

# Ian G Hill

## List of Publications by Year in descending order

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124  
papers

10,493  
citations

57758

44  
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31849

101  
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127  
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127  
docs citations

127  
times ranked

12993  
citing authors

#	ARTICLE	IF	CITATIONS
1	Poly(3-hexylthiophene-2,5-diyl) based diodes for ionizing radiation dosimetry applications. Organic Electronics, 2021, 88, 105981.	2.6	7
2	Theoretical Insights into Optoelectronic Properties of Non-Fullerene Acceptors for the Design of Organic Photovoltaics. ACS Applied Energy Materials, 2021, 4, 11090-11100.	5.1	6
3	Optoelectronic property comparison for isostructural Cu <sub>2</sub> BaGeSe <sub>4</sub> and Cu <sub>2</sub> BaSnS <sub>4</sub> solar absorbers. Journal of Materials Chemistry A, 2021, 9, 23619-23630.	10.3	10
4	Measuring small field profiles and output factors with a stemless plastic scintillator array. Medical Physics, 2021, , .	3.0	1
5	Preliminary Evaluation of Pentacene Field Effect Transistors with Polymer Gate Electret as Ionizing Radiation Dosimeters. Applied Sciences (Switzerland), 2021, 11, 11368.	2.5	2
6	Stable Efficient Methylammonium Lead Iodide Thin Film Photodetectors with Highly Oriented Millimeter-Sized Crystal Grains. ACS Photonics, 2020, 7, 57-67.	6.6	9
7	Fabrication and characterization of a stemless plastic scintillation detector. Medical Physics, 2020, 47, 5882-5889.	3.0	4
8	Radiation induced photocurrent in the active volume of P3HT/PCBM BHJ photodiodes. Organic Electronics, 2020, 85, 105890.	2.6	7
9	Method for the differentiation of radiation-induced photocurrent from total measured current in P3HT/PCBM BHJ photodiodes. MethodsX, 2020, 7, 101125.	1.6	1
10	Water Compatible Direct (Hetero)arylation Polymerization of PPDT2FBT: A Pathway Towards Large-scale Production of Organic Solar Cells. Asian Journal of Organic Chemistry, 2020, 9, 1318-1325.	2.7	17
11	Contact Engineering Using Manganese, Chromium, and Bathocuproine in Group 14 Phthalocyanine Organic Thin-Film Transistors. ACS Applied Electronic Materials, 2020, 2, 1313-1322.	4.3	28
12	Studies of the SEI layers in Li(Ni <sub>0.5</sub> Mn <sub>0.3</sub> Co <sub>0.2</sub> )O <sub>2</sub> /Artificial Graphite Cells after Formation and after Cycling. Journal of the Electrochemical Society, 2020, 167, 120507.	2.9	17
13	Characterizing Degradation in Non-aqueous Vanadium(III) Acetylacetonate Redox Flow Batteries. Journal of the Electrochemical Society, 2020, 167, 120510.	2.9	2
14	Detection of Rashba spin splitting in 2D organic-inorganic perovskite via precessional carrier spin relaxation. APL Materials, 2019, 7, 081116.	5.1	46
15	Long cycle life and dendrite-free lithium morphology in anode-free lithium pouch cells enabled by a dual-salt liquid electrolyte. Nature Energy, 2019, 4, 683-689.	39.5	603
16	Ultrafast acoustic phonon scattering in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> revealed by femtosecond four-wave mixing. Journal of Chemical Physics, 2019, 151, 144702.	3.0	10
17	Temperature Dependent EIS Studies Separating Charge Transfer Impedance from Contact Impedance in Lithium-Ion Symmetric Cells. Journal of the Electrochemical Society, 2019, 166, A3272-A3279.	2.9	76
18	Dual-source evaporation of silver bismuth iodide films for planar junction solar cells. Journal of Materials Chemistry A, 2019, 7, 2095-2105.	10.3	63

