John F Mcgilp

List of Publications by Citations

104 papers	2,175 citations	26 h-index	42 g-index
107 ext. papers	2,254 ext. citations	2.8 avg, IF	4.65 L-index

#	Paper	IF	Citations
104	Fibre optic oxygen sensor based on fluorescence quenching of evanescent-wave excited ruthenium complexes in sol□gel derived porous coatings. *Analyst, The*, **1993**, 118, 385-388	5	187
103	Optical characterisation of semiconductor surfaces and interfaces. *Progress in Surface Science*, **1995**, 49, 1-106	6.6	156
102	A structural study of the sol-gel process by optical fluorescence and decay time spectroscopy. *Journal of Non-Crystalline Solids*, **1991**, 135, 8-14	3.9	81
101	A review of optical second-harmonic and sum-frequency generation at surfaces and interfaces. *Journal Physics D: Applied Physics*, **1996**, 29, 1812-1821	3	72
100	Epioptics: linear and non-linear optical spectroscopy of surfaces and interfaces. *Journal of Physics Condensed Matter*, **1990**, 2, 7985-8006	1.8	71
99	Spontaneous emission of dye molecules, semiconductor nanocrystals, and rare-earth ions in opal-based photonic crystals. *Journal of Lightwave Technology*, **1999**, 17, 2128-2137	4	68
98	Optical Second-Harmonic Generation as a Semiconductor Surface and Interface Probe. *Physica Status Solidi A*, **1999**, 175, 153-167		65
97	Development of a LED-based phase fluorimetric oxygen sensor using evanescent wave excitation of a sol-gel immobilized dye. *Sensors and Actuators B: Chemical*, **1995**, 29, 226-230	8.5	65
96	Nucleation and evolution of the Au-induced 5 x 2 structure on vicinal Si(111). *Physical Review B*, **1994**, 49, 2527-2535	3.3	61
95	Angle-resolved photoemission from an unusual quasi-one-dimensional metallic system: a single domain Au-induced 5 □2 reconstruction of Si(111). *Surface Science*, **1995**, 325, 45-49	1.8	56
94	Resonant optical second harmonic generation at the steps of vicinal Si(001). *Physical Review Letters*, **1995**, 75, 1138-1141	7.4	54
93	The N6,7O4,5O4.5Auger spectra of thallium, lead and bismuth. *Journal of Physics C: Solid State Physics*, **1977**, 10, 3445-3460		51
92	Phonon and polarized reflectance spectra from Si(111)□4□1□In: Evidence for a charge-density-wave driven phase transition. *Physical Review B*, **2003**, 67,	3.3	48
91	On predicting the chemical reactivity of metal-semiconductor interfaces. *Journal of Physics C: Solid State Physics*, **1984**, 17, 2249-2254		48
90	Fibre optic chemical sensors based on evanescent wave interactions in sol-gel-derived porous coatings. *Journal of Sol-Gel Science and Technology*, **1994**, 2, 661-665	2.3	42
89	Probing the buried metal-semiconductor interface by optical second harmonic generation: Au on Si(1 1 1) and Si(1 0 0). *Solid State Communications*, **1986**, 59, 91-94	1.6	42
88	Structure of si(111)-in nanowires determined from the midinfrared optical response. *Physical Review Letters*, **2009**, 102, 226805	7.4	41

