James H Dickerson

List of Publications by Citations

88 papers	2,007 citations	24 h-index	42 g-index
93 ext. papers	2,172 ext. citations	5.5 avg, IF	5.06 L-index

#	Paper	IF	Citations
88	Superhydrophobic silanized melamine sponges as high efficiency oil absorbent materials. *ACS Applied Materials & Interfaces*, **2014**, 6, 14181-8	9.5	269
87	Understanding the oriented-attachment growth of nanocrystals from an energy point of view: a review. *Nanoscale*, **2014**, 6, 2531-47	7.7	133
86	Transferable graphene oxide films with tunable microstructures. *ACS Nano*, **2010**, 4, 7367-72	16.7	121
85	Recent progress in degradation and stabilization of organic solar cells. *Journal of Power Sources*, **2014**, 264, 168-183	8.9	113
84	Size- and charge-dependent non-specific uptake of PEGylated nanoparticles by macrophages. *International Journal of Nanomedicine*, **2012**, 7, 799-813	7.3	106
83	Gas transport in porous electrodes of solid oxide fuel cells: A review on diffusion and diffusivity measurement. *Journal of Power Sources*, **2013**, 237, 64-73	8.9	62
82	Reduced Graphene Oxide Hydrogels Deposited in Nickel Foam for Supercapacitor Applications: Toward High Volumetric Capacitance. *Journal of Physical Chemistry C*, **2016**, 120, 5353-5360	3.8	50
81	Buckypaper fabrication by liberation of electrophoretically deposited carbon nanotubes. *Carbon*, **2010**, 48, 4090-4099	10.4	49
80	Hydrogenated TiO2@reduced graphene oxide sandwich-like nanosheets for high voltage supercapacitor applications. *Carbon*, **2018**, 126, 135-144	10.4	45
79	Synthesis of monodisperse sub-3 nm RE2O3and Gd2O3:RE3+nanocrystals. *Nanotechnology*, **2007**, 18, 325605	3.4	45
78	Carbon nanotube-nanocrystal heterostructures fabricated by electrophoretic deposition. *Nanotechnology*, **2008**, 19, 195301	3.4	42
77	Highly Efficient Materials Assembly Via Electrophoretic Deposition for Electrochemical Energy Conversion and Storage Devices. *Advanced Energy Materials*, **2016**, 6, 1502018	21.8	39
76	Electrophoretic deposition of CdSe nanocrystal films onto dielectric polymer thin films. *Thin Solid Films*, **2009**, 517, 2665-2669	2.2	38
75	Sacrificial layer electrophoretic deposition of free-standing multilayered nanoparticle films. *Chemical Communications*, **2009**, 3723-5	5.8	37
74	Distinctive Supercapacitive Properties of Copper and Copper Oxide Nanocrystals Sharing a Similar Colloidal Synthetic Route. *Advanced Energy Materials*, **2017**, 7, 1700105	21.8	35
73	Facile electrodeposition of reduced graphene oxide hydrogels for high-performance supercapacitors. *Nanoscale*, **2015**, 7, 5947-50	7.7	34
72	An analytical expression for the van der Waals interaction in oriented-attachment growth: a spherical nanoparticle and a growing cylindrical nanorod. *Physical Chemistry Chemical Physics*, **2012**, 14, 4548-53	3.6	34

