M J Gordon

List of Publications by Citations

71 papers	1,255 citations	17 h-index	33 g-index
74 ext. papers	1,750 ext. citations	5.9 avg, IF	4.94 L-index

#	Paper	IF	Citations
71	Size effects in mechanical deformation and fracture of cantilevered silicon nanowires. *Nano Letters*, **2009**, 9, 525-9	11.5	184
70	Catalytic molten metals for the direct conversion of methane to hydrogen and separable carbon. *Science*, **2017**, 358, 917-921	33.3	155
69	Statistics of electrical breakdown field in HfO2 and SiO2 films from millimeter to nanometer length scales. *Applied Physics Letters*, **2007**, 91, 242905	3.4	86
68	Comparison of size-dependent characteristics of blue and green InGaN microLEDs down to 1 □m in diameter. *Applied Physics Letters*, **2020**, 116, 071102	3.4	59
67	Dry reforming of methane catalysed by molten metal alloys. *Nature Catalysis*, **2020**, 3, 83-89	36.5	57
66	Methane Pyrolysis with a Molten CuBi Alloy Catalyst. *ACS Catalysis*, **2019**, 9, 8337-8345	13.1	46
65	Catalytic methane pyrolysis in molten MnCl2-KCl. *Applied Catalysis B: Environmental*, **2019**, 254, 659-666	21.8	42
64	Oxygen evolution on Fe-doped NiO electrocatalysts deposited via microplasma. *Nanoscale*, **2017**, 9, 15070-15082	7.7	40
63	Revealing the importance of light extraction efficiency in InGaN/GaN microLEDs via chemical treatment and dielectric passivation. *Applied Physics Letters*, **2020**, 116, 251104	3.4	38
62	Solid carbon production and recovery from high temperature methane pyrolysis in bubble columns containing molten metals and molten salts. *Carbon*, **2019**, 151, 181-191	10.4	35
61	Demonstration of ultra-small (0.2%) for mini-displays. *Applied Physics Express*, **2021**, 14, 011004	2.4	35
60	Moth eye-inspired anti-reflective surfaces for improved IR optical systems & visible LEDs fabricated with colloidal lithography and etching. *Bioinspiration and Biomimetics*, **2018**, 13, 041001	2.6	30
59	Simple colloidal lithography method to fabricate large-area moth-eye antireflective structures on Si, Ge, and GaAs for IR applications. *Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics*, **2014**, 32, 051213	1.3	23
58	Optical measures of thermally induced chain ordering and oxidative damage in polythiophene films. *Journal of Physical Chemistry B*, **2013**, 117, 1950-7	3.4	21
57	Importance of diffuse scattering phenomena in moth-eye arrays for broadband infrared applications. *Optics Letters*, **2014**, 39, 13-6	3	21
56	Nanoscale Optical Microscopy and Spectroscopy Using Near-Field Probes. *Annual Review of Chemical and Biomolecular Engineering*, **2018**, 9, 365-387	8.9	20
55	Color-tunable . *Applied Physics Letters*, **2020**, 117, 061105	3.4	19