87	Solid-state effects in the quasiatomic L2,3M4,5M4,5Auger spectra of zinc. *Journal of Physics C: Solid State Physics*, **1976**, 9, L585-L590		38
86	Radiation damage in some platinum(IV) complexes produced during soft X-ray photoelectron spectroscopic studies. *Journal of the Chemical Society, Faraday Transactions 2*, **1975**, 71, 177		37
85	The L2,3M4,5M4,5Auger and photoelectron spectra of germanium. *Journal of Physics C: Solid State Physics*, **1976**, 9, 3541-3555		36
84	SECOND-HARMONIC GENERATION AT SEMICONDUCTOR AND METAL SURFACES. *Surface Review and Letters*, **1999**, 06, 529-558	1.1	29
83	Control of terrace width and atomic step distribution on vicinal Si(111) surfaces by thermal processing. *Semiconductor Science and Technology*, **1993**, 8, 495-501	1.8	29
82	Surface phonons of the Si(111):In(4×1) and (8×2) phases. *Physical Review B*, **2007**, 76,	3.3	28
81	The L3M2,3M4,5, L2,3M2,3M2,3and L3M1M4,5Auger spectra of Cu, Zn and Ge. *Journal of Physics C: Solid State Physics*, **1978**, 11, 643-650		28
80	Optical fingerprints of Si honeycomb chains and atomic gold wires on the Si(111)-(5×2)-Au surface. *Physical Review Letters*, **2013**, 111, 087401	7.4	26
79	Bond calculation of optical second-harmonic generation at gallium- and arsenic-terminated Si(111) surfaces. *Journal of Physics Condensed Matter*, **1992**, 4, 4017-4037	1.8	26
78	Probing the out-of-plane optical response of plasmonic nanostructures using spectroscopic ellipsometry. *Physical Review B*, **2011**, 84,	3.3	24
77	Optical second-harmonic generation for studying surfaces and interfaces. *Journal of Physics Condensed Matter*, **1989**, 1, SB85-SB92	1.8	24
76	Determining metal–semiconductor interface structure by optical second-harmonic generation. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **1987**, 5, 1442-1446	2.9	23
75	In situ characterization of one-dimensional plasmonic Ag nanocluster arrays. *Physical Review B*, **2011**, 83,	3.3	21
74	General approach to the analysis of plasmonic structures using spectroscopic ellipsometry. *Physical Review B*, **2013**, 87,	3.3	19
73	Controlled in situ growth of tunable plasmonic self-assembled nanoparticle arrays. *Nanotechnology* , **2012**, 23, 035606	3.4	19
72	New evidence for the influence of step morphology on the formation of Au atomic chains on vicinal Si(111) surfaces. *Europhysics Letters*, **2010**, 92, 67008	1.6	19
71	Probing surface and interface structure using optics. *Journal of Physics Condensed Matter*, **2010**, 22, 084018	1.8	19
70	N6,7O4,5O4,5 Auger spectrum of metallic Au. *Physical Review B*, **1991**, 43, 9550-9557	3.3	19

69	Soft X-ray photoemission spectroscopy of chemical reactivity at metal-GaSe interfaces. *Vacuum*, **1983**, 33, 607-612	3.7	19
68	Electrical characteristics of an X-ray photoelectron spectrometer. *Journal of Electron Spectroscopy and Related Phenomena*, **1975**, 6, 397-409	1.7	19
67	Probing semiconductor interfaces using nonlinear optical spectroscopy. *Optical Engineering*, **1994**, 33, 3895	1.1	18
66	A simple semiquantitative model for classifying metal–compound semiconductor interface reactivity. *Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena*, **1985**, 3, 1641		18
65	Effect of adlayer dimer orientation on the optical anisotropy of single domain Si(001). *Applied Physics Letters*, **1996**, 69, 176-178	3.4	16
64	Measurement of gas flux distributions from single capillaries using a modified, uhv-compatible ion gauge, and comparison with theory. *Vacuum*, **1986**, 36, 227-232	3.7	16
63	Schottky contacts to cleaved GaAs (110) surfaces. II. Thermodynamic aspects. *Journal of Physics C: Solid State Physics*, **1988**, 21, 807-818		16
62	Atomic indium nanowires on Si(1 1 1): the (4 × 1)–(8 × 2) phase transition studied with reflectance anisotropy spectroscopy. *Applied Surface Science*, **2004**, 234, 302-306	6.7	15
61	Spectroscopic optical second-harmonic generation from semiconductor interfaces. *Applied Physics A: Solids and Surfaces*, **1994**, 59, 401-405		14
60	Determining metal-semiconductor interface structure by optical second-harmonic generation. *Semiconductor Science and Technology*, **1987**, 2, 102-107	1.8	14
59	Erbium and Terbium Luminescence from Sol–Gel Derived In2O3 Films on Porous Silicon. *Physica Status Solidi A*, **1998**, 165, 131-134		13
58	Resonant optical second-harmonic generation from mixed liquid crystal-stearic acid monolayers. *Journal of Physics Condensed Matter*, **1992**, 4, 7965-7972	1.8	13
57	Reflectance anisotropy spectroscopy of the Si(111)(5 × 2)Au surface. *Physical Review B*, **2016**, 94,	3.3	12
56	Manipulating and probing the growth of plasmonic nanoparticle arrays using light. *Nanoscale*, **2013**, 5, 4923-30	7.7	12
55	Alloying and entropy effects in predicting metal/compound semiconductor interface reactivity. *Journal of Materials Research*, **1987**, 2, 516-523	2.5	12
54	Optical and phonon excitations of modified Pandey chains at the Si(111)-2 × 1 surface. *Physical Review B*, **2011**, 84,	3.3	11
53	Metal–insulator transition in Si(111)-(4 × 1)/(8 × 2)-In studied by optical spectroscopy. *Physica Status Solidi (B): Basic Research*, **2010**, 247, 2033-2039	1.3	11
52	Using steps at the Si–SiO2interface to test simple bond models of the optical second-harmonic response. *Journal of Physics Condensed Matter*, **2007**, 19, 016006	1.8	11

