

E H Hwang

List of Publications by Citations

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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.

119
papers

12,220
citations

45
h-index

110
g-index

119
ext. papers

13,307
ext. citations

4.5
avg, IF

6.73
L-index

#	Paper	IF	Citations
119	Electronic transport in two-dimensional graphene. <i>Reviews of Modern Physics</i> , 2011 , 83, 407-470	40.5	2416
118	Dielectric function, screening, and plasmons in two-dimensional graphene. <i>Physical Review B</i> , 2007 , 75,	3.3	1352
117	A self-consistent theory for graphene transport. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 18392-7	11.5	971
116	Carrier transport in two-dimensional graphene layers. <i>Physical Review Letters</i> , 2007 , 98, 186806	7.4	965
115	Measurement of scattering rate and minimum conductivity in graphene. <i>Physical Review Letters</i> , 2007 , 99, 246803	7.4	803
114	Acoustic phonon scattering limited carrier mobility in two-dimensional extrinsic graphene. <i>Physical Review B</i> , 2008 , 77,	3.3	570
113	Temperature-dependent magnetization in diluted magnetic semiconductors. <i>Physical Review B</i> , 2003 , 67,	3.3	259
112	Charged Impurity-Scattering-Limited Low-Temperature Resistivity of Low-Density Silicon Inversion Layers. <i>Physical Review Letters</i> , 1999 , 83, 164-167	7.4	193
111	Screening-induced temperature-dependent transport in two-dimensional graphene. <i>Physical Review B</i> , 2009 , 79,	3.3	187
110	Many-body interaction effects in doped and undoped graphene: Fermi liquid versus non-Fermi liquid. <i>Physical Review B</i> , 2007 , 75,	3.3	184
109	Collective modes of the massless dirac plasma. <i>Physical Review Letters</i> , 2009 , 102, 206412	7.4	160
108	Plasmon modes of spatially separated double-layer graphene. <i>Physical Review B</i> , 2009 , 80,	3.3	157
107	Single-particle relaxation time versus transport scattering time in a two-dimensional graphene layer. <i>Physical Review B</i> , 2008 , 77,	3.3	152
106	Transport in chemically doped graphene in the presence of adsorbed molecules. <i>Physical Review B</i> , 2007 , 76,	3.3	139
105	Theory of thermopower in two-dimensional graphene. <i>Physical Review B</i> , 2009 , 80,	3.3	137
104	Two-dimensional surface charge transport in topological insulators. <i>Physical Review B</i> , 2010 , 82,	3.3	136
103	Screening, Kohn anomaly, Friedel oscillation, and RKKY interaction in bilayer graphene. <i>Physical Review Letters</i> , 2008 , 101, 156802	7.4	131

102	Plasmon-phonon coupling in graphene. <i>Physical Review B</i> , 2010 , 82,	3-3	118
101	Disordered RKKY lattice mean field theory for ferromagnetism in diluted magnetic semiconductors. <i>Physical Review Letters</i> , 2004 , 92, 117201	7-4	114
100	Theory of carrier transport in bilayer graphene. <i>Physical Review B</i> , 2010 , 81,	3-3	113
99	Inelastic carrier lifetime in graphene. <i>Physical Review B</i> , 2007 , 76,	3-3	113
98	Quasiparticle spectral function in doped graphene: Electron-electron interaction effects in ARPES. <i>Physical Review B</i> , 2008 , 77,	3-3	102
97	Parallel magnetic field induced giant magnetoresistance in low density quasi-two-dimensional layers. <i>Physical Review Letters</i> , 2000 , 84, 5596-9	7-4	95
96	Two-dimensional metal-insulator transition as a percolation transition in a high-mobility electron system. <i>Physical Review Letters</i> , 2005 , 94, 136401	7-4	94
95	Ballistic hot electron transport in graphene. <i>Applied Physics Letters</i> , 2008 , 93, 023128	3-4	90
94	Resistivity of dilute 2D electrons in an undoped GaAs heterostructure. <i>Physical Review Letters</i> , 2003 , 90, 056806	7-4	89
93	Dynamic screening and low-energy collective modes in bilayer graphene. <i>Physical Review B</i> , 2010 , 82,	3-3	86
92	Dynamical response of a one-dimensional quantum-wire electron system. <i>Physical Review B</i> , 1996 , 54, 1936-1946	3-3	85
91	Limit to two-dimensional mobility in modulation-doped GaAs quantum structures: How to achieve a mobility of 100 million. <i>Physical Review B</i> , 2008 , 77,	3-3	80
90	Density dependent exchange contribution to partial differential μ / partial differential n and compressibility in graphene. <i>Physical Review Letters</i> , 2007 , 99, 226801	7-4	77
89	Disorder-induced temperature-dependent transport in graphene: Puddles, impurities, activation, and diffusion. <i>Physical Review B</i> , 2011 , 84,	3-3	74
88	Plasmons in Coupled Bilayer Structures. <i>Physical Review Letters</i> , 1998 , 81, 4216-4219	7-4	74
87	Interaction corrections to two-dimensional hole transport in the large $\hbar\omega$ limit. <i>Physical Review B</i> , 2003 , 68,	3-3	64
86	Nonmonotonic temperature dependent transport in graphene grown by chemical vapor deposition. <i>Physical Review B</i> , 2011 , 84,	3-3	63
85	Carrier screening, transport, and relaxation in three-dimensional Dirac semimetals. <i>Physical Review B</i> , 2015 , 91,	3-3	62

