

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
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91
all docs

91
docs citations

91
times ranked

7845
citing authors

#	ARTICLE	IF	CITATIONS
1	Core-shell nanostructures for better thermoelectrics. <i>Materials Advances</i> , 2022, 3, 125-141.	2.6	13
2	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
3	Photocatalytic Degradation of Rhodamine B Dye and Hydrogen Evolution by Hydrothermally Synthesized NaBH ₄ -Spiked ZnS Nanostructures. <i>Frontiers in Chemistry</i> , 2022, 10, 835832.	1.8	10
4	Reactive Sputtered Ir _{1-y} Ni _y O _x Electrocatalysts For The Oxygen Evolution Reaction in Alkaline Media. <i>Journal of the Electrochemical Society</i> , 2022, 169, 076501.	1.3	1
5	Comprehensive Insights into Synthesis, Structural Features, and Thermoelectric Properties of High-Performance Inorganic Chalcogenide Nanomaterials for Conversion of Waste Heat to Electricity. <i>ACS Applied Energy Materials</i> , 2022, 5, 7913-7943.	2.5	14
6	An Easily Constructed and Inexpensive Tool to Evaluate the Seebeck Coefficient. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2021, 70, 1-7.	2.4	9
7	The Hydrogen Bike: Communicating the Production and Safety of Green Hydrogen. <i>Frontiers in Communication</i> , 2021, 5, .	0.6	2
8	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
9	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
10	Single material thermocouples from graphite traces: Fabricating extremely simple and low cost thermal sensors. <i>Carbon Trends</i> , 2021, 4, 100077.	1.4	14
11	Structural and electronic properties of Cu ₄ O ₃ (paramelaconite): the role of native impurities. <i>Pure and Applied Chemistry</i> , 2021, 93, 1229-1244.	0.9	2
12	Thin-films on cellulose paper to construct thermoelectric generator of promising power outputs suitable for low-grade heat recovery. <i>Materials Today Communications</i> , 2021, 29, 102738.	0.9	13
13	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
14	Apparent disagreement between cyclic voltammetry and electrochemical impedance spectroscopy explained by time-domain simulation of constant phase elements. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 22383-22393.	3.8	10
15	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
16	Low dimensional nanostructures of fast ion conducting lithium nitride. <i>Nature Communications</i> , 2020, 11, 4492.	5.8	19
17	Thermally stable Pt/Ti mesh catalyst for catalytic hydrogen combustion. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 16851-16864.	3.8	27
18	Woven Stainless-Steel Mesh as a Gas Separation Membrane for Alkaline Water-Splitting Electrolysis. <i>Membranes</i> , 2020, 10, 109.	1.4	2

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19	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
20	Thermoelectric Paper: Graphite Pencil Traces on Paper to Fabricate a Thermoelectric Generator. <i>Advanced Materials Technologies</i> , 2020, 5, 2000227.	3.0	44
21	First-principle computations of ferromagnetic HgCr ₂ Z ₄ (Z=As, Se) spinels for spintronic and energy storage system applications. <i>Journal of Materials Research and Technology</i> , 2020, 9, 16159-16166.	2.6	9
22	Photocapacitive CdS/WO _x nanostructures for solar energy storage. <i>Scientific Reports</i> , 2019, 9, 11573.	1.6	17
23	Powering the Hydrogen Economy from Waste Heat: A Review of Heat-to-Hydrogen Concepts. <i>ChemSusChem</i> , 2019, 12, 3882-3895.	3.6	36
24	Raney Nickel 2.0: Development of a high-performance bifunctional electrocatalyst. <i>Electrochimica Acta</i> , 2019, 322, 134687.	2.6	26
25	Development of a Pt/stainless steel mesh catalyst and its application in catalytic hydrogen combustion. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 27094-27106.	3.8	30
26	Study of copper(II) oxide and copper(II) acetate on multiwalled carbon nanotubes by XPS. <i>Surface Science Spectra</i> , 2019, 26, .	0.3	9
27	Enhanced Lifetime Cathode for Alkaline Electrolysis Using Standard Commercial Titanium Nitride Coatings. <i>Processes</i> , 2019, 7, 112.	1.3	13
28	VO ₂ /TiO ₂ bilayer films for energy efficient windows with multifunctional properties. <i>Journal of Materials Chemistry C</i> , 2018, 6, 4485-4493.	2.7	31
29	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
30	Composition analysis of Ta ₃ N ₅ /W ₁₈ O ₄₉ nanocomposite through XPS. <i>Surface Science Spectra</i> , 2018, 25, 024002.	0.3	1
31	Active removal of waste dye pollutants using Ta ₃ N ₅ /W ₁₈ O ₄₉ nanocomposite fibres. <i>Scientific Reports</i> , 2017, 7, 4090.	1.6	29
32	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
33	Zero gap alkaline electrolysis cell design for renewable energy storage as hydrogen gas. <i>RSC Advances</i> , 2016, 6, 100643-100651.	1.7	161
34	Porous carbons from inverse vulcanised polymers. <i>Microporous and Mesoporous Materials</i> , 2016, 232, 189-195.	2.2	34
35	Enhanced purification of carbon nanotubes by microwave and chlorine cleaning procedures. <i>RSC Advances</i> , 2016, 6, 11895-11902.	1.7	48
36	Assembly of porous hierarchical copolymers/resin proppants: New approaches to smart proppant immobilization via molecular anchors. <i>Journal of Colloid and Interface Science</i> , 2016, 466, 275-283.	5.0	7