51	Spectroscopic Investigations of Borosilicate Glass and Its Application as a Dopant Source for Shallow Junctions. *Journal of the Electrochemical Society*, **2000**, 147, 3100	3.9	11
50	Simplification of the N6.7O4.5O4.5Auger spectrum of Au. *Journal of Physics Condensed Matter*, **1990**, 2, 195-200	1.8	11
49	Calculation of the electron binding energies of atomic Zn, Cd and Hg: evidence of a many-electron shift in the gas phase X-ray photoemission spectra of core levels. *Journal of Physics B: Atomic and Molecular Physics*, **1980**, 13, 1953-1960		11
48	The effect of the local field on the optical second-harmonic response of mixed liquid crystal-stearic acid monolayers. *Journal of Physics Condensed Matter*, **1993**, 5, 3791-3800	1.8	10
47	Optical second-harmonic generation studies of the structure of porous silicon surfaces. *Thin Solid Films*, **1995**, 255, 146-148	2.2	10
46	The spatial distribution of flux produced by single capillary gas dosers. *Vacuum*, **1988**, 38, 341-344	3.7	10
45	The angular distribution of thermal molecular beams formed by single capillaries in the molecular flow regime. *Vacuum*, **1988**, 38, 463-467	3.7	10
44	Optical characterization of gold chains and steps on the vicinal Si(557) surface: Theory and experiment. *Physica Status Solidi (B): Basic Research*, **2012**, 249, 1095-1104	1.3	9
43	Optical and electronic properties of Ag nanodots on Si(111). *Journal of Physics Condensed Matter*, **2006**, 18, 6979-6986	1.8	9
42	Optical reflectance anisotropy of buried Fe nanostructures on vicinal W(110). *Journal of Physics Condensed Matter*, **2007**, 19, 266003	1.8	9
41	Free-electron response in reflectance anisotropy spectra. *Physical Review B*, **2006**, 74,	3.3	8
40	Reflectance anisotropy spectroscopy of Si(111)-(3□)Li and Ag surfaces. *Physical Review B*, **2013**, 87,	3.3	7
39	Reflectance anisotropy spectroscopy of magnetite (110) surfaces. *Physical Review B*, **2014**, 89,	3.3	6
38	Reflectance anisotropy spectroscopy of clean and Sb covered Ge(001) surfaces and comparison with clean Si(001) surfaces. *Physica Status Solidi (B): Basic Research*, **2015**, 252, 78-86	1.3	6
37	Using surface and interface optics to probe the capping, with amorphous Si, of Au atom chains grown on vicinal Si(111). *Journal of Physics Condensed Matter*, **2009**, 21, 474208	1.8	6
36	Using reflectance anisotropy spectroscopy to characterize capped silver nanostructures grown on silicon. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2008**, 5, 2556-2560		6
35	Extracting the hysteresis loops of magnetic interfaces from optical second-harmonic intensity measurements. *Journal of Physics Condensed Matter*, **2007**, 19, 396002	1.8	6
34	Optical properties of indium nanowires □n adsorption study. *Physica Status Solidi (B): Basic Research*, **2005**, 242, 2655-2663	1.3	6

