

# Samuel Lara Avila

## 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.

58  
papers

2,227  
citations

24  
h-index

47  
g-index

69  
ext. papers

2,546  
ext. citations

8  
avg, IF

4.42  
L-index

#	Paper	IF	Citations
58	Single-molecule electronics: from chemical design to functional devices. <i>Chemical Society Reviews</i> , <b>2014</b> , 43, 7378-411	58.5	343
57	Towards a quantum resistance standard based on epitaxial graphene. <i>Nature Nanotechnology</i> , <b>2010</b> , 5, 186-9	28.7	338
56	Dynamic Hall effect driven by circularly polarized light in a graphene layer. <i>Physical Review Letters</i> , <b>2010</b> , 105, 227402	7.4	124
55	Non-volatile photochemical gating of an epitaxial graphene/polymer heterostructure. <i>Advanced Materials</i> , <b>2011</b> , 23, 878-82	24	106
54	Terahertz radiation driven chiral edge currents in graphene. <i>Physical Review Letters</i> , <b>2011</b> , 107, 276601	7.4	94
53	Magnetic quantum ratchet effect in graphene. <i>Nature Nanotechnology</i> , <b>2013</b> , 8, 104-7	28.7	87
52	Anomalously strong pinning of the filling factor $\nu=2$ in epitaxial graphene. <i>Physical Review B</i> , <b>2011</b> , 83,	3.3	86
51	Disordered Fermi liquid in epitaxial graphene from quantum transport measurements. <i>Physical Review Letters</i> , <b>2011</b> , 107, 166602	7.4	69
50	Helicity-dependent photocurrents in graphene layers excited by midinfrared radiation of a CO <sub>2</sub> laser. <i>Physical Review B</i> , <b>2011</b> , 84,	3.3	65
49	Quantum resistance metrology using graphene. <i>Reports on Progress in Physics</i> , <b>2013</b> , 76, 104501	14.4	57
48	Precision comparison of the quantum Hall effect in graphene and gallium arsenide. <i>Metrologia</i> , <b>2012</b> , 49, 294-306	2.1	53
47	Light-Triggered Conductance Switching in Single-Molecule Dihydroazulene/Vinylheptafulvene Junctions. <i>Journal of Physical Chemistry C</i> , <b>2011</b> , 115, 18372-18377	3.8	51
46	Graphene, universality of the quantum Hall effect and redefinition of the SI system. <i>New Journal of Physics</i> , <b>2011</b> , 13, 093026	2.9	51
45	Dihydroazulene Photoswitch Operating in Sequential Tunneling Regime: Synthesis and Single-Molecule Junction Studies. <i>Advanced Functional Materials</i> , <b>2012</b> , 22, 4249-4258	15.6	48
44	Weak localization scattering lengths in epitaxial, and CVD graphene. <i>Physical Review B</i> , <b>2012</b> , 86,	3.3	47
43	Operation of graphene quantum Hall resistance standard in a cryogen-free table-top system. <i>2D Materials</i> , <b>2015</b> , 2, 035015	5.9	44
42	Express optical analysis of epitaxial graphene on SiC: impact of morphology on quantum transport. <i>Nano Letters</i> , <b>2013</b> , 13, 4217-23	11.5	44

41	Energy loss rates of hot Dirac fermions in epitaxial, exfoliated, and CVD graphene. <i>Physical Review B</i> , <b>2013</b> , 87,	3.3	38
40	Uniform doping of graphene close to the Dirac point by polymer-assisted assembly of molecular dopants. <i>Nature Communications</i> , <b>2018</b> , 9, 3956	17.4	34
39	Phase space for the breakdown of the quantum Hall effect in epitaxial graphene. <i>Physical Review Letters</i> , <b>2013</b> , 111, 096601	7.4	32
38	The conquest of middle-earth: combining top-down and bottom-up nanofabrication for constructing nanoparticle based devices. <i>Nanoscale</i> , <b>2014</b> , 6, 14605-16	7.7	29
37	Quantum Hall effect and quantum point contact in bilayer-patched epitaxial graphene. <i>Nano Letters</i> , <b>2014</b> , 14, 3369-73	11.5	27
36	Wafer-scale homogeneity of transport properties in epitaxial graphene on SiC. <i>Carbon</i> , <b>2015</b> , 87, 409-414	10.4	26
35	Controlling deposition of nanoparticles by tuning surface charge of SiO by surface modifications. <i>RSC Advances</i> , <b>2016</b> , 6, 104246-104253	3.7	24
34	Giant quantum Hall plateaus generated by charge transfer in epitaxial graphene. <i>Scientific Reports</i> , <b>2016</b> , 6, 30296	4.9	24
33	Tuning carrier density across Dirac point in epitaxial graphene on SiC by corona discharge. <i>Applied Physics Letters</i> , <b>2014</b> , 105, 063106	3.4	22
32	Engineering and metrology of epitaxial graphene. <i>Solid State Communications</i> , <b>2011</b> , 151, 1094-1099	1.6	21
31	Bianthrone in a Single-Molecule Junction: Conductance Switching with a Bistable Molecule Facilitated by Image Charge Effects $\square$ <i>Journal of Physical Chemistry C</i> , <b>2010</b> , 114, 20686-20695	3.8	19
30	Towards quantum-limited coherent detection of terahertz waves in charge-neutral graphene. <i>Nature Astronomy</i> , <b>2019</b> , 3, 983-988	12.1	18
29	Hot carrier relaxation of Dirac fermions in bilayer epitaxial graphene. <i>Journal of Physics Condensed Matter</i> , <b>2015</b> , 27, 164202	1.8	17
28	A prototype of RK/200 quantum Hall array resistance standard on epitaxial graphene. <i>Journal of Applied Physics</i> , <b>2015</b> , 118, 044506	2.5	17
27	Aligned growth of gold nanorods in PMMA channels: parallel preparation of nanogaps. <i>ACS Nano</i> , <b>2012</b> , 6, 3861-7	16.7	15
26	Reststrahl band-assisted photocurrents in epitaxial graphene layers. <i>Physical Review B</i> , <b>2013</b> , 88,	3.3	14
25	Influence of Impurity Spin Dynamics on Quantum Transport in Epitaxial Graphene. <i>Physical Review Letters</i> , <b>2015</b> , 115, 106602	7.4	14
24	Low contact resistance in epitaxial graphene devices for quantum metrology. <i>AIP Advances</i> , <b>2015</b> , 5, 087134	1.34	13