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37	Copper-complexed isonicotinic acid functionalized aluminum oxide nanoparticles. <i>Main Group Chemistry</i> , 2015, 15, 1-15.	0.4	6
38	Nickel-Doped Ceria Nanoparticles: The Effect of Annealing on Room Temperature Ferromagnetism. <i>Crystals</i> , 2015, 5, 312-326.	1.0	26
39	Nanoparticle- S sulphur S -inverse vulcanisation-polymer composites. <i>Chemical Communications</i> , 2015, 51, 10467-10470.	2.2	35
40	A microwave cured flux for the adhesion of ceramic particles using silica coated carbon nanotubes. <i>Carbon</i> , 2015, 93, 774-781.	5.4	10
41	pH-responsive octylamine coupling modification of carboxylated aluminium oxide surfaces. <i>Journal of Materials Chemistry A</i> , 2015, 3, 10052-10059.	5.2	33
42	Bi-phasic titanium dioxide nanoparticles doped with nitrogen and neodymium for enhanced photocatalysis. <i>Nanoscale</i> , 2015, 7, 17735-17744.	2.8	11
43	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
44	Visible Light Photocatalytic Activity in AACVD-Prepared N-modified TiO_2 Thin Films. <i>Chemical Vapor Deposition</i> , 2014, 20, 91-97.	1.4	14
45	UV Blocking Glass: Low Cost Filters for Visible Light Photocatalytic Assessment. <i>International Journal of Photoenergy</i> , 2014, 2014, 1-5.	1.4	8
46	N-doped TiO_2 visible light photocatalyst films via a sol-gel route using TMEDA as the nitrogen source. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2014, 281, 27-34.	2.0	37
47	A fast and effective method for N-doping TiO_2 by post treatment with liquid ammonia: visible light photocatalysis. <i>Thin Solid Films</i> , 2014, 562, 223-228.	0.8	20
48	Silver enhanced TiO_2 thin films: photocatalytic characterization using aqueous solutions of tris(hydroxymethyl)aminomethane. <i>Dalton Transactions</i> , 2014, 43, 344-351.	1.6	17
49	Band alignment of rutile and anatase TiO_2 . <i>Nature Materials</i> , 2013, 12, 798-801.	13.3	1,924
50	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
51	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
52	Shining light on materials - A self-sterilising revolution. <i>Advanced Drug Delivery Reviews</i> , 2013, 65, 570-580.	6.6	83
53	Calcium phosphate-based materials of natural origin showing photocatalytic activity. <i>Journal of Materials Chemistry A</i> , 2013, 1, 6452.	5.2	57
54	Control of ZnO Nanostructures via Vapor Transport. <i>Chemical Vapor Deposition</i> , 2012, 18, 282-288.	1.4	2