33	Resonance and local-field effects in the characterization of molecular monolayers by optical second-harmonic generation. *Synthetic Metals*, **1993**, 61, 181-184	3.6	6
32	In situ optical spectroscopy of surfaces and interfaces with submonolayer resolution. *Applied Surface Science*, **1993**, 63, 99-105	6.7	6
31	An analytic approach to modeling the optical response of anisotropic nanoparticle arrays at surfaces and interfaces. *Journal of Physics Condensed Matter*, **2014**, 26, 145302	1.8	5
30	Chiral second-harmonic generation from small organic molecules at surfaces. *Physica Status Solidi (B): Basic Research*, **2012**, 249, 1155-1159	1.3	5
29	Magnetic second-harmonic generation from interfaces and nanostructures. *Journal of Magnetism and Magnetic Materials*, **2010**, 322, 1488-1493	2.8	5
28	Epioptic studies of vicinalSi(001)-Ga. *Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics*, **1998**, 20, 1019-1024		5
27	Phenomenology of magnetic second harmonic generation from low symmetry surfaces and interfaces. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2003**, 3046-3049		5
26	Optical and magnetic properties of europium sulphide thin films grown by pulsed laser deposition. *Thin Solid Films*, **2005**, 488, 200-203	2.2	5
25	Optical Second Harmonic Generation Studies of Indium Deposited on Vicinal Si(111). *Physica Status Solidi A*, **1999**, 175, 189-193		5
24	Metal adatoms on oxidised silicon surfaces. *Semiconductor Science and Technology*, **1988**, 3, 937-942	1.8	5
23	The linear and nonlinear optical response of native-oxide covered rippled Si templates with nanoscale periodicity. *Physica Status Solidi (B): Basic Research*, **2012**, 249, 1173-1177	1.3	4
22	X-ray magnetic circular dichroism and reflection anisotropy spectroscopy Kerr effect studies of capped magnetic nanowires. *Physica Status Solidi (B): Basic Research*, **2010**, 247, 2108-2112	1.3	4
21	Magnetic second-harmonic generation from the terraces and steps of aligned magnetic nanostructures grown on low symmetry interfaces. *Journal of Physics Condensed Matter*, **2008**, 20, 265002	1.8	4
20	Optical second-harmonic generation studies of Si(111)-33-Ag and Si(111)-31-Ag grown on vicinal Si(111). *Physica Status Solidi C: Current Topics in Solid State Physics*, **2008**, 5, 2649-2652		4
19	Bond hyperpolarizabilities SHG simplified?. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2003**, 3060-6064		4
18	Optical characterisation of plasmonic nanostructures on planar substrates using second-harmonic generation. *Optics Express*, **2015**, 23, 26486-98	3.3	3
17	Reflectance anisotropy studies of 52-Au structures grown on Si(111) surfaces with different step formations. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2008**, 5, 2569-2572		3
16	Optical response of Ag-induced reconstructions on vicinal Si(111). *Physica Status Solidi (B): Basic Research*, **2005**, 242, 3017-3021	1.3	3

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15	Electronic Properties of Ag Reconstructions on Si(111): Coulomb Blockade Behavior at Room Temperature. *Physica Status Solidi (B): Basic Research*, **2018**, 255, 1700494	1.3	2
14	Optical reflectance anisotropy studies of Fe nanostructures grown on vicinal W(110). *Physica Status Solidi (B): Basic Research*, **2005**, 242, 2650-2654	1.3	2
13	Probing chiral monolayers of cysteine on Au(110) using reflection anisotropy spectroscopy and second-harmonic generation. *Physica Status Solidi (B): Basic Research*, **2015**, 252, 95-99	1.3	1
12	Anisotropic optical response of elongated Pb islands in the infrared spectral region. *Physica Status Solidi (B): Basic Research*, **2012**, 249, 1105-1109	1.3	1
11	Optical anisotropy of Si(111)-(4 □1)/(8 □2)-In nanowires calculated from first-principles. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2010**, 7, 133-136		1
10	Determining magnetization curves using optical second-harmonic generation. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2008**, 5, 2653-2656		1
9	Characterization of the Si(111)-Ga interface using optical second-harmonic generation. *Journal of Physics Condensed Matter*, **1991**, 3, S193-S198	1.8	1
8	Optical Techniques for Probing Semiconductor Surfaces and Interfaces **1996**, 163-167		1
7	Second Harmonic and Sum Frequency Generation **1995**, 183-206		1
6	Optimizing the magnetic contrast in the optical second-harmonic response of capped magnetic nanostructures grown on vicinal surfaces. *Physica Status Solidi C: Current Topics in Solid State Physics* , **2008**, 5, 2645-2648		0
5	Group V adsorbate structures on vicinal Ge(001) surfaces determined from the optical spectrum. *Applied Physics Letters*, **2017**, 110, 233903	3.4	
4	Temperature dependent studies of capped magnetic nanowires using XMCD. *Physica Status Solidi (B): Basic Research*, **2016**, 253, 241-246	1.3	
3	Anisotropic second harmonic generation from Si(111)-4x1-In. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2003**, 3050-3054		
2	Bulk and interface contributions to the optical second-harmonic response of native-oxide-covered vicinal Si(111). *Physica Status Solidi (B): Basic Research*, **2005**, 242, 3012-3016	1.3	
1	Development of an intrinsic phase fluorimetric oxygen sensor using a high-intensity blue LED **1994**, 2360, 461		