71	Superantiferromagnetic EuTe nanoparticles: room temperature colloidal synthesis, structural characterization, and magnetic properties. *Nanoscale*, **2011**, 3, 184-7	7.7	33
70	Remarkable optical and magnetic properties of ultra-thin europium oxysulfide nanorods. *Journal of Materials Chemistry*, **2012**, 22, 16728		31
69	Evolution of ordering in iron oxide nanoparticle monolayers using electrophoretic deposition. *ACS Applied Materials & Interfaces*, **2011**, 3, 3611-5	9.5	28
68	A new insight into the oxygen diffusion in porous cathodes of lithium-air batteries. *Energy*, **2015**, 83, 669-673	7.9	27
67	Overall concentration polarization and limiting current density of fuel cells with nanostructured electrodes. *Nano Energy*, **2012**, 1, 828-832	17.1	26
66	Controlled electrophoretic deposition of uniquely nanostructured star polymer films. *Journal of Physical Chemistry B*, **2008**, 112, 23-8	3.4	26
65	Direct electrophoretic deposition of an ultra-strong separator on an anode in a surfactant-free colloidal system for lithium ion batteries. *Journal of Materials Chemistry A*, **2019**, 7, 1410-1417	13	24
64	Lithium□Air Batteries: Performance Interplays with Instability Factors. *ChemElectroChem*, **2015**, 2, 312-323	4.3	24
63	Toward dynamic control over TiO2 nanocrystal monolayer-by-monolayer film formation by electrophoretic deposition in nonpolar solvents. *Langmuir*, **2012**, 28, 5295-301	4	24
62	A facile synthesis of Te nanoparticles with binary size distribution by green chemistry. *Nanoscale*, **2011**, 3, 1523-5	7.7	23
61	Thermally driven isotropic crystallinity breaking of nanocrystals: Insight into the assembly of EuS nanoclusters and nanorods with oleate ligands. *Applied Physics Letters*, **2011**, 98, 081914	3.4	23
60	Physical justification for ionic conductivity enhancement at strained coherent interfaces. *Journal of Power Sources*, **2015**, 285, 37-42	8.9	22
59	Understanding the growth of Eu(2)O(3) nanocrystal films made via electrophoretic deposition. *Nanotechnology*, **2010**, 21, 145704	3.4	22
58	Europium sulfide nanoparticles in the sub-2nm size regime. *Materials Chemistry and Physics*, **2009**, 115, 526-529	4.4	21
57	EuS nanocrystals: a novel synthesis for the generation of monodisperse nanocrystals with size-dependent optical properties. *Nanotechnology*, **2010**, 21, 415601	3.4	20
56	Electrophoretic deposition and characterization of Eu2O3 nanocrystal□carbon nanotube heterostructures. *Journal of the European Ceramic Society*, **2010**, 30, 1145-1150	6	20
55	Electric-Field Tuning of Spin-Dependent Exciton-Exciton Interactions in Coupled Quantum Wells. *Physical Review Letters*, **1999**, 83, 2433-2436	7.4	19
54	Electrophoretic deposition: fundamentals and applications. *Journal of Physical Chemistry B*, **2013**, 117, 1501	3.4	18

53	Magnetization reversal in europium sulfide nanocrystals. *Applied Physics Letters*, **2006**, 89, 222501	3.4	18
52	An electrochemical device for three-dimensional (3D) diffusivity measurement in fuel cells. *Nano Energy*, **2013**, 2, 1004-1009	17.1	16
51	Physical justification for negative remanent magnetization in homogeneous nanoparticles. *Scientific Reports*, **2014**, 4, 6267	4.9	16
50	Ligand-mediated shape control in the solvothermal synthesis of titanium dioxide nanospheres, nanorods and nanowires. *Nanoscale*, **2011**, 3, 3799-804	7.7	14
49	Gas Transport in Solid Oxide Fuel Cells. *SpringerBriefs in Energy*, **2014**,	0.3	13
48	Growth of Solid and Hollow Gold Particles through the Thermal Annealing of Nanoscale Patterned Thin Films. *ACS Applied Materials & Interfaces*, **2013**, 5, 11590-6	9.5	13
47	Dielectric properties of colloidal Gd2O3 nanocrystal films fabricated via electrophoretic deposition. *Applied Physics Letters*, **2010**, 96, 113105	3.4	13
46	Statistical assessment of order within systems of nanoparticles: determining the efficacy of patterned substrates to facilitate ordering within nanoparticle monolayers fabricated through electrophoretic deposition. *Physical Review E*, **2013**, 87, 042307	2.4	12
45	Patterned substrates to facilitate long-range ordering in the formation of nanoparticle monolayers by electrophoretic deposition. *Applied Physics Letters*, **2012**, 101, 043117	3.4	12
44	Size- and dimensionality-dependent optical, magnetic and magneto-optical properties of binary europium-based nanocrystals: EuX (X□=□O, S, Se, Te). *Nanotechnology*, **2016**, 27, 192001	3.4	12
43	Nanoscale engineering of TiO2 nanoparticles: Evolution of the shape, phase, morphology, and facet orientation. *Materials Letters*, **2016**, 180, 212-218	3.3	12
42	Facile electrophoretic deposition of functionalized Bi 2 O 3 nanoparticles. *Materials and Design*, **2017**, 116, 359-364	8.1	11
41	Using Voronoi tessellations to assess nanoparticle-nanoparticle interactions and ordering in monolayer films formed through electrophoretic deposition. *Journal of Physical Chemistry B*, **2013**, 117, 1664-9	3.4	11
40	Quantitative evaluation of Coulombic interactions in the oriented-attachment growth of nanotubes. *Analyst, The*, **2014**, 139, 371-4	5	11
39	Electrophoretic Deposition of Nanocrystals in Non-polar Solvents. *Nanostructure Science and Technology*, **2012**, 131-155	0.9	11
38	Nanoporous TiO2 nanoparticle assemblies with mesoscale morphologies: nano-cabbage versus sea-anemone. *Nanoscale*, **2014**, 6, 5652-6	7.7	10
37	Freestanding Carbon Nanotube Films Fabricated by Post-Electrophoretic Deposition Electrochemical Separation. *Journal of the Electrochemical Society*, **2012**, 159, K103-K106	3.9	9
36	Field Dependence of the Spin Relaxation Within a Film of Iron Oxide Nanocrystals Formed via Electrophoretic Deposition. *Nanoscale Research Letters*, **2010**, 5, 1540-5	5	8

