

# StÃ©phane Berciaud

## List of Publications by Year in descending order

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65

papers

5,854

citations

94433

37

h-index

133252

59

g-index

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all docs

66

docs citations

66

times ranked

9103

citing authors

#	ARTICLE		IF	CITATIONS
1	Picosecond energy transfer in a transition metal dichalcogenide–graphene heterostructure revealed by transient Raman spectroscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, e2119726119.		7.1	16
2	0D/2D Heterostructures Vertical Single Electron Transistor. <i>Advanced Functional Materials</i> , 2021, 31, 2008255.		14.9	12
3	Electrical read-out of light-induced spin transition in thin film spin crossover/graphene heterostructures. <i>Journal of Materials Chemistry C</i> , 2021, 9, 2712-2720.		5.5	40
4	Single- and narrow-line photoluminescence in a boron nitride-supported MoSe <sub>2</sub> graphene heterostructure. <i>Comptes Rendus Physique</i> , 2021, 22, 77-88.	$\text{xmlns:mml} = \text{"http://www.w3.org/1998/Math/MathML"}$	0.9	1
5	Many-body Effects in Suspended Graphene Probed through Magneto-Phonon Resonances. <i>Physica Status Solidi - Rapid Research Letters</i> , 2020, 14, 2000345.		2.4	0
6	Dynamically-enhanced strain in atomically thin resonators. <i>Nature Communications</i> , 2020, 11, 5526.		12.8	22
7	Filtering the photoluminescence spectra of atomically thin semiconductors with graphene. <i>Nature Nanotechnology</i> , 2020, 15, 283-288.		31.5	76
8	Reconfigurable 2D/0D n Graphene/HgTe Nanocrystal Heterostructure for Infrared Detection. <i>ACS Nano</i> , 2020, 14, 4567-4576.		14.6	60
9	Single-molecule tautomerization tracking through space- and time-resolved fluorescence spectroscopy. <i>Nature Nanotechnology</i> , 2020, 15, 207-211.		31.5	77
10	Scanning Tunneling Microscope-Induced Excitonic Luminescence of a Two-Dimensional Semiconductor. <i>Physical Review Letters</i> , 2019, 123, 027402.		7.8	36
11	Quasi-two-dimensional electron-hole droplets. <i>Nature Photonics</i> , 2019, 13, 225-226.		31.4	7
12	Charge Versus Energy Transfer in Atomically Thin Graphene-Transition Metal Dichalcogenide van der Waals Heterostructures. <i>Physical Review X</i> , 2018, 8, .		8.9	63
13	Room Temperature Chiral Coupling of Valley Excitons with Spin-Momentum Locked Surface Plasmons. <i>ACS Photonics</i> , 2018, 5, 1281-1287.		6.6	126
14	Rigid-layer Raman-active modes in N-layer transition metal dichalcogenides: interlayer force constants and hyperspectral Raman imaging. <i>Journal of Raman Spectroscopy</i> , 2018, 49, 91-99.		2.5	17
15	Room-Temperature Valley Polarization and Coherence in Transition Metal Dichalcogenide-Graphene van der Waals Heterostructures. <i>ACS Photonics</i> , 2018, 5, 5047-5054.		6.6	41
16	Quantum Interference Effects in Resonant Raman Spectroscopy of Single- and Triple-Layer MoTe <sub>2</sub> from First-Principles. <i>Nano Letters</i> , 2017, 17, 2381-2388.		9.1	37
17	Vibronic Spectroscopy with Submolecular Resolution from STM-Induced Electroluminescence. <i>Physical Review Letters</i> , 2017, 118, 127401.		7.8	102
18	Monitoring electrostatically-induced deflection, strain and doping in suspended graphene using Raman spectroscopy. <i>2D Materials</i> , 2017, 4, 014004.		4.4	11

