2.2	34
31	pH-responsive octylamine coupling modification of carboxylated aluminium oxide surfaces. Journal of Materials Chemistry A, 2015, 3, 10052-10059.	5.2	33
32	N-Doped Titania Thin Films Prepared by Atmospheric Pressure CVD using <i>n</i> -Butylamine as the Nitrogen Source: Enhanced Photocatalytic Activity under Visible Light. Chemical Vapor Deposition, 2009, 15, 171-174.	1.4	31
33	VO <sub>2</sub> /TiO <sub>2</sub> bilayer films for energy efficient windows with multifunctional properties. Journal of Materials Chemistry C, 2018, 6, 4485-4493.	2.7	31
34	Single-Step Synthesis and Surface-Assisted Growth of Superconducting TaS <sub>2</sub> Nanowires. Angewandte Chemie - International Edition, 2006, 45, 7060-7063.	7.2	30
35	Development of a Pt/stainless steel mesh catalyst and its application in catalytic hydrogen combustion. International Journal of Hydrogen Energy, 2019, 44, 27094-27106.	3.8	30
36	Active removal of waste dye pollutants using Ta <sub>3</sub> N <sub>5</sub> /W <sub>18</sub> O <sub>49</sub> nanocomposite fibres. Scientific Reports, 2017, 7, 4090.	1.6	29

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37	Multifunctional Nanocomposite Thin Films by Aerosol-Assisted CVD. <i>Chemical Vapor Deposition</i> , 2010, 16, 220-224.	1.4	28
38	Hybrid chemical vapour and nanoceramic aerosol assisted deposition for multifunctional nanocomposite thin films. <i>Thin Solid Films</i> , 2011, 519, 5942-5948.	0.8	28
39	Thermally stable Pt/Ti mesh catalyst for catalytic hydrogen combustion. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 16851-16864.	3.8	27
40	Nickel-Doped Ceria Nanoparticles: The Effect of Annealing on Room Temperature Ferromagnetism. <i>Crystals</i> , 2015, 5, 312-326.	1.0	26
41	Anatase/rutile bi-phasic titanium dioxide nanoparticles for photocatalytic applications enhanced by nitrogen doping and platinum nano-islands. <i>Journal of Colloid and Interface Science</i> , 2015, 460, 29-35.	5.0	26
42	Raney Nickel 2.0: Development of a high-performance bifunctional electrocatalyst. <i>Electrochimica Acta</i> , 2019, 322, 134687.	2.6	26
43	The effect of glove material upon the transfer of methicillin-resistant <i>Staphylococcus aureus</i> to and from a gloved hand. <i>American Journal of Infection Control</i> , 2013, 41, 19-23.	1.1	23
44	A fast and effective method for N-doping TiO <sub>2</sub> by post treatment with liquid ammonia: visible light photocatalysis. <i>Thin Solid Films</i> , 2014, 562, 223-228.	0.8	20
45	Graphite-loaded cotton wool: A green route to highly-porous and solid graphite pellets for thermoelectric devices. <i>Composites Communications</i> , 2020, 20, 100345.	3.3	20
46	Low dimensional nanostructures of fast ion conducting lithium nitride. <i>Nature Communications</i> , 2020, 11, 4492.	5.8	19
47	Nanoparticulate cerium dioxide and cerium dioxide-titanium dioxide composite thin films on glass by aerosol assisted chemical vapour deposition. <i>Applied Surface Science</i> , 2009, 256, 852-856.	3.1	18
48	Superconducting tantalum disulfide nanotapes; growth, structure and stoichiometry. <i>Nanoscale</i> , 2010, 2, 90-97.	2.8	18
49	Economical and Facile Route to Produce Gram-Scale and Phase-Selective Copper Sulfides for Thermoelectric Applications. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 14234-14242.	3.2	18
50	Silver enhanced TiO <sub>2</sub> thin films: photocatalytic characterization using aqueous solutions of tris(hydroxymethyl)aminomethane. <i>Dalton Transactions</i> , 2014, 43, 344-351.	1.6	17
51	Photocapacitive CdS/WO <sub>x</sub> nanostructures for solar energy storage. <i>Scientific Reports</i> , 2019, 9, 11573.	1.6	17
52	Antimicrobial Activity in Thin Films of Pseudobrookite-Structured Titanium Oxynitride under UV Irradiation Observed for <i>Escherichia coli</i> . <i>Chemical Vapor Deposition</i> , 2010, 16, 19-22.	1.4	16
53	Production of Predominantly Anatase Thin Films on Various Grades of Steel and Other Metallic Substrates From TiCl <sub>4</sub> and Ethyl Acetate by Atmospheric Pressure CVD. <i>Chemical Vapor Deposition</i> , 2012, 18, 133-139.	1.4	15
54	Silver loaded WO <sub>3</sub> /TiO <sub>2</sub> composite multifunctional thin films. <i>Thin Solid Films</i> , 2012, 520, 5516-5520.	0.8	15