84	Theory of 2D transport in graphene for correlated disorder. <i>Physical Review Letters</i> , 2011 , 107, 156601	7.4	62
83	Observation of percolation-induced two-dimensional metal-insulator transition in a Si MOSFET. <i>Physical Review B</i> , 2009 , 79,	3.3	60
82	Metallicity and its low-temperature behavior in dilute two-dimensional carrier systems. <i>Physical Review B</i> , 2004 , 69,	3.3	57
81	Calculated temperature-dependent resistance in low-density two-dimensional hole gases in GaAs heterostructures. <i>Physical Review B</i> , 2000 , 61, R7838-R7841	3.3	57
80	Coulomb drag in monolayer and bilayer graphene. <i>Physical Review B</i> , 2011 , 84,	3.3	55
79	Transport and percolation in a low-density high-mobility two-dimensional hole system. <i>Physical Review Letters</i> , 2007 , 99, 236402	7.4	54
78	Density of states of disordered graphene. <i>Physical Review B</i> , 2008 , 78,	3.3	50
77	Two-dimensional transport and screening in topological insulator surface states. <i>Physical Review B</i> , 2012 , 85,	3.3	48
76	Quasi-two-dimensional diluted magnetic semiconductor systems. <i>Physical Review Letters</i> , 2005 , 95, 037201	7.4	48
75	Effective field theory, three-loop perturbative expansion, and their experimental implications in graphene many-body effects. <i>Physical Review B</i> , 2014 , 89,	3.3	45
74	Plasmon dispersion in dilute two-dimensional electron systems: Quantum-classical and Wigner crystal-electron liquid crossover. <i>Physical Review B</i> , 2001 , 64,	3.3	40
73	Surface polar optical phonon interaction induced many-body effects and hot-electron relaxation in graphene. <i>Physical Review B</i> , 2013 , 87,	3.3	38
72	Insulating behavior in metallic bilayer graphene: Interplay between density inhomogeneity and temperature. <i>Physical Review B</i> , 2010 , 82,	3.3	38
71	Disorder by order in graphene. <i>Physical Review B</i> , 2012 , 85,	3.3	35
70	Low-density finite-temperature apparent insulating phase in two-dimensional semiconductor systems. <i>Physical Review B</i> , 2003 , 68,	3.3	34
69	Conductivity of graphene on boron nitride substrates. <i>Physical Review B</i> , 2011 , 83,	3.3	33
68	Density-dependent electrical conductivity in suspended graphene: Approaching the Dirac point in transport. <i>Physical Review B</i> , 2013 , 87,	3.3	32
67	Band-gap renormalization in photoexcited semiconductor quantum-wire structures in the GW approximation. <i>Physical Review B</i> , 1998 , 58, R1738-R1741	3.3	30