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19	Tuning contact transport mechanisms in bilayer MoSe <sub>2</sub> transistors up to Fowler-Nordheim regime. <i>2D Materials</i> , 2017, 4, 015037.	4.4	22
20	Interface dipole and band bending in the hybrid heterojunction $\text{Mo}_{\text{S}_2}/\text{GaN}$ . <i>Physical Review B</i> , 2017, 96, .	3.2	57
21	Conductance Oscillations in a Graphene/Nanocluster Hybrid Material: Toward Large-Area Single-Electron Devices. <i>Advanced Materials</i> , 2017, 29, 1604837.	21.0	17
22	Graphene hybrid optomechanical platform for probing interplay between internal and macroscopic degree of freedom. , 2017, .		0
23	Direct versus indirect band gap emission and exciton-exciton annihilation in atomically thin molybdenum ditelluride. <i>Physical Review B</i> , 2016, 94, .	3.2	57
24	Splitting of Interlayer Shear Modes and Photon Energy Dependent Anisotropic Raman Response in $\text{N}_{\text{ReSe}_2}$ and $\text{ReS}_2$ . <i>ACS Nano</i> , 2016, 10, 2752-2760.	14.6	150
25	Raman spectroscopy of electrochemically gated graphene transistors: Geometrical capacitance, electron-phonon, electron-electron, and electron-defect scattering. <i>Physical Review B</i> , 2015, 91, .	3.2	145
26	Tunable electronic correlation effects in nanotube-light interactions. <i>Physical Review B</i> , 2015, 92, .	3.2	13
27	Doping- and interference-free measurement of I2D/IG in suspended monolayer graphene blisters. <i>Physica Status Solidi (B): Basic Research</i> , 2015, 252, 2390-2394.	1.5	11
28	Room temperature dry processing of patterned CVD graphene devices. <i>Carbon</i> , 2015, 86, 256-263.	10.3	22
29	Distance Dependence of the Energy Transfer Rate from a Single Semiconductor Nanostructure to Graphene. <i>Nano Letters</i> , 2015, 15, 1252-1258.	9.1	78
30	Landau Level Spectroscopy of Electron-Electron Interactions in Graphene. <i>Physical Review Letters</i> , 2015, 114, 126804.	7.8	52
31	Unified Description of the Optical Phonon Modes in $\text{N}_{\text{MoTe}_2}$ . <i>Nano Letters</i> , 2015, 15, 6481-6489.	9.1	122
32	All-Optical Blister Test of Suspended Graphene Using Micro-Raman Spectroscopy. <i>Physical Review Applied</i> , 2014, 2, .	3.8	56
33	Size-induced enhanced magnetoelectric effect and multiferroicity in chromium oxide nanoclusters. <i>Nature Communications</i> , 2014, 5, 3167.	12.8	32
34	Probing Electronic Excitations in Mono- to Pentalayer Graphene by Micro Magneto-Raman Spectroscopy. <i>Nano Letters</i> , 2014, 14, 4548-4553.	9.1	35
35	Epitaxy of MgO magnetic tunnel barriers on epitaxial graphene. <i>Nanotechnology</i> , 2013, 24, 475708.	2.6	5
36	Biexciton, single carrier, and trion generation dynamics in single-walled carbon nanotubes. <i>Physical Review B</i> , 2013, 87, .	3.2	76