54	Catalytic Methane Pyrolysis in Molten Alkali Chloride Salts Containing Iron. *ACS Catalysis*, **2020**, 10, 7032-7042	13.1	17
53	Influence of Blending Ratio and Polymer Matrix on the Lasing Properties of Perylenediimide Dyes. *Journal of Physical Chemistry C*, **2018**, 122, 24896-24906	3.8	17
52	Near-field artifacts in tip-enhanced Raman spectroscopy. *Applied Physics Letters*, **2012**, 100, 213111	3.4	16
51	Microplasma-based synthesis of vertically aligned metal oxide nanostructures. *Nanotechnology*, **2012**, 23, 425603	3.4	16
50	Atmospheric Pressure Plasma Deposition of Hydrophilic/Phobic Patterns and Thin Film Laminates on Any Surface. *Langmuir*, **2019**, 35, 9677-9683	4	15
49	Wavelength-specific forward scattering of light by Bragg-reflective iridocytes in giant clams. *Journal of the Royal Society Interface*, **2016**, 13,	4.1	15
48	Exchange bias and spin glass behavior in biphasic NiFe2O4/NiO thin films. *Journal of Magnetism and Magnetic Materials*, **2016**, 419, 29-36	2.8	14
47	Bio-inspired, sub-wavelength surface structures for ultra-broadband, omni-directional anti-reflection in the mid and far IR. *Optics Express*, **2014**, 22, 12808-16	3.3	14
46	Biomimetic nanostructures in ZnS and ZnSe provide broadband anti-reflectivity. *Journal of Optics (United Kingdom)*, **2017**, 19, 114007	1.7	12
45	Enhanced light extraction from free-standing InGaN/GaN light emitters using bio-inspired backside surface structuring. *Optics Express*, **2017**, 25, 15778-15785	3.3	12
44	Partial Hydrogenation of C2H2 on Ag-Doped Pt Nanoparticles. *Journal of Physical Chemistry C*, **2012** , 116, 12982-12988	3.8	12
43	Strain relaxation of InGaN/GaN multi-quantum well light emitters via nanopatterning. *Optics Express*, **2019**, 27, 30081-30089	3.3	12
42	Molten salt chemical looping for reactive separation of HBr in a halogen-based natural gas conversion process. *Chemical Engineering Science*, **2017**, 160, 245-253	4.4	11
41	Catalytic Methane Pyrolysis with Liquid and Vapor Phase Tellurium. *ACS Catalysis*, **2020**, 10, 8223-8230	13.1	11
40	Enhancing near-infrared light absorption in PtSi thin films for Schottky barrier IR detectors using moth-eye surface structures. *Optics Letters*, **2015**, 40, 1512-5	3	10
39	Doped rhodium sulfide and thiospinels hydrogen evolution and oxidation electrocatalysts in strong acid electrolytes. *Journal of Applied Electrochemistry*, **2016**, 46, 497-503	2.6	10
38	Fabrication and optical behavior of graded-index, moth-eye antireflective structures in CdTe. *Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics*, **2017**, 35, 011201	1.3	9
37	Spray deposition of nanostructured metal films using hydrodynamically stabilized, high pressure microplasmas. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2013**, 31, 061312	2.9	9

36	Microplasma-Based Growth of Biphasic NiFe2O4/NiO Nanogranular Films for Exchange Bias Applications. *Chemistry of Materials*, **2014**, 26, 6026-6032	9.6	8
35	Gas-surface chemical reactions at high collision energies?. *Journal of the American Chemical Society*, **2009**, 131, 1927-30	16.4	8
34	CO2-Free Hydrogen Production by Catalytic Pyrolysis of Hydrocarbon Feedstocks in Molten NiBi. *Energy & Fuels*, **2020**, 34, 16073-16080	4.1	8
33	Halogen-Mediated Oxidative Dehydrogenation of Propane Using Iodine or Molten Lithium Iodide. *Catalysis Letters*, **2016**, 146, 744-754	2.8	7
32	Influence of Step-Edge vs Terrace Sites on Temperature-Dependent C2H2 Hydrogenation with Ag-Doped Pt Nanoparticles. *Journal of Physical Chemistry C*, **2012**, 116, 23472-23476	3.8	7
31	Microplasmas for direct, substrate-independent deposition of nanostructured metal oxides. *Applied Physics Letters*, **2016**, 109, 033110	3.4	6
30	Effect of silane coupling agent chemistry on electrical breakdown across hybrid organic-inorganic insulating films. *ACS Applied Materials & Interfaces*, **2014**, 6, 11932-9	9.5	5
29	Testing predictions from density functional theory at finite temperatures: 2-like ground states in Co-Pt. *Physical Review B*, **2015**, 92,	3.3	5
28	First-principles investigation of competing magnetic interactions in (Mn,Fe)Ru2Sn Heusler solid solutions. *Physical Review B*, **2017**, 96,	3.3	4
27	Bromine and iodine for selective partial oxidation of propane and methane. *Applied Catalysis A: General*, **2019**, 580, 102-110	5.1	4
26	Reflection-mode, confocal, tip-enhanced Raman spectroscopy system for scanning chemical microscopy of surfaces. *Review of Scientific Instruments*, **2012**, 83, 093706	1.7	4
25	Subdiffraction-limited chemical imaging of patterned phthalocyanine films using tip-enhanced near-field optical microscopy. *Journal of Raman Spectroscopy*, **2016**, 47, 1287-1292	2.3	3
24	Demonstration of ultra-small 5 5 h2 607 nm InGaN amber micro-light-emitting diodes with an external quantum efficiency over 2%. *Applied Physics Letters*, **2022**, 120, 041102	3.4	3
23	Fabrication and chemical lift-off of sub-micron scale III-nitride LED structures. *Optics Express*, **2020**, 28, 35038-35046	3.3	3
22	Precise localization of DBD plasma streamers using topographically patterned insulators for maskless structural and chemical modification of surfaces. *Applied Physics Letters*, **2021**, 119, 211601	3.4	3
21	Methane pyrolysis in low-cost, alkali-halide molten salts at high temperatures. *Sustainable Energy and Fuels*,	5.8	3
20	Quasiordered, subwavelength TiO2 hole arrays with tunable, omnidirectional color response. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2020**, 38, 053403	2.9	3
19	Tip-enhanced near-field optical microscope with side-on and ATR-mode sample excitation for super-resolution Raman imaging of surfaces. *Journal of Applied Physics*, **2016**, 119, 223103	2.5	3