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19	Applications of ice-templated ceramics. International Journal of Applied Ceramic Technology, 2018, 15, 1075-1083.	2.1	8
20	A Versatile Thin-Film Deposition Method for Multidimensional Semiconducting Bismuth Halides. Chemistry of Materials, 2018, 30, 3538-3544.	6.7	52
21	First-principles calculations and experimental studies of $XYZ_2$ thermoelectric compounds: detailed analysis of van der Waals interactions. Journal of Materials Chemistry A, 2018, 6, 19502-19519.	10.3	20
22	Impact of a Titanium-Based Surface Coating Applied to $Li[Ni_{0.5}Mn_{0.3}Co_{0.2}]O_2$ on Lithium-Ion Cell Performance. ACS Applied Energy Materials, 2018, 1, 7052-7064.	5.1	33
23	Photovoltaic Effect in Indium(I) Iodide Thin Films. Chemistry of Materials, 2018, 30, 8226-8232.	6.7	13
24	High-Precision Coulometry Studies of the Impact of Temperature and Time on SEI Formation in Li-Ion Cells. Journal of the Electrochemical Society, 2018, 165, A1529-A1536.	2.9	29
25	Preliminary characterization of the response of an organic field effect transistor to ionizing radiation. Radiation Measurements, 2018, 118, 31-35.	1.4	9
26	N-Annulated perylene diimide dimers: acetylene linkers as a strategy for controlling structural conformation and the impact on physical, electronic, optical and photovoltaic properties. Journal of Materials Chemistry C, 2017, 5, 2074-2083.	5.5	68
27	Four-wave mixing response of solution-processed $CH_3NH_3PbI_3$ thin films. Proceedings of SPIE, 2017, , .	0.8	0
28	Four-Wave Mixing in Perovskite Photovoltaic Materials Reveals Long Dephasing Times and Weaker Many-Body Interactions than GaAs. ACS Photonics, 2017, 4, 1515-1521.	6.6	29
29	Measuring Oxygen Release from Delithiated $LiNi_xMn_yCo_{1-x-y}O_2$ and Its Effects on the Performance of High Voltage Li-Ion Cells. Journal of the Electrochemical Society, 2017, 164, A3025-A3037.	2.9	34
30	Synergistic Effect of $LiPF_6$ and $LiBF_4$ as Electrolyte Salts in Lithium-Ion Cells. Journal of the Electrochemical Society, 2017, 164, A2426-A2433.	2.9	34
31	Photovoltaic device performance of highly regioregular fluorinated poly(3-hexylthiophene). Organic Electronics, 2017, 50, 115-120.	2.6	7
32	Quantifying, Understanding and Evaluating the Effects of Gas Consumption in Lithium-Ion Cells. Journal of the Electrochemical Society, 2017, 164, A3518-A3528.	2.9	76
33	The Solid-Electrolyte Interphase Formation Reactions of Ethylene Sulfate and Its Synergistic Chemistry with Prop-1-ene-1,3-Sultone in Lithium-Ion Cells. Journal of the Electrochemical Society, 2017, 164, A3445-A3453.	2.9	30
34	Carrier diffusion in thin-film $CH_3NH_3PbI_3$ perovskite measured using four-wave mixing. Applied Physics Letters, 2017, 111, .	3.3	29
35	Fluorinated Thiophene-Based Synthons: Polymerization of 1,4-Dialkoxybenzene and Fluorinated Dithieno-2,1,3-benzothiadiazole by Direct Heteroarylation. Macromolecules, 2017, 50, 4658-4667.	4.8	28
36	Simultaneous observation of free and defect-bound excitons in $CH_3NH_3PbI_3$ using four-wave mixing spectroscopy. Scientific Reports, 2016, 6, 39139.	3.3	33

