

Greg Hughes

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

73
papers

1,757
citations

20
h-index

40
g-index

76
ext. papers

1,856
ext. citations

3.6
avg, IF

4
L-index

#	Paper	IF	Citations
73	Surface characterization of poly-2-vinylpyridine polymer for area selective deposition techniques. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2019 , 37, 050601	2.9	4
72	Nitrogen reactive ion etch processes for the selective removal of poly-(4-vinylpyridine) in block copolymer films. <i>Nanotechnology</i> , 2018 , 29, 355302	3.4	3
71	Synchrotron radiation study of metallic titanium deposited on dielectric substrates. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2018 , 36, 040602	1.3	
70	Long-term stability of mechanically exfoliated MoS ₂ flakes. <i>MRS Communications</i> , 2017 , 7, 813-818	2.7	38
69	Investigation of the thermal stability of Mo-In _{0.45} Ga _{0.47} As for applications as source/drain contacts. <i>Journal of Applied Physics</i> , 2016 , 120, 135303	2.5	3
68	In Situ XPS Chemical Analysis of MnSiO ₃ Copper Diffusion Barrier Layer Formation and Simultaneous Fabrication of Metal Oxide Semiconductor Electrical Test MOS Structures. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 2470-7	9.5	24
67	A photoemission study of the effectiveness of nickel, manganese, and cobalt based corrosion barriers for silicon photo-anodes during water oxidation. <i>Journal of Applied Physics</i> , 2016 , 119, 195301	2.5	1
66	Air sensitivity of MoS ₂ , MoSe ₂ , MoTe ₂ , HfS ₂ , and HfSe ₂ . <i>Journal of Applied Physics</i> , 2016 , 120, 125102	2.5	91
65	Growth and characterization of thin manganese oxide corrosion barrier layers for silicon photoanode protection during water oxidation. <i>Solar Energy Materials and Solar Cells</i> , 2015 , 136, 64-69	6.4	4
64	High temperature thermal stability studies of ultrathin Al ₂ O ₃ layers deposited on native oxide and sulphur passivated InGaAs surfaces. <i>Microelectronic Engineering</i> , 2015 , 147, 249-253	2.5	
63	Growth of isotopically enriched ZnO nanorods of excellent optical quality. <i>Journal of Crystal Growth</i> , 2015 , 429, 6-12	1.6	10
62	Spin coating of hydrophilic polymeric films for enhanced centrifugal flow control by serial siphoning. <i>Microfluidics and Nanofluidics</i> , 2014 , 16, 691-699	2.8	27
61	A spectroscopic method for the evaluation of surface passivation treatments on metal oxide semiconductor structures. <i>Applied Surface Science</i> , 2014 , 301, 40-45	6.7	1
60	Synchrotron radiation photoemission study of interface formation between MgO and the atomically clean In _{0.53} Ga _{0.47} As surface. <i>Physica Status Solidi - Rapid Research Letters</i> , 2014 , 8, 167-171	2.5	
59	High temperature thermal stability of the HfO ₂ /Ge (100) interface as a function of surface preparation studied by synchrotron radiation core level photoemission. <i>Applied Surface Science</i> , 2014 , 292, 345-349	6.7	5
58	High temperature thermal stability investigations of ammonium sulphide passivated InGaAs and interface formation with Al ₂ O ₃ studied by synchrotron radiation based photoemission. <i>Applied Surface Science</i> , 2014 , 317, 696-700	6.7	3
57	Ni-(In,Ga)As Alloy Formation Investigated by Hard-X-Ray Photoelectron Spectroscopy and X-Ray Absorption Spectroscopy. <i>Physical Review Applied</i> , 2014 , 2,	4.3	9

