Hyun-Jong Chung

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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.

37 papers	2,249 citations	16 h-index	39 g-index
39 ext. papers	2,514 ext. citations	8.4 avg, IF	4.35 L-index

#	Paper	IF	Citations
37	Graphene barristor, a triode device with a gate-controlled Schottky barrier. *Science*, **2012**, 336, 1140-3	33.3	748
36	A role for graphene in silicon-based semiconductor devices. *Nature*, **2011**, 479, 338-44	50.4	556
35	Robust bi-stable memory operation in single-layer graphene ferroelectric memory. *Applied Physics Letters*, **2011**, 99, 042109	3.4	133
34	Fast transient charging at the graphene/SiO2 interface causing hysteretic device characteristics. *Applied Physics Letters*, **2011**, 98, 183508	3.4	113
33	The structural and electrical evolution of graphene by oxygen plasma-induced disorder. *Nanotechnology*, **2009**, 20, 375703	3.4	86
32	Graphene for true Ohmic contact at metal-semiconductor junctions. *Nano Letters*, **2013**, 13, 4001-5	11.5	81
31	Engineering Optical and Electronic Properties of WS2 by Varying the Number of Layers. *ACS Nano*, **2015**, 9, 6854-60	16.7	73
30	Real-time evolution of trapped charge in a SiO2 layer: An electrostatic force microscopy study. *Applied Physics Letters*, **2001**, 79, 2010-2012	3.4	62
29	Graphene and thin-film semiconductor heterojunction transistors integrated on wafer scale for low-power electronics. *Nano Letters*, **2013**, 13, 5967-71	11.5	56
28	Passivation of metal surface states: microscopic origin for uniform monolayer graphene by low temperature chemical vapor deposition. *ACS Nano*, **2011**, 5, 1915-20	16.7	54
27	Band gap opening by two-dimensional manifestation of peierls instability in graphene. *ACS Nano*, **2011**, 5, 2964-9	16.7	53
26	Low temperature growth of complete monolayer graphene films on Ni-doped copper and gold catalysts by a self-limiting surface reaction. *Carbon*, **2013**, 64, 315-323	10.4	29
25	Planar and van der Waals heterostructures for vertical tunnelling single electron transistors. *Nature Communications*, **2019**, 10, 230	17.4	29
24	Characteristics of CVD graphene nanoribbon formed by a ZnO nanowire hardmask. *Nanotechnology* , **2011**, 22, 295201	3.4	26
23	Radio-Frequency Electrical Characteristics of Single Layer Graphene. *Japanese Journal of Applied Physics*, **2009**, 48, 091601	1.4	24
22	Enhanced Current Drivability of CVD Graphene Interconnect in Oxygen-Deficient Environment. *IEEE Electron Device Letters*, **2011**, 32, 1591-1593	4.4	19
21	Electrical control of kinesin-microtubule motility using a transparent functionalized-graphene substrate. *Nanotechnology*, **2013**, 24, 195102	3.4	12

20	Fabricating in-plane transistor and memory using atomic force microscope lithography towards graphene system on chip. *Carbon*, **2016**, 96, 223-228	10.4	11
19	RF performance of pre-patterned locally-embedded-back-gate graphene device **2010**,		10
18	Enhanced Gas Sensing Properties of Graphene Transistor by Reduced Doping with Hydrophobic Polymer Brush as a Surface Modification Layer. *ACS Applied Materials & Interfaces*, **2020**, 12, 55493-55500	9.5	10
17	Is quantum capacitance in graphene a potential hurdle for device scaling?. *Nano Research*, **2014**, 7, 453-461	10	8
16	Step-by-step implementation of an amplifier circuit with a graphene field-effect transistor on a printed-circuit board. *Current Applied Physics*, **2014**, 14, 1057-1062	2.6	8
15	Large-grained and Highly-ordered Graphene Synthesized by Radio Frequency Plasma-enhanced Chemical Vapor Deposition. *ECS Transactions*, **2009**, 19, 111-114	1	8
14	Nonuniform current distribution between individual layers of multilayer MoS2, experimentally approached by using a laser thinning technique. *Journal of the Korean Physical Society*, **2016**, 69, 1497-1501	0.6	5
13	The evolution of surface cleanness and electronic properties of graphene field-effect transistors during mechanical cleaning with atomic force microscopy. *Nanotechnology*, **2019**, 30, 394003	3.4	5
12	Patterning of periodic ripples in monolayer MoS2 by using laser irradiation. *Journal of the Korean Physical Society*, **2016**, 69, 1505-1508	0.6	4
11	Origin of the channel width dependent field effect mobility of graphene field effect transistors. *Microelectronic Engineering*, **2016**, 163, 55-59	2.5	4
10	Semiconductor-less vertical transistor with I/I of 10. *Nature Communications*, **2021**, 12, 1000	17.4	4
9	Growth of Multilayer Graphene with a Built-in Vertical Electric Field. *Chemistry of Materials*, **2020**, 32, 5142-5152	9.6	3
8	Compact modeling of extremely scaled graphene FETs. *Journal of the Korean Physical Society*, **2012**, 61, 1797-1801	0.6	3
7	Graphene for metal-semiconductor Ohmic contacts **2012**,		3
6	Random telegraph noise in metallic single-walled carbon nanotubes. *Applied Physics Letters*, **2014**, 104, 193102	3.4	2
5	Integration of high quality top-gated graphene field effect devices on 150 mm substrate **2011**,		2
4	Engineering performance of barristors by varying the thickness of WS2. *Current Applied Physics*, **2017**, 17, 11-14	2.6	1
3	High-speed residue-free transfer of two-dimensional materials using PDMS stamp and water infiltration. *Current Applied Physics*, **2020**, 20, 1190-1194	2.6	1

2	Large Temperature-Independent Magnetoresistance without Gating Operation in Monolayer Graphene. *ACS Applied Materials & Interfaces*, **2020**, 12, 53134-53140	9.5	1
1	Transparent Graphene Electrodes for Highly Efficient III-V Multijunction Concentrator Solar Cells. *Energy Technology*, **2013**, 1, 283-286	3.5	