66	Mobility versus quality in two-dimensional semiconductor structures. <i>Physical Review B</i> , 2014 , 90,	3-3	29
65	Frictional drag in dilute bilayer 2D hole systems. <i>Physical Review Letters</i> , 2003 , 90, 086801	7-4	29
64	Optical conductivity of ferromagnetic semiconductors. <i>Physical Review B</i> , 2002 , 65,	3-3	29
63	Universal density scaling of disorder-limited low-temperature conductivity in high-mobility two-dimensional systems. <i>Physical Review B</i> , 2013 , 88,	3-3	28
62	Graphene magnetoresistance in a parallel magnetic field: Spin polarization effect. <i>Physical Review B</i> , 2009 , 80,	3-3	28
61	Two-dimensional metal-insulator transition as a strong localization induced crossover phenomenon. <i>Physical Review B</i> , 2014 , 89,	3-3	27
60	Velocity renormalization and anomalous quasiparticle dispersion in extrinsic graphene. <i>Physical Review B</i> , 2013 , 87,	3-3	25
59	Plasmon-pole approximation for semiconductor quantum-wire electrons. <i>Physical Review B</i> , 1996 , 54, 8057-8063	3-3	24
58	Plasmon-phonon coupling in one-dimensional semiconductor quantum-wire structures. <i>Physical Review B</i> , 1995 , 52, R8668-R8671	3-3	23
57	Collective modes in multi-Weyl semimetals. <i>Scientific Reports</i> , 2016 , 6, 34023	4-9	23
56	Thermoelectric detection of chiral heat transport in graphene in the quantum Hall regime. <i>Physical Review Letters</i> , 2013 , 110, 226801	7-4	22
55	Transport properties of diluted magnetic semiconductors: Dynamical mean-field theory and Boltzmann theory. <i>Physical Review B</i> , 2005 , 72,	3-3	22
54	Low-density spin-polarized transport in two-dimensional semiconductor structures: Temperature-dependent magnetoresistance of Si MOSFETs in an in-plane applied magnetic field. <i>Physical Review B</i> , 2005 , 72,	3-3	21
53	Transport in two-dimensional modulation-doped semiconductor structures. <i>Physical Review B</i> , 2015 , 91,	3-3	20
52	Two-dimensional metal-insulator transition as a potential fluctuation driven semiclassical transport phenomenon. <i>Physical Review B</i> , 2013 , 88,	3-3	20
51	Collective modes of monolayer, bilayer, and multilayer fermionic dipolar liquid. <i>Physical Review B</i> , 2010 , 82,	3-3	20
50	Quasiparticles, plasmarons, and quantum spectral function in bilayer graphene. <i>Physical Review B</i> , 2011 , 84,	3-3	20
49	Enhancing T_c in ferromagnetic semiconductors. <i>Physical Review B</i> , 2004 , 70,	3-3	20

48	Collective charge-density excitations in two-component one-dimensional quantum plasmas: Phase-fluctuation-mode dispersion and spectral weight in semiconductor quantum-wire nanostructures. <i>Physical Review B</i> , 1999 , 59, 10730-10743	3-3	19
47	Linear-in-T resistivity in dilute metals: A Fermi liquid perspective. <i>Physical Review B</i> , 2019 , 99,	3-3	19
46	Polarizability and screening in chiral multilayer graphene. <i>Physical Review B</i> , 2012 , 86,	3-3	18
45	Electronic transport in two-dimensional Si:P Doped layers. <i>Physical Review B</i> , 2013 , 87,	3-3	18
44	Compressibility of graphene. <i>Physical Review B</i> , 2011 , 83,	3-3	18
43	Relative importance of the electron interaction strength and disorder in the two-dimensional metallic state. <i>Physical Review B</i> , 2002 , 66,	3-3	18
42	Short-range disorder effects on electronic transport in two-dimensional semiconductor structures. <i>Physical Review B</i> , 2014 , 89,	3-3	16
41	Valley-dependent many-body effects in two-dimensional semiconductors. <i>Physical Review B</i> , 2009 , 80,	3-3	16
40	Similarities and differences in two-dimensional metallicity induced by temperature and a parallel magnetic field: Effect of screening. <i>Physical Review B</i> , 2005 , 72,	3-3	16
39	Optical and transport gaps in gated bilayer graphene. <i>Physical Review B</i> , 2011 , 84,	3-3	15
38	Transport and drag in undoped electron-hole bilayers. <i>Physical Review B</i> , 2008 , 78,	3-3	15
37	Transport properties of two-dimensional electron systems on silicon (111) surfaces. <i>Physical Review B</i> , 2007 , 75,	3-3	15
36	Charge transport in gapless electron-hole systems with arbitrary band dispersion. <i>Physical Review B</i> , 2015 , 91,	3-3	14
35	Screening and transport in 2D semiconductor systems at low temperatures. <i>Scientific Reports</i> , 2015 , 5, 16655	4-9	14
34	In-plane magnetodrag in dilute bilayer two-dimensional systems: A Fermi-liquid theory. <i>Physical Review B</i> , 2005 , 71,	3-3	14
33	Collective excitations of a two-component one-dimensional quantum plasma confined in semiconductor quantum wires. <i>Physical Review B</i> , 1994 , 50, 17267-17270	3-3	14
32	Gate-tunable quantum transport in double-layer graphene. <i>Physical Review B</i> , 2012 , 86,	3-3	12
31	Spectral and optical properties of doped graphene with charged impurities in the self-consistent Born approximation. <i>Physical Review B</i> , 2010 , 82,	3-3	12