18	Halogen-Mediated Partial Combustion of Methane in Molten Salts To Produce CO2-Free Power and Solid Carbon. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 15673-15681	8.3	3
17	Chlorine Production by HCl Oxidation in a Molten Chloride Salt Catalyst. *Industrial & Engineering Chemistry Research*, **2018**, 57, 7795-7801	3.9	3
16	Hierarchical colloid-based lithography for wettability tuning of semiconductor surfaces. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2021**, 39, 053209	2.9	3
15	High-temperature heterogeneous catalysis in platinum nanoparticle molten salt suspensions. *Catalysis Science and Technology*, **2020**, 10, 625-629	5.5	2
14	Imaging Intermolecular Exciton Coupling in Metal-Free Phthalocyanine Nanofilms Using Tip-Enhanced Near-Field Optical Microscopy. *Journal of Physical Chemistry C*, **2018**, 122, 14796-14804	3.8	2
13	Color-changing refractive index sensor based on Fano-resonant filtering of optical modes in a porous dielectric Fabry-P ot microcavity. *Optics Express*, **2020**, 28, 28226-28233	3.3	2
12	Lift-off of semipolar blue and green III-nitride LEDs grown on free-standing GaN. *Applied Physics Letters*, **2020**, 117, 021104	3.4	2
11	Polymethylmethacrylate wettability change spatially correlates with self-organized streamer microdischarge patterns in dielectric barrier discharge plasmas. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2021**, 39, 063001	2.9	2
10	Red InGaN micro-light-emitting diodes (>620 nm) with a peak external quantum efficiency of 4.5% using an epitaxial tunnel junction contact. *Applied Physics Letters*, **2022**, 120, 121102	3.4	2
9	Electrochemistry as a surrogate for protein phosphorylation: voltage-controlled assembly of reflectin A1. *Journal of the Royal Society Interface*, **2020**, 17, 20200774	4.1	1
8	Molecular Oxygen Activation on Suspended Doped Cerium(IV) Oxide Particles in Molten Chloride Salts. *Catalysis Letters*, **2020**, 150, 273-280	2.8	1
7	Initial Steps in CH4 Pyrolysis on Cu and Ni. *Journal of Physical Chemistry C*, **2021**, 125, 18665-18672	3.8	1
6	Influence of hydrocarbon feed additives on the high-temperature pyrolysis of methane in molten salt bubble column reactors. *Reaction Chemistry and Engineering*,	4.9	1
5	Reversible electrochemical triggering and optical interrogation of polylysine helix formation. *Bioelectrochemistry*, **2021**, 144, 108007	5.6	0
4	Computational design and optimization of nanostructured AlN deep-UV grating reflectors.. *Optics Express*, **2022**, 30, 12120-12130	3.3	0
3	Optical emission spectroscopy and Langmuir probe studies of an intermediate pressure, supersonic microplasma jet deposition source. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2022**, 40, 013002	2.9	
2	Direct detection of gap mode plasmon resonances using attenuated total reflection-based tip-enhanced near-field optical microscopy. *Journal of Optics (United Kingdom)*, **2020**, 22, 095001	1.7	
1	Simple and Scalable Chemical Surface Patterning via Direct Deposition from Immobilized Plasma Filaments in a Dielectric Barrier Discharge.. *Advanced Science*, **2022**, e2200237	13.6	