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55	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
56	Production of Predominantly Anatase Thin Films on Various Grades of Steel and Other Metallic Substrates From $TiCl_4$ and Ethyl Acetate by Atmospheric Pressure CVD. <i>Chemical Vapor Deposition</i> , 2012, 18, 133-139.	1.4	15
57	CVD Production of Doped Titanium Dioxide Thin Films. <i>Chemical Vapor Deposition</i> , 2012, 18, 89-101.	1.4	35
58	Silver loaded WO_3/TiO_2 composite multifunctional thin films. <i>Thin Solid Films</i> , 2012, 520, 5516-5520.	0.8	15
59	The relationship between photocatalytic activity and photochromic state of nanoparticulate silver surface loaded titanium dioxide thin-films. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 13827.	1.3	36
60	Nitrogen-doped TiO_2 thin films: photocatalytic applications for healthcare environments. <i>Dalton Transactions</i> , 2011, 40, 1635-1640.	1.6	153
61	Visible light photocatalysts—N-doped TiO_2 by sol-gel, enhanced with surface bound silver nanoparticle islands. <i>Journal of Materials Chemistry</i> , 2011, 21, 11854.	6.7	56
62	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
63	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
64	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
65	Sulfur and Nitrogen Doped Titania Biomaterials via APCVD. <i>Chemical Vapor Deposition</i> , 2010, 16, 50-54.	1.4	34
66	Multifunctional Nanocomposite Thin Films by Aerosol Assisted CVD. <i>Chemical Vapor Deposition</i> , 2010, 16, 220-224.	1.4	28
67	Impaired bacterial attachment to light activated Ni-Ti alloy. <i>Materials Science and Engineering C</i> , 2010, 30, 225-234.	3.8	9
68	Superconducting tantalum disulfide nanotapes; growth, structure and stoichiometry. <i>Nanoscale</i> , 2010, 2, 90-97.	2.8	18
69	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
70	Combinatorial CVD: New Oxynitride Photocatalysts. <i>ECS Transactions</i> , 2009, 25, 139-154.	0.3	7
71	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
72	Combinatorial CVD: New Oxy-nitride Photocatalysts. <i>ECS Transactions</i> , 2009, 25, 1239-1250.	0.3	7

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73	N-doped Titania Thin Films Prepared by Atmospheric Pressure CVD using t-butylamine as the Nitrogen Source: Enhanced Photocatalytic Activity under Visible Light. <i>Chemical Vapor Deposition</i> , 2009, 15, 171-174.	1.4	31
74	Enhanced photocatalytic activity under visible light in N-doped TiO ₂ 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
75	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
76	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
77	The role of surfaces in catheter-associated infections. <i>Chemical Society Reviews</i> , 2009, 38, 3435.	18.7	190
78	White light induced photocatalytic activity of sulfur-doped TiO ₂ thin films and their potential for antibacterial application. <i>Journal of Materials Chemistry</i> , 2009, 19, 8747.	6.7	105
79	Electrochemical behaviour of nano-sized spinel LiMn ₂ O ₄ and LiAl _x Mn _{2-x} O ₄ (x=Al: 0.00-0.40) synthesized via fumaric acid-assisted sol-gel synthesis for use in lithium rechargeable batteries. <i>Journal of Physics and Chemistry of Solids</i> , 2008, 69, 2082-2090.	1.9	36
80	Studies on chromium/aluminium-doped manganese spinel as cathode materials for lithium-ion batteries: A novel chelated sol-gel synthesis. <i>Journal of Materials Processing Technology</i> , 2008, 208, 520-531.	3.1	41
81	Phthalic acid assisted nano-sized spinel LiMn ₂ O ₄ and LiCr _x Mn _{2-x} O ₄ (x= 0.00-0.40) via sol-gel synthesis and its electrochemical behaviour for use in Li-ion-batteries. <i>Materials Research Bulletin</i> , 2008, 43, 2119-2129.	2.7	41
82	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
83	Low-Temperature Magnetic Properties of Hematite Nanorods. <i>Chemistry of Materials</i> , 2007, 19, 916-921.	3.2	75
84	Preparation and characterization of tungsten oxynitride nanowires. <i>Journal of Materials Chemistry</i> , 2007, 17, 4436.	6.7	56
85	Single-Step Synthesis and Surface-Assisted Growth of Superconducting TaS ₂ Nanowires. <i>Angewandte Chemie - International Edition</i> , 2006, 45, 7060-7063.	7.2	30
86	Fabrication of wooden thermoelectric legs to construct a generator. <i>Green Materials</i> , 0, , 1-8.	1.1	2