

# Ernie Hill

## 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.

110  
papers

15,799  
citations

29  
h-index

114  
g-index

114  
ext. papers

17,229  
ext. citations

5.4  
avg, IF

6.08  
L-index

#	Paper	IF	Citations
110	Fabrication and electrochemical response of pristine graphene ultramicroelectrodes. <i>Carbon</i> , <b>2021</b> , 177, 207-215	10.4	4
109	Towards substrate engineering of graphene-silicon Schottky diode photodetectors. <i>Nanoscale</i> , <b>2018</b> , 10, 3399-3409	7.7	27
108	Estimation of intrinsic and extrinsic capacitances of graphene self-switching diode using conformal mapping technique. <i>2D Materials</i> , <b>2018</b> , 5, 035023	5.9	12
107	Novel Proteomic Assay of Breast Implants Reveals Proteins With Significant Binding Differences: Implications for Surface Coating and Biocompatibility. <i>Aesthetic Surgery Journal</i> , <b>2018</b> , 38, 962-969	2.4	9
106	Graphene-silicon-on-insulator (GSOI) Schottky diode photodetectors. <i>Nanoscale</i> , <b>2018</b> , 10, 18926-18935	7.7	16
105	Development, fabrication and evaluation of a novel biomimetic human breast tissue derived breast implant surface. <i>Acta Biomaterialia</i> , <b>2017</b> , 49, 260-271	10.8	16
104	Terahertz Detection and Imaging Using Graphene Ballistic Rectifiers. <i>Nano Letters</i> , <b>2017</b> , 17, 7015-7020	11.5	66
103	Functional biocompatibility testing of silicone breast implants and a novel classification system based on surface roughness. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2017</b> , 75, 75-81	4.1	50
102	Graphene Triangular Ballistic Rectifier: Fabrication and Characterisation. <i>Journal of Electronic Materials</i> , <b>2017</b> , 46, 3942-3948	1.9	14
101	Fabrication and modelling of fractal, biomimetic, micro and nano-topographical surfaces. <i>Bioinspiration and Biomimetics</i> , <b>2016</b> , 11, 046009	2.6	
100	Graphene ballistic nano-rectifier with very high responsivity. <i>Nature Communications</i> , <b>2016</b> , 7, 11670	17.4	47
99	Development and functional evaluation of biomimetic silicone surfaces with hierarchical micro/nano-topographical features demonstrates favourable invitro foreign body response of breast-derived fibroblasts. <i>Biomaterials</i> , <b>2015</b> , 52, 88-102	15.6	60
98	Graphene reconfigurable coplanar waveguide (CPW)-fed circular slot antenna <b>2015</b> ,		2
97	Graphene based ballistic rectifiers. <i>Carbon</i> , <b>2015</b> , 84, 124-129	10.4	32
96	Electron transfer kinetics on natural crystals of MoS2 and graphite. <i>Physical Chemistry Chemical Physics</i> , <b>2015</b> , 17, 17844-53	3.6	50
95	Electron transfer kinetics on mono- and multilayer graphene. <i>ACS Nano</i> , <b>2014</b> , 8, 10089-100	16.7	132
94	Investigating the suitability of electrohydrodynamic lithography for the fabrication of cell substrates. <i>Journal of Materials Science</i> , <b>2014</b> , 49, 4045-4057	4.3	4

93	Electrochemistry in a drop: a study of the electrochemical behaviour of mechanically exfoliated graphene on photoresist coated silicon substrate. <i>Chemical Science</i> , <b>2014</b> , 5, 582-589	9.4	43
92	Proton transport through one-atom-thick crystals. <i>Nature</i> , <b>2014</b> , 516, 227-30	50.4	505
91	Electrochemical investigation of chemical vapour deposition monolayer and bilayer graphene on the microscale. <i>Electrochimica Acta</i> , <b>2013</b> , 110, 9-15	6.7	29
90	Designing implant surface topography for improved biocompatibility. <i>Expert Review of Medical Devices</i> , <b>2013</b> , 10, 257-67	3.5	87
89	Tunable metal-insulator transition in double-layer graphene heterostructures. <i>Nature Physics</i> , <b>2011</b> , 7, 958-961	16.2	417
88	Electrochemical behavior of monolayer and bilayer graphene. <i>ACS Nano</i> , <b>2011</b> , 5, 8809-15	16.7	131
87	Graphene Sensors. <i>IEEE Sensors Journal</i> , <b>2011</b> , 11, 3161-3170	4	290
86	Hunting for monolayer boron nitride: optical and Raman signatures. <i>Small</i> , <b>2011</b> , 7, 465-8	11	791
85	Ultralow secondary electron emission of graphene. <i>ACS Nano</i> , <b>2011</b> , 5, 1047-55	16.7	54
84	Spatial sensitivity mapping of Hall crosses using patterned magnetic nanostructures. <i>Journal of Applied Physics</i> , <b>2010</b> , 108, 043920	2.5	12
83	On resonant scatterers as a factor limiting carrier mobility in graphene. <i>Nano Letters</i> , <b>2010</b> , 10, 3868-72	11.5	220
82	TRANSVERSE SPIN TRANSPORT IN GRAPHENE. <i>International Journal of Modern Physics B</i> , <b>2009</b> , 23, 2641-2646	5	
81	Effect of a high-kappa environment on charge carrier mobility in graphene. <i>Physical Review Letters</i> , <b>2009</b> , 102, 206603	7.4	304
80	Macroscopic graphene membranes and their extraordinary stiffness. <i>Nano Letters</i> , <b>2008</b> , 8, 2442-6	11.5	528
79	Chaotic Dirac billiard in graphene quantum dots. <i>Science</i> , <b>2008</b> , 320, 356-8	33.3	1811
78	Graphene-based liquid crystal device. <i>Nano Letters</i> , <b>2008</b> , 8, 1704-8	11.5	1319
77	Temperature Dependent Remanence Loops of Ion-Milled Bit Patterned Media. <i>IEEE Transactions on Magnetics</i> , <b>2008</b> , 44, 3468-3471	2	11
76	Graphene in Multilayered CPP Spin Valves. <i>IEEE Transactions on Magnetics</i> , <b>2008</b> , 44, 2624-2627	2	54