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37	Perylene diimide based all small-molecule organic solar cells: Impact of branched-alkyl side chains on solubility, photophysics, self-assembly, and photovoltaic parameters. <i>Organic Electronics</i> , 2016, 35, 151-157.	2.6	50
38	Understanding the morphology of solution processed fullerene-free small molecule bulk heterojunction blends. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 12476-12485.	2.8	29
39	Static and dynamic modeling of organic thin-film transistors for circuit design. <i>Microelectronics Journal</i> , 2016, 53, 1-7.	2.0	3
40	The Effects of a Ternary Electrolyte Additive System on the Electrode/Electrolyte Interfaces in High Voltage Li-Ion Cells. <i>Journal of the Electrochemical Society</i> , 2016, 163, A1001-A1009.	2.9	42
41	Synthesis, Self-Assembly, and Solar Cell Performance of N-Annulated Perylene Diimide Non-Fullerene Acceptors. <i>Chemistry of Materials</i> , 2016, 28, 7098-7109.	6.7	211
42	Systematic study on the impact of water on the performance and stability of perovskite solar cells. <i>RSC Advances</i> , 2016, 6, 52448-52458.	3.6	29
43	Development of simple hole-transporting materials for perovskite solar cells. <i>Canadian Journal of Chemistry</i> , 2016, 94, 352-359.	1.1	6
44	Surface-Electrolyte Interphase Formation in Lithium-Ion Cells Containing Pyridine Adduct Additives. <i>Journal of the Electrochemical Society</i> , 2016, 163, A773-A780.	2.9	22
45	Thin-Film Deposition and Characterization of a Sn-Deficient Perovskite Derivative Cs <sub>2</sub> Sn <sub>6</sub> . <i>Chemistry of Materials</i> , 2016, 28, 2315-2322.	6.7	329
46	The Silicon:Colloidal Quantum Dot Heterojunction. <i>Advanced Materials</i> , 2015, 27, 7445-7450.	21.0	55
47	The influence of molecular geometry on photophysical properties and self-assembly of phthalimide end-capped thiophene-based organic molecules. <i>Materials Letters</i> , 2015, 157, 252-255.	2.6	2
48	Unusual loss of electron mobility upon furan for thiophene substitution in a molecular semiconductor. <i>Organic Electronics</i> , 2015, 18, 118-125.	2.6	21
49	Phthalimide-based $\pi$ -conjugated small molecules with tailored electronic energy levels for use as acceptors in organic solar cells. <i>Journal of Materials Chemistry C</i> , 2015, 3, 8904-8915.	5.5	64
50	Key components to the recent performance increases of solution processed non-fullerene small molecule acceptors. <i>Journal of Materials Chemistry A</i> , 2015, 3, 16393-16408.	10.3	157
51	Thin-Film Preparation and Characterization of Cs <sub>3</sub> Sb <sub>2</sub> I <sub>9</sub> : A Lead-Free Layered Perovskite Semiconductor. <i>Chemistry of Materials</i> , 2015, 27, 5622-5632.	6.7	653
52	Perovskite-fullerene hybrid materials suppress hysteresis in planar diodes. <i>Nature Communications</i> , 2015, 6, 7081.	12.8	948
53	Pivotal factors in solution-processed, non-fullerene, all small-molecule organic solar cell device optimization. <i>Organic Electronics</i> , 2015, 27, 197-201.	2.6	11
54	Mechanism of action of ethylene sulfite and vinylene carbonate electrolyte additives in LiNi <sub>1/3</sub> Mn <sub>1/3</sub> Co <sub>1/3</sub> O <sub>2</sub> /graphite pouch cells: electrochemical, GC-MS and XPS analysis. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 27062-27076.	2.8	45