56	High-temperature thermal stability study of 1 nm Al ₂ O ₃ deposited on InAs surfaces investigated by synchrotron radiation based photoemission spectroscopy. <i>Journal Physics D: Applied Physics</i> , 2014 , 47, 055107	3	1
55	A combined capacitance-voltage and hard x-ray photoelectron spectroscopy characterisation of metal/Al ₂ O ₃ /In _{0.53} Ga _{0.47} As capacitor structures. <i>Journal of Applied Physics</i> , 2014 , 116, 024104	2.5	1
54	In Situ Investigations into the Mechanism of Oxygen Catalysis on Ruthenium/Manganese Surfaces and the Thermodynamic Stability of Ru/Mn-Based Copper Diffusion Barrier Layers. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 16136-16143	3.8	7
53	Hard x-ray photoelectron spectroscopy and electrical characterization study of the surface potential in metal/Al ₂ O ₃ /GaAs(100) metal-oxide-semiconductor structures. <i>Physical Review B</i> , 2013 , 88,	3.3	9
52	Synchrotron radiation photoemission study of the thermal annealing and atomic hydrogen cleaning of native oxide covered InAs(100) surfaces. <i>Applied Surface Science</i> , 2013 , 276, 609-612	6.7	6
51	High resolution photoemission study of interface formation between MgO and the selenium passivated InAs (100) surface. <i>Applied Surface Science</i> , 2013 , 285, 153-156	6.7	1
50	Soft x-ray photoemission study of the thermal stability of the Al ₂ O ₃ /Ge (100) interface as a function of surface preparation. <i>Journal of Applied Physics</i> , 2013 , 114, 084312	2.5	8
49	Atomic hydrogen cleaning of In _{0.53} Ga _{0.47} As studied using synchrotron radiation photoelectron spectroscopy. <i>Physica Status Solidi - Rapid Research Letters</i> , 2013 , 7, 989-992	2.5	2
48	High-resolution photoemission comparison study of interface formation between MgO and the atomically clean and Se-passivated Ge(100) surfaces. <i>Physica Status Solidi - Rapid Research Letters</i> , 2013 , 7, 590-592	2.5	2
47	Thermal stability studies on atomically clean and sulphur passivated InGaAs surfaces. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2013 , 210, 519-522	1.6	2
46	Chemical and structural investigations of the interactions of Cu with MnSiO ₃ diffusion barrier layers. <i>Journal of Applied Physics</i> , 2012 , 112, 064507	2.5	13
45	A combined hard x-ray photoelectron spectroscopy and electrical characterisation study of metal/SiO ₂ /Si(100) metal-oxide-semiconductor structures. <i>Applied Physics Letters</i> , 2012 , 101, 241602	3.4	14
44	High resolution synchrotron radiation based photoemission study of the in situ deposition of molecular sulphur on the atomically clean InGaAs surface. <i>Journal of Applied Physics</i> , 2012 , 111, 114512	2.5	6
43	Synchrotron radiation photoemission study of in situ manganese silicate formation on SiO ₂ for barrier layer applications. <i>Applied Physics Letters</i> , 2011 , 98, 113508	3.4	26
42	Time-Dependent Dielectric Breakdown and Stress-Induced Leakage Current Characteristics of 0.7-nm-EOT HfO ₂ pFETs. <i>IEEE Transactions on Device and Materials Reliability</i> , 2011 , 11, 290-294	1.6	6
41	The effect of a post processing thermal anneal on pre-existing and stress induced electrically active defects in ultra-thin SiON dielectric layers. <i>Microelectronics Reliability</i> , 2011 , 51, 524-528	1.2	0
40	Reliability of thin ZrO ₂ gate dielectric layers. <i>Microelectronics Reliability</i> , 2011 , 51, 1118-1122	1.2	5
39	High resolution photoemission study of the formation and thermal stability of Mg silicide on silicon. <i>Thin Solid Films</i> , 2011 , 519, 1861-1865	2.2	5

38	Degradation and breakdown characteristics of thin MgO dielectric layers. <i>Journal of Applied Physics</i> , 2010 , 107, 024501	2.5	11
37	(NH ₄) ₂ S Passivation of High-k/In _{0.53} Ga _{0.47} As Interfaces: A Systematic Study of (NH ₄) ₂ S Concentration. <i>ECS Transactions</i> , 2010 , 28, 231-238	1	6
36	Photoemission study of the SiO ₂ conversion mechanism to magnesium silicate. <i>Journal of Applied Physics</i> , 2010 , 107, 074107	2.5	13
35	Low-angle misorientation dependence of the optical properties of InGaAs/InAlAs quantum wells. <i>Journal of Crystal Growth</i> , 2010 , 312, 1546-1550	1.6	12
34	Interfacial analysis of InP surface preparation using atomic hydrogen cleaning and Si interfacial control layers prior to MgO deposition. <i>Applied Surface Science</i> , 2010 , 256, 7530-7534	6.7	14
33	Photoemission studies of the initial interface formation of ultrathin MgO dielectric layers on the Si(111) surface. <i>Thin Solid Films</i> , 2010 , 518, 1980-1984	2.2	10
32	High resolution photoemission study of SiO _x /Si(111) interface disruption following in situ HfO ₂ deposition. <i>Applied Physics Letters</i> , 2009 , 95, 072903	3.4	4
31	Electronic structure of the organic semiconductor copper tetraphenylporphyrin (CuTPP). <i>Applied Surface Science</i> , 2009 , 256, 720-725	6.7	18
30	Detection of Ga suboxides and their impact on III-V passivation and Fermi-level pinning. <i>Applied Physics Letters</i> , 2009 , 94, 162101	3.4	236
29	GaAs interfacial self-cleaning by atomic layer deposition. <i>Applied Physics Letters</i> , 2008 , 92, 071901	3.4	332
28	Indium stability on InGaAs during atomic H surface cleaning. <i>Applied Physics Letters</i> , 2008 , 92, 171906	3.4	59
27	Sulphur overlayers on the Au(110) surface: LEED and TPD study. <i>Surface Science</i> , 2007 , 601, 3506-3511	1.8	4
26	Frequency dispersion reduction and bond conversion on n-type GaAs by in situ surface oxide removal and passivation. <i>Applied Physics Letters</i> , 2007 , 91, 163512	3.4	81
25	Charge trapping in MOSFETs with HfSiON dielectrics during electrical stressing. <i>Microelectronic Engineering</i> , 2005 , 77, 302-309	2.5	5
24	Progressive breakdown in ultrathin SiON dielectrics and its effect on transistor performance. <i>Microelectronics Reliability</i> , 2005 , 45, 869-874	1.2	4
23	Reliability of HfSiON gate dielectrics. <i>Semiconductor Science and Technology</i> , 2005 , 20, 68-71	1.8	13
22	Low voltage stress-induced leakage current in 1.4-1.1 nm SiON and HfSiON gate dielectric layers. <i>Semiconductor Science and Technology</i> , 2005 , 20, 668-672	1.8	13
21	Temperature-accelerated breakdown in ultra-thin SiON dielectrics. <i>Semiconductor Science and Technology</i> , 2004 , 19, 1254-1258	1.8	2