75	Electronic properties of graphene. <i>Physica Status Solidi (B): Basic Research</i> , <b>2007</b> , 244, 4106-4111	1.3	229
74	Detection of individual gas molecules adsorbed on graphene. <i>Nature Materials</i> , <b>2007</b> , 6, 652-5	27	6263
73	Chemical bath deposition of cadmium sulphide on silicon nitride: Influence of surface treatment on film growth. <i>Materials Letters</i> , <b>2007</b> , 61, 284-287	3.3	8
72	High resolution magnetic force microscopy study of e-beam lithography patterned CoPt nanodots. <i>Journal of Applied Physics</i> , <b>2007</b> , 101, 09F517	2.5	14
71	Chapter Six Magnetic Microelectromechanical Systems: MagMEMS. <i>Handbook of Magnetic Materials</i> , <b>2007</b> , 457-526	1.3	2
70	Making graphene visible. <i>Applied Physics Letters</i> , <b>2007</b> , 91, 063124	3.4	1453
69	Graphene Based Spin Valve Devices <b>2006</b> ,		1
68	Controlled magnetic roughness in a multilayer that has been patterned using a nanosphere array. <i>Physical Review B</i> , <b>2006</b> , 74,	3.3	13
67	Effects of external white noise on spin valve sensors. <i>Sensors and Actuators A: Physical</i> , <b>2006</b> , 129, 260-264	3.4	1453
66	Ferromagnetic domain wall on nanometer scale. <i>Journal of Physics: Conference Series</i> , <b>2005</b> , 17, 101-107	0.3	1
65	Intrinsic pinning of a ferromagnetic domain wall in yttrium iron garnet films with strong uniaxial anisotropy. <i>Journal of Low Temperature Physics</i> , <b>2005</b> , 139, 65-72	1.3	2
64	Intrinsic Pinning of a Ferromagnetic Domain Wall in Yttrium Iron Garnet Films with Strong Uniaxial Anisotropy. <i>Journal of Low Temperature Physics</i> , <b>2005</b> , 139, 65-72	1.3	4
63	A Modified Area Based Local Stereo Correspondence Algorithm for Occlusions. <i>Lecture Notes in Computer Science</i> , <b>2005</b> , 611-619	0.9	
62	Magnetic properties of stoichiometric and nonstoichiometric ultrathin Fe <sub>3</sub> O <sub>4</sub> (111) films on Al <sub>2</sub> O <sub>3</sub> (0001). <i>Journal of Applied Physics</i> , <b>2004</b> , 96, 1165-1169	2.5	46
61	Photoemission electron microscopy and atomic force microscopy of epitaxial iron oxide films on Al <sub>2</sub> O <sub>3</sub> (0001). <i>Journal of Applied Physics</i> , <b>2004</b> , 95, 7450-7452	2.5	8
60	Micron-sized atom traps made from magneto-optical thin films. <i>Applied Physics B: Lasers and Optics</i> , <b>2004</b> , 79, 811-816	1.9	26
59	Microscopic view on a single domain wall moving through ups and downs of an atomic washboard potential. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2004</b> , 22, 406-409	3	2
58	Magnetic materials for MEMS applications. <i>Journal Physics D: Applied Physics</i> , <b>2004</b> , 37, R237-R244	3	75

