

# Samuel Lara Avila

## List of Publications by Year in descending order

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68  
papers

2,801  
citations

218677

26  
h-index

175258

52  
g-index

69  
all docs

69  
docs citations

69  
times ranked

3277  
citing authors

#	ARTICLE	IF	CITATIONS
1	Toward Optimized Charge Transport in Multilayer Reduced Graphene Oxides. Nano Letters, 2022, , .	9.1	3
2	Highly efficient UV detection in a metal-semiconductor-metal detector with epigraphene. Applied Physics Letters, 2022, 120, .	3.3	6
3	Multiscale Charge Transport in van der Waals Thin Films: Reduced Graphene Oxide as a Case Study. ACS Nano, 2021, 15, 2654-2667.	14.6	17
4	Electron-phonon coupling of epigraphene at millikelvin temperatures measured by quantum transport thermometry. Applied Physics Letters, 2021, 118, 103102.	3.3	1
5	Clustering and Morphology Evolution of Gold on Nanostructured Surfaces of Silicon Carbide: Implications for Catalysis and Sensing. ACS Applied Nano Materials, 2021, 4, 1282-1293.	5.0	10
6	Ambipolar charge transport in quasi-free-standing monolayer graphene on SiC obtained by gold intercalation. Physical Review B, 2020, 102, .	3.2	9
7	Chemical Sensing with Atomically Thin Platinum Templated by a 2D Insulator. Advanced Materials Interfaces, 2020, 7, 1902104.	3.7	5
8	The performance limits of epigraphene Hall sensors doped across the Dirac point. Applied Physics Letters, 2020, 116, .	3.3	5
9	Towards quantum-limited coherent detection of terahertz waves in charge-neutral graphene. Nature Astronomy, 2019, 3, 983-988.	10.1	25
10	Molecular Lipid Films on Microengineering Materials. Langmuir, 2019, 35, 10286-10298.	3.5	11
11	Polymer-encapsulated molecular doped epigraphene for quantum resistance metrology. Metrologia, 2019, 56, 045004.	1.2	17
12	Effect of graphene substrate type on formation of Bi <sub>2</sub> Se <sub>3</sub> nanoplates. Scientific Reports, 2019, 9, 4791.	3.3	16
13	Probing variable range hopping lengths by magneto conductance in carbonized polymer nanofibers. Scientific Reports, 2018, 8, 4948.	3.3	7
14	Stable and Tunable Charge Carrier Control of Graphene for Quantum Resistance Metrology. , 2018, , .		0
15	Uniform doping of graphene close to the Dirac point by polymer-assisted assembly of molecular dopants. Nature Communications, 2018, 9, 3956.	12.8	61
16	Parallel Fabrication of Self-Assembled Nanogaps for Molecular Electronic Devices. Small, 2018, 14, 1803471.	10.0	9
17	Enhancing optoelectronic properties of SiC-grown graphene by a surface layer of colloidal quantum dots. 2D Materials, 2017, 4, 031001.	4.4	5
18	Guided selective deposition of nanoparticles by tuning of the surface potential. Europhysics Letters, 2017, 119, 18004.	2.0	3

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19	Site-selective immobilization of functionalized DNA origami on nanopatterned Teflon AF. Journal of Materials Chemistry C, 2017, 5, 7637-7643.	5.5	7
20	Thermal Stability of Epitaxial Graphene Electrodes for Conductive Polymer Nanofiber Devices. Crystals, 2017, 7, 378.	2.2	2
21	Apparent Power Law Scaling of Variable Range Hopping Conduction in Carbonized Polymer Nanofibers. Scientific Reports, 2016, 6, 37783.	3.3	8
22	Fabrication of graphene quantum hall resistance standard in a cryogen-table-top system. , 2016, , .		0
23	Towards a cryogen-free table-top primary resistance standard. , 2016, , .		0
24	Controlling deposition of nanoparticles by tuning surface charge of SiO <sub>2</sub> by surface modifications. RSC Advances, 2016, 6, 104246-104253.	3.6	30
25	Giant quantum Hall plateaus generated by charge transfer in epitaxial graphene. Scientific Reports, 2016, 6, 30296.	3.3	32
26	Physics of a disordered Dirac point in epitaxial graphene from temperature-dependent magnetotransport measurements. Physical Review B, 2015, 92, .	3.2	11
27	Low contact resistance in epitaxial graphene devices for quantum metrology. AIP Advances, 2015, 5, .	1.3	19
28	A prototype of RK/200 quantum Hall array resistance standard on epitaxial graphene. Journal of Applied Physics, 2015, 118, 044506.	2.5	25
29	Bianthrone at a metal surface: Conductance switching with a bistable molecule made feasible by image charge effects. , 2015, , .		0
30	Influence of Impurity Spin Dynamics on Quantum Transport in Epitaxial Graphene. Physical Review Letters, 2015, 115, 106602.	7.8	16
31	Nanopatterning of Mobile Lipid Monolayers on Electron-Beam-Sculpted Teflon AF Surfaces. ACS Nano, 2015, 9, 1271-1279.	14.6	9
32	Hot carrier relaxation of Dirac fermions in bilayer epitaxial graphene. Journal of Physics Condensed Matter, 2015, 27, 164202.	1.8	19
33	Wafer-scale homogeneity of transport properties in epitaxial graphene on SiC. Carbon, 2015, 87, 409-414.	10.3	29
34	High mobility epitaxial graphene devices via aqueous-ozone processing. Applied Physics Letters, 2015, 106, 063503.	3.3	15
35	Operation of graphene quantum Hall resistance standard in a cryogen-free table-top system. 2D Materials, 2015, 2, 035015.	4.4	63
36	Tuning carrier density across Dirac point in epitaxial graphene on SiC by corona discharge. Applied Physics Letters, 2014, 105, 063106.	3.3	34