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37	Intrinsic Line Shape of the Raman 2D-Mode in Freestanding Graphene Monolayers. <i>Nano Letters</i> , 2013, 13, 3517-3523.		9.1	75
38	Probing built-in strain in freestanding graphene monolayers by Raman spectroscopy. <i>Physica Status Solidi (B): Basic Research</i> , 2013, 250, 2681-2686.		1.5	17
39	Allâ€¢optical structure assignment of individual singleâ€¢walled carbon nanotubes from Rayleigh and Raman scattering measurements. <i>Physica Status Solidi (B): Basic Research</i> , 2012, 249, 2436-2441.		1.5	10
40	Excitonic signatures in the optical response of singleâ€¢wall carbon nanotubes. <i>Physica Status Solidi (B): Basic Research</i> , 2012, 249, 900-906.		1.5	9
41	Observation of Electronic Raman Scattering in Metallic Carbon Nanotubes. <i>Physical Review Letters</i> , 2011, 107, 157401.		7.8	44
42	All-Optical Trion Generation in Single-Walled Carbon Nanotubes. <i>Physical Review Letters</i> , 2011, 107, 187401.		7.8	115
43	High-resolution spatial mapping of the temperature distribution of a Joule self-heated graphene nanoribbon. <i>Applied Physics Letters</i> , 2011, 99, .		3.3	62
44	Low Bias Electron Scattering in Structure-Identified Single Wall Carbon Nanotubes: Role of Substrate Polar Phonons. <i>Physical Review Letters</i> , 2011, 107, 146601.		7.8	16
45	Temperature dependence of the anharmonic decay of optical phonons in carbon nanotubes and graphite. <i>Physical Review B</i> , 2011, 83, .		3.2	54
46	Atmospheric Oxygen Binding and Hole Doping in Deformed Graphene on a SiO <sub>2</sub> Substrate. <i>Nano Letters</i> , 2010, 10, 4944-4951.		9.1	706
47	Excitons and high-order optical transitions in individual carbon nanotubes: A Rayleigh scattering spectroscopy study. <i>Physical Review B</i> , 2010, 81, .		3.2	55
48	Infrared spectra of individual semiconducting single-walled carbon nanotubes: Testing the scaling of transition energies for large diameter nanotubes. <i>Physical Review B</i> , 2010, 82, .		3.2	9
49	Energy Transfer from Individual Semiconductor Nanocrystals to Graphene. <i>ACS Nano</i> , 2010, 4, 2964-2968.		14.6	329
50	Electron and Optical Phonon Temperatures in Electrically Biased Graphene. <i>Physical Review Letters</i> , 2010, 104, 227401.		7.8	190
51	Probing the Intrinsic Properties of Exfoliated Graphene: Raman Spectroscopy of Free-Standing Monolayers. <i>Nano Letters</i> , 2009, 9, 346-352.		9.1	498
52	Luminescence Decay and the Absorption Cross Section of Individual Single-Walled Carbon Nanotubes. <i>Physical Review Letters</i> , 2008, 101, 077402.		7.8	158
53	Photothermal Methods for Single Nonluminescent Nano-Objects. <i>Analytical Chemistry</i> , 2008, 80, 2288-2294.		6.5	97
54	Photothermal detection and tracking of individual non-fluorescent nano-objects in live cells., 2008, , .		0	0

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55	Absorption Spectroscopy of Individual Single-Walled Carbon Nanotubes. <i>Nano Letters</i> , 2007, 7, 1203-1207.	9.1	154
56	Single Nanoparticle Photothermal Tracking (SNaPT) of 5-nm Gold Beads in Live Cells. <i>Biophysical Journal</i> , 2006, 91, 4598-4604.	0.5	223
57	Optical Readout of Gold Nanoparticle-Based DNA Microarrays without Silver Enhancement. <i>Biophysical Journal</i> , 2006, 90, L13-L15.	0.5	53
58	Absorption and scattering microscopy of single metal nanoparticles. <i>Physical Chemistry Chemical Physics</i> , 2006, 8, 3486.	2.8	308
59	Single molecule CdSe/ZnS quantum dot and gold nanoparticle detection in live neurons. , 2006, , .	0	
60	Absorption spectroscopy of individual nano-objects and improved readout of DNA microarrays using photothermal detection. , 2006, 6092, 57.	0	
61	Photothermal absorption spectroscopy of individual gold nanoparticles and CdSe/ZnS semiconductor nanocrystals. , 2006, , .	0	
62	Photothermal heterodyne imaging of individual metallic nanoparticles: Theory versus experiment. <i>Physical Review B</i> , 2006, 73,	3.2	207
63	Photothermal Absorption Spectroscopy of Individual Semiconductor Nanocrystals. <i>Nano Letters</i> , 2005, 5, 2160-2163.	9.1	89
64	Observation of Intrinsic Size Effects in the Optical Response of Individual Gold Nanoparticles. <i>Nano Letters</i> , 2005, 5, 515-518.	9.1	380
65	Photothermal Heterodyne Imaging of Individual Nonfluorescent Nanoclusters and Nanocrystals. <i>Physical Review Letters</i> , 2004, 93, 257402.	7.8	302