35	Synthesis of RE(OH)2Cl and REOCl (RE=Eu, Tb) nanostructures. *Journal of Rare Earths*, **2008**, 26, 131-135	3.7	8
34	X-ray scattering as a liquid and solid phase probe of ordering within sub-monolayers of iron oxide nanoparticles fabricated by electrophoretic deposition. *Nanoscale*, **2014**, 6, 4047-51	7.7	7
33	Surfactant induced colloidal growth and selective electrophoretic deposition of one-dimensional Te nanocrystals. *Materials Letters*, **2013**, 110, 148-151	3.3	7
32	Insight into Nanoparticle Charging Mechanism in Nonpolar Solvents To Control the Formation of Pt Nanoparticle Monolayers by Electrophoretic Deposition. *ACS Applied Materials & Interfaces*, **2016**, 8, 19680-90	9.5	7
31	Out-of-Cell Oxygen Diffusivity Evaluation in Lithium□Air Batteries. *ChemElectroChem*, **2014**, 1, 2052-2057	4.3	6
30	Concentration dependence of the exchange interaction in lead europium sulfide nanocrystals. *Solid State Communications*, **2012**, 152, 161-164	1.6	6
29	Improved speed of hydrogen detection by Schottky diodes on InP with electrophoretically deposited Pt nanoparticles and graphite contacts. *Sensors and Actuators B: Chemical*, **2013**, 184, 295-300	8.5	6
28	M□ssbauer spectra and superparamagnetism of europium sulfide nanoparticles. *Journal Physics D: Applied Physics*, **2014**, 47, 075001	3	5
27	Electrochemical devices with optimized gas tightness for the diffusivity measurement in fuel cells. *International Journal of Hydrogen Energy*, **2014**, 39, 2334-2339	6.7	5
26	Template assisted synthesis of europium sulfide nanotubes. *Materials Letters*, **2011**, 65, 420-423	3.3	5
25	Interfacial Development of Electrophoretically Deposited Graphene Oxide Films on Al Alloys. *Journal of the Electrochemical Society*, **2015**, 162, D3025-D3029	3.9	4
24	Comparing Highly Ordered Monolayers of Nanoparticles Fabricated Using Electrophoretic Deposition: Cobalt Ferrite Nanoparticles versus Iron Oxide Nanoparticles. *Journal of the Electrochemical Society*, **2015**, 162, D3036-D3039	3.9	4
23	Polyamic acid: nanoprecipitation and electrophoretic deposition on porous supports **2018**, 15, 489-496		4
22	Ultrathin YO:Eunanodiscs: spectroscopic investigations and evidence for reduced concentration quenching. *Nanotechnology*, **2018**, 29, 455703	3.4	4
21	Structural and magnetic analysis of nanocrystalline lead europium sulfide (PbxEuyS). *Materials Chemistry and Physics*, **2012**, 134, 1-6	4.4	3
20	Protective coatings for enhanced performance in biomedical applications. *Surface Engineering*, **2012**, 28, 473-479	2.6	3
19	Optical studies of sub-3 nm Eu2O3 and Gd2O3:Eu3+ nanocrystals. *Journal of Alloys and Compounds*, **2009**, 488, 574-577	5.7	3
18	Kinetics of monolayer and bilayer nanoparticle film formation during electrophoretic deposition. *Advances in Applied Ceramics*, **2014**, 113, 50-54	2.3	2