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55	The structural evolution of an isoindigo-based non-fullerene acceptor for use in organic photovoltaics. <i>RSC Advances</i> , 2015, 5, 80098-80109.	3.6	42
56	Understanding the Role of Prop-1-ene-1,3-Sultone and Vinylene Carbonate in LiNi <sub>1/3</sub> Mn <sub>1/3</sub> Co <sub>1/3</sub> O <sub>2</sub> /Graphite Pouch Cells: Electrochemical, GC-MS and XPS Analysis. <i>Journal of the Electrochemical Society</i> , 2015, 162, A2635-A2645.	2.9	44
57	An Electron-Deficient Small Molecule Accessible from Sustainable Synthesis and Building Blocks for Use as a Fullerene Alternative in Organic Photovoltaics. <i>ChemPhysChem</i> , 2015, 16, 1190-1202.	2.1	43
58	Patterning of Nanocrystalline Cellulose Gel Phase by Electrodissolution of a Metallic Electrode. <i>PLoS ONE</i> , 2014, 9, e99202.	2.5	0
59	Effect of Sulfate Electrolyte Additives on LiNi <sub>1/3</sub> Mn <sub>1/3</sub> Co <sub>1/3</sub> O <sub>2</sub> /Graphite Pouch Cell Lifetime: Correlation between XPS Surface Studies and Electrochemical Test Results. <i>Journal of Physical Chemistry C</i> , 2014, 118, 29608-29622.	3.1	134
60	High open circuit voltage organic solar cells based upon fullerene free bulk heterojunction active layers. <i>Canadian Journal of Chemistry</i> , 2014, 92, 932-939.	1.1	5
61	Recent advances of non-fullerene, small molecular acceptors for solution processed bulk heterojunction solar cells. <i>Journal of Materials Chemistry A</i> , 2014, 2, 1201-1213.	10.3	361
62	The influence of molecular interface modification on the charge dynamics of polymeric semiconductor: ZnO heterostructure. <i>Journal of Applied Physics</i> , 2014, 116, 074502.	2.5	11
63	Phthalimide- <i>thiophene</i> -based conjugated organic small molecules with high electron mobility. <i>Journal of Materials Chemistry C</i> , 2014, 2, 2612-2621.	5.5	26
64	Electron deficient diketopyrrolopyrrole dyes for organic electronics: synthesis by direct arylation, optoelectronic characterization, and charge carrier mobility. <i>Journal of Materials Chemistry A</i> , 2014, 2, 4198-4207.	10.3	83
65	Air-stable n-type colloidal quantum dot solids. <i>Nature Materials</i> , 2014, 13, 822-828.	27.5	529
66	Derivation of the open-circuit voltage of organic solar cells. <i>Physical Review B</i> , 2014, 89, .	3.2	14
67	Vertically-aligned carbon nanotube counter electrodes for dye-sensitized solar cells. <i>Solar Energy</i> , 2013, 88, 129-136.	6.1	66
68	Rapid thermal conductivity measurements for combinatorial thin films. <i>Review of Scientific Instruments</i> , 2013, 84, 053906.	1.3	7
69	Optimizing the photovoltage of polymer/zinc oxide hybrid solar cells by calcium doping. <i>Journal of Applied Physics</i> , 2012, 112, 044511.	2.5	9
70	Comparative Interface Metrics for Metal-Free Monolayer-Based Dye-Sensitized Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2012, 4, 6735-6746.	8.0	16
71	Fluorinated alkyl phosphonic acid SAMs replace PEDOT:PSS in polymer semiconductor devices. <i>Organic Electronics</i> , 2012, 13, 498-505.	2.6	41
72	Stability of n-channel organic thin-film transistors using oxide, SAM-modified oxide and polymeric gate dielectrics. <i>Organic Electronics</i> , 2011, 12, 1033-1042.	2.6	21

