

# Sergio O Valenzuela

## List of Publications by Year in descending order

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45  
papers

5,670  
citations

201674

27  
h-index

265206

42  
g-index

49  
all docs

49  
docs citations

49  
times ranked

7024  
citing authors

#	ARTICLE	IF	CITATIONS
1	Heat dissipation in few-layer MoS <sub>2</sub> and MoS <sub>2</sub> /hBN heterostructure. 2D Materials, 2022, 9, 015005.	4.4	6
2	Unraveling Heat Transport and Dissipation in Suspended MoSe <sub>2</sub> from Bulk to Monolayer. Advanced Materials, 2022, 34, e2108352.	21.0	12
3	Resolving spin currents and spin densities generated by charge-spin interconversion in systems with reduced crystal symmetry. 2D Materials, 2022, 9, 035014.	4.4	9
4	Two-dimensional materials prospects for non-volatile spintronic memories. Nature, 2022, 606, 663-673.	27.8	116
5	Van der Waals heterostructures for spintronics and opto-spintronics. Nature Nanotechnology, 2021, 16, 856-868.	31.5	261
6	Large-area van der Waals epitaxy and magnetic characterization of Fe <sub>3</sub> GeTe <sub>2</sub> films on graphene. 2D Materials, 2021, 8, 041001.	4.4	13
7	Control of spin-charge conversion in van der Waals heterostructures. APL Materials, 2021, 9, .	5.1	20
8	Low-symmetry topological materials for large charge-to-spin interconversion: The case of transition metal dichalcogenide monolayers. Physical Review Research, 2021, 3, .	3.6	11
9	Tunable room-temperature spin galvanic and spin Hall effects in van der Waals heterostructures. Nature Materials, 2020, 19, 170-175.	27.5	127
10	Opportunities and challenges for spintronics in the microelectronics industry. Nature Electronics, 2020, 3, 446-459.	26.0	471
11	Absence of Magnetic Proximity Effect at the Interface of $\text{Bi}_2\text{Te}_3/\text{hBN}$ and $\text{Bi}_2\text{Se}_3/\text{hBN}$		

#	ARTICLE	IF	CITATIONS
19	Impact of the <i>in situ</i> rise in hydrogen partial pressure on graphene shape evolution during CVD growth of graphene. RSC Advances, 2018, 8, 8234-8239.	3.6	7
20	Bottom-up synthesis of multifunctional nanoporous graphene. Science, 2018, 360, 199-203.	12.6	429
21	Thermoelectric spin voltage in graphene. Nature Nanotechnology, 2018, 13, 107-111.	31.5	72
22	Strongly anisotropic spin relaxation in grapheneâ€“transition metal dichalcogenide heterostructures at room temperature. Nature Physics, 2018, 14, 303-308.	16.7	193
23	A barrier to spin filters. Nature Electronics, 2018, 1, 328-329.	26.0	3
24	The 2017 Magnetism Roadmap. Journal Physics D: Applied Physics, 2017, 50, 363001.	2.8	279
25	Growth of Twin-Free and Low-Doped Topological Insulators on BaF <sub>2</sub> (111). Crystal Growth and Design, 2017, 17, 4655-4660.	3.0	34
26	Determination of the spin-lifetime anisotropy in graphene using oblique spin precession. Nature Communications, 2016, 7, 11444.	12.8	76
27	Spin Hall Effect and Origins of Nonlocal Resistance in Adatom-Decorated Graphene. Physical Review Letters, 2016, 117, 176602.	7.8	61
28	Spin Hall effects. Reviews of Modern Physics, 2015, 87, 1213-1260.	45.6	2,087
29	Graphene spintronics: the European Flagship perspective. 2D Materials, 2015, 2, 030202.	4.4	243
30	Hot-Carrier Seebeck Effect: Diffusion and Remote Detection of Hot Carriers in Graphene. Nano Letters, 2015, 15, 4000-4005.	9.1	31
31	Pseudospin-driven spin relaxation mechanism in graphene. Nature Physics, 2014, 10, 857-863.	16.7	86
32	Fingerprints of Inelastic Transport at the Surface of the Topological Insulator $Bi_2Se_3$ : Role of Electron-Phonon Coupling. Physical Review Letters, 2014, 112, .	7.8	56
33	Graphene spintronics: puzzling controversies and challenges for spin manipulation. Journal Physics D: Applied Physics, 2014, 47, 094011.	2.8	95
34	Electrical Detection of Spin Precession in Freely Suspended Graphene Spin Valves on Cross-Linked Poly(methyl methacrylate). Small, 2013, 9, 156-160.	10.0	39
35	Magnon-drag thermopile. , 2012, , .		0
36	Lateral metallic devices made by a multiangle shadow evaporation technique. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2012, 30, .	1.2	24

#	ARTICLE	IF	CITATIONS
37	Magnon-drag thermopile. Nature Materials, 2012, 11, 199-202.	27.5	82
38	Generation of pure spin currents in a single electron transistor with a superconducting island. Proceedings of SPIE, 2011, , .	0.8	0
39	Experimental Spin Ratchet. Science, 2010, 330, 1645-1648.	12.6	52
40	Pulse imaging and nonadiabatic control of solid-state artificial atoms. Physical Review B, 2009, 80, .	3.2	26
41	Large-amplitude driving of a superconducting artificial atom. Quantum Information Processing, 2009, 8, 261-281.	2.2	41
42	NONLOCAL ELECTRONIC SPIN DETECTION, SPIN ACCUMULATION AND THE SPIN HALL EFFECT. International Journal of Modern Physics B, 2009, 23, 2413-2438.	2.0	76
43	Amplitude spectroscopy of a solid-state artificial atom. Nature, 2008, 455, 51-57.	27.8	134
44	Microwave-Induced Cooling of a Superconducting Qubit. Science, 2006, 314, 1589-1592.	12.6	126
45	Magnetization in high-temperature superconducting strips during transverse magnetic field application. Physica B: Condensed Matter, 2000, 284-288, 837-838.	2.7	0