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55	Visible Light Photocatalytic Activity in AACVD-Prepared N-modified TiO <sub>2</sub> Thin Films. Chemical Vapor Deposition, 2014, 20, 91-97.	1.4	14
56	Single material thermocouples from graphite traces: Fabricating extremely simple and low cost thermal sensors. Carbon Trends, 2021, 4, 100077.	1.4	14
57	Comprehensive Insights into Synthesis, Structural Features, and Thermoelectric Properties of High-Performance Inorganic Chalcogenide Nanomaterials for Conversion of Waste Heat to Electricity. ACS Applied Energy Materials, 2022, 5, 7913-7943.	2.5	14
58	Enhanced Lifetime Cathode for Alkaline Electrolysis Using Standard Commercial Titanium Nitride Coatings. Processes, 2019, 7, 112.	1.3	13
59	Thin-films on cellulose paper to construct thermoelectric generator of promising power outputs suitable for low-grade heat recovery. Materials Today Communications, 2021, 29, 102738.	0.9	13
60	Core-shell nanostructures for better thermoelectrics. Materials Advances, 2022, 3, 125-141.	2.6	13
61	Bi-phasic titanium dioxide nanoparticles doped with nitrogen and neodymium for enhanced photocatalysis. Nanoscale, 2015, 7, 17735-17744.	2.8	11
62	A microwave cured flux for the adhesion of ceramic particles using silica coated carbon nanotubes. Carbon, 2015, 93, 774-781.	5.4	10
63	Apparent disagreement between cyclic voltammetry and electrochemical impedance spectroscopy explained by time-domain simulation of constant phase elements. International Journal of Hydrogen Energy, 2020, 45, 22383-22393.	3.8	10
64	Photocatalytic Degradation of Rhodamine B Dye and Hydrogen Evolution by Hydrothermally Synthesized NaBH <sub>4</sub> -Spiked ZnS Nanostructures. Frontiers in Chemistry, 2022, 10, 835832.	1.8	10
65	Impaired bacterial attachment to light activated Ni-Ti alloy. Materials Science and Engineering C, 2010, 30, 225-234.	3.8	9
66	Study of copper(II) oxide and copper(II) acetate on multiwalled carbon nanotubes by XPS. Surface Science Spectra, 2019, 26, .	0.3	9
67	An Easily Constructed and Inexpensive Tool to Evaluate the Seebeck Coefficient. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-7.	2.4	9
68	First-principle computations of ferromagnetic HgCr <sub>2</sub> Z <sub>4</sub> (Z=As, Se) spinels for spintronic and energy storage system applications. Journal of Materials Research and Technology, 2020, 9, 16159-16166.	2.6	9
69	UV Blocking Glass: Low Cost Filters for Visible Light Photocatalytic Assessment. International Journal of Photoenergy, 2014, 2014, 1-5.	1.4	8
70	Combinatorial CVD: New Oxynitride Photocatalysts. ECS Transactions, 2009, 25, 139-154.	0.3	7
71	Combinatorial CVD: New Oxy-nitride Photocatalysts. ECS Transactions, 2009, 25, 1239-1250.	0.3	7
72	Assembly of porous hierarchical copolymers/resin proppants: New approaches to smart proppant immobilization via molecular anchors. Journal of Colloid and Interface Science, 2016, 466, 275-283.	5.0	7

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73	Copper-complexed isonicotinic acid functionalized aluminum oxide nanoparticles. <i>Main Group Chemistry</i> , 2015, 15, 1-15.	0.4	6
74	On the initiation of blow-out from cooktop burner jets: A simplified energy-based description for the onset of laminar flame extinction in premixed hydrogen-enriched natural gas (HENG) systems. <i>Fuel</i> , 2021, 294, 120527.	3.4	6
75	N-doped Titania Thin Films, Prepared by Atmospheric Pressure Chemical Vapour Deposition: Enhanced Visible Light Photocatalytic Activity and Anti-microbial Effects. <i>ECS Transactions</i> , 2009, 25, 65-72.	0.3	5
76	Sensors-on-paper: Fabrication of graphite thermal sensor arrays on cellulose paper for large area temperature mapping. <i>HardwareX</i> , 2022, 11, e00252.	1.1	3
77	Control of ZnO Nanostructures via Vapor Transport. <i>Chemical Vapor Deposition</i> , 2012, 18, 282-288.	1.4	2
78	Woven Stainless-Steel Mesh as a Gas Separation Membrane for Alkaline Water-Splitting Electrolysis. <i>Membranes</i> , 2020, 10, 109.	1.4	2
79	The Hydrogen Bike: Communicating the Production and Safety of Green Hydrogen. <i>Frontiers in Communication</i> , 2021, 5, .	0.6	2
80	Fabrication of wooden thermoelectric legs to construct a generator. <i>Green Materials</i> , 0, , 1-8.	1.1	2
81	Enhanced thermal sensitivity in single metal thermocouple: significance of thickness-engineering of the metal layers. <i>Engineering Research Express</i> , 2021, 3, 035015.	0.8	2
82	Structural and electronic properties of $\text{Cu}_4\text{O}_3$ (paramelaconite): the role of native impurities. <i>Pure and Applied Chemistry</i> , 2021, 93, 1229-1244.	0.9	2
83	Study of Activity and Super-Capacitance Exhibited by Bifunctional Raney 2.0 Catalyst for Alkaline Water-Splitting Electrolysis. <i>Hydrogen</i> , 2021, 2, 1-17.	1.7	2
84	of a Novel Light-activated Antimicrobial Coating to Disinfect Computer Keyboards in the Clinical Ward Environment. <i>American Journal of Infection Control</i> , 2013, 41, S35-S36.	1.1	1
85	Composition analysis of Ta <sub>3</sub> N <sub>5</sub> /W <sub>18</sub> O <sub>49</sub> nanocomposite through XPS. <i>Surface Science Spectra</i> , 2018, 25, 024002.	0.3	1
86	Reactive Sputtered Ir <sub>1-x</sub> Ni <sub>y</sub> O <sub>x</sub> Electrocatalysts For The Oxygen Evolution Reaction in Alkaline Media. <i>Journal of the Electrochemical Society</i> , 2022, 169, 076501.	1.3	1