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73	Designed Organophosphonate Self-Assembled Monolayers Enhance Device Performance of Pentacene-Based Organic Thin-Film Transistors. <i>Advanced Materials</i> , 2010, 22, 3081-3085.	21.0	53
74	Influence of chemical doping on the performance of organic photovoltaic cells. <i>Applied Physics Letters</i> , 2009, 94, 203306.	3.3	41
75	Influence of Channel Stoichiometry on Zinc Indium Oxide Thin-Film Transistor Performance. <i>IEEE Transactions on Electron Devices</i> , 2009, 56, 343-347.	3.0	25
76	Influence of self-assembled monolayer chain length on modified gate dielectric pentacene thin-film transistors. <i>Applied Physics A: Materials Science and Processing</i> , 2009, 95, 81-87.	2.3	31
77	Electric Field Induced Assembly of Vimentin Microscaffolds around Metallic Electrodes. <i>Biomacromolecules</i> , 2009, 10, 1986-1991.	5.4	2
78	Combinatorial study of zinc tin oxide thin-film transistors. <i>Applied Physics Letters</i> , 2008, 92, .	3.3	72
79	Nanolines on silicon surfaces. <i>International Journal of Nanotechnology</i> , 2008, 5, 1018.	0.2	9
80	Organophosphonate Self-Assembled Monolayers for Gate Dielectric Surface Modification of Pentacene-Based Organic Thin-Film Transistors: A Comparative Study. <i>Journal of Physical Chemistry A</i> , 2007, 111, 12333-12338.	2.5	49
81	Energy level alignment between 9-phosphonoanthracene self-assembled monolayers and pentacene. <i>Applied Physics Letters</i> , 2007, 90, 012109.	3.3	29
82	Influence of SiO <sub>2</sub> dielectric preparation on interfacial trap density in pentacene-based organic thin-film transistors. <i>Journal of Applied Physics</i> , 2007, 101, 044503.	2.5	22
83	Evidence of mobile charged impurities in organic heterojunction photovoltaic devices. <i>Journal of Applied Physics</i> , 2006, 100, 104505.	2.5	10
84	Improved organic thin-film transistor performance using novel self-assembled monolayers. <i>Applied Physics Letters</i> , 2006, 88, 073505.	3.3	230
85	Numerical simulations of contact resistance in organic thin-film transistors. <i>Applied Physics Letters</i> , 2005, 87, 163505.	3.3	80
86	Molecular engineering versus energy level alignment: Interface formation between oligothiophene derivatives and a metal substrate studied with photoemission spectroscopy. <i>Journal of Applied Physics</i> , 2002, 91, 5456-5461.	2.5	25
87	Vacuum level alignment in organic guest-host systems. <i>Journal of Applied Physics</i> , 2002, 92, 1598-1603.	2.5	37
88	Photoemission studies of organic phosphors doped in electron and hole transport hosts. , 2002, , .		0
89	Hole injection energetics at highly conducting polymer anode: small molecule interfaces studied with photoemission spectroscopy. , 2002, 4464, 172.		2
90	Organic thin-film transistor-driven polymer-dispersed liquid crystal displays on flexible polymeric substrates. <i>Applied Physics Letters</i> , 2002, 80, 1088-1090.	3.3	758

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91	Evaluation of the absolute photoluminescence quantum yields of molecularly doped organic composite films and the electroluminescence efficiencies of molecular light-emitting devices containing oligoheterocycles as efficient emission centers. , 2001, 4105, 464.		0
92	Photoemission study of frontier orbital alignment at a metal-organic interface as a function of conjugation length of oligothiophene derivatives. Applied Physics Letters, 2001, 78, 670-672.	3.3	37
93	Hole injection barriers at polymer anode/small molecule interfaces. Applied Physics Letters, 2001, 79, 557-559.	3.3	99
94	Organic Molecular Interfaces. , 2001, , .		4
95	Charge-separation energy in films of $\pi$ -conjugated organic molecules. Chemical Physics Letters, 2000, 327, 181-188.	2.6	718
96	Metal-dependent charge transfer and chemical interaction at interfaces between 3,4,9,10-perylenetetracarboxylic bisimidazole and gold, silver and magnesium. Organic Electronics, 2000, 1, 5-13.	2.6	149
97	Probing the internal structure of nanowires. Applied Surface Science, 2000, 162-163, 620-624.	6.1	4
98	Organic semiconductor interfaces: electronic structure and transport properties. Applied Surface Science, 2000, 166, 354-362.	6.1	278
99	Occupied and unoccupied electronic levels in organic $\pi$ -conjugated molecules: comparison between experiment and theory. Chemical Physics Letters, 2000, 317, 444-450.	2.6	130
100	Distinguishing between interface dipoles and band bending at metal/tris-(8-hydroxyquinoline) aluminum interfaces. Applied Physics Letters, 2000, 77, 1825.	3.3	70
101	Determination of the energy levels of a phosphorescent guest in organic light emitting devices. Applied Physics Letters, 2000, 77, 2003-2005.	3.3	15
102	Initial stages of metal/organic semiconductor interface formation. Journal of Applied Physics, 2000, 88, 889-895.	2.5	128
103	Organometallic Chemistry at the Magnesium- Tris(8-hydroxyquinolino)aluminum Interface. Journal of the American Chemical Society, 2000, 122, 5391-5392.	13.7	62
104	Surface oxidation activates indium tin oxide for hole injection. Journal of Applied Physics, 2000, 87, 572-576.	2.5	279
105	Strongly Anisotropic Band Dispersion of an Image State Located above Metallic Nanowires. Physical Review Letters, 1999, 82, 2155-2158.	7.8	53
106	Transparent stacked organic light emitting devices. I. Design principles and transparent compound electrodes. Journal of Applied Physics, 1999, 86, 4067-4075.	2.5	82
107	Detection of a Fermi level crossing in three-domain Si(111)-In(4Å-1). Physical Review B, 1999, 59, 9791-9793.	3.2	22
108	Role of Electrode Contamination in Electron Injection at Mg:Ag/Alq <sub>3</sub> Interfaces. Advanced Materials, 1999, 11, 1523-1527.	21.0	32