17	Optimal packing size of non-ligated CdSe nanoclusters for microstructure synthesis. *Journal of Applied Physics*, **2014**, 116, 104301	2.5	2
16	Wide angle x-ray diffraction studies of nanocrystalline lead europium sulfide. *Materials Letters*, **2012**, 89, 198-201	3.3	2
15	Thin Films of Europium (III) Doped-TiO2 Prepared by Electrophoretic Deposition from Nanoparticulate Sols. *Key Engineering Materials*, **2012**, 507, 73-77	0.4	2
14	Electric-field tuning of the Rabi splitting in a superlattice-embedded microcavity. *Applied Physics Letters*, **2002**, 81, 803-805	3.4	2
13	Electrophoretic Deposition of Metal Nanoparticle Monolayers from Nonpolar Solvents for Hydrogen Sensing. *Key Engineering Materials*, **2015**, 654, 213-217	0.4	1
12	Post-Electrophoretic Deposition Electrochemical Separation (PEPDECS): Optimization of the Fabrication of Freestanding Carbon Nanotube Films. *ECS Journal of Solid State Science and Technology*, **2014**, 3, M71-M75	2	1
11	Selective Deposition of TiO2 during Monolayer Formation of TiO2 and Iron Oxide Nanocrystals by Electrophoretic Deposition in Non-Polar Solvents. *Key Engineering Materials*, **2012**, 507, 89-93	0.4	1
10	A novel method of photonic band-gap lithography of porous silicon heterostructures **2007**,		1
9	The evaluation of van der Waals interaction in the oriented-attachment growth of nanotubes. *Materials Research Society Symposia Proceedings*, **2014**, 1705, 1		
8	Electrophoretic Deposition of Star Polymer-Europium Chalcogenide Nanocomposite Films. *Key Engineering Materials*, **2009**, 412, 113-118	0.4	
7	Current Measurements as a Direct Diagnostic for Sub-Monolayer Growth of Nanoparticle Films in Non-Polar Electrophoretic Deposition. *Key Engineering Materials*, **2012**, 507, 79-83	0.4	
6	Characterization of EuS Nanotubes in Quantum Confinement. *Microscopy and Microanalysis*, **2009**, 15, 1178-1179	0.5	
5	Response to □Comment on □Magnetization reversal in europium sulfide nanocrystals□[Appl. Phys. Lett. 91, 026102 (2007)]. *Applied Physics Letters*, **2008**, 92, 026103	3.4	
4	Electric field enhancement of the Rabi splitting in a superlattice-microcavity system. *Physica E: Low-Dimensional Systems and Nanostructures*, **2002**, 13, 398-402	3	
3	Spin-Dependent Exciton□Exciton Interaction in Quantum Wells under an Electric Field. *Physica Status Solidi (B): Basic Research*, **1999**, 215, 223-228	1.3	
2	Diffusivity Measurement Techniques. *SpringerBriefs in Energy*, **2014**, 19-44	0.3	
1	Introduction to Gas Transport in Solid Oxide Fuel Cells. *SpringerBriefs in Energy*, **2014**, 1-8	0.3	