57	Surface, interface and bulk studies of NiFe nanometer films for magnetoresistive heads. <i>Journal of Applied Physics</i> , <b>2003</b> , 93, 8737-8739	2.5	24
56	Dependence of signal-to-noise ratio on excitation current and signal frequency in spin valve sensors. <i>Journal of Applied Physics</i> , <b>2003</b> , 93, 8391-8393	2.5	1
55	Fabrication of patterned Pt/Co multilayers for high-density probe storage. <i>IET Science, Measurement and Technology</i> , <b>2003</b> , 150, 227-231		5
54	Subatomic movements of a domain wall in the Peierls potential. <i>Nature</i> , <b>2003</b> , 426, 812-6	50.4	85
53	Noise power spectral density in single-strip NiFeCo-Cu GMR sensors. <i>IEEE Transactions on Magnetics</i> , <b>2002</b> , 38, 2697-2699	2	6
52	Noise in spin-valve sensors. <i>IEEE Transactions on Magnetics</i> , <b>2001</b> , 37, 2031-2033	2	6
51	Annealing effects on GMR multilayer films. <i>Sensors and Actuators A: Physical</i> , <b>2000</b> , 81, 40-43	3.9	10
50	Noise in NiFeCo/Cu spin valve sensors. <i>Sensors and Actuators A: Physical</i> , <b>2000</b> , 81, 67-70	3.9	9
49	Optimisation of spin-valves on rough substrates. <i>Sensors and Actuators A: Physical</i> , <b>2000</b> , 81, 32-36	3.9	2
48	An intelligent instrument for giant magnetoresistance sensor evaluation. <i>Sensors and Actuators A: Physical</i> , <b>2000</b> , 81, 385-388	3.9	4
47	A comparison of GMR multilayer and spin-valve sensors for vector field sensing. <i>IEEE Transactions on Magnetics</i> , <b>2000</b> , 36, 2785-2787	2	10
46	The novel use of a memory layer in a giant magnetoresistive position sensor design. <i>IEEE Transactions on Magnetics</i> , <b>2000</b> , 36, 2779-2781	2	
45	Time dependence studies on giant magnetoresistive Co/Cu multilayers. <i>IEEE Transactions on Magnetics</i> , <b>2000</b> , 36, 2847-2849	2	
44	A study of recorded bit patterns using TEM and MFM. <i>Journal of Magnetism and Magnetic Materials</i> , <b>1999</b> , 193, 470-473	2.8	
43	Effects of impurities and annealing on AMR and GMR of evaporated multilayer films. <i>Journal of Magnetism and Magnetic Materials</i> , <b>1999</b> , 198-199, 85-88	2.8	2
42	Geometry effects on low frequency noise in giant magnetoresistance (GMR) sensors. <i>IEEE Transactions on Magnetics</i> , <b>1998</b> , 34, 1327-1329	2	9
41	TEM studies of magnetisation processes in CoPt alloys. <i>IEEE Transactions on Magnetics</i> , <b>1997</b> , 33, 4071-4073		2
40	Susceptibility of the Namchi and Kapsiki cattle of Cameroon to trypanosome infection. <i>Tropical Animal Health and Production</i> , <b>1997</b> , 29, 219-26	1.7	7

39	A giant magnetoresistive magnetometer. <i>Sensors and Actuators A: Physical</i> , <b>1997</b> , 59, 30-37	3.9	13
38	A study of the initial growth of Pt <sub>x</sub> Co(1-x) thin films on Si <sub>3</sub> N <sub>4</sub> . <i>Journal of Microscopy</i> , <b>1997</b> , 185, 117-121	1.9	2
37	The Equivalence of Perpendicular Magnetic Recording and Magnetic Force Microscopy. <i>Journal of the Magnetism Society of Japan</i> , <b>1997</b> , 21, S2_237-240		
36	A microstructural study of PtCo thin films. <i>IEEE Transactions on Magnetics</i> , <b>1996</b> , 32, 3831-3833	2	5
35	A reciprocity-based approach to understanding magnetic force microscopy. <i>IEEE Transactions on Magnetics</i> , <b>1996</b> , 32, 4144-4146	2	5
34	A study of PtCo films used for longitudinal recording. <i>Journal of Magnetism and Magnetic Materials</i> , <b>1996</b> , 155, 348-351	2.8	5
33	Modelling the perturbative effect of MFM tips on soft magnetic thin films. <i>Journal of Magnetism and Magnetic Materials</i> , <b>1996</b> , 161, 385-396	2.8	18
32	A versatile vibrating reed and magneto-optic magnetometer. <i>IEEE Transactions on Magnetics</i> , <b>1996</b> , 32, 4899-4901	2	1
31	Reciprocity based transfer function analysis in magnetic force microscopy. <i>Applied Physics Letters</i> , <b>1996</b> , 68, 1726-1728	3.4	20
30	The effect of a hard axis bias field on the switching field in single layer and bi-layer thin permalloy films. <i>IEEE Transactions on Magnetics</i> , <b>1995</b> , 31, 4041-4043	2	
29	The limit of fluxgate sensitivity due to Barkhausen noise for single layer and bi-layer permalloy thin film cores. <i>IEEE Transactions on Magnetics</i> , <b>1995</b> , 31, 4050-4052	2	10
28	Modelling damaged MFM tips using triangular charge sheets. <i>IEEE Transactions on Magnetics</i> , <b>1995</b> , 31, 3355-3357	2	4
27	Reciprocity in magnetic force microscopy. <i>Applied Physics Letters</i> , <b>1995</b> , 67, 433-435	3.4	35
26	Barkhausen transitions in single layer and bilayer thin permalloy films. <i>Journal of Applied Physics</i> , <b>1994</b> , 75, 6997-6999	2.5	2
25	Combined scanning optical and force microscope using interferometric detection <b>1994</b> , 2004, 324		
24	The effects of pinning magnetization with geometrical features in thin permalloy films. <i>Journal of Applied Physics</i> , <b>1993</b> , 73, 6519-6521	2.5	1
23	The effect of deposition process on the magnetic properties of coupled permalloy thin films. <i>Journal of Applied Physics</i> , <b>1993</b> , 73, 6365-6367	2.5	4
22	The role of dipole coupling in multilayers. <i>Journal of Applied Physics</i> , <b>1993</b> , 73, 5978-5980	2.5	25