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37	The conquest of middle-earth: combining top-down and bottom-up nanofabrication for constructing nanoparticle based devices. <i>Nanoscale</i> , 2014, 6, 14605-14616.	5.6	33
38	Single-molecule electronics: from chemical design to functional devices. <i>Chemical Society Reviews</i> , 2014, 43, 7378-7411.	38.1	433
39	Quantum Hall Effect and Quantum Point Contact in Bilayer-Patched Epitaxial Graphene. <i>Nano Letters</i> , 2014, 14, 3369-3373.	9.1	29
40	Phase coherence and energy relaxation in epitaxial graphene under microwave radiation. <i>Applied Physics Letters</i> , 2013, 103, .	3.3	11
41	Express Optical Analysis of Epitaxial Graphene on SiC: Impact of Morphology on Quantum Transport. <i>Nano Letters</i> , 2013, 13, 4217-4223.	9.1	51
42	Phase Space for the Breakdown of the Quantum Hall Effect in Epitaxial Graphene. <i>Physical Review Letters</i> , 2013, 111, 096601.	7.8	37
43	Quantum resistance metrology using graphene. <i>Reports on Progress in Physics</i> , 2013, 76, 104501.	20.1	79
44	Practical and Fundamental Impact of Epitaxial Graphene on Quantum Metrology. <i>Mapan - Journal of Metrology Society of India</i> , 2013, 28, 239-250.	1.5	0
45	Reststrahl band-assisted photocurrents in epitaxial graphene layers. <i>Physical Review B</i> , 2013, 88, .	3.2	15
46	Magnetic quantum ratchet effect in graphene. <i>Nature Nanotechnology</i> , 2013, 8, 104-107.	31.5	116
47	Energy loss rates of hot Dirac fermions in epitaxial, exfoliated, and CVD graphene. <i>Physical Review B</i> , 2013, 87, .	3.2	44
48	Reststrahlen Band assisted photocurrents in graphene. , 2013, , .		0
49	Magnetic quantum ratchet effect in graphene. , 2013, , .		0
50	Terahertz radiation induced photocurrents in graphene subjected to an in-plane magnetic field. , 2012, , .		0
51	Precision comparison of the quantum Hall effect in graphene and gallium arsenide. <i>Metrologia</i> , 2012, 49, 294-306.	1.2	64
52	Weak localization scattering lengths in epitaxial, and CVD graphene. <i>Physical Review B</i> , 2012, 86, .	3.2	53
53	Breakdown of the quantum Hall effect in graphene. , 2012, , .		0
54	Aligned Growth of Gold Nanorods in PMMA Channels: Parallel Preparation of Nanogaps. <i>ACS Nano</i> , 2012, 6, 3861-3867.	14.6	19

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55	Dihydroazulene Photoswitch Operating in Sequential Tunneling Regime: Synthesis and Single-Molecule Junction Studies. <i>Advanced Functional Materials</i> , 2012, 22, 4249-4258.	14.9	52
56	Terahertz Radiation Driven Chiral Edge Currents in Graphene. <i>Physical Review Letters</i> , 2011, 107, 276601.	7.8	118
57	Light-Triggered Conductance Switching in Single-Molecule Dihydroazulene/Vinylheptafulvene Junctions. <i>Journal of Physical Chemistry C</i> , 2011, 115, 18372-18377.	3.1	57
58	Graphene, universality of the quantum Hall effect and redefinition of the SI system. <i>New Journal of Physics</i> , 2011, 13, 093026.	2.9	65
59	Terahertz radiation induced edge currents in graphene. , 2011, , .		0
60	Helicity-dependent photocurrents in graphene layers excited by midinfrared radiation of a CO <sub>2</sub> laser. <i>Physical Review B</i> , 2011, 84, .	3.2	84
61	Non-Volatile Photochemical Gating of an Epitaxial Graphene/Polymer Heterostructure. <i>Advanced Materials</i> , 2011, 23, 878-882.	21.0	130
62	Engineering and metrology of epitaxial graphene. <i>Solid State Communications</i> , 2011, 151, 1094-1099.	1.9	23
63	Disordered Fermi Liquid in Epitaxial Graphene from Quantum Transport Measurements. <i>Physical Review Letters</i> , 2011, 107, 166602.	7.8	74
64	Anomalously strong pinning of the filling factor $\nu = 2$ in epitaxial graphene. <i>Physical Review B</i> , 2011, 83, .	3.2	110
65	Dynamic Hall Effect Driven by Circularly Polarized Light in a Graphene Layer. <i>Physical Review Letters</i> , 2010, 105, 227402.	7.8	150
66	Towards a quantum resistance standard based on epitaxial graphene. <i>Nature Nanotechnology</i> , 2010, 5, 186-189.	31.5	405
67	Bianthrone in a Single-Molecule Junction: Conductance Switching with a Bistable Molecule Facilitated by Image Charge Effects. <i>Journal of Physical Chemistry C</i> , 2010, 114, 20686-20695.	3.1	19
68	Photon helicity driven currents in graphene. , 2010, , .		1