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109	Combined photoemission/in vacuo transport study of the indium tin oxide/copper phthalocyanine/N,N'-diphenyl-N,N'-bis(l-naphthyl)-1,1'-biphenyl-4,4'-diamine molecular organic semiconductor system. Journal of Applied Physics, 1999, 86, 2116-2122.	2.5	150
110	Band alignment at organic-inorganic semiconductor interfaces: $\Gamma$ -NPD and CuPc on InP(110). Journal of Applied Physics, 1999, 85, 6589-6592.	2.5	113
111	Organic semiconductor heterointerfaces containing bathocuproine. Journal of Applied Physics, 1999, 86, 4515-4519.	2.5	151
112	Modification of organic interfaces: from molecular level measurements to injection characteristics. , 1999, , .		2
113	Molecular level alignment at organic semiconductor-metal interfaces. Applied Physics Letters, 1998, 73, 662-664.	3.3	436
114	A comparison of two high performance inverse photoemission bandpass detectors. Review of Scientific Instruments, 1998, 69, 261-264.	1.3	14
115	Energy level alignment at interfaces of organic semiconductor heterostructures. Journal of Applied Physics, 1998, 84, 5583-5586.	2.5	153
116	Energy-level alignment at interfaces between metals and the organic semiconductor 4,4'-N,N'-dicarbazolyl-biphenyl. Journal of Applied Physics, 1998, 84, 3236-3241.	2.5	106
117	Electronic Properties of Metal-Organic Interfaces with Application to Electroluminescent Devices. Molecular Crystals and Liquid Crystals, 1998, 322, 245-252.	0.3	7
118	<title>Interface electronic properties of organic molecular semiconductors</title>. , 1998, 3476, 168.		14
119	Metallicity of In chains on Si(111). Physical Review B, 1997, 56, 15725-15728.	3.2	47
120	Role of Si adatoms in the Si(111)-Au(5 $\tilde{A}$ -2) quasi-one-dimensional system. Physical Review B, 1997, 55, 15664-15668.	3.2	18
121	Sulfur passivated InP(100): surface gaps and electron counting. Applied Surface Science, 1996, 104-105, 434-440.	6.1	13
122	Structural and electronic properties of sulfur passivated InP(100). Progress in Surface Science, 1995, 50, 325-334.	8.3	15
123	Passivation of GaAs(111)A surface by Cl termination. Applied Physics Letters, 1995, 67, 670-672.	3.3	44
124	Lifetime broadening in angle-resolved photoemission. Surface Science, 1994, 314, L925-L930.	1.9	3