23	High mobility epitaxial graphene devices via aqueous-ozone processing. <i>Applied Physics Letters</i> , <b>2015</b> , 106, 063503	3.4	11
22	Effect of graphene substrate type on formation of BiSe nanoplates. <i>Scientific Reports</i> , <b>2019</b> , 9, 4791	4.9	9
21	Parallel Fabrication of Self-Assembled Nanogaps for Molecular Electronic Devices. <i>Small</i> , <b>2018</b> , 14, e1803471	4.7	9
20	Polymer-encapsulated molecular doped epigraphene for quantum resistance metrology. <i>Metrologia</i> , <b>2019</b> , 56, 045004	2.1	8
19	Physics of a disordered Dirac point in epitaxial graphene from temperature-dependent magnetotransport measurements. <i>Physical Review B</i> , <b>2015</b> , 92,	3.3	8
18	Apparent Power Law Scaling of Variable Range Hopping Conduction in Carbonized Polymer Nanofibers. <i>Scientific Reports</i> , <b>2016</b> , 6, 37783	4.9	8
17	Phase coherence and energy relaxation in epitaxial graphene under microwave radiation. <i>Applied Physics Letters</i> , <b>2013</b> , 103, 093103	3.4	7
16	Site-selective immobilization of functionalized DNA origami on nanopatterned Teflon AF. <i>Journal of Materials Chemistry C</i> , <b>2017</b> , 5, 7637-7643	7.1	7
15	Molecular Lipid Films on Microengineering Materials. <i>Langmuir</i> , <b>2019</b> , 35, 10286-10298	4	6
14	Ambipolar charge transport in quasi-free-standing monolayer graphene on SiC obtained by gold intercalation. <i>Physical Review B</i> , <b>2020</b> , 102,	3.3	6
13	Nanopatterning of mobile lipid monolayers on electron-beam-sculpted Teflon AF surfaces. <i>ACS Nano</i> , <b>2015</b> , 9, 1271-9	16.7	5
12	Probing variable range hopping lengths by magneto conductance in carbonized polymer nanofibers. <i>Scientific Reports</i> , <b>2018</b> , 8, 4948	4.9	5
11	Chemical Sensing with Atomically Thin Platinum Templated by a 2D Insulator. <i>Advanced Materials Interfaces</i> , <b>2020</b> , 7, 1902104	4.6	5
10	Multiscale Charge Transport in van der Waals Thin Films: Reduced Graphene Oxide as a Case Study. <i>ACS Nano</i> , <b>2021</b> , 15, 2654-2667	16.7	5
9	Enhancing optoelectronic properties of SiC-grown graphene by a surface layer of colloidal quantum dots. <i>2D Materials</i> , <b>2017</b> , 4, 031001	5.9	4
8	Clustering and Morphology Evolution of Gold on Nanostructured Surfaces of Silicon Carbide: Implications for Catalysis and Sensing. <i>ACS Applied Nano Materials</i> , <b>2021</b> , 4, 1282-1293	5.6	4
7	Guided selective deposition of nanoparticles by tuning of the surface potential. <i>Europhysics Letters</i> , <b>2017</b> , 119, 18004	1.6	3
6	The performance limits of epigraphene Hall sensors doped across the Dirac point. <i>Applied Physics Letters</i> , <b>2020</b> , 116, 223504	3.4	3

- 5 Thermal Stability of Epitaxial Graphene Electrodes for Conductive Polymer Nanofiber Devices. *Crystals*, **2017**, 7, 378 2.3 2
- 4 Photon helicity driven currents in graphene **2010**, 1
- 3 Electron-phonon coupling of epigraphene at millikelvin temperatures measured by quantum transport thermometry. *Applied Physics Letters*, **2021**, 118, 103102 3.4 0
- 2 Highly efficient UV detection in a metal-semiconductor-metal detector with epigraphene. *Applied Physics Letters*, **2022**, 120, 191101 3.4 0
- 1 Practical and Fundamental Impact of Epitaxial Graphene on Quantum Metrology. *Mapan - Journal of Metrology Society of India*, **2013**, 28, 239-250 1