20	Weibull slope and voltage acceleration of ultra-thin (1.1-1.45 nm EOT) oxynitrides. <i>Microelectronic Engineering</i> , 2004 , 72, 61-65	2.5	11
19	Structural study of the Cu(1 0 0)/(2 × 2)-Sb surface alloy using low energy electron diffraction. <i>Surface Science</i> , 2004 , 566-568, 52-57	1.8	13
18	Electronic structure of thin film silicon oxynitrides measured using soft x-ray emission and absorption. <i>Journal of Applied Physics</i> , 2003 , 94, 3919-3922	2.5	20
17	Core level photoemission and scanning tunneling microscopy study of the interaction of pentacene with the Si(100) surface. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2002 , 20, 1620		43
16	An X-ray photoelectron spectroscopy study of the HF etching of native oxides on Ge(111) and Ge(100) surfaces. <i>Applied Surface Science</i> , 1998 , 123-124, 66-70	6.7	101
15	Obtaining and processing data from laboratory instruments. <i>TrAC - Trends in Analytical Chemistry</i> , 1993 , 12, 1-3	14.6	4
14	Obtaining and processing data from laboratory instruments. <i>TrAC - Trends in Analytical Chemistry</i> , 1993 , 12, 37-40	14.6	1
13	Atomic resolved material displacement on graphite surfaces by scanning tunnelling microscopy. <i>Applied Physics Letters</i> , 1992 , 60, 2338-2340	3.4	19
12	Density of ultrathin amorphous silicon and germanium sublayers in periodic amorphous multilayers. <i>Physical Review B</i> , 1991 , 44, 11381-11385	3.3	10
11	Neutron reflectivity study of block copolymers adsorbed from solution. <i>Macromolecules</i> , 1990 , 23, 3860-3864	3.64	45
10	Summary Abstract: The step roughening transition of a Cu(113) surface studied by surface x-ray scattering. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1988 , 6, 654-655	2.9	1
9	Roughening transition of a stepped Cu(113) surface: A synchrotron x-ray-scattering study. <i>Physical Review Letters</i> , 1987 , 59, 2447-2450	7.4	77
8	Electronic structures of cluster compounds of molybdenum sulfide (MoS ₄ ²⁻ , MoS ₃ S ₂ ⁻) and nickel molybdenum sulfide (Ni(MoS ₄) ₂ ²⁻) by XPS studies. <i>Inorganic Chemistry</i> , 1987 , 26, 1422-1425	5.1	10
7	Metal contacts on semiconductors: The adsorption of Sb, Sn, and Ga on InP(110) cleaved surfaces. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1984 , 2, 561		38
6	UPS investigation of poorly crystallized MoS ₂ . <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1984 , 2, 991-994	2.9	29
5	Nickel and copper on cleaved indium phosphide: structure, metallurgy and electronic properties. <i>Journal of Physics C: Solid State Physics</i> , 1983 , 16, 2391-2405		12
4	Metal-GaSe and metal-InP interfaces: Schottky barrier formation and interfacial reactions. <i>Journal of Vacuum Science and Technology</i> , 1982 , 21, 594-598		54
3	Metal-gallium selenide interfaces-observation of the true Schottky limit. <i>Journal of Physics C: Solid State Physics</i> , 1982 , 15, L159-L164		49

- 2 Aluminium overlayers on (110) indium phosphide: microscopic aspects of interface formation. *Journal of Physics C: Solid State Physics*, **1982**, 15, 7049-7063 26
- 1 Atomically clean semiconductor surfaces prepared by laser irradiation. *Journal Physics D: Applied Physics*, **1980**, 13, L193-L197 3 20