21	Multilayered magnetic materials. <i>Endeavour</i> , <b>1993</b> , 17, 154-159	0.5	1
20	Essential Cadmat [An Integrated Approach to A Foundation Course for Electronic Engineering Undergraduates. <i>International Journal of Electrical Engineering and Education</i> , <b>1992</b> , 29, 35-41	0.6	
19	Development of a scanning laser microscope for magneto-optic studies of thin magnetic films. <i>Journal of Magnetism and Magnetic Materials</i> , <b>1991</b> , 95, 49-57	2.8	37
18	Magnetization distributions in thin film Permalloy strips. <i>Journal of Applied Physics</i> , <b>1991</b> , 69, 5862-5864	2.5	3
17	. <i>IEEE Transactions on Magnetics</i> , <b>1991</b> , 27, 4698-4700	2	7
16	Magnetic and structural properties of permalloy-tantalum multilayer thin films. <i>Journal of Applied Physics</i> , <b>1991</b> , 69, 4526-4528	2.5	5
15	. <i>IEEE Transactions on Magnetics</i> , <b>1990</b> , 26, 1662-1664	2	5
14	Modelling multiple MR elements for compound read heads. <i>Journal of Magnetism and Magnetic Materials</i> , <b>1990</b> , 83, 39-40	2.8	1
13	Observations of magnetisation distribution in narrow permalloy strips. <i>Journal of Magnetism and Magnetic Materials</i> , <b>1990</b> , 83, 323-325	2.8	9
12	A highly versatile scanning laser microscope for magneto-optic observation of micromagnetic structure. <i>Journal of Magnetism and Magnetic Materials</i> , <b>1990</b> , 83, 535-536	2.8	9
11	. <i>IEEE Transactions on Magnetics</i> , <b>1989</b> , 25, 3836-3838	2	1
10	. <i>IEEE Transactions on Magnetics</i> , <b>1988</b> , 24, 1707-1709	2	3
9	Automated magnetization measurements. <i>Journal of Applied Physics</i> , <b>1987</b> , 61, 3208-3210	2.5	1
8	Sputtered permanent magnet arrays for MR sensor bias. <i>IEEE Transactions on Magnetics</i> , <b>1987</b> , 23, 2419-2421		4
7	Compensating temperature-induced sensitivity changes in thin film NiFeCo magnetoresistive magnetometers. <i>IEEE Transactions on Magnetics</i> , <b>1986</b> , 22, 949-951	2	3
6	Analysis of magnetoresistors with high coercivity biasing films. <i>IEEE Transactions on Magnetics</i> , <b>1986</b> , 22, 683-685	2	4
5	Teaching in Silicon. <i>International Journal of Electrical Engineering and Education</i> , <b>1985</b> , 22, 5-11	0.6	1
4	Thin film magnetoresistive vector sensors with submicron gap width. <i>IEEE Transactions on Magnetics</i> , <b>1984</b> , 20, 957-959	2	3

3	The performance of magnetoresistive vector magnetometers with optimised conductor and anisotropy axis angles. <i>IEEE Transactions on Magnetics</i> , <b>1983</b> , 19, 2139-2141	2	25
2	Domain wall calculations for SmCo5. <i>IEEE Transactions on Magnetics</i> , <b>1975</b> , 11, 1379-1381	2	17
1	Magnetic-domain-wall pinning by regions of weak exchange or anisotropy. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>1974</b> , 48, 157-158	2.3	28