30	Temperature-dependent compressibility in graphene and two-dimensional systems. <i>Physical Review B</i> , 2011 , 84,	3-3	12
29	c-Axis Optical Reflectivity of Layered Cuprate Superconductors. <i>Physical Review Letters</i> , 1998 , 80, 4753-4756	3-3	11
28	Interplay between phonon and impurity scattering in two-dimensional hole transport. <i>Physical Review B</i> , 2012 , 86,	3-3	10
27	Infrared spectroscopic study of carrier scattering in gated CVD graphene. <i>Physical Review B</i> , 2016 , 94,	3-3	10
26	Ferromagnetism in chiral multilayer two-dimensional semimetals. <i>Physical Review B</i> , 2017 , 95,	3-3	9
25	Inelastic carrier lifetime in a coupled graphene/electron-phonon system: Role of plasmon-phonon coupling. <i>Physical Review B</i> , 2014 , 90,	3-3	9
24	Valley-dependent two-dimensional transport in (100), (110), and (111) Si inversion layers at low temperatures and carrier densities. <i>Physical Review B</i> , 2013 , 87,	3-3	9
23	Scattering mechanisms in a high-mobility low-density carbon-doped (100) GaAs two-dimensional hole system. <i>Physical Review B</i> , 2011 , 83,	3-3	9
22	Signatures of localization in the effective metallic regime of high-mobility Si MOSFETs. <i>Physical Review B</i> , 2014 , 90,	3-3	8
21	$d\bar{n}$ in suspended bilayer graphene: The interplay of disorder and band gap. <i>Physical Review B</i> , 2011 , 84,	3-3	8
20	Screening-theory-based description of the metallic behavior in SiBiGe two-dimensional electron systems. <i>Physical Review B</i> , 2005 , 72,	3-3	8
19	Comparison of microscopic models for disorder in bilayer graphene: Implications for density of states and optical conductivity. <i>Physical Review B</i> , 2012 , 85,	3-3	7
18	Quasiparticle properties of a coupled quantum-wire electron-phonon system. <i>Physical Review B</i> , 1996 , 54, 4996-5005	3-3	7
17	Impurity-scattering-induced carrier transport in twisted bilayer graphene. <i>Physical Review Research</i> , 2020 , 2,	3-9	7
16	Hall coefficient and magnetoresistance of two-dimensional spin-polarized electron systems. <i>Physical Review B</i> , 2006 , 73,	3-3	6
15	Temperature dependent resistivity of spin-split subbands in GaAs two-dimensional hole systems. <i>Physical Review B</i> , 2003 , 67,	3-3	6
14	Collective modes and their coupling to pair-breaking excitations in layered d-wave superconductors. <i>Physical Review B</i> , 1995 , 52, R7010-R7013	3-3	6
13	Dimensionally mixed coupled collective modes. <i>Physical Review B</i> , 2018 , 98,	3-3	6

12	Stacking dependence of carrier interactions in multilayer graphene systems. <i>Physical Review B</i> , 2015 , 92,	3.3	5
11	Strongly Metallic Electron and Hole 2D Transport in an Ambipolar Si-Vacuum Field Effect Transistor. <i>Physical Review Letters</i> , 2015 , 115, 036801	7.4	5
10	Collective Charge Density Fluctuations in Superconducting Layered Systems with Bilayer Unit Cells. <i>International Journal of Modern Physics B</i> , 1998 , 12, 2769-2783	1.1	5
9	Comment on "interaction effects in conductivity of Si inversion layers at intermediate temperatures". <i>Physical Review Letters</i> , 2004 , 93, 269703	7.4	4
8	Temperature dependent weak field Hall resistance in two-dimensional carrier systems. <i>Physical Review Letters</i> , 2005 , 95, 016401	7.4	4
7	Plasmon-pole approximation for many-body effects in extrinsic graphene. <i>Physical Review B</i> , 2018 , 98,	3.3	4
6	Diluted magnetic Dirac-Weyl materials: Susceptibility and ferromagnetism in three-dimensional chiral gapless semimetals. <i>Physical Review B</i> , 2018 , 98,	3.3	4
5	Das sarma and hwang reply:. <i>Physical Review Letters</i> , 2000 , 85, 680	7.4	3
4	Correlation-induced phonon softening in low-density coupled bilayer systems. <i>Physical Review B</i> , 2001 , 63,	3.3	3
3	Large negative differential transconductance in multilayer graphene: the role of intersubband scattering. <i>2D Materials</i> , 2017 , 4, 025090	5.9	1
2	The Role of screening in the strongly correlated 2D systems. <i>Journal of Physics A</i> , 2003 , 36, 6227-6234		
1	Das sarma and hwang reply:. <i>Physical Review Letters</i> , 2000 